



# 2018-19 Existing Program Review



December  
2019

Prepared for the Nevada Board of Regents'  
Academic, Research and Student Affairs  
Committee

# NSHE Leadership

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# 2018-19

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## 2018-19

# Executive Summary

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The Review of Existing Programs report is prepared for the Academic, Research and Student Affairs (ARSA) Committee in accordance with Board policy (*Title 4, Chapter 14, Section 5 of the Handbook*):

1. *A review of existing academic programs shall be conducted by the universities, state college, and community colleges on at least a ten-year cycle to assure academic quality, and to determine if need, student demand, and available resources support their continuation pursuant to the following.*
  - a. *The review of existing programs must include multiple criteria. Although criteria may vary slightly between campuses, as institutions have different missions and responsibilities, there should be comparable data from all programs. The review must include both quantitative and qualitative dimensions of program effectiveness, and peer review.*
  - b. *Criteria to be utilized in the review of existing programs shall include the following: quality, need/demand for the program, relation to the institutional mission, cost, relationship to other programs in the System, student outcomes, and quality and adequacy of resources such as library materials, equipment, space, and nonacademic services.*
  - c. *An annual report will be published by the institution on the results of existing program evaluations and a summary of that report will be forwarded to the Chancellor's Office and presented to the Academic, Research and Student Affairs Committee annually. When the annual report is presented to the Committee, at least two teaching institutions selected by the Chancellor's Office will also present in detail the reviews conducted for at least one program. The presentation by each institution shall include, but is not limited to, the institution's process for evaluating existing programs generally, indications of quality, whether the program is meeting employer expectations, improvements in student learning outcomes, and any action steps identified based on the review of the program and the status of the action steps.*

....

In conducting program reviews each year, the institutions are guided by their respective process, as described in each program review in this report, and include self-study and faculty guidance and input. In addition, some institutions may also utilize external reviewers. The major findings, recommendations and next steps concerning the programs reviewed are unique to each institution and the program itself, but generally, program strengths continue to include overall program quality and engaged students and faculty committed to the success of their programs.

The reports submitted by the institutions for each program are included in this publication and organized by institution. A summary table at the beginning of this report includes data from the institutional reports regarding the unduplicated student headcount for the Fall of 2018 for each program and the number of students with a declared major in the program in 2018-19. This table also includes the number of graduates from the program for the past three academic years. In addition to the summary table, this publication includes a record of the programs that were eliminated or deactivated and new programs approved by the Board of Regents within the reporting year. As required by subsection 3 of *Title 4, Chapter 14, Section 5 of the Handbook*, this table also includes any (1) certificates of at least 30 credit hours, and (2) certificates of less than 30 credit hours that provide preparation necessary to take state, national and/or industry recognized certification or licensing examinations ("skills certificates") created by the community colleges that were approved by the Academic Affairs Council in the reporting year.

This report, along with the corresponding [institutional reports](#) for each program summarized for 2018-19, and reports from prior years are available [online](#) through the NSHE website ([nshe.nevada.edu](https://nshe.nevada.edu)).

**2018-19**

# Summary of Eliminated and New Programs by Institution

Program	Elimination or Deactivation	New Program
<b>University of Nevada, Las Vegas</b>		
Health Promotion, M.Ed.	Elimination	
Oral Biology, Ph.D.		X
Quantitative Finance M.S.		X
University Of Nevada Collaborative Ph.D. Program in Public Health	Elimination	
<b>University of Nevada, Reno</b>		
Biostatistics, M.S.		X
Graphic Design, B.F.A.		X
Music, D.M.A.		X
Statistics and Data Science, M.S.		X
<b>Nevada State College</b>		
Economics, B.A.	Elimination	
<b>College of Southern Nevada</b>		
Dental Science Degree , A.S.		X
<b>Great Basin College</b>		
Manufacturing Machining Technology, A.A.S.		X
<b>Truckee Meadows Community College</b>		
Dental Hygiene, A.S.	Deactivation	
Computed Tomography, Skills Certificate		X
Construction Technologies, Critical System, Skills Certificate		X
Cyber Physical Manufacturing, B.A.S.		X
Emergency Medical Technician Instructor Training, Skills Cert	Elimination	
Massage Therapist, C.A.		X
Medical Imaging for Re-Entry Radiographers, C.A.	Elimination	
Paramedic, C.A.		X
Personal Trainer, C.A.		X
Philosophy, A.A.	Deactivation	
Power Plant Operator, C.A.	Elimination	
Renewable Energy and Resources, A.S.	Deactivation	
Transportation Technologies: Unmanned Aircraft Flight, Operations, C.A.	Deactivation	
Wind Energy Technician, Skills Certificate	Elimination	



**2018-19**

## **Summary of Eliminated and New Programs by Institution**

<b>Program</b>	<b>Elimination or Deactivation</b>	<b>New Program</b>
<b>Western Nevada College</b>		
Advanced Emergency Medical Technician, National Registry of Emergency Medical Technicians Certification Exam		X
Automotive Automatic Transmission and Transaxle, Automotive Service Excellence Exam		X
Automotive Brakes, Automotive Service Excellence Exam		X
Automotive Electrical/Electronic Systems, Automotive Service Excellence Exam		X
Automotive Engine Performance, Automotive Service Excellence Exam		X
Automotive Engine Repair, Automotive Service Excellence Exam		X
Automotive Heating and Air Conditioning, Automotive Service Excellence Exam		X
Automotive Maintenance and Light Repair, Automotive Service Excellence Exam		X
Automotive Suspension and Steering, Automotive Service Excellence Exam		X
Building Trades, C.A.		X
Festo Industry 4.0 Certification, Level 1, Festo Industry 4.0 Certification Program, Level 1		X

## 2018-19

# Summary of Characteristics of Reviewed Programs

Program	Number of Students with Declared Major 2018-19	Number of Graduates from Program			Service Headcount Fall 2018
		2016-17	2017-18	2018-19	
University of Nevada, Las Vegas					
Architecture, M.A.	40	19	15	19	96
Astronomy, M.S.	3	0	1	1	65
Astronomy, Ph.D.	8	0	3	1	65
Communication Studies, B.A.	295	96	125	91	2,135
Communication Studies, M.A.	21	12	7	5	50
Curriculum & Instruction, M.S., M.Ed., & Ed.S.	595	155	136	189	1,302
Curriculum & Instruction, Ph.D., Ed.D./ Teacher Education Ph.D.	105	16	12	8	712
Dance, B.A. & B.F.A.	90	10	9	16	1,576
Entertainment Engineering & Design, B.S. / Entertainment Technology & Design, B.S.	86	9	5	2	142
Health Physics, M.S.	9	4	4	3	38
History, B.A.	194	35	34	42	2,677
History, M.A.	17	6	12	6	86
Interdisciplinary:					
African American and African Diaspora Studies, B.A.,					
Asian and Asian American Studies, B.A.	32	6	3	5	1,534
Latinx and Latin American Studies, B.A.					
Gender and Sexuality Studies, B.A.					
Physics, B.S.	104	7	7	5	2,153
Physics, M.S.	12	3	1	6	65
Physics, Ph.D.	8	0	2	1	65
Political Science, Ph.D.	22	2	4	2	48
Public Health, Ph.D.	33	3	2	4	77
Urban Studies, B.S.	139	80	58	38	369
Writing and Dramatic Media, M.F.A.	8	3	3	2	22
University of Nevada, Reno					
Biomedical Engineering, B.S.	73	N/A	N/A	4	21
Biomedical Engineering, M.S.	8	1	3	3	13
Biomedical Engineering, Ph.D.	6	2	2	0	13
Business Administration in Accounting, B.S.	223	87	124	122	1,337
Business Administration in Accounting and Information Systems, B.S.	26	11	5	9	2,767
Business Administration in Economics, B.S.	107	80	75	59	3,085
Business Administration in Finance, B.S.	324	93	121	142	841
Business Administration in General Business, B.S.	111	22	33	26	431

**2018-19****Summary of Characteristics of Reviewed Programs**

Program	Number of Students with Declared Major 2018-19	Number of Graduates from Program			Service Headcount Fall 2018
		2016-17	2017-18	2018-19	
University of Nevada, Reno					
Business Administration in Information Systems, B.S.	179	71	74	83	1,430
Business Administration in International Business, B.S.	65	28	29	22	N/A
Business Administration in Management, B.S.	308	151	162	172	1,942
Business Administration in Marketing, B.S.	357	140	119	187	1,064
Chemical Engineering, B.S.	150	34	41	33	230
Chemical Engineering, M.S.	3	0	1	2	24
Chemical Engineering, Ph.D.	10	4	1	0	24
Civil Engineering, B.S.	324	59	66	74	1,513
Civil and Environmental Engineering, M.S.	35	24	21	13	196
Civil and Environmental Engineering, Ph.D.	44	8	7	10	196
Computer Science and Engineering, B.S.	614	71	121	106	2,766
Computer Science and Engineering, M.S.	52	20	20	22	58
Computer Science, and Engineering Ph.D.	59	6	5	7	58
Economics, B.A.	29	20	15	10	3,085
Economics, M.A.	5	2	4	2	69
Economics, M.S.	2	2	4	3	69
Economics, Ph.D.	15	2	4	0	69
Electrical Engineering, B.S.	251	45	46	43	853
Electrical Engineering, M.S.	2	4	7	1	35
Electrical Engineering, Ph.D.	17	1	2	4	35
Engineering Physics, B.S.	9	0	1	3	N/A
Environmental Engineering, B.S.	78	17	20	18	1,513
Executive Master of Business Administration	70	28	34	27	136
Finance, M.S.	15	10	8	7	27
Information Systems, M.S.	25	5	9	11	77

**2018-19**

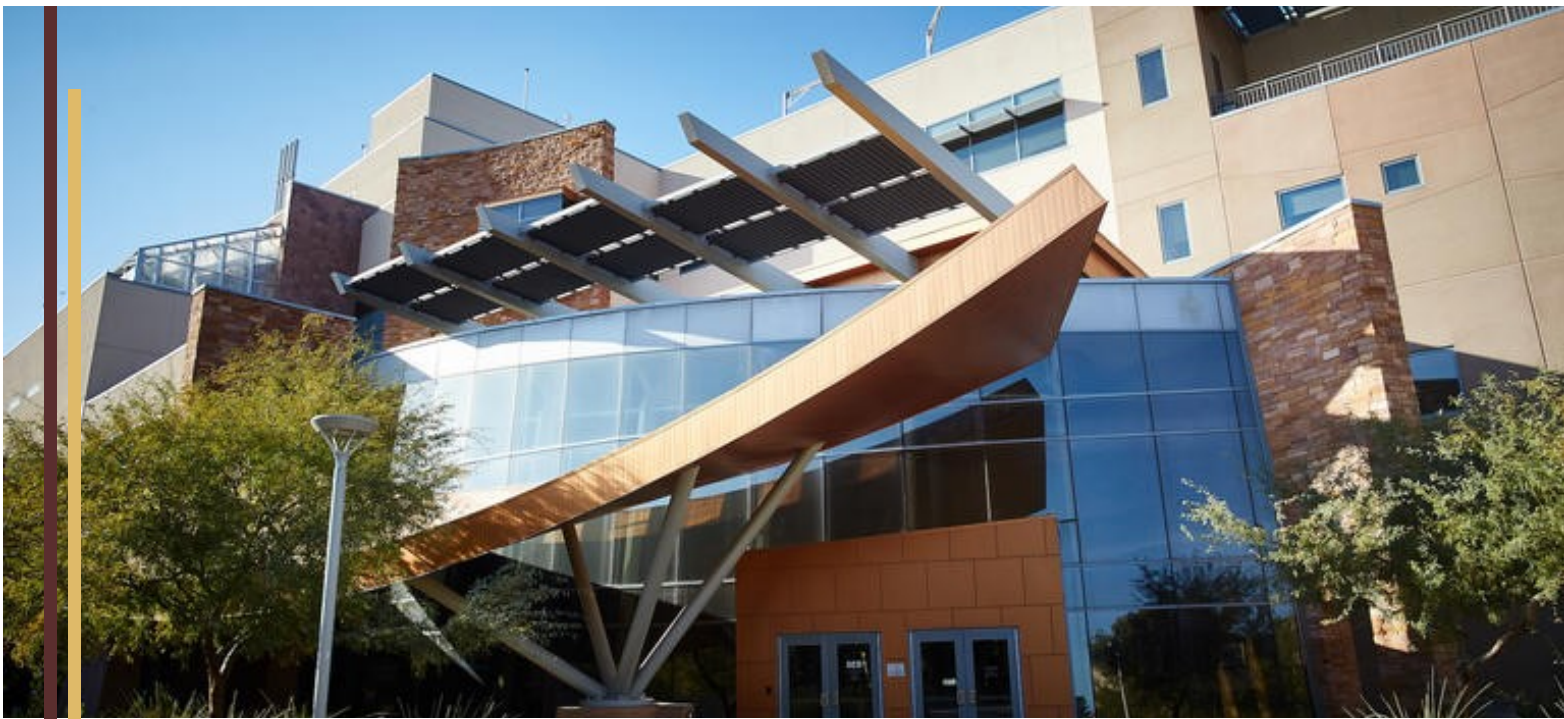
# Summary of Characteristics of Reviewed Programs

Program	Number of Students with Declared Major 2018-19	Number of Graduates from Program			Service Headcount Fall 2018
		2016-17	2017-18	2018-19	
University of Nevada, Reno					
Master of Accountancy	29	10	12	17	61
Master of Business Administration	211	94	95	85	503
Materials Science & Engineering, B.S.	43	4	8	6	334
Materials Science & Engineering, M.S.	6	4	3	4	61
Materials Science & Engineering, Ph.D.	20	4	3	3	61
Mechanical Engineering, B.S.	714	132	144	168	1,704
Mechanical Engineering, M.S.	11	7	7	6	96
Mechanical Engineering, Ph.D.	29	2	2	4	96
Social Psychology, M.A.	2	0	7	0	37
Social Psychology, Ph.D.	36	4	4	7	37
Nevada State College					
Nevada State College did not have any programs for review during this academic year.	-	-	-	-	-
College of Southern Nevada					
Cardiorespiratory Sciences, A.A.S. & B.A.S.	63	19	27	25	91
Clinical Laboratory Science, A.A.S. & B.A.S.	103	18	21	16	62
Dental Assisting, C.A.	64	15	17	9	110
Dental Hygiene, A.S. & B.S.	122	26	16	15	147
Diagnostic Medical Sonography, A.A.S.	178	10	16	9	31
Health Information Technology, A.A.S. / Medical Coding, C.A. / Medical Transcription, C.A.	179	28	26	32	311
Medical Assisting, C.A.	130	10	6	5	10
Nursing, A.A.S, B.S. / Practical Nursing, C.A.	1,207	243	218	209	727
Ophthalmic Dispensing Program, A.A.S.	53	12	6	11	17
Physical Therapy Assistant Program, A.A.S.	66	8	8	9	41
Radiation Therapy, A.A.S.	39	11	6	6	4
Surgical Technology Program, A.A.S.	52	9	7	11	14
Veterinary Technology Program, A.A.S.	88	17	11	14	26

## 2018-19

# Summary of Characteristics of Reviewed Programs

Program	Number of Students with Declared Major 2018-19	Number of Graduates from Program			Service Headcount Fall 2018
		2016-17	2017-18	2018-19	
Great Basin College					
Computer Technologies: Computer Programming A.A., A.A.S. Graphic Communications, A.A., A.A.S., C.A. Medical Coding and Billing, C.A. Network Specialist, A.A.S. Office Technology, A.A.S. & C.A.	149	25	14	32	478
Early Childhood Education, A.A., A.A.S. & C.A. / Infant & Toddler Education, A.A.S. & C.A.	127	24	18	18	243
Truckee Meadows Community College					
Anthropology, A.A.	33	4	1	6	1,223
Elementary Education Teacher Preparation, A.A./ Secondary Education, A.A. & A.S.	177	6	1	2	475
English, A.A.	99	10	14	12	6,292
Mathematics, A.S.	45	6	7	5	7,139
Transportation Technologies Program: Transportation Technology, A.A.S. Automotive ASE Technician, C.A. Automotive General Service Technician, C.A. Diesel Service Technician, C.A. <u>Skills Certificates:</u> Automotive Service Excellence ASE Basic Diesel Technician: Heavy Duty Power Trains Diesel Technician: Light and Heavy Duty Diesel Engines General Service Master	172	87	109	99	732
Western Nevada College					
Criminal Justice, A.A.S.	83	12	20	8	203
Technology, A.A.S.	264	24	21	29	999



## **Program Review**

# **University of Nevada, Las Vegas**

### **Degree Programs**

I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.

- Architecture, M.A.
- Astronomy, M.S.
- Astronomy, Ph.D.
- Communication Studies, B.A.
- Communication Studies, M.A.
- Curriculum & Instruction, M.S., M.Ed., & Ed.S.
- Curriculum & Instruction, Ph.D., Ed.D./ Teacher Education Ph.D.
- Dance, B.A. & B.F.A.
- Entertainment Engineering & Design, B.S. / Entertainment Technology & Design, B.S.
- Health Physics, M.S.
- History, B.A.
- History, M.A.
- Interdisciplinary:
  - African American and African Diaspora Studies, B.A.
  - Asian and Asian American Studies, B.A.
  - Latinx and Latin American Studies, B.A.
  - Gender and Sexuality Studies, B.A.

## **Program Review**

### **University of Nevada, Las Vegas**

- Physics, B.S.
- Physics, M.S.
- Physics. Ph.D.
- Political Science, Ph.D.
- Public Health, Ph.D.
- Urban Studies, B.S.
- Writing and Dramatic Media, M.F.A.

II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.

- Health Promotion, M.Ed.
- University of Nevada Collaborative Ph.D. Program in Public Health

III. List all new programs and corresponding degree programs that received Board approval in this academic year of review.

- Quantitative Finance, M.S.
- Oral Biology, Ph.D.

#### **Certificates**

None

## I. Description of Program Reviewed

The M.A. Architecture degree is awarded to students who have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. Architects must comprehend technical aspects of design, systems and materials and be able to apply that comprehension to their services. They must appreciate their role in the implementation of design decisions and the impact such decisions have on the environment. Additionally, architects need to manage, advocate and act legally, ethically and critically for the good of the client, society and the public. Primary employers of the program graduates are local architectural practitioners, the Las Vegas Chapter of the American Institute of Architects and the professional community of allied disciplines.

## II. Review Process and Criteria

The program review was based on a disciplinary accreditation report for the National Architectural Accrediting Board (NAAB) and a self-study completed by the program with the involvement of the faculty. Five external experts in the field visited the campus, conducted interviews with the faculty, students and the School of Architecture (SoA) leadership, and produced a comprehensive report on the program.

## III. Major Findings and Conclusions of the Program Review

The learning culture in this program is commendable as the SoA created learning communities in which faculty coordinate outcomes and annually review student work. The program continues to be very engaged with the surrounding community through involvement in the Solar Decathlon, the Hundred Year Plan for the Historic Westside Community and the Hyperloop Graduate Design Studio. The program is highly collaborative, working with the Howard R. Hughes College of Engineering on the 2014 and 2015 U.S. DOE Race to Zero Student Housing Competition.

The program boasts a well-designed, sufficient space that caters to student and faculty needs for academic and community success. To illustrate the success, SoA faculty secured \$540,482 in extramural funding over the past three years.

The program revises curriculum as needed, evidenced by several course additions and several course eliminations based on NAAB accreditation expectations.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Improve student assessment and understanding in certain areas such as: building construction financing, methods of selecting consultants, recommending project delivery methods and understanding the architect's responsibility to the public along with ethical issues in the profession.
- ◇ Program must amend graduate catalog text to be consistent with NAAB Conditions of Accreditation.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	40
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### B. Number of graduates from the program for the following years:

2016-17	19
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2017-18	15
---------	----

2018-19	19
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	96
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The M.S. Astronomy degree is a program designed to prepare students for a variety of professions in the community such as teaching and with the Nevada National Security Site as well as nationally. Many students also proceed to doctoral programs in Astronomy. The M.S. is awarded to students who understand astrophysics and classical mechanics or quantum theory or electromagnetic theory and mathematical physics at the graduate level. Students should have an understanding of gaseous nebulae, active galactic nuclei and high energy astrophysics and be able to perform graduate research at the doctoral level.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of Physics and Astronomy is composed of faculty members who are strongly engaged with the goal of student progression and success. The faculty care deeply about being successful educators and mentors because they care about the students as individuals. The external reviewers encourage the department to focus on the competitive sub-fields and expand their range of contacts and lines of development to help their graduate students.

The department is commended for the collegiality and many students have noted that this closeness has helped them feel not lost and isolated within the program. Students also noted the myriad of research and publication opportunities available to them.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations of the external reviewers apply to all five programs reviewed.

- ◇ Department should increase diversity in future hiring and increase faculty positions.
- ◇ The department can improve curriculum by adding online and hybrid courses.
- ◇ Improve the department website and social media presence in order to communicate better with students in the department as well as future potential students through recruitment efforts.
- ◇ Develop connections with industry and national laboratories to assist students in finding summer internships and more direct paths to successful careers.
- ◇ Improve alumni engagement.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	3
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### B. Number of graduates from the program for the following years:

2016-17	0
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2017-18	1
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2018-19	1
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	65
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Ph.D. Astronomy degree is a program designed to prepare students for a variety of professions in the community such as teaching and with the Nevada National Security Site as well as nationally. The Ph.D. is awarded to students who understand classical mechanics or electromagnetic theory or quantum theory at the graduate level and understand mathematical physics at the doctoral level. Students must also perform research at the doctoral level and communicate to a scientific audience.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of Physics and Astronomy is composed of faculty members who are strongly engaged with the goal of student progression and success. The faculty care deeply about being successful educators and mentors because they care about the students as individuals. The external reviewers encourage the department to focus on the competitive sub-fields and expand their range of contacts and lines of development to help their graduate students.

The department is commended for the collegiality and many students have noted that this closeness has helped them feel not lost and isolated within the program. Students also noted the myriad of research and publication opportunities available to them.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations of the external reviewers apply to all five programs reviewed.

- ◇ Department should increase diversity in future hiring and increase faculty positions.
- ◇ The department can improve curriculum by adding on-line and hybrid courses.
- ◇ Improve the department website and social media presence in order to communicate better with students in the department as well as future potential students through recruitment efforts.
- ◇ Develop connections with industry and national laboratories to assist students in finding summer internships and more direct paths to successful careers.
- ◇ Improve alumni engagement.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	8
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### B. Number of graduates from the program for the following years:

2016-17	0
2017-18	3
2018-19	1

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	65
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The B.A. Communication Studies degree is a robust program preparing students for a range of employment opportunities and for further graduate education. Some notable regional employers of students from this degree are: MGM Resorts International, NV Energy, the Vegas Golden Knights and the United Way. The B.A. is awarded to students who can analyze and evaluate messages and interaction in interpersonal and rhetorical settings and recognize and explain self-reflexivity in rhetorical and interpersonal contexts. Students also must be able to read critically and analyze research articles and conduct original research in interpersonal or rhetorical communication.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Communication Studies Department is composed of a strongly committed faculty who have high teaching quality and are invested in the success of the department. The external reviewers were impressed by the great sense of genuine collegiality among the faculty.

The success of the UNLV Debate Team is a major accomplishment for this department. Additionally, the newly initiated MGM Resorts International College Opportunity Program at UNLV will help increase the number of communication courses and degrees as well as urge the department to create a fully online communication studies degree.

Undergraduate students are enthusiastic about the program and hold the faculty in high esteem. Students especially appreciate the community engagement focus of the program. The department fits well within the college and as such, college goals of interdisciplinary solution-focused research and civic engagement benefit the student experience tremendously.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Attract and consider diverse faculty in future hires.
- ◇ Hire a permanent tenure-track course director to manage the basic courses of the program.
- ◇ Revisit the current staffing model which employs non tenure track visiting faculty who have redesigned core courses and have been otherwise invested in the success of the department.
- ◇ Slow the pace of change in the department as well as improve transparency of the leadership.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	295
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### B. Number of graduates from the program for the following years:

2016-17	96
2017-18	125
2018-19	91

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	2,135
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The M.A. Communication Studies degree is a robust program preparing students for a range of employment opportunities and for further doctoral education. Some notable regional employers of students from this degree are: MGM Resorts International, NV Energy, the Vegas Golden Knights and the United Way. The M.A. is awarded to students who can analyze and evaluate messages and interaction in interpersonal and rhetorical settings and identify and discuss historical developments and key theories in interpersonal and rhetorical communication. Students must read critically and analyze published research and conduct original research at the appropriate graduate level.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Communication Studies Department is composed of a strongly committed faculty who have high teaching quality and are invested in the success of the department. The external reviewers were impressed by the great sense of genuine collegiality among the faculty.

The success of the UNLV Debate Team is a major accomplishment for this department. Additionally, the newly initiated MGM Resorts International College Opportunity Program at UNLV will help increase the number of communication courses and degrees as well as urge the department to create a fully online communication degree.

Graduate students complimented the quality of mentorship that they receive. External reviewers noted that recruiting graduate students from other institutions would benefit the diversity of the program. They also commended the program's successful placement of students into doctoral programs. The department fits well within the college and as such, college goals of interdisciplinary solution-focused research and civic engagement benefit the student experience tremendously.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Attract and consider diverse faculty in future hires.
- ◇ Hire a permanent tenure-track course director to manage the basic courses of the program.
- ◇ Revisit the current staffing model which employs non tenure track visiting faculty who have redesigned core courses and have been otherwise invested in the success of the department.
- ◇ Slow the pace of change in the department as well as improve transparency of the leadership.
- ◇ Establish a stronger presence in the disciplines professional associations.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	21
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### B. Number of graduates from the program for the following years:

2016-17	12
2017-18	7
2018-19	5

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	50
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The M.S., Ed.S. and M.Ed. Curriculum and Instruction degrees were reviewed together in the Department of Teaching and Learning. These programs are designed to prepare students for professions in the community and the nation. The majority of graduates secure positions as teachers, curricular specialists and administrators in the Clark County School District (CCSD).

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

A central component of the mission of the Department of Teaching and Learning is its partnership with the Las Vegas community and the CCSD. These partnerships are enhanced by the combined licensure and master's program which attracts a diverse and robust student population. Student learning outcomes are aligned with Interstate New Teacher Assessment and Support Consortium as well as content area specialization. A signature feature of these programs is the required internship hours which is a benefit to graduating students.

The quality of these programs begins with the admissions process which are consistent among the programs and require Praxis examinations and supplemental application to the Department of Teaching and Learning which ensures an academically strong student body.

In order to meet demands, various certificate and teaching licensure programs were changed. The previous M.Ed. graduate licensure program was revised to reflect the new Alternative Routes to Licensure program and to benefit students.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Reconfigure independent study credits as they are assigned to students when there are not enough students to make a course. Students prefer to take a course.
- ◇ The teacher education programs are beginning to reflect diversity but some faculty felt that there is minimal discussion in courses and in content on issues of race, social justice, equity, and critical race theory. Therefore, a need to diversify the teaching force in all aspects (students and faculty) needs to be continually addressed so the College of Education better represents the Las Vegas community.
- ◇ There is a need for available Career Services to be more visible within the College of Education students felt a lack of support and information for their employment outlook.
- ◇ Due to inadequate classroom space, we urge the College of Education to collaborate with other colleges to see if their science labs and classrooms might be available as most education courses are late in the evening or on weekends.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	595
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### B. Number of graduates from the program for the following years:

2016-17	155
2017-18	136
2018-19	189

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,302
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Curriculum and Instruction, Ph.D. & Ed.D./ Teacher Education, Ph.D.

## I. Description of Program Reviewed

The Ed.D. and Ph.D. Curriculum and Instruction degrees and the Ph.D. Teacher Education degree were reviewed together in the Department of Teaching and Learning. These programs are designed to prepare students for professions in the community and the nation. Many of the program graduates secure leadership positions and teaching roles as well as administrator positions in the Clark County School District (CCSD) and many are hired by colleges and universities beyond the local area.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

A central component of the mission of the Department of Teaching and Learning is its partnership with the Las Vegas community and the CCSD. The Department of Teaching and Learning has updated its program mission by making revisions to the catalog during the fall 2018 semester to both the Ed.D. and Ph.D. in order to provide a clear vision and distinguish the purpose of both programs.

All program areas focus on research and on maintaining high quality teaching. Doctoral students report positive experiences and a strong productive relationship with the faculty. Students commend the program for updating courses to fit their needs and that there are opportunities to teach as GAs and to co-present at conferences.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ The teacher education programs are beginning to reflect diversity but some faculty felt that there is minimal discussion in courses and in content on issues of race, social justice, equity, and critical race theory. Therefore, a need to diversify the teaching force in all aspects (students and faculty) needs to be continually addressed so the College of Education better represents the Las Vegas community.
- ◇ There is a need for available Career Services to be more visible within the College of Education, students felt a lack of support and information for their employment outlook.
- ◇ Due to inadequate classroom space, the external reviewers urge the College of Education to collaborate with other colleges to see if their science labs and classrooms might be available as most education courses are late in the evening or on weekends
- ◇ Expand topics on issues affecting LGBTQ+ communities.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	105
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### B. Number of graduates from the program for the following years:

2016-17	16
2017-18	12
2018-19	8

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	712
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The B.A. and BFA Dance degrees are programs designed to prepare students for a wide variety of professions in the community as Las Vegas is the “entertainment capital of the world”. The degrees are awarded to students who are able to not only perform a variety of choreography in a dance concert performance and generate movement kinetically but also organize, design and execute a lesson plan for a 50-90 minute dance class with various teaching methods and techniques among other skills.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers

## III. Major Findings and Conclusions of the Program Review

The Department of Dance is a productive department with a knowledgeable, dedicated and committed faculty with a unified vision. The rigor and standards set by the faculty are producing a level of quality that is creating the desired outcomes of student success. The external reviewers note that the self-study is understating the contribution of the department to UNLV and the surrounding community.

The UNLV Dance Department is in a unique position in the dance field as it is one of the few departments in the country that offers an extensive American Jazz Dance curriculum and it is one of a few in the country with a degree in Dance Production and Management.

The program is commended by the external reviewers for the international exchange with Korea which is an innovative opportunity for the students. External reviewers also noted that dance departments at peer Top Tier institutions are substantially better funded in order to subsidize student scholarships and endowed professorships.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Department mission, vision and goals should be reviewed for current relevancy and alignment with institutional values and goals.
- ◇ Establish a “refresh plan” to update worn production equipment.
- ◇ Develop student recruitment/retention plan with strong messaging.
- ◇ Develop formalized methods to engage, track and develop relationships with alumni

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	90
---------	----

### B. Number of graduates from the program for the following years:

2016-17	10
2017-18	9
2018-19	16

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,576
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Entertainment Engineering & Design, B.S. / Entertainment Technology & Design, B.S.

## I. Description of Program Reviewed

The B.S. Entertainment Engineering and Design (EED) and Entertainment Technology and Design (ETD) degrees are interdisciplinary, unique programs that serve to enrich the culture of Las Vegas by propelling innovative thought and by promoting creative activity and scholarship through the study intermingling of engineering and the arts. The programs are jointly supported by the College of Fine Arts and by the Howard R. Hughes College of Engineering. The B.S. Entertainment Engineering and Design and Entertainment Technology and Design degrees are designed to prepare students for a wide variety of professions in the community involving themed entertainment, gaming, system venue design and other production support companies.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions conducted interviews with students, faculty, staff, community constituents and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Only one of the reviewers was able to visit campus, but the second external reviewer was able to participate via video conference. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The programs are structurally positioned to provide two uniquely necessary groups of professional graduates with skills for engineering focused and technician focused entertainment positions. This program has opened the door to the future of entertainment engineering education and has been used as a model to shape similar programs across the country.

The external reviewers commended the EED and ETD programs for doing a fantastic job of mentoring students through practical projects, but noted that these programs need institutional support and a clear vision to move forward.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Reduce the number of credit hours to 120 to match majority of other degrees at UNLV.
- ◇ Provide more technical space for students to use equipment.
- ◇ Increase graduation rates.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	86
---------	----

### B. Number of graduates from the program for the following years:

2016-17	9
2017-18	5
2018-19	2

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	142
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The M.S. Health Physics degree is designed to prepare students to administer public and private radiation health programs, investigate medical uses of radioactivity, measure and control radiation in the workplace and environment and understand thoroughly radiation protection, clean-up and dosages.

The UNLV Health Physics program is the only accredited program in the state and is accredited by the Commission on Accreditation of Medical Physics Education Programs, Inc. (CAMPEP).

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced two comprehensive reports on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

This program is commended for being CAMPEP accredited which allows students to apply for CAMPEP accredited residency programs. The faculty to student ratio in this program is excellent and the high admissions requirements for students as well as the collaboration with Comprehensive Cancer Centers of Nevada and Varian Medical Systems ensures that students are being extremely well prepared for work in the field. This program addresses needs in the community and the field as several graduates of the program have found employment in the Las Vegas area.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Students should be given publishable research thesis projects and be encouraged to publish their findings.
- ◇ The program website needs to be improved.
- ◇ Open faculty position should be filled with tenure track Medical Physics faculty.
- ◇ Strengthen the relationship of the program with the Varian Medical Systems and Comprehensive Cancer Centers of Nevada so that students gain more experience with treatment machines and patient quality assurance techniques.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	9
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### B. Number of graduates from the program for the following years:

2016-17	4
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2017-18	4
---------	---

2018-19	3
---------	---

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	38
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The B.A. History degree is a program designed to prepare students for a wide variety of professions in the community as well as to encourage student pursuit of advanced degrees in History. The B.A. is awarded to students who are able to provide expertise and knowledge about the recorded human past.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of History is a productive department with excellent, committed and diverse faculty who are devoted to research and to teaching. The success of the award winning Public History Program was commended by the external reviewers as was the recruitment and hiring of the Harry Reid Endowed Chair for the History of the Intermountain West.

The program is highly effective at working collegially to improve student outcomes as this department offers a high number of general education courses. Additionally, the program is collaborative in that it worked with the Lied Library in order to improve a learning outcome associated with student's ability to "demonstrate training in the collection, analysis and evaluation of historical information".

The program is commended by the external reviewers for maintaining enrollments more successfully than most U.S. universities. New initiatives for student success workshops are improving student writing and research skills necessary for students to succeed in the major and promoting a culture of excellence within the program.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations proposed by the external reviewers are applicable to both programs reviewed.

- ◇ Prioritize hiring in the area of gender history.
- ◇ Hire a faculty position in Asian history.
- ◇ Increase diversity in the student population.
- ◇ Introduce a wider range of topics for the capstone seminar.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	194
---------	-----

### B. Number of graduates from the program for the following years:

2016-17	35
2017-18	34
2018-19	42

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	2,677
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The M.A. History degree is a program designed to prepare students for a wide variety of professions in the community and the nation. The M.A. is awarded to students who are able to provide expertise and knowledge about the recorded human past and have the ability to devise effective research strategies to answer questions about the past through crafting of well written historical narrative.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of History is a productive department with excellent, committed and diverse faculty who are devoted to research and to teaching. The success of the award winning Public History Program was commended by the external reviewers as was the recruitment and hiring of the Harry Reid Endowed Chair for the History of the Intermountain West.

The program has rigorous and carefully constructed courses which combined with comprehensive examinations and extensive reading ensure that student are prepared for doctoral work or a wide range of careers.

The program is commended by the external reviewers for several M.A. graduates being accepted to top-ranked doctoral programs. Additionally, the proximity of the Southwest Oral History Association and the recent inception of the Pacific Coast Branch of the American Historical Association in the department serve the M.A. students tremendously. The introduction of a new course "The Professional Historian" within the program has greatly improved student outcomes

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Prioritize hiring in the area of gender history.
- ◇ Hire a position in Asian history.
- ◇ Continue to focus efforts on increasing diversity.
- ◇ Consider a 4-1 program which would help excelling B.A. students transition into the M.A. program.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	17
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### B. Number of graduates from the program for the following years:

2016-17	6
2017-18	12
2018-19	6

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	86
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# **Interdisciplinary: African American and African Diaspora Studies, B.A.; Latinx and Latin American Studies, B.A.; Asian and Asian American Studies, B.A.; Gender and Sexuality Studies, B.A.**

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## **I. Description of Program Reviewed**

The B.A. degrees in African American and African Diaspora Studies, Latinx and Latin American Studies, Asian and Asian American Studies and Gender and Sexuality Studies were reviewed together in the Department of Interdisciplinary, Gender and Ethnic Studies. These programs are designed to prepare students for a range of careers in the local and regional communities as well as for graduate programs nationally

## **II. Review Process and Criteria**

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## **III. Major Findings and Conclusions of the Program Review**

The faculty and administrators of this department are a committed, dedicated group of individuals who impact students and contribute to these programs' research portfolios. The two external reviewers noted that given the state of nation, global affairs and the shifting demographics of Las Vegas this program is poised to be a leader in the national discussions of issues related to these programs.

The programs are commended by the external reviewers for providing an invaluable curricular service to the university. Courses from these programs educate thousands of students per semester.

In their report to the institution, the external reviewers propose a reorganization of the departmental leadership structure such that there is a single chair of the unit and that each program be led by a coordinator. Additionally, the program may benefit from a leadership position responsible for undergraduate education and curricular coordination and scheduling.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

- ◇ Evaluation of the curricular offerings in the following ways: 1) to look at the current courses and see about ways to require the same classes across different degrees. Whether methods, an intersectional theory course, an applied research class, or even more topic oriented class (race, gender, and prisons; race, gender, and immigration; the city; food cultures), it is clear that there are ways to create/require classes that cut across different degrees. 2) The reviewers call on the unit to look at the specialties/research expertise of the faculty to develop courses that will draw student interest. For example, a course on spoken word poetry, or food cultures, or race, gender and Vegas will surely draw students, introducing them to the faculty, and the power of the department. 3) All curricular matters must be discussed as a collective unit and not within the individual programs
- ◇ Hiring of additional tenure track faculty, especially in the Latinx and Latin American Studies.
- ◇ The department should hold a retreat, led by an external facilitator, to work through structural problems and develop a collective departmental vision.

## **Interdisciplinary: African American and African Diaspora Studies, B.A.; Latinx and Latin American Studies, B.A.; Asian and Asian American Studies, B.A.; Gender and Sexuality Studies, B.A.**

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### **V. Descriptive Statistics**

#### **A. Number of students with a declared major in the program area:**

2017-18	32
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#### **B. Number of graduates from the program for the following years:**

2015-16	6
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2016-17	3
---------	---

2017-18	5
---------	---

#### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2017	1,534
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### **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The B.S. Physics degree is a program designed to prepare students for a variety of professions in the community such as teaching and with the Nevada National Security Site as well as nationally. Many students also proceed to graduate programs in Physics around the country. The B.S. is awarded to students who understand classical mechanics, electricity and magnetism, thermodynamics and have the ability to perform modern laboratory experiments, independent research projects and to solve critical and fundamental problems in physics.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of Physics and Astronomy is composed of faculty members who are strongly engaged with the goal of student progression and success. The faculty care deeply about being successful educators and mentors because they care about the students as individuals. The external reviewers encourage the department to clarify pre-requisites and the flow of courses for undergraduate students. Additionally, developing more hybrid and online courses would benefit non-traditional students.

Recitation and discussion sessions would be very helpful for undergraduate students who don't have sufficient math preparation. The department is commended for the collegiality and many students have noted that this closeness has helped them feel not lost and isolated within the program. Students also noted the myriad of research and publication opportunities available to them.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations of the external reviewers apply to all five programs reviewed.

- ◇ The department should increase diversity in future hiring and increase faculty positions.
- ◇ The department can improve curriculum by adding on-line and hybrid courses.
- ◇ Improve the department website and social media presence in order to communicate better with students in the department as well as future potential students through recruitment efforts.
- ◇ Develop connections with industry and national laboratories to assist students in finding summer internships and more direct paths to successful careers.
- ◇ Improve alumni engagement.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	104
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### B. Number of graduates from the program for the following years:

2016-17	7
2017-18	7
2018-19	5

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	2,153
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The M.S. Physics degree is a program designed to prepare students for a variety of professions in the community such as teaching and with the Nevada National Security Site as well as nationally. Many students also proceed to doctoral programs in Physics. The M.S. is awarded to students who understand electromagnetic theory and quantum theory at the graduate level and understand mathematical methods, statistical physics and perform original research projects.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of Physics and Astronomy is composed of faculty members who are strongly engaged with the goal of student progression and success. The faculty care deeply about being successful educators and mentors because they care about the students as individuals. The external reviewers encourage the department to focus on the competitive sub-fields and expand their range of contacts and lines of development to help their graduate students.

The department is commended for the collegiality and many students have noted that this closeness has helped them feel not lost and isolated. Students also noted the myriad of research and publication opportunities available to them.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations of the external reviewers apply to all five programs reviewed.

- ◇ Department should increase diversity in future hiring and increase faculty positions.
- ◇ The department can improve curriculum by adding on-line and hybrid courses.
- ◇ Improve the department website and social media presence in order to communicate better with students in the department as well as future potential students through recruitment efforts.
- ◇ Develop connections with industry and national laboratories to assist students in finding summer internships and more direct paths to successful careers.
- ◇ Improve alumni engagement.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	12
---------	----

### B. Number of graduates from the program for the following years:

2016-17	3
2017-18	1
2018-19	6

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	65
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Ph.D. Physics degree is a program designed to prepare students for a variety of professions in the community such as teaching and with the Nevada National Security Site as well as nationally. The Ph.D. is awarded to students who understand either electromagnetic theory or quantum theory at the graduate level and understand mathematical methods, statistical physics and perform a graduate research project at the doctoral level.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Department of Physics and Astronomy is composed of faculty members who are strongly engaged with the goal of student progression and success. The faculty care deeply about being successful educators and mentors because they care about the students as individuals. The external reviewers encourage the department to focus on the competitive sub-fields and expand their range of contacts and lines of development to help their graduate students.

The department is commended for the collegiality and many students have noted that this closeness has helped them feel not lost and isolated within the program. Students also noted the myriad of research and publication opportunities available to them.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The recommendations of the external reviewers apply to all five programs reviewed.

- ◇ The department should increase diversity in future hiring and increase faculty positions.
- ◇ The department can improve curriculum by adding on-line and hybrid courses.
- ◇ Improve the department website and social media presence in order to communicate better with students in the department as well as future potential students through recruitment efforts.
- ◇ Develop connections with industry and national laboratories to assist students in finding summer internships and more direct paths to successful careers.
- ◇ Improve alumni engagement.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	8
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### B. Number of graduates from the program for the following years:

2016-17	0
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2017-18	2
---------	---

2018-19	1
---------	---

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	65
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The Ph.D. degree in Political Science is a program designed to prepare students to participate in civic engagement and public service, make evidence based decisions in order to improve the communities served and prepares students for graduate studies and careers in public service, the private sector or academia.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The program has a very active faculty which is very involved with the student population. The program successfully places doctoral graduates in academic, government and private sector positions and provides extensive teaching opportunities for Ph.D. students. The faculty also make a concerted effort to obtain internal and external grants to fund additional graduate assistance furthering the great collaboration which exists between faculty members and graduate students.

Graduate students in the program reported having a high level of research productivity. This is an excellent program for only being ten years old.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ The program needs to decide what it wants to be known for and begin to focus efforts in that area.
- ◇ Re-tool two of the methods courses to better reflect the methodological pluralist of the field.
- ◇ Eliminate the "take home" option of the exam and have a closed note exam with a required oral for everyone to further promote rigor in the program.
- ◇ Increase the number of applicants by providing more funding for students.
- ◇ Set up a Political Science Association.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	22
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### B. Number of graduates from the program for the following years:

2016-17	2
2017-18	4
2018-19	2

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	48
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## **I. Description of Program Reviewed**

The Ph.D. in Public Health was initiated in 2008 in collaboration with the University of Nevada, Reno (UNR). The Ph.D. programs officially ended the collaboration in March 2019. The UNLV School of Community Health became a School of Public Health (SPH) in November 2018 by meeting or exceeding the accreditation requirements of the Council on Education for Public Health (CEPH). UNR's School of Community Health Sciences is quite new and has not yet achieved that benchmark, thus the degrees were separated through NSHE Board of Regents approval.

The program is designed to prepare students for careers in which advanced analytical and conceptual capabilities are required, such as university teaching, research, consulting, policy development or other high-level positions. The curriculum provides a comprehensive and interdisciplinary examination of topics and experiences necessary to produce graduates who are ready to secure employment in the public health arena.

The program includes four comprehensive tracks including Global and Environmental Health, Epidemiology and Biostatistics, Health Service Management and Policy, and Social and Behavioral Health. All students take the same core courses with at least two research methods courses. Each track has specialized curriculum beyond these core courses that exemplify the specialized content areas as well as a comprehensive exam, an oral exam, and a dissertation requirement.

## **II. Review Process and Criteria**

This program, along with all of the SPH programs, was recently reviewed during the CEPH self-study and May 2018 site visit by a team of reviewers. This review secured a five-year accreditation period valid through December of 2023.

The recent accreditation process included a year-long intensive self-study and site visit. This process required a thorough analysis of the program, which included graduation rates, post-graduation placement, faculty qualifications, competency attainment, community involvement, student engagement, integrative learning experiences resources, diversity, etc. This program went through extensive revisions during this process in order to provide students with a more structured degree as well as more varied Ph.D. level courses. At least three new courses were developed and approved to be placed into the new core required of all students. Other changes made during the self-study process include new track specific competencies, restructuring of the doctoral seminar, and a revised comprehensive exam.

## **III. Major Findings and Conclusions of the Program Review**

The program consists of an involved and committed faculty and student body who provide continuous feedback for improvement. The feedback is transformed into initiatives which are regularly implemented in order to improve a wide range of functions within the program such as curriculum, graduate student tracking, aligning the mission statement to the strategic plan etc.

There were several points of feedback provided by CEPH through the self-study and site visit process but most of them were school wide issues such as the need for a better integrated strategic plan which aligns with the mission, vision, goals and evaluation plan of the school.

Feedback specific to the program was limited to the mapping of all Ph.D. concentration competencies to required coursework and assessment activities and an examination of the depth of doctoral-level coursework for all Ph.D. concentrations. CEPH presented a new structure for competencies which had to be aligned with new courses that had yet to be offered and therefore could not be validated.

The SPH Accreditation Committee meets biweekly to address the issues listed by the CEPH. This work will constitute the interim report due to CEPH in October 2019.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

- ◇ Implement processes to collect, analyze and use meaningful data from alumni indicating their ability to perform competencies in a workplace setting.
- ◇ Develop an evaluation plan that aligns with the school's guiding statements.
- ◇ Map all Ph.D. concentration competencies to required coursework and assessment activities. Must include relevant syllabi and attachments to allow validation.
- ◇ Implement an appropriate depth of doctoral level coursework, must include relevant syllabi and attachments to allow validation. Program leadership should develop a clear, long-term plan of enrollment growth.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	33
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**B. Number of graduates from the program for the following years:**

2016-17	3
---------	---

2017-18	2
---------	---

2018-19	4
---------	---

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	77
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The B.S. Urban Studies degree is a program that is naturally interdisciplinary and has numerous connections to the practitioner community. It offers opportunities for applied learning and is well suited for studying urban dynamics in Las Vegas. Students are eligible for a wide variety of professions in the community and nationally, as well as admission to graduate programs. The B.S. is awarded to students who examine whether an organization or community meet multiple conditions of sustainability, characterize the roles of individuals and organizations in policy and governance. Students must also communicate data needs to multiple audiences and produce analyses that demonstrate information literacy and numeracy.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewers.

## III. Major Findings and Conclusions of the Program Review

The Urban Studies program has a committed and diverse faculty with high level of engagement. The program meets several critical needs such as training public sector and workforce persons in the community, providing the only environmental science courses at the institution and providing a flexibility of in-person and online courses to students.

The students in the program reported a high level of faculty interaction, even in online courses. The external reviewers had some recommendations for the program to assist with student engagement such as increasing the emphasis on establishing professional networks, offering more internship opportunities and creating a central repository for professional development opportunities.

The program's emphasis on learning and community engagement is a great program characteristic. The quality of the program design and curriculum content along with strong program leadership are the core strengths of this B.S. degree.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Hiring additional faculty with greater specialization in urban studies.
- ◇ Dedicate a staff member to recruitment who will also develop internship opportunities and key stakeholder relationships within the community.
- ◇ Conduct curriculum review often as the field is dynamic and fast-paced.
- ◇ Program leadership should develop a clear, long-term plan of enrollment growth.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	139
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### B. Number of graduates from the program for the following years:

2016-17	80
2017-18	58
2018-19	38

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	369
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Writing and Dramatic Media, M.F.A.

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## I. Description of Program Reviewed

The MFA Writing and Dramatic Media is a program designed to prepare students for a wide variety of professions ranging from creative content advisors at hotels, casinos and local firms to Hollywood studio executives. The MFA is awarded to students who are able to use professional on-page formatting and execute and collaborate on verbal "pitch". Additionally, they should be able to revise work in response to critical analysis.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. One external expert in the field from a similar institution visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. Faculty and students were anonymously surveyed and their responses were compiled and presented to the external reviewer.

## III. Major Findings and Conclusions of the Program Review

The MFA in Writing for Dramatic Media is a small boutique program supported primarily by two faculty members. The growth of this program has been stagnant due to the limited number of students who can be admitted to the program and the limited number of students who can be financially subsidized. The program needs to be restructured in several ways in order to become the innovative, vital and burgeoning program that it can be.

In order for this program to become sustainable the institution must commit additional full time faculty and essential funds. The necessary support will help to revise the curriculum and strengthen it to provide progressive craft development. The program will also need to instigate significant partnerships with the larger national film community to further enhance the student experience.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- ◇ Make arrangements for students to travel to Los Angeles annually to participate in pitch events.
- ◇ Revise curriculum to ensure all students, regardless of level, are receiving rigorous academic instruction. Consider a lock step progression.
- ◇ Improve recruitment efforts to diversify and increase the student body.
- ◇ Consider implementing one or two day workshops hosted by industry professionals.
- ◇ Improve grading by use of a recommended rubric.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	8
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### B. Number of graduates from the program for the following years:

2016-17	3
2017-18	3
2018-19	2

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	22
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## Program Review

# University of Nevada, Reno

### Degree Programs

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.
  - Biomedical Engineering, B.S.
  - Biomedical Engineering, M.S.
  - Biomedical Engineering, Ph.D.
  - Business Administration in Accounting, B.S.
  - Business Administration in Accounting and Information Systems, B.S.
  - Business Administration in Economics, B.S.
  - Business Administration in Finance, B.S.
  - Business Administration in General Business, B.S.
  - Business Administration in Information Systems, B.S.
  - Business Administration in International Business, B.S.
  - Business Administration in Management, B.S.
  - Business Administration in Marketing, B.S.
  - Chemical Engineering, B.S.
  - Chemical Engineering, M.S.
  - Chemical Engineering, Ph.D.
  - Civil Engineering, B.S.



# Program Review

## University of Nevada, Reno

- Civil and Environmental Engineering, M.S.
- Civil and Environmental Engineering, Ph.D.
- Computer Science and Engineering, B.S.
- Computer Science and Engineering, M.S.
- Computer Science, Ph.D.
- Economics, B.A.
- Economics, M.A.
- Economics, M.S.
- Economics, Ph.D.
- Electrical Engineering, B.S.
- Electrical Engineering, M.S.
- Electrical Engineering, Ph.D.
- Engineering Physics, B.S.
- Environmental Engineering, B.S.
- Executive Master of Business Administration
- Finance, M.S.
- Information Systems, M.S.
- Master of Accountancy
- Master of Business Administration
- Materials Science & Engineering, B.S.
- Materials Science & Engineering, M.S.
- Materials Science & Engineering, Ph.D.
- Mechanical Engineering, B.S.
- Mechanical Engineering, M.S.
- Mechanical Engineering, Ph.D.
- Social Psychology, M.A.
- Social Psychology, Ph.D.

II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.

None

## Program Review

# University of Nevada, Reno

III. List all new programs and corresponding degree programs that received Board approval in this academic year of review.

- Biostatistics, M.S.
- Graphic Design, B.F.A.
- Music, D.M.A.
- Statistics and Data Science, M.S.

### Certificates

None



## I. Description of Program Reviewed

Biomedical engineering is an interdisciplinary field that combines the math, physics and engineering courses typical of an engineering degree with coursework in the life sciences focusing on biology and medicine. The field encompasses a wide range of specialties, from pharmaceuticals and drug delivery systems to medical device development to software and programming.

At the University of Nevada, Reno, the bachelor's degree in biomedical engineering emphasizes topics related to electrical engineering, such as biomedical instrumentation, sensors, signal processing and image processing. With a few additional courses, graduates of the program have the option to apply for admission to medical school. The Department of Electrical and Biomedical Engineering also cooperates with local industry to offer a number of summer internships for qualified undergraduate students.

The program has been designed in accordance with criteria from ABET, the accrediting agency for engineering programs. Upon graduation, student will be able to:

- Apply principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations) and statistics
- Solve bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems
- Analyze, model, design, and realize bio/biomedical engineering devices, systems, components, or processes
- Make measurements on and interpret data from living systems

## II. Review Process and Criteria

The Electrical and Biomedical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs. The report was provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. The undergraduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
3. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty research needs.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

## Undergraduate Curriculum/Recruitment/Enrollment/Progression

The undergraduate program was noted as having students that spoke highly of the faculty in terms of accessibility, mentoring and advising. It was also stated that the undergraduate laboratories were well equipped. Overall, there were no cited concerns or issues with the undergraduate program, the only suggestion made was to create a stronger pathway between the undergraduate and graduate programs. Faculty have already made efforts on this front by identifying strong candidates at the undergraduate senior level to attract to the graduate programs, and has opened discussions with the Graduate School about steps to be taken to increase efforts.

## Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post- proposal preparation, which may detract from time that could be spend on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- ◇ The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
- ◇ Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
- ◇ Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. Goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	73
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### B. Number of graduates from the program for the following years:

2016-17	N/A
2017-18	N/A
2018-19	4

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	21
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The interdisciplinary master's degree program in biomedical engineering combines core coursework with focused areas of proficiency that allow students more in-depth exposure to areas of particular interest. The program's introductory course is team-taught by biomedical engineering faculty from a range of disciplines, and outside lecturers are invited to give students a broad exposure to the field.

Students can choose from two degree options:

**Plan A:** Requires core and specialized coursework and a thesis on an area of interest in biomedical engineering.

**Plan B:** The coursework-only option requires additional coursework credits in lieu of a thesis. Students choosing this option will not be eligible for graduate assistantships.

One of the strengths of the program is the wide range of specializations students can choose from. Students must choose three areas of proficiency from the list below, with at least one coming from the area of life and medical sciences and one from engineering and physical sciences. Proficiency will be assessed based on coursework (typically two semesters at the graduate level) and a comprehensive exam.

The student's advisory committee must approve their areas of proficiency to ensure combinations of coursework that provide an optimum background for a sub-specialty and support a proposed research interests. Possible areas are listed below:

### ***Engineering and physical sciences***

- Fluid mechanics
- Materials engineering
- Solid mechanics
- Heat transfer & thermodynamics
- Dynamics & vibrations
- Communications & signal processing
- Computers
- Control systems
- Electronics
- Fields & waves

### ***Life and medical sciences***

- Anatomy (structural biology)
- Biochemistry
- Cell & molecular biology
- Pharmacology
- Physiology

## II. Review Process and Criteria

The Electrical and Biomedical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two

graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

### III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. At the graduate level, the program has very high retention rates of nearly 100% and an excellent faculty to student ratio.
3. Graduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
4. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty and graduate student research needs.

### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

#### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding, and (3) low number of graduate teaching assistant (GTA) and graduate research assistant (GRA) lines. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

#### Graduate Curriculum & Education

The graduate program was commended for having a high retention rate combined with low time to completion. It was recommended that Student Learning Outcomes (SLOs) and their related assessments be separated out between the Electrical and Biomedical programs to ensure both are meeting expectations. The Graduate Coordinators for each program will begin the process of separating out the assessments for these programs by their respective M.S. and Ph.D. paths. The increase of course offerings via collaboration was suggested, particularly as it applies to the Biomedical program to ensure depth and breadth of offerings, which is an effort the that programs have been pursuing and have brought forth changes. The low number of GTAs/GRAs was listed as a concern, which the program seeks to increase in parallel with increasing external funding, and the college has already provided support of this effort via an external funding matching structure, which was also recommended. Increasing enrollment was also encouraged, which the program seeks to address via closer collaboration with the Graduate School and participation in their programs, as well as securing funding that will attract students, particularly local and domestic students, such as GAANN grants from the U. S. Department of Education.

#### Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via

student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post-proposal preparation, which may detract from time that could be spent on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- ◇ The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
- ◇ Implement separate assessments for Electrical Engineering and Biomedical Engineering graduate programs.
- ◇ Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
- ◇ Pursue recruitment opportunities with Graduate School, particularly with the Biomedical Engineering program, and look for chances to collaborate with programs and industry partners on recruitment efforts.
- ◇ Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	8
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### B. Number of graduates from the program for the following years:

2016-17	1
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2017-18	3
---------	---

2018-19	3
---------	---

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	13*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The University's Ph.D. in biomedical engineering is an interdisciplinary program that combines a strong foundation in the field with focused coursework and research on a specific area within biomedical engineering. Students are required to demonstrate proficiency in four subspecialties related to their research. At least one area must come from the life and medical sciences grouping and one area must come from engineering and physical sciences.

### ***Possible life and medical sciences subspecialties:***

- Anatomy (structural biology)
- Biochemistry
- Cell & molecular biology
- Pharmacology
- Physiology

### ***Possible engineering and physical sciences subspecialties:***

- Fluid mechanics
- Materials engineering
- Solid mechanics
- Heat transfer & thermodynamics
- Dynamics & vibrations
- Communications & signal processing
- Computers
- Control systems
- Electronics
- Fields & waves

Each student in the program will also select a primary mentor, who is primarily responsible for directing the student's progress. A secondary mentor must also be selected with a background specialty that complements that of the primary mentor. For example, if the primary mentor has a background in engineering and physical sciences, the secondary mentor should have a background in life and medical sciences or vice versa. This ensures students develop well-rounded expertise within biomedical engineering.

Members of the biomedical engineering faculty come from numerous University departments, including:

- Biochemistry and Molecular Biology
- Physics
- Chemical and Materials Engineering
- Pharmacology
- Psychology
- Computer Science and Engineering
- Mechanical Engineering

- Microbiology and Immunology
- School of Medicine

## II. Review Process and Criteria

The Electrical and Biomedical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. At the graduate level, the program has very high retention rates of nearly 100% and an excellent faculty to student ratio.
3. Graduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
4. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty and graduate student research needs.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding, and (3) low number of graduate teaching assistant (GTA) and graduate research assistant (GRA) lines. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

### Graduate Curriculum & Education

The graduate program was commended for having a high retention rate combined with low time to completion. It was recommended that Student Learning Outcomes (SLOs) and their related assessments be separated out between the Electrical and Biomedical programs to ensure both are meeting expectations. The Graduate Coordinators for each program will begin the process of separating out the assessments for these programs by their respective M.S. and Ph.D. paths. The increase of course offerings via collaboration was suggested, particularly as it applies to the Biomedical program to ensure depth and breadth of offerings, which is an effort the that programs have been pursuing and have brought forth changes. The low number of GTAs/GRAs was listed as a concern, which the program seeks to increase in parallel with increasing external funding, and the college has already provided support of this effort via an external funding matching structure, which was also recommended. Increasing enrollment was also encouraged, which the program seeks to address via closer collaboration with the Graduate School and participation in their programs, as well as securing funding that will attract students, particularly local and domestic students, such as GAANN grants from the U. S. Department of Education.



## Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post-proposal preparation, which may detract from time that could be spend on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- ◇ The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
- ◇ Implement separate assessments for Electrical Engineering and Biomedical Engineering graduate programs.
- ◇ Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
- ◇ Pursue recruitment opportunities with Graduate School, particularly with the Biomedical Engineering program, and look for chances to collaborate with programs and industry partners on recruitment efforts.
- ◇ Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	6
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### B. Number of graduates from the program for the following years:

2016-17	2
2017-18	2
2018-19	0

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	13*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Business Administration in Accounting, B.S.

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## I. Description of Program Reviewed

The Accounting program provides students with the theories and procedures necessary to prepare them for the many facets of the accounting profession, such as public, industrial, managerial, tax and government accounting. Students graduating from the department are prepared to obtain employment in a competitive job market, start a business, or continue their education in graduate and professional degree programs.

The Accounting Department offers students the opportunity both to develop practical skills and acquire general knowledge in Accounting, a field with extensive career and post-graduate research opportunities. Graduate students are invited to look at the tracks available in the Master's of Accountancy.

Students graduating from the department are prepared to obtain employment in a competitive job market, start a business, or continue their education in graduate and professional degree programs. Typical professions that accounting students embark upon with their undergraduate degree include: Certified Public Accountant, management accountant, financial analyst, internal auditor, government agent (FBI, IRS) and tax accountant. Examples of job opportunities for students majoring in accounting information systems include technology-based positions in both managerial and financial accounting, electronic auditing, computer security, systems consulting, and forensic accounting.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students with experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community, participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who are publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	223
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### B. Number of graduates from the program for the following years:

2016-17	87
2017-18	124
2018-19	122

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,337
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in Accounting and Information Systems, B.S.

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## I. Description of Program Reviewed

Undergraduate students in the Accounting and Information Systems program may choose to combine accounting and information systems classes to produce broad knowledge of both areas. Students use this major most frequently to pursue employment with consulting organizations that market, implement and maintain business information systems.

The combined major of accounting and information systems gives students a hybrid education that affords great career flexibility. Professionals today are asked to assume responsibilities that go beyond traditional expectations. With a foundational knowledge of accounting and applications of information technology in business, a student with a degree from this program has a greater suite of skills that will make them attractive to future employers.

## II. Review Process and Criteria

The program review was based on a self-study completed by the program with the involvement of the faculty. Two external experts in the field from similar institutions visited the campus, conducted interviews with students, faculty, staff, and the Vice Provost for Academic Programs, and then produced a comprehensive report on the program. FacultyThe College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the

# Business Administration in Accounting and Information Systems, B.S.

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Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where

## Business Administration in Accounting and Information Systems, B.S.

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students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	26
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#### B. Number of graduates from the program for the following years:

2016-17	11
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2017-18	5
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2018-19	9
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	2,767
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## Business Administration in Economics, B.S.

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### I. Description of Program Reviewed

The Bachelor of Science in Economics is designed to prepare students for positions as economic and statistical analysts in business, government and nonprofit organizations, and for the teaching profession. In addition, it provides a strong foundation for graduate study and research in the fields of economics, business, public policy and law. Through basic and applied research, the Department's faculty members create and develop ideas that push back the frontier of knowledge and assist public and private decision makers in practical ways. Through service to the community and to the economics profession, the Department seeks to be the "go to place" for creative and practical ideas.

Current students are encouraged to get regular advising and participate in the economic club to become more connected with the faculty and other students, and to learn more about the variety of doors further economics training can open.

### II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

### III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

#### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.



## Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.



## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	107
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### B. Number of graduates from the program for the following years:

2016-17	80
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2017-18	75
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2018-19	59
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	3,085*
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\*Cannot differentiate between B.A. and B.S.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in Finance, B.S.

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## I. Description of Program Reviewed

The Bachelor of Science in Finance in the College of Business at the University of Nevada, Reno provides students knowledge essential for careers in financial management, banking, investments, and insurance. Students coming from the Finance program have the skills necessary to credibly weigh-in on fiscal matters associated with business investment and stock and mutual fund research and analysis. Moreover, the Finance Major is a good stepping-stone for students interested in earning an MBA or other postgraduate degree.

Because the financial world consists of numerous interrelated areas, financiers must understand a broad range of topics to do their jobs well. Successful financiers not only grasp the many complex forces at work in finance, they also analyze how these forces interact. This knowledge allows them to point investors and companies toward sensible, comprehensive financial strategies.

Upon graduation from a finance degree program, students should have the skills necessary to credibly analyze fiscal matters related to business investment, and to perform stock and mutual fund research and analysis. Depending on their coursework, these students may have additional expertise in areas such as international monetary relations or financial derivatives.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the

## Business Administration in Finance, B.S.

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Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### **Undergraduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### **Program Outcomes (assessment, placement, retention, graduation—Undergraduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs, and is undertaking a review of the undergraduate core and the MBA curriculum. This process will include a review of the assurance-of-learning program, which will jointly engage the curriculum and assessment committees.

### **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### **Action Items**

#### **The college will:**

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	324
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**B. Number of graduates from the program for the following years:**

2016-17	93
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2017-18	121
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2018-19	142
---------	-----

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	841
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in General Business, B.S.

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## I. Description of Program Reviewed

The General Business major expands on the strong business foundation developed in the pre-business and upper-division business coursework. The purpose of the major is to provide an option for students who are limited by work or other obligations in scheduling coursework by allowing students to complete major-related coursework during more flexibly-scheduled evening classes.

The major requires completion of the pre-business core and upper-division business core courses required by other B.S.-B.A. (Bachelor of Science in Business Administration) majors, in addition to 24 credits of recommended upper-division business coursework from various business areas. The major requires a total of 128 credits.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Business Administration in General Business, B.S.

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### Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	111
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### B. Number of graduates from the program for the following years:

2016-17	22
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2017-18	33
---------	----

2018-19	26
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	431
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in Information Systems, B.S.

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## I. Description of Program Reviewed

The Information Systems area is a community of scholars that constantly seeks out new ways of applying technology and communications concepts to the informational tools that we all rely on in our personal and professional lives.

A degree in Information Systems not only gives graduates the ability to understand and manage current and emerging information systems, but also confers excellent technical management and communications skills. A background in Information Systems allows for a higher-level understanding of how different computer systems can talk and interface with each other – and thus facilitate and foster the spread of knowledge and ideas.

In today's mutable technological terrain, business professionals must be adept and quick to respond to new pressures and new ways of communicating. Programs within the Information Systems area build those skills in students through coursework about data technology, computer security and project management.

The Bachelor of Science in Information Systems is designed for those students interested in business-oriented, computer technology-based information resource systems. Students learn about both business processes and the computer technology used to support and enhance those processes.

The major integrates general business and management knowledge with expertise in computer technology (including programming, database, web, and networking) to produce the knowledge and skills necessary to obtain employment in a competitive job market, start a business, or pursue further education in graduate and professional degree programs.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested



## Business Administration in Information Systems, B.S.

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parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs, and is undertaking a review of the undergraduate core and the MBA curriculum. This process will include a review of the assurance-of-learning program, which will jointly engage the curriculum and assessment committees.

### Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular

## Business Administration in Information Systems, B.S.

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Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	179
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#### B. Number of graduates from the program for the following years:

2016-17	71
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2017-18	74
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2018-19	83
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,430
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in International Business, B.S.

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## I. Description of Program Reviewed

The objective of the International Business major is to provide an interdisciplinary program of study which combines international studies and foreign language studies with a business degree. The major will benefit those students who seek to work in the international business world.

The major exists because faculty recognized that: 1) businesses nationwide that do business overseas are increasingly seeking employees who can combine specific business skills with international understanding; 2) a rising number of students at Nevada were trying to create such an education on their own; and 3) more Nevada faculty were specializing in international studies.

International Business is an undergraduate program designed for those individuals who intend to prepare themselves to meet the challenges of this exciting new business era. Our program focuses on the principles and practices of businesses that cross national boundaries to operate in the global business environment. It prepares highly motivated men and women to take their places in organizations that will set the standards for effective performance in the 21st Century. Each participant has the opportunity to specialize in a particular region -- Asia and the Pacific, Europe or the Americas. All participants are required to develop skills in a second language. Participants tailor their language training to their career goals by selecting from one of several language tracks.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students with experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDx University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community, participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the

## Business Administration in International Business, B.S.

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Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular

## Business Administration in International Business, B.S.

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Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	65
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#### B. Number of graduates from the program for the following years:

2016-17	28
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2017-18	29
---------	----

2018-19	22
---------	----

#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	NA
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Business Administration in Management, B.S.

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## I. Description of Program Reviewed

Traditionally, management includes the following activities: planning, organizing, leading, and controlling. More specifically, management is responsible for the primary activities of the firm; those being inbound logistics, operations, outbound logistics, marketing and sales, and service.

Management is also responsible for the support activities of infrastructure (accounting, finance, strategic planning), human resource management (recruiting, training and development, compensation management), technology development (product and process improvement), and procurement (material acquisition). Management majors are prepared for careers in either general management (or in the specialization of human resource management) or entrepreneurship based on concentration choice in General Management or Human Resource Management.

Graduates entering into the workforce with a degree from one of the programs within the Managerial Sciences department are equipped with the tools to lead a marketing and advertising campaign, assist with a corporate merger or build a successful business. In essence, the tools a graduate receives after receiving a degree from the Managerial Sciences department include the ability to effectively communicate, collaborate and lead.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.



## Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	308
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**B. Number of graduates from the program for the following years:**

2016-17	151
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2017-18	162
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2018-19	172
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	1,942
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



# Business Administration in Marketing, B.S.

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## I. Description of Program Reviewed

The Marketing program helps give students strategic insight into one of the most vital components of modern business. Students will be able to help companies and organizations identify customers, develop advertising campaigns, conduct business development research, and explore new avenues of brand promotion. Marketing is both a social and managerial process. It is how individuals and groups obtain what they want through creating, offering, and exchanging products of value with others. By definition, "Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of goods, services, and ideas to create exchanges with target groups that satisfy customer and organizational objectives."

Graduates entering into the workforce with a Marketing degree are equipped with the tools to lead a marketing and advertising campaign or build a successful business. In essence, the tools a graduate receives after receiving a degree from the Managerial Sciences department include the ability to effectively communicate, collaborate and lead.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Undergraduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Undergraduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	357
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**B. Number of graduates from the program for the following years:**

2016-17	140
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2017-18	119
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2018-19	187
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	1,064
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The bachelor's degree program in chemical engineering teaches students to use chemistry, physics, biology and mathematics to solve problems related to the production and manufacture of goods and materials.

In addition to a strong foundation in the sciences, students gain problem-solving and analytical skills through laboratory sections and the ability to collaborate with faculty on research projects. Graduates of the program have the necessary skills to work in industry or government or to pursue graduate training. Students in the bachelor's degree program also have the option to pursue an emphasis in biomedical engineering.

The bachelor's degree program prepares students to enter chemical engineering positions in industry, government or academia and to excel in those positions. We aim to develop not just technical expertise but also a commitment to professional enrichment through life-long learning and critical thinking.

The degree program has three detailed objectives:

- ◇ Prepare students for professional success by teaching them to solve problems in both chemical engineering and areas outside the discipline
- ◇ Make students aware of the larger context of engineering applications, including global, ethical, environmental, societal and legal concerns
- ◇ Teach the communication and problem-solving skills necessary to succeed individually, in a group and in leadership positions

The bachelor's degree program is accredited by the Engineering Accreditation Commission of ABET. ABET is the recognized as the worldwide leader in assuring quality and stimulating innovation in applied science, computing, engineering and engineering technology education.

## II. Review Process and Criteria

The Chemical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2018 for Chemical Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Chemical Engineering before they conducted an on-campus visit on May 21-22, 2018. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting of senior administration from the Provost's Office, the College of Engineering and the Department of Chemical and Materials Science and Engineering took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Chemical Engineering program has a strong foundation in undergraduate education, with an exceptional laboratory and chemical process safety sequences starting in the freshman year and extending through senior year.
2. The Chemical Engineering program has an exceptionally strong cohort of Latino faculty.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Chemical Engineering graduate program was noted for a strong foundation in undergraduate education, an exceptionally strong cohort of Latino faculty and is positioned to make significant impact bringing about national recognition. In order to better enable the program to take advantage of these strengths, it was recommended that a vision statement be developed to assist the faculty and students in the articulation of the position and

trajectory of the program. This vision statement should give note to the strong Latino faculty presence and underline the opportunities that exist between the program and economic development in the state. Much emphasis was made on the potential for positive outcomes in collaborating with local and state industries, particularly in the areas of alumni relations, board participation and development.

Looking at the longer-term goals and outcomes of having the Chemical and Materials Science programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

## **Curriculum—Undergraduate**

The Chemical Engineering program was noted as having a substantial number of students engaged in internships through the program and the program's emphasis on safety thought the lab curriculum and in practice was cited as being excellent. Areas of desired improvement include the strengthening of program educational objectives to better align with constituent needs, the accurate measurement of desired student outcomes and using that information for continuous improvement, and the consistent use of engineering design standards and realistic constraints, specifically with the design curriculum.

## **Undergraduate Recruitment/Enrollment/Progression**

To increase enrollment among Chemical Engineering students it was recommended to pursue recruitment opportunities in southern Nevada, giving attention to the potential for recruiting Latinx students. Collaborating with Nevada based industries also provides opportunities to make a connection between the education received in the program and practical use, and there is evidence to suggest such partnering is strongly encouraged by Nevada's lawmakers who could be invited to provide additional support of these efforts.

## **Space**

Lack of laboratory space and modern equipment was noted when discussing the Chemical Engineering graduate program. It was suggested that space be provided at approximately 175 square feet per researcher (Ph.D. student, postdoctoral scholar), currently the program is well below that suggestion amount.

## **Faculty**

Chemical Engineering faculty members were noted as being effective educators who are dedicated to their program. Concern was communicated regarding the department's ability to attract and retain talented faculty given evidence that salaries and start-up packages offered were lower than national standards. Since the visit, start-packages have been increased and are now at competitive levels. Other areas for suggested change include stronger mentorship for junior faculty, development of senior faculty to advance the department vision, and recruitment of new faculty to support the strategic vision and goals of the department. Opportunities suggested include pursuing grants and funding that focus on faculty development and pathways for high school to Ph.D. education, particularly for the Latinx community given the strong Latino staff that already exists in the program.

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

## **Action Items**

### **The department will:**

1. complete revamping of the assessment process in alignment with ABET requests.
2. explore more direct recruiting activities specifically for Chemical and Materials Science Engineer in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is

also a service opportunity for faculty.

3. engage in an exercise to have faculty develop their own "elevator talk" regarding the department shared vision and strategic plan.
4. carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	150
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### B. Number of graduates from the program for the following years:

2016-17	34
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2017-18	41
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2018-19	33
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	230
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

Chemical engineering emphasizes physics, chemistry, mathematics, biology and creativity to solve important societal problems, from developing new pharmaceuticals safely and efficiently to creating clean and inexpensive fuels for energy conservation and pollution prevention.

The master's degree in chemical engineering combines upper-level coursework with the opportunity to conduct research on a topic within chemical engineering and write a thesis. To earn the master's degree, students must complete requirements in three main areas:

**Core coursework:** Core coursework requirements as found in the course catalog.

**Elective coursework:** These courses will be selected with the help of the students advisory committee.

**Thesis:** Students must write and defend a thesis that is approved by their advisory committee.

Students develop an individualized program of study with their advisory committee. The program of study describes the specific courses, research and related activities you will take to meet your degree requirements.

## II. Review Process and Criteria

The Chemical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2018 for Chemical Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Chemical Engineering before they conducted an on-campus visit on May 21-22, 2018. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Chemical Engineering program has a strong foundation in undergraduate education, with an exceptional laboratory and chemical process safety sequences starting in the freshman year and extending through senior year.
2. The Chemical Engineering program has an exceptionally strong cohort of Latino faculty.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Chemical Engineering graduate program was noted for a strong foundation in undergraduate education, an exceptionally strong cohort of Latino faculty and is positioned to make significant impact bringing about national recognition. In order to better enable the program to take advantage of these strengths, it was recommended that a vision statement be developed to assist the faculty and students in the articulation of the position and trajectory of the program. This vision statement should give note to the strong Latino faculty presence and underline the opportunities that exist between the program and economic development in the state. Much emphasis was made on the potential for positive outcomes in collaborating with local and state industries, particularly in the areas of alumni relations, board participation and development.

Looking at the longer-term goals and outcomes of having the Chemical and Materials programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

### Graduate Curriculum & Education

The Chemical Engineering program was cited as being productive, but concerns were expressed regarding the amount of required coursework. It was suggested that efforts for graduate students, particularly those



pursuing a Ph.D., should be shifted from class work to research as is consistent with programs at research institutions. Also the number of GTA positions was noted as being deficient. It was encouraged that assignments and activities of GTAs be monitored closely to assist in determining the number to graduate students to admit into the program.

### Space

Lack of laboratory space and modern equipment was noted when discussing the Chemical Engineering graduate program. It was suggested that space be provided at approximately 175 square feet per researcher (Ph.D. student, postdoctoral scholar), currently the program is well below that suggestion amount.

### Faculty

Chemical Engineering faculty members were noted as being effective educators who are dedicated to their program. Concern was communicated regarding the department's ability to attract and retain talented faculty given evidence that salaries and start-up packages offered were lower than national standards. Since the visit, start-packages have been increased and are now at competitive levels. Other areas for suggested change include stronger mentorship for junior faculty, development of senior faculty to advance the department vision, and recruitment of new faculty to support the strategic vision and goals of the department. Opportunities suggested include pursuing grants and funding that focus on faculty development and pathways for high school to Ph.D. education, particularly for the Latinx community given the strong Latino staff that already exists in the program.

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. Complete revamping of the assessment process in alignment with ABET requests.
2. Leverage the GradFIT and Gradventure programs to increase domestic graduate student enrollment and diversity. Also participate in the CIMER mentor training provided by the Graduate School in order to encourage positive interactions between mentors and students.
3. Encourage graduate directors to work with the Graduate School to develop tools and explore opportunities for strengthening graduate student engagement.
4. Develop a best practices argument to present to the graduate school for adjustment in course work requirements.
5. Explore more direct recruiting activities specifically for Chemical and Materials Science Engineer in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is also a service opportunity for faculty.
6. Engage in an exercise to have faculty develop their own "elevator talk" regarding the department shared vision and strategic plan.
7. Carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.



## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	3
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### B. Number of graduates from the program for the following years:

2016-17	0
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2017-18	1
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2018-19	2
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	24*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The University's Ph.D. in chemical engineering focuses on applying expertise in chemistry and process design to solving problems related to the environment and renewable energy.

The Ph.D. in chemical engineering trains students to pursue advanced careers in research, teaching or industry. Students gain significant research experience and work closely with faculty to develop expertise on a topic within chemical engineering and conduct original research that advances knowledge in the field.

The chemical engineering faculty have particular expertise in topics related to renewable energy, including:

- Bioengineering/biomolecular engineering
- Biofuels
- Catalysis
- Energy harvesting and storage
- Environmental remediation
- Molecular modeling
- Polymer science and engineering
- Solar energy

## II. Review Process and Criteria

The Chemical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2018 for Chemical Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Chemical Engineering before they conducted an on-campus visit on May 21-22, 2018. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Chemical Engineering program has a strong foundation in undergraduate education, with an exceptional laboratory and chemical process safety sequences starting in the freshman year and extending through senior year.
2. The Chemical Engineering program has an exceptionally strong cohort of Latino faculty.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Chemical Engineering graduate program was noted for a strong foundation in undergraduate education, an exceptionally strong cohort of Latino faculty and is positioned to make significant impact bringing about national recognition. In order to better enable the program to take advantage of these strengths, it was recommended that a vision statement be developed to assist the faculty and students in the articulation of the position and trajectory of the program. This vision statement should give note to the strong Latino faculty presence and underline the opportunities that exist between the program and economic development in the state. Much emphasis was made on the potential for positive outcomes in collaborating with local and state industries, particularly in the areas of alumni relations, board participation and development.

Looking at the longer-term goals and outcomes of having the Chemical and Materials programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

## **Graduate Curriculum & Education**

The Chemical Engineering program was cited as being productive, but concerns were expressed regarding the amount of required coursework. It was suggested that efforts for graduate students, particularly those pursuing a Ph.D., should be shifted from class work to research as is consistent with programs at research institutions. Also the number of GTA positions was noted as being deficient. It was encouraged that assignments and activities of GTAs be monitored closely to assist in determining the number to graduate students to admit into the program.

## **Space**

Lack of laboratory space and modern equipment was noted when discussing the Chemical Engineering graduate program. It was suggested that space be provided at approximately 175 square feet per researcher (Ph.D. student, postdoctoral scholar), currently the program is well below that suggestion amount.

## **Faculty**

Chemical Engineering faculty members were noted as being effective educators who are dedicated to their program. Concern was communicated regarding the department's ability to attract and retain talented faculty given evidence that salaries and start-up packages offered were lower than national standards. Since the visit, start-packages have been increased and are now at competitive levels. Other areas for suggested change include stronger mentorship for junior faculty, development of senior faculty to advance the department vision, and recruitment of new faculty to support the strategic vision and goals of the department. Opportunities suggested include pursuing grants and funding that focus on faculty development and pathways for high school to Ph.D. education, particularly for the Latinx community given the strong Latino staff that already exists in the program.

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

## **Action Items**

### **The department will:**

1. Incomplete revamping of the assessment process in alignment with ABET requests.
2. Leverage the GradFIT and Gradventure programs to increase domestic graduate student enrollment and diversity. Also participate in the CIMER mentor training provided by the Graduate School in order to encourage positive interactions between mentors and students.
3. Encourage graduate directors to work with the Graduate School to develop tools and explore opportunities for strengthening graduate student engagement.
4. Develop a best practices argument to present to the graduate school for adjustment in course work requirements.
5. Explore more direct recruiting activities specifically for Chemical and Materials Science Engineer in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is also a service opportunity for faculty.
6. Engage in an exercise to have faculty develop their own "elevator talk" regarding the department shared vision and strategic plan.
7. Carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program

across the University. The goal is to have reports by the end of the fall 2019 semester.

#### V. Descriptive Statistics

##### A. Number of students with a declared major in the program area:

2018-19	10
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##### B. Number of graduates from the program for the following years:

2016-17	4
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2017-18	1
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2018-19	0
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##### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	24*
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\* Cannot differentiate between M.S. and Ph.D.

#### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

Civil engineers generally specialize in a particular area. The civil engineering department offers five areas of specialization for students:

1. **Earthquake and structural engineering** involves the analysis and design of structures that support or resist loads, such as bridges or buildings.
2. **Environmental engineering** uses science and engineering principles to improve the environment, with a special focus on air, water and land resources.
3. **Geotechnical engineering** is the branch of civil engineering concerned with the engineering behavior of earth materials such as soils, foundations and earth structures like tunnels, dams or levees.
4. **Pavements/materials engineering** focuses on pavement design and materials as well as vehicle pavement interaction.
5. **Transportation engineering** involves all aspects of planning, functional design, operation and facilities management for any mode of transportation.

The program teaches students to make engineering and design decisions while considering a broad range of factors such as sustainability, aesthetic values, and environmental, economic, legal and technical limitations.

Graduates of the bachelor's degree in civil engineering are trained to:

- Apply their engineering knowledge and problem-solving skills in a professional environment
- Analyze and design civil infrastructure systems
- Work as members or leaders of multidisciplinary teams
- Continue their education through graduate studies or ongoing professional development hours
- Understand and communicate technical, social, environmental and ethical issues to society at large
- Be aware of contemporary issues and engage in life-long learning

## II. Review Process and Criteria

The Civil Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs and in Spring 2019 for graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the graduate reviewers before they conducted an on-campus visit on March 14-15, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting of senior administration from the Provost's Office, the College of Engineering and the Department of Civil and Environmental Engineering took place on August 14, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Civil Engineering program at the undergraduate level is well organized and highly productive.
2. The Civil Engineering program is recognized for having strong ties to industry and the community, which is beneficial to the study body.

3. The structural labs are considered among the best nationally for research universities and serve as an excellent recruiting tool for faculty and graduate students.
4. There is potential to grow the program, which can be done in collaboration with the college and campus administration.

#### **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

##### **Strategic Planning and Building a Vision for the Department:**

Given the productivity of faculty and world-class structural labs, it would be expected that the program would have a higher ranking in US News and World Report. It is advised to work with administration to determine what are the roadblocks to achieving a higher ranking and how to address them. The department is committed to working with the college to undertake initiatives to increase the department's ranking. A possible area to address are support staff to assist with grant pre-award preparation and post-award management. Given that research expenditures generate a need for increased support staff, the department will work with the college to increase grant support staff.

##### **Curriculum-Undergraduate**

The ABET report regarding Civil Engineering found no issues with the program, and made observation regarding recognized strengths of the program.

The Civil Engineering program recently worked with the industrial advisory board (IAB) to update CEE 426/427, which is a capstone course series that provides a wide selection of design projects. This yearlong series includes a focus on project management; ensuring students understand components of actual projects and allowing them to be productive immediately upon graduation. An impressive list of firms that participate in the design projects, and alumni act as role models for projects, career discussion and job offers.

##### **Space**

The facilities utilized are suitable for the program, with special note made regarding the structural labs which are considered one of the best among research universities and an excellent recruiting tool for faculty and graduate students.

##### **Faculty**

The ABET report on the undergraduate programs noted the strong mentorship program between new staff members and those with more experience, recognizing that the robust mentorship program helps to improve teaching, fosters a strong sense of community and enhances retention. This collaboration among faculty was noted to extend to administrative staff, lecturers, students, and the industrial advisory board (IAB).

Levels of female faculty across the program was also discussed, noting there was only one currently on staff which accounts for 5% of the total. Recent recruitments have resulted in offers extended to female candidates, two of whom accepted the positions and started in the fall 2019. Ongoing efforts should continue to increase these numbers.

It is encouraged that the college and department work with University administration to address issues that have resulted due to a lack of merit pay increases for several years, particularly as it applies to faculty recruitment and retention. While the department has not experienced issues regarding the recruitment of faculty due to lack of merit, there are recognized negative impacts, specifically for associate professors that have resulted from the lack of state funding for merit-based salary increases. The department is committed to work with administration on this issue.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following the achievement of tenure so as to progress successfully through the promotional ranks to full professor.

### **Action Items**

#### **The department will:**

1. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.
2. With the completion of the new Engineering building, some laboratory needs can be addressed; but comprehensive lab renovation would require the updating of SEM. The college and department will work together to determine what needs are emergent and can be feasibly addressed.

### **V. Descriptive Statistics**

#### **A. Number of students with a declared major in the program area:**

2018-19	324
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#### **B. Number of graduates from the program for the following years:**

2016-17	59
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2017-18	66
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2018-19	74
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#### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	1,513*
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\* Cannot differentiate between Civil and Environmental

### **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

# Civil and Environmental Engineering, M.S.

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## I. Description of Program Reviewed

The program emphasizes regionally relevant issues, including earthquake engineering, water quality and quantity, and transportation engineering for rural and urban environments.

The master's degree program in civil and environmental engineering provides students with the engineering, scientific and communication skills to advance their engineering career or to move on to Ph.D. studies.

Students work closely with internationally recognized faculty and gain experience by collaborating on applied and fundamental research projects.

The department offers two options for master's degree students:

**Plan A (Thesis option):** This option combines coursework with a research-based thesis written on a topic within your specialty.

**Plan B (Non-thesis option):** This option combines coursework with a comprehensive examination, which has both an oral and written component. The comprehensive exam covers core topics in civil and environmental engineering as well as topics within your areas of expertise. Specific questions will be determined by your primary advisor and examining committee.

Students in the master's degree program can choose from five areas of specialization:

1. Earthquake and structural engineering
2. Geotechnical engineering
3. Pavement engineering and science
4. Transportation engineering
5. Environmental engineering

Specific coursework requirements vary for each specialty. Students work closely with faculty advisors to design a course of study that meets degree requirements and prepares them to write a thesis or pass comprehensive exams in their area of expertise.

## II. Review Process and Criteria

The Civil and Environmental Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in Spring 2019 for graduate programs. The report was provided to the graduate reviewers before they conducted an on-campus visit on March 14-15, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting of senior administration from the Provost's Office, the College of Engineering and the Department of Civil and Environmental Engineering took place on August 14, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Civil Engineering program is recognized for having strong ties to industry and the community, which is beneficial to the study body.
2. The structural labs are considered among the best nationally for research universities and serve as an excellent recruiting tool for faculty and graduate students.
3. There is potential to grow the program, which can be done in collaboration with the college and campus administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

Given the productivity of faculty and world-class structural labs, it would be expected that the program would have a



## Civil and Environmental Engineering, M.S.

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higher ranking in US News and World Report. It is advised to work with administration to determine what are the roadblocks to achieving a higher ranking and how to address them. The department is committed to working with the college to undertake initiatives to increase the department's ranking. Two items identified as possible areas to address are support staff to assist with grant pre-award preparation and post-award management, and increasing Graduate Teaching Assistantships (GTAs) to support undergraduate instruction and graduate student recruitment. Given that research expenditures generate a need for increased support staff, the department will work with the college to increase grant support staff. The department has endeavored to increase GTA opportunities via differing funding sources and is committed to continue working with the college to increase the number of GTA lines, particularly with regard to GTAs that provide support in graduate laboratories.

### **Graduate Curriculum & Education**

Credit requirements, which is 32 semester hours for the M.S. degree were cited as excessive. It has been observed that employers value employees with graduate degrees in CEE due to the advanced curriculum at the graduate level when compared to the more foundational curriculum at the undergraduate level. As such, providing a well-focused "fast track" specialization for graduate students, particularly at the master's level, benefits students, their future employers and is becoming typical for research institutions. The suggestion was made to consider the UC model for the master's program that allows students to graduate in one calendar year, which is not possible for students under the current model utilized in the program. The department is open to the lowering the credit requirements for the graduate programs, and will work with the Graduate School to explore this opportunity.

"Big Data" analysis curriculum was identified as an addition to the program which would be beneficial and is being requested by the student population, particularly students enrolled in Geographic Information Systems (GIS) courses. Some CEE areas are offering a version of these subjects, but often students take such courses outside of the department. It is recommended that consideration be given to developing a Big Data course within the CEE curriculum that focuses on the skill sets needed by CEE graduates. The department will discuss the need for offering such courses with the faculty.

### **Graduate Recruitment/Enrollment/Progression**

Significant increases have been made in graduate enrollment since the last program review in 2008. Financial support for graduate students via Research and Teaching Assistantships were identified as being at realistic levels.

Efforts toward recruiting more Hispanic students was encouraged, noting that levels of enrollment could be increased for this group given the size of the Hispanic population in the state. This is an effort that is been undertaken at the college level, specifically working with the local high school population, the department acknowledges the benefits of participating in this effort and will pursue involvement.

Re-engaging in on-campus recruitment events through the Graduate School's Gradventure program was recommended, taking into consideration that changes have occurred since the last time Civil and Environmental Engineering participated. Finally, it was recommended that the Graduate Handbook be revised to clarify language regarding graduate student timelines and achievement benchmarks. The language should be revised to promote the consistent application of standards across students while also providing graduate advisory committees with appropriate levels of flexibility.

### **Space**

The facilities utilized are suitable for the program, with special note made regarding the structural labs which are considered one of the best among research universities and an excellent recruiting tool for faculty and graduate students. Environmental labs would benefit from growth, particularly an increase in analytical equipment, and current space would allow for such growth. The existence of a full-time technician to support the environmental labs was identified as a highly positive benefit. Access to this type of support to students is beneficial to lab work beyond their graduate studies as it provides realistic expectations regarding those future interactions with contracted labs.

### **Faculty**

For the most part, graduate faculty staffing levels were viewed as adequate across the program; two areas were identified where an increase is recommended. Those areas are Transportation and Geotechnical Engineering. Both areas have two faculty members. The recommendation is to increase those numbers to three, which allows for adequate backup and diversity of experience to provide an adequately varied breadth of course offerings. With regard to Geotechnical Engineering, collaboration with Geology was suggested to address staffing levels particularly due to the University's robust mining program. The department has been engaged with Geology faculty and will continue to do so in the future. The department and college recognize the need to

## Civil and Environmental Engineering, M.S.

increase faculty in these areas and have identified it as a goal in the strategic plan.

Levels of female faculty across the program was also discussed, noting there was only one currently on staff which accounts for 5% of the total. Recent recruitments have resulted in offers extended to female candidates, two of whom accepted the positions and started in the fall 2019. Ongoing efforts should continue to increase these numbers.

It is encouraged that the college and department work with University administration to address issues that have resulted due to a lack of merit pay increases for several years, particularly as it applies to faculty recruitment and retention. While the department has not experienced issues regarding the recruitment of faculty due to lack of merit, there are recognized negative impacts, specifically for associate professors, that have resulted from the lack of state funding for merit-based salary increases. The department is committed to work with administration on this issue.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following the achievement of tenure so as to progress successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

CEE will put forth a plan to the Graduate School to change the Masters and Ph.D. requirements to allow for accelerated completion of degrees.

1. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.
2. Create consistency between areas regarding required graduate progression steps (e.g., timing of comprehensive exam) through regular monitoring and tracking all students centrally.
3. The Gradventure on-campus recruitment program will be discussed with faculty in collaboration with the Graduate School to explore participation again (e.g., Graduate School Dean will visit chairs meeting to discuss). In addition, the department will explore the GradFIT program, which brings undergraduate first-generation and historically underrepresented students on campus for a week to learn about graduate education. This effort will target domestic students.
4. With the completion of the new Engineering building, some laboratory needs can be addressed; but comprehensive lab renovation would require the updating of SEM. The college and department will work together to determine what needs are emergent and can be feasibly addressed.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	35
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### B. Number of graduates from the program for the following years:

2016-17	24
2017-18	21
2018-19	13

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	196*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The nationally ranked graduate program in civil and environmental engineering offers students the opportunity to work with well-known faculty in world-class experimental facilities, enabling large-scale testing of bridges, structures and pavements.

Graduates have gone on to leadership roles in industry and public sector companies both in Nevada and around the globe. A number of graduates are also conducting research in academic positions.

The department offers five areas of specialization for civil and environmental engineering students:

- Earthquake and structural engineering: Faculty have particular expertise in bridge engineering, engineering for extreme events, and the seismic performance of non-structural systems.
- Environmental engineering: Current areas of focus include water and wastewater treatment, fate and transport of contaminants, biochemistry and in-situ bioremediation, and the water-economy nexus.
- Geotechnical engineering: Research areas focus on soil-structure interaction, vehicle-pavement interaction, and behavior of soil and retaining structures under seismic conditions.
- Pavement engineering and science: Faculty research focuses on developing innovative asphalt mixtures or improved processes for laying pavement that can improve its ability to stand up to stress and harsh weather.
- Transportation engineering: Researchers have experience with traffic control systems, simulation and modeling, and intelligent transportation systems.

Graduate research in the well-equipped labs, including labs focused on geotechnical testing, transportation engineering, environmental engineering, pavements/materials research, and our Earthquake Engineering Laboratory, which, combined with the Large Scale Structures Laboratory, comprises the largest and most versatile earthquake engineering research facility in the United States.

## II. Review Process and Criteria

The Civil and Environmental Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in Spring 2019 for graduate programs. The report were provided to the graduate reviewers before they conducted an on-campus visit on March 14-15, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting of senior administration from the Provost's Office, the College of Engineering and the Department of Civil and Environmental Engineering took place on August 14, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The Civil Engineering program is recognized for having strong ties to industry and the community, which is beneficial to the study body.
2. The structural labs are considered among the best nationally for research universities and serve as an excellent recruiting tool for faculty and graduate students.
3. There is potential to grow the program, which can be done in collaboration with the college and campus administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### **Strategic Planning and Building a Vision for the Department:**

Given the productivity of faculty and world-class structural labs, it would be expected that the program would have a higher ranking in US News and World Report. It is advised to work with administration to determine what are the roadblocks to achieving a higher ranking and how to address them. The department is committed to working with the college to undertake initiatives to increase the department's ranking. Two items identified as possible areas to address are support staff to assist with grant pre-award preparation and post-award management, and increasing Graduate Teaching Assistantships (GTAs) to support undergraduate instruction and graduate student recruitment. Given that research expenditures generate a need for increased support staff, the department will work with the college to increase grant support staff. The department has endeavored to increase GTA opportunities via differing funding sources and is committed to continue working with the college to increase the number of GTA lines, particularly with regard to GTAs that provide support in graduate laboratories.

### **Graduate Curriculum & Education**

Credit requirements, which is 72 semester hours for the Ph.D. degree were cited as excessive. It has been observed that employers value employees with graduate degrees in CEE due to the advanced curriculum at the graduate level when compared to the more foundational curriculum at the undergraduate level. Review of the Ph.D. semester hour requirement and model was encouraged, and lowering the number of Ph.D. The department is open to the lowering the credit requirements for the graduate programs, and will work with the Graduate School to explore this opportunity.

"Big Data" analysis curriculum was identified as an addition to the program which would be beneficial and is being requested by the student population, particularly students enrolled in Geographic Information Systems (GIS) courses. Some CEE areas are offering a version of these subjects, but often students take such courses outside of the department. It is recommended that consideration be given to developing a Big Data course within the CEE curriculum that focuses on the skill sets needed by CEE graduates. The department will discuss the need for offering such courses with the faculty.

### **Graduate Recruitment/Enrollment/Progression**

Significant increases have been made in graduate enrollment since the last program review in 2008, although it was noted for the last five years doctoral numbers have been somewhat flat. Financial support for graduate students via Research and Teaching Assistantships were identified as being at realistic levels.

Efforts toward recruiting more Hispanic students was encouraged, noting that levels of enrollment could be increased for this group given the size of the Hispanic population in the state. This is an effort that is been undertaken at the college level, specifically working with the local high school population, the department acknowledges the benefits of participating in this effort and will pursue involvement.

Re-engaging in on-campus recruitment events through the Graduate School's Gradventure program was recommended, taking into consideration that changes have occurred since the last time Civil and Environmental Engineering participated. The department is open to pursuing Gradventure particularly as it applied to recruiting domestic Ph.D. applicants. Finally, it was recommended that the Graduate Handbook be revised to clarify language regarding graduate student timelines and achievement benchmarks. The language should be revised to promote the consistent application of standards across students while also providing graduate advisory committees with appropriate levels of flexibility.

### **Space**

The facilities utilized are suitable for the program, with special note made regarding the structural labs which are considered one of the best among research universities and an excellent recruiting tool for faculty and graduate students. Environmental labs would benefit from growth, particularly an increase in analytical equipment, and current space would allow for such growth. The existence of a full-time technician to support the environmental labs was identified as a highly positive benefit. Access to this type of support to students is beneficial to lab work beyond their graduate studies as it provides realistic expectations regarding those future interactions with contracted labs.

## Faculty

For the most part, graduate faculty staffing levels were viewed as adequate across the program; two areas were identified where an increase is recommended. Those areas are Transportation and Geotechnical Engineering. Both areas have two faculty members. The recommendation is to increase those numbers to three, which allows for adequate backup and diversity of experience to provide an adequately varied breadth of course offerings. With regard to Geotechnical Engineering, collaboration with Geology was suggested to address staffing levels particularly due to the University's robust mining program. The department has been engaged with Geology faculty and will continue to do so in the future. The department and college recognize the need to increase faculty in these areas and have identified it as a goal in the strategic plan.

Levels of female faculty across the program was also discussed, noting there was only one currently on staff which accounts for 5% of the total. Recent recruitments have resulted in offers extended to female candidates, two of whom accepted the positions and started in the fall 2019. Ongoing efforts should continue to increase these numbers.

It is encouraged that the college and department work with University administration to address issues that have resulted due to a lack of merit pay increases for several years, particularly as it applies to faculty recruitment and retention. While the department has not experienced issues regarding the recruitment of faculty due to lack of merit, there are recognized negative impacts, specifically for associate professors, that have resulted from the lack of state funding for merit-based salary increases. The department is committed to work with administration on this issue.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following the achievement of tenure so as to progress successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- ◇ CEE will put forth a plan to the Graduate School to change the Masters and Ph.D. requirements to allow for accelerated completion of degrees.
- ◇ Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.
- ◇ Create consistency between areas regarding required graduate progression steps (e.g., timing of comprehensive exam) through regular monitoring and tracking all students centrally.
- ◇ The Gradventure on-campus recruitment program will be discussed with faculty in collaboration with the Graduate School to explore participation again (e.g., Graduate School Dean will visit chairs meeting to discuss). In addition, the department will explore the GradFIT program, which brings undergraduate first-generation and historically underrepresented students on campus for a week to learn about graduate education. This effort will target domestic students.
- ◇ With the completion of the new Engineering building, some laboratory needs can be addressed; but comprehensive lab renovation would require the updating of SEM. The college and department will work together to determine what needs are emergent and can be feasibly addressed.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	44
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**B. Number of graduates from the program for the following years:**

2016-17	8
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2017-18	7
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2018-19	10
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	196*
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\* Cannot differentiate between M.S. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



# Computer Science and Engineering, B.S.

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## I. Description of Program Reviewed

The bachelor's degree in computer science and engineering is designed to give you a strong foundation in computing, mathematics, science and engineering and teach students to apply that knowledge to real-world computing problems. The degree program combines computer science and computer engineering to offer students a complete foundation in both computer hardware and software, giving them a versatile skill set valued by employers and graduate schools.

Graduates have the skills to identify technological solutions to problems, drawing on their abilities to design and conduct experiments, analyze data, and develop software or computer systems that meet desired needs. Graduates of the program can tap into a strong gaming market in the region or seek employment in industries ranging from military to software to cyber security. Nationwide, demand for computer scientists and engineers is strong, as the need for trained computer scientists and engineers is growing in fields ranging from health care to education to business.

Additionally, the program teaches key skills to succeed in the professional world, including how to communicate effectively with a range of audiences, how to function on multi-disciplinary teams and how to act in accordance with professional, ethical, legal and social responsibilities.

The Accreditation Board for Engineering and Technology (ABET) is the board that accredits engineering and computer science programs in the United States. The bachelor of science in computer science and engineering is accredited by the Computing Accreditation Commission and the Engineering Accreditation Commission of ABET. Graduates from ABET-accredited programs have an assurance that their investment and achievement are recognized by the worldwide engineering community.

## II. Review Process and Criteria

The Computer Science and Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs. The report was provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 22, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 22, 2019.

## III. Major Findings and Conclusions of the Program Review

1. Undergraduate students are provided with a wide variety of opportunities to use knowledge gained in the classroom in real-world problems, particularly with the senior design sequence.
2. The program's growth since 2011 has required an increase in faculty. This has resulted in the addition of high quality faculty members that are in strategic alignment with the program's three focal research areas.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

Reviewers of undergraduate program recognized the strong connection between the educational experience and real world application for students. It was noted that faculty hires since the last review have been made to strategically support the defined direction of the department and have resulted in an increase in research funding and publications. An update to the strategic plan was recommended to provide broader definitions of research and teaching missions. The department has indicated that work with the college to update the plan has begun and will include effort to move the concept of "growth" beyond numbers to faculty development and enhanced national recognition for the department.

### Curriculum—Undergraduate

The undergraduate program was recognized for the strong education offerings that translate into real world application. Graduates of the program were recognized as being well prepared particularly by the senior design sequence, which have produced student-led startup companies and awards for entrepreneurship. The

## Computer Science and Engineering, B.S.

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review of the undergraduate program has resulted in several recommendations that have already been resolved by the department. These include updating the defined constituents for Program Educational Objectives (PEOs), ensuring proper mapping between assessments and student outcomes, and requiring advanced engineering topics among the technical electives. Recommendation being addressed include increasing laboratory space and increasing staff size to ensure appropriate course offerings given the increase in enrollment. Lab space will be addressed with the completion of the new College of Engineering building, while the program is working toward increasing faculty numbers.

### Space

Currently space is an issue, but that will be addressed with the completion of the College of Engineering building. Strategic and thoughtful plans for the building are encouraged, as the space will fill up quickly and result in future space challenges.

### Faculty

With the move of the institution to R1 status, it was recommended that consideration be given to moving faculty workloads to a more research focus. This is an iterative process that the department has already taken on, and will continue to make changes that support this effort including the expanded utilization of lecturers. Additionally, it was noted that increases in faculty mentoring for both junior and senior faculty would be beneficial, especially as senior faculty shift to a research focus in alignment with the achieved R1 status.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

- Explore ways to address increasing faculty levels and identify opportunities for collaboration for these faculty both within and outside of the discipline.
- Explore options and collaborations to assist/mentor associate professors to move to the full professor rank.
- Comparison will be completed with peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will look at degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	614
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### B. Number of graduates from the program for the following years:

2016-17	71
2017-18	121
2018-19	106

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	2,766
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Computer Science and Engineering, M.S.

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## I. Description of Program Reviewed

The master's degree program offers an integrated course of study covering the theory, implementation and design of information, computing and communication systems.

Students in the program take advanced courses in computer science and engineering and have the opportunity to work closely with faculty on grant-funded research projects. Graduates see strong demand for their skills, and the program proximity to high-tech hubs such as San Francisco and Seattle mean the department has forged strong connections with major employers. Graduates have gone on to work for companies such as Amazon, Apple, Google, Microsoft, and Oracle.

Graduate students are given the opportunity to focus in a specific area by taking advanced courses and becoming significantly involved in many aspects of original research and advancing scientific knowledge.

Faculty in the department specialize their research in three main areas:

1. **Cybersecurity and network systems:** Faculty in this area research wireline and wireless networking to improve the Internet and accommodate growing demand for high-speed communications. Faculty also investigate cyber security and forensics to protect the digital world and explore social and biological networks in order to identify patterns in those complex systems.
2. **Intelligent and autonomous systems:** Research focuses on developing systems that are able to perceive, understand and respond to the world around them. This area of research has a wide range of applications, from vision-based surveillance to assistive robotics, autonomous systems and advanced manufacturing.
3. **Data and software systems:** Researchers in this area are developing infrastructure and software solutions to scale and support the collection and use of big data for scientific research. Faculty research includes augmented and virtual reality, cloud computing, human-computer interaction, and software engineering.

## II. Review Process and Criteria

The Computer Science and Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 22, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 22, 2019.

## III. Major Findings and Conclusions of the Program Review

Graduate students are satisfied with their educational experience, faculty are engaged and excited about their role and industry partners note that students are of a high quality and have a strong background.

The program's growth since 2011 has required an increase in faculty. This has resulted in the addition of high quality faculty members that are in strategic alignment with the program's three focal research areas.

Both faculty and Ph.D. students in the program are producing high quality publications in top tier journals, with a significant number of graduates securing tenure-track faculty positions.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

Reviewers of the graduate program recognized the strong connection between the educational experience and real world application for students. It was noted that faculty hires since the last review have been made to strategically support the defined direction of the department and have resulted in an increase in research funding and publications. An update to the strategic plan was recommended to provide broader definitions of research and teaching missions. The department has indicated that work with the college to update the plan has begun and will include effort to move the concept of "growth" beyond numbers to faculty development and enhanced

national recognition for the department.

## Graduate Curriculum & Education

The success of the graduate program in producing graduates that go on to tenure-track positions was recognized as impressive. It was recommended that the department more effectively market this record as a means of recruiting graduate students, which the department is open to pursuing. It was also suggested that marketing language around the term "self-funded fellowship" be reconsidered to ensure an understanding that funding is available through employment. The department is open to this suggestion, but wants to make clear that some students self-fund their participation in the program. The reviewers suggested that the current expectation that Ph.D. students publish two first-authored papers upon graduation is too low of an expectation. Since the time of the review, the department has changed the language to reflect an increased expectation and with clarification given to the publications needing to be in high quality peer-reviewed conference proceedings or journals. A low number of graduate reaching assistantships (GTAs) was cited as an area of possible concern, and it was recommended to increase these numbers to ensure a better student experience via assistantship support. The department recognizes this need, as well as the associated constraints on needed resources to increase the numbers, but is interested in working with the college and administration on increasing GTA lines. It was noted that graduate students can become "stove-piped" in the program, and planning of social activities was encouraged to develop a network among peers. The lack of domestic students in the program was discussed, and it was encouraged that the program works with the Graduate School utilizing programs such as Gradventure to increase those numbers. Finally, annual evaluations of Ph.D. students was recommended to ensure successful progress, which the department is exploring.

## Space

Currently space is an issue, but that will be addressed with the completion of the College of Engineering building. Strategic and thoughtful plans for the building are encouraged, as the space will fill up quickly and result in future space challenges.

## Faculty

With the move of the institution to R1 status, it was recommended that consideration be given to moving faculty workloads to a more research focus. This is an iterative process that the department has already taken on, and will continue to make changes that support this effort including the expanded utilization of lecturers. Additionally, it was noted that increases in faculty mentoring for both junior and senior faculty would be beneficial, especially as senior faculty shift to a research focus in alignment with the achieved R1 status.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- Explore ways to address increasing faculty levels and identify opportunities for collaboration for these faculty both within and outside of the discipline.
- Work with the Graduate School to prioritize funding of CSE TAs as resources become available.
- Review of GTA workloads to ensure consistency across the program regarding time and effort, ensuring that assigned duties are within acceptable levels.
- Explore ways that faculty can assist with keeping students, particularly Ph.D. students, on track for completion. This may be achieved through avenues such as reduction in course requirements, mentoring, and first year reviews.
- Explore options and collaborations to assist/mentor associate professors to move to the full professor rank.

## Computer Science and Engineering, M.S.

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- Comparison will be completed with peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will look at degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	52
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#### B. Number of graduates from the program for the following years:

2016-17	20
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2017-18	20
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2018-19	22
---------	----

#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	58*
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\* Cannot differentiate between M.S. and Ph.D.

### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

This is a dynamic and growing department with a strong Ph.D. program in the theory and design of computing systems.

Faculty research spans interdisciplinary science and engineering problems, including cutting-edge projects in expanding fields such as advanced manufacturing, autonomous systems, big data, data mining and cyber security.

Graduates see strong demand for their skills, and the program's proximity to high-tech hubs such as San Francisco and Seattle mean the department has forged strong connections with major employers. Graduates have gone on to work for companies such as Amazon, Apple, Google, Microsoft, and Oracle. Graduates have also gone on to academic careers in universities around the nation.

The department has research strengths in three main areas:

- Cybersecurity and network systems: Faculty in this area research wireline and wireless networking to improve the Internet and accommodate growing demand for high-speed communications. Faculty also investigate cyber security and forensics to protect the digital world and explore social and biological networks in order to identify patterns in those complex systems.
- Intelligent and autonomous systems: Research focuses on developing systems that are able to perceive, understand and respond to the world around them. This area of research has a wide range of applications, from vision-based surveillance to assistive robotics, autonomous systems and advanced manufacturing.
- Data and software systems: Researchers in this area are developing infrastructure and software solutions to scale and support the collection and use of big data for scientific research. Faculty research includes augmented and virtual reality, cloud computing, human-computer interaction, and software engineering.

## II. Review Process and Criteria

The Computer Science and Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 22, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 22, 2019.

## III. Major Findings and Conclusions of the Program Review

1. Graduate students are satisfied with their educational experience, faculty are engaged and excited about their role and industry partners note that students are of a high quality and have a strong background.
2. The program's growth since 2011 has required an increase in faculty. This has resulted in the addition of high quality faculty members that are in strategic alignment with the program's three focal research areas.
3. Both faculty and Ph.D. students in the program are producing high quality publications in top tier journals, with a significant number of graduates securing tenure-track faculty positions.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

Reviewers of the graduate program recognized the strong connection between the educational experience and real world application for students. It was noted that faculty hires since the last review have been made to strategically support the defined direction of the department and have resulted in an increase in research funding and publications. An update to the strategic plan was recommended to provide broader definitions of research and teaching missions. The department has indicated that work with the college to update the plan has begun and will include effort to move the concept of "growth" beyond numbers to faculty development and enhanced national recognition for the department.

## Graduate Curriculum & Education

The success of the graduate program in producing graduates that go on to tenure-track positions was recognized as impressive. It was recommended that the department more effectively market this record as a means of recruiting graduate students, which the department is open to pursuing. It was also suggested that marketing language around the term “self-funded fellowship” be reconsidered to ensure an understanding that funding is available through employment. The department is open to this suggestion, but wants to make clear that some students self-fund their participation in the program. The reviewers suggested that the current expectation that Ph.D. students publish two first-authored papers upon graduation is too low of an expectation. Since the time of the review, the department has changed the language to reflect an increased expectation and with clarification given to the publications needing to be in high quality peer-reviewed conference proceedings or journals. A low number of graduate reaching assistantships (GTAs) was cited as an area of possible concern, and it was recommended to increase these numbers to ensure a better student experience via assistantship support. The department recognizes this need, as well as the associated constraints on needed resources to increase the numbers, but is interested in working with the college and administration on increasing GTA lines. It was noted that graduate students can become “stove-piped” in the program, and planning of social activities was encouraged to develop a network among peers. The lack of domestic students in the program was discussed, and it was encouraged that the program works with the Graduate School utilizing programs such as Gradventure to increase those numbers. Finally, annual evaluations of Ph.D. students was recommended to ensure successful progress, which the department is exploring.

## Space

As mentioned above, currently space is an issue, but that will be addressed with the completion of the College of Engineering building. Strategic and thoughtful plans for the building are encouraged, as the space will fill up quickly and result in future space challenges.

## Faculty

With the move of the institution to R1 status, it was recommended that consideration be given to moving faculty workloads to a more research focus. This is an iterative process that the department has already taken on, and will continue to make changes that support this effort including the expanded utilization of lecturers. Additionally, it was noted that increases in faculty mentoring for both junior and senior faculty would be beneficial, especially as senior faculty shift to a research focus in alignment with the achieved R1 status.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- Explore ways to address increasing faculty levels and identify opportunities for collaboration for these faculty both within and outside of the discipline.
- Work with the Graduate School to prioritize funding of CSE TAs as resources become available.
- Review of GTA workloads to ensure consistency across the program regarding time and effort, ensuring that assigned duties are within acceptable levels.
- Explore ways that faculty can assist with keeping students, particularly Ph.D. students, on track for completion. This may be achieved through avenues such as reduction in course requirements, mentoring, and first year reviews.
- Explore options and collaborations to assist/mentor associate professors to move to the full professor rank.
- Comparison will be completed with peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will look at degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths and give advising to those students

who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	59
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### B. Number of graduates from the program for the following years:

2016-17	6
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2017-18	5
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2018-19	7
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	58*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

### **I. Description of Program Reviewed**

The Bachelor of Science in Economics is designed to prepare students for positions as economic and statistical analysts in business, government and nonprofit organizations, and for the teaching profession.

In addition, it provides a strong foundation for graduate study and research in the fields of economics, business, public policy and law.

Through basic and applied research, the Department's faculty members create and develop ideas that push back the frontier of knowledge and assist public and private decision makers in practical ways. Through service to the community and to the economics profession, the Department seeks to be the "go to place" for creative and practical ideas.

Current students are encouraged to get regular advising and participate in the economic club to become more connected with the faculty and other students, and to learn more about the variety of doors further economics training can open.

### **II. Review Process and Criteria**

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

### **III. Major Findings and Conclusions of the Program Review**

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

### **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

#### **Strategic Planning and Building a Vision for the Department:**

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it



brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### **Undergraduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### **Program Outcomes (assessment, placement, retention, graduation—Undergraduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly

work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### **Action Items**

#### **The college will:**

Create a defined statement regarding college outreach to assist the faculty in understanding their role.

The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI

With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.

Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have



reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	29
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**B. Number of graduates from the program for the following years:**

2016-17	20
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2017-18	15
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2018-19	10
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	3,085
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\* Cannot differentiate between B.A. and B.S.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## **I. Description of Program Reviewed**

The Masters of Arts program is designed to be a terminal degree for individuals planning to seek employment after graduation in the fields of applied economics, finance, banking, or law, as well as other professions that require analytical and quantitative skills.

This degree emphasizes technical, analytical, and quantitative skills, and provides the flexibility for students to choose a more policy-oriented or applied approach by allowing more electives. This allows the student to gain additional specializations, which may help to create a well-rounded and marketable skill set for the competitive economics job market.

Careers in the fields of business, consulting, health care and data analytics are typical for this degree, however, there are several applications of this degree that are outside of traditional channels. Students have gone on to have successful careers locally, nationally, and internationally in the areas of finance, banking, and economic consulting, urban planning, and government and not-for-profit agencies.

## **II. Review Process and Criteria**

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## **III. Major Findings and Conclusions of the Program Review**

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students with experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community, participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

### **Strategic Planning and Building a Vision for the Department:**

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding

the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### **Graduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### **Program Outcomes (assessment, placement, retention, graduation—Graduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### **Action Items**

#### **The college will:**

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where

students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	5
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**B. Number of graduates from the program for the following years:**

2016-17	2
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2017-18	4
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2018-19	2
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	69*
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\* Cannot differentiate between M.A., M.S. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Master of Science is designed to provide the foundation students need to succeed in a Ph.D. program or jobs requiring intensive technical, analytical, and quantitative skills. The Master of Science provides students with core conceptual knowledge about microeconomics, macroeconomics, and econometrics. Students may apply these skills through their research, culminating in six credits of thesis, if desired. Alternatively, students choosing the non-thesis option may further their knowledge through additional coursework.

The Master of Science provides excellent preparation for those who are planning to pursue a Ph.D. in economics, finance, or a related field. Applied economists are employed in both the private and public sectors, and are often involved in forecasting, market analysis, policy analysis and advisory activities.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

- 1.The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
- 2.The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
- 3.The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### **Graduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### **Program Outcomes (assessment, placement, retention, graduation—Graduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### **Action Items**

#### **The college will:**

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI.
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
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be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	2
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**B. Number of graduates from the program for the following years:**

2016-17	2
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2017-18	4
---------	---

2018-19	3
---------	---

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	69*
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\* Cannot differentiate between M.A., M.S. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

As the first and only Ph.D. program in Economics in Nevada, the program provides a collegial and supportive academic atmosphere where students and faculty have a high level of contact. Students have opportunities to work as teaching or research assistants. Collaboration between the Department of Economics and other departments within the College of Business, as well as the University at large, enables a wide range of coursework, options for applied research, and access to a variety of faculty interests.

The Doctor of Philosophy (Ph.D.) in Economics offered by the Department of Economics at the University of Nevada, Reno is an applied graduate program based on strong theoretical and quantitative foundations.

The program is a full-time commitment with rigorous math and research requirements. Students are required to choose two of the following four major fields of specialization:

- Applied Microeconomics
- Business Economics
- Environmental and Resource Economics
- Urban and Regional Economics

The Ph.D. in Economics prepares individuals for jobs in academia and the private or public sector. Academic jobs traditionally consist of teaching and research, while private and public sector jobs consist of applied research and econometric analysis.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and



was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

### **Graduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

### **Program Outcomes (assessment, placement, retention, graduation—Graduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

### **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### **Action Items**

#### **The college will:**

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment

and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.

4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	15
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### B. Number of graduates from the program for the following years:

2016-17	2
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2017-18	4
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2018-19	0
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	69*
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\* Cannot differentiate between M.A., M.S., and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Electrical Engineering, B.S.

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## I. Description of Program Reviewed

A degree in electrical engineering prepares students to develop solutions to urgent problems in areas such as power, communications, computing and networking.

Electrical engineers work with electromagnetic fields and electricity for use in communications, biotechnology applications and electronic circuits. The core of electrical engineering is the ability to work with sensors, acquire data, communicate electronically, process signals and information, model complex systems, and integrate various sources of energy in distributed systems.

Students in the program have the option of choosing to pursue an electrical engineering degree with an emphasis in one of three areas. There is also a general emphasis for students who prefer not to specialize:

- **Biomedical engineering:** Students pursuing this emphasis are required to take three additional introductory courses in biology and chemistry, but they have fewer technical elective requirements, which must include coursework in biochemistry and biomedical engineering.
- **Robotics, autonomous/aerial vehicles, and embedded systems:** In this emphasis, students choose at least one technical elective from each of the categories of robotics, communications and control, and embedded systems.
- **Renewable energy:** Students pursuing this emphasis take the same required courses as all other electrical engineering majors, but they focus on energy-related topics for their senior year technical electives.

The bachelor's degree program focuses on giving students depth of knowledge, breadth of knowledge and professionalism.

Graduates are able to apply specialized knowledge in the practice or advanced study of electrical engineering, including scientific principles, rigorous analysis and creative design.

Additionally, graduates develop a broad range of knowledge, including information on the most important current issues in electrical engineering, for productive careers in the public or private sector or for the pursuit of graduate education.

Finally, graduates are able to communicate clearly and work ethically in teams in a complex modern environment. Graduates will engage in life-long learning to adapt to changes in the requirements of their profession.

## II. Review Process and Criteria

The Electrical and Biomedical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs. The report was provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. The undergraduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
3. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty research needs.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

### Undergraduate Curriculum/Recruitment/Enrollment/Progression

The undergraduate program was noted as having students that spoke highly of the faculty in terms of accessibility, mentoring and advising. It was also stated that the undergraduate laboratories were well equipped. Overall, there were no cited concerns or issues with the undergraduate program, the only suggestion made was to create a stronger pathway between the undergraduate and graduate programs. Faculty have already made efforts on this front by identifying strong candidates at the undergraduate senior level to attract to the graduate programs, and has opened discussions with the Graduate School about steps to be taken to increase efforts.

### Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post-proposal preparation, which may detract from time that could be spent on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
2. Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
3. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. Goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	251
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## Electrical Engineering, B.S.

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**B. Number of graduates from the program for the following years:**

2016-17	45
2017-18	46
2018-19	43

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	853
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Electrical Engineering, M.S.

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## I. Description of Program Reviewed

The master's degree program in electrical engineering is designed to be flexible, with few required courses so that you can work with your faculty advisors to select coursework suited to your interests and career goals. The program offers students the range of education needed to take on leadership roles within electrical engineering as well as develop knowledge of physical sciences and professional techniques.

Students pursuing a master's degree in electrical engineering can choose from two degree options:

1. **Thesis option:** Students complete coursework in electrical engineering and write a thesis on a specific topic of interest within the field. Primary areas of focus in our department include image and signal processing, electromagnetics and microwaves, and power systems and renewable energy.
2. **Non-thesis option:** This track allows students to complete a professional paper and comprehensive examination in lieu of an academic thesis. Comprehensive exams have both an oral and written component. The written exam focuses on topics covered during coursework, while the oral exam also includes a professional paper.

Specific course requirements will be worked out with a student's advisory committee, in compliance with department and Graduate School guidelines, and filed as part of their Program of Study.

## II. Review Process and Criteria

The Electrical and Biomedical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. At the graduate level, the program has very high retention rates of nearly 100% and an excellent faculty to student ratio.
3. Graduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
4. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty and graduate student research needs.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding, and (3) low number of graduate teaching assistant (GTA) and graduate research assistant (GRA) lines. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

### Graduate Curriculum & Education

The graduate program was commended for having a high retention rate combined with low time to completion. It was recommended that Student Learning Outcomes (SLOs) and their related assessments be separated out between

## Electrical Engineering, M.S.

the Electrical and Biomedical programs to ensure both are meeting expectations. The Graduate Coordinators for each program will begin the process of separating out the assessments for these programs by their respective M.S. and Ph.D. paths. The increase of course offerings via collaboration was suggested, particularly as it applies to the Biomedical program to ensure depth and breadth of offerings, which is an effort the that programs have been pursuing and have brought forth changes. The low number of GTAs/GRAs was listed as a concern, which the program seeks to increase in parallel with increasing external funding, and the college has already provided support of this effort via an external funding matching structure, which was also recommended. Increasing enrollment was also encouraged, which the program seeks to address via closer collaboration with the Graduate School and participation in their programs, as well as securing funding that will attract students, particularly local and domestic students, such as GAANN grants from the U. S. Department of Education.

### Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post- proposal preparation, which may detract from time that could be spend on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
2. Implement separate assessments for Electrical Engineering and Biomedical Engineering graduate programs.
3. Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
4. Pursue recruitment opportunities with Graduate School, particularly with the Biomedical Engineering program, and look for chances to collaborate with programs and industry partners on recruitment efforts.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	2
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### B. Number of graduates from the program for the following years:

2016-17	4
2017-18	7
2018-19	1

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	35*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The Ph.D. in electrical engineering offers research applications in renewable energy and biomedical engineering, giving students' expertise in interdisciplinary topics and numerous possible career paths.

Department faculty are actively engaged in research on a range of topics within electrical engineering, with a particular focus on applications related to biomedical engineering and renewable energy. In the area of renewable energy, faculty research focuses on smart grid, grid integration and wind turbine technologies. Faculty with expertise in biomedical applications focus on image processing, device design and sensor technology.

Graduate course work and research opportunities are available in a range of areas, including:

- Antenna design and analysis
- Biosensors and actuators
- Bioelectromagnetics
- Biomedical image processing
- Control systems
- Electric power generation and distribution
- Optical fiber communications/sensors
- Microprocessor design and applications
- Microwave integrated circuits
- Renewable energy integration and smart grid applications
- Robotics
- Wireless networks and communications

## II. Review Process and Criteria

The Electrical and Biomedical Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on April 1-2, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. At the graduate level, the program has very high retention rates of nearly 100% and an excellent faculty to student ratio.
3. Graduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
4. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty and graduate student research needs.



## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding, and (3) low number of graduate teaching assistant (GTA) and graduate research assistant (GRA) lines. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

### Graduate Curriculum & Education

The graduate program was commended for having a high retention rate combined with low time to completion. It was recommended that Student Learning Outcomes (SLOs) and their related assessments be separated out between the Electrical and Biomedical programs to ensure both are meeting expectations. The Graduate Coordinators for each program will begin the process of separating out the assessments for these programs by their respective M.S. and Ph.D. paths. The increase of course offerings via collaboration was suggested, particularly as it applies to the Biomedical program to ensure depth and breadth of offerings, which is an effort the that programs have been pursuing and have brought forth changes. The low number of GTAs/GRAs was listed as a concern, which the program seeks to increase in parallel with increasing external funding, and the college has already provided support of this effort via an external funding matching structure, which was also recommended. Increasing enrollment was also encouraged, which the program seeks to address via closer collaboration with the Graduate School and participation in their programs, as well as securing funding that will attract students, particularly local and domestic students, such as GAANN grants from the U. S. Department of Education.

### Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post- proposal preparation, which may detract from time that could be spend on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

- The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
- Implement separate assessments for Electrical Engineering and Biomedical Engineering graduate programs.
- Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
- Pursue recruitment opportunities with Graduate School, particularly with the Biomedical Engineering program, and look for chances to collaborate with programs and industry partners on recruitment efforts.

- Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	17
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### B. Number of graduates from the program for the following years:

2016-17	1
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2017-18	2
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2018-19	4
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	35*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

Engineering physics is designed for the student who desires a background in engineering science, based on a firm foundation of physics, as well as an introduction to computer science. The program is also for students who would like to pursue graduate studies in physics or engineering.

The engineering physics degree program combines coursework in math, physics, chemistry, computer science and engineering, and electrical engineering to offer students a broad understanding of both scientific principles as well as problem-solving skills used by engineers to apply that knowledge.

The engineering physics program prepares students for employment in a technical field or provides a strong foundation for graduate studies in either the sciences or engineering. Graduates may go on to careers in industry, government or academia.

## II. Review Process and Criteria

The Electrical and Biomedical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs. The report was provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 27, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 27, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The program faculty is highly qualified with effective teaching records, and strong research productivity as indicated through publications and professional activities.
2. The undergraduate students note that faculty are accessible and supportive in terms of mentoring, advising and providing individual attention.
3. The program has well-equipped laboratories to support undergraduate instruction and fulfill faculty research needs.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The Electrical and Biomedical programs were viewed as being highly productive and having a vision that was consistent with that of the college and university leadership. Areas that were identified as needing attention were: (1) the securing of external funding, which the program has recognized and taken steps to address through collaboration; (2) low graduate enrollment for an R1 institution of UNR's size, which the program intends to grow in parallel with external funding. The recommendation to articulate the program's strategic plan, with regular reviews and updates was put forth, which the programs have begun to address with the formation of a Strategic Planning Committee. Finally, greater collaboration with industry partners was suggested, which is an effort that the program has already begun exploring and identified partnerships to pursue.

### Undergraduate Curriculum/Recruitment/Enrollment/Progression

The undergraduate program was noted as having students that spoke highly of the faculty in terms of accessibility, mentoring and advising. It was also stated that the undergraduate laboratories were well equipped. Overall, there were no cited concerns or issues with the undergraduate program, the only suggestion made was to create a stronger pathway between the undergraduate and graduate programs. Faculty have already made efforts on this front by identifying strong candidates at the undergraduate senior level to attract to the graduate programs, and has opened discussions with the Graduate School about steps to be taken to increase efforts.

## Faculty

The faculty within the Electrical and Biomedical programs were noted as being highly qualified, having effective teaching records, and strong research productivity. Areas of concern primarily focused on the topic of support. It was noted that the faculty operate with low administrative support which is addressed in short term increments via student employees. Additionally, it was discussed that faculty engage in a significant amount of pre- and post- proposal preparation, which may detract from time that could be spend on research or classroom activities. The program, in collaboration with the college and administration, is working to streamline processes and access to shared resources to reduce administrative workloads on the faculty.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The department will:

- The department and college will explore gaining ABET accreditation for the undergraduate Biomedical program.
- Continue to identify upper level course opportunities in other departments and create new ones within the program when possible.
- Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. Goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	9
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### B. Number of graduates from the program for the following years:

2016-17	0
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2017-18	1
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2018-19	3
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	N/A
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Environmental Engineering, B.S.

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## I. Description of Program Reviewed

Environmental engineers use their expertise to improve human health, the environment and quality of life. For example, environmental engineers may help purify drinking water, prevent water pollution or develop strategies to manage toxic or hazardous waste.

The primary focus of the environmental engineering program is water quality and water availability. However, a number of elective courses relating to air quality, solid waste management and renewable energy are offered.

The program teaches students to apply basic science and engineering principles to solve environmental problems. The curriculum prepares students for the responsible and sustainable management of natural resources.

Graduates of the bachelor's degree in environmental engineering should be able to:

- Apply their engineering knowledge and problem-solving skills in a professional environment
- Understand and design environmental engineering systems
- Work in multidisciplinary teams
- Continue their education through graduate studies or ongoing professional development hours
- Contribute to society at large through an understanding of and ability to communicate technical, social, environmental and ethical issues
- Be aware of contemporary issues and engage in life-long learning

## II. Review Process and Criteria

The Environmental Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs and in Spring 2019 for graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the graduate reviewers before they conducted an on-campus visit on March 14-15, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting of senior administration from the Provost's Office, the College of Engineering and the Department of Civil and Environmental Engineering took place on August 14, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## III. Major Findings and Conclusions of the Program Review

The Environmental Engineering program at the undergraduate level is well organized and highly productive.

The Environmental Engineering programs was recognized for having strong ties to industry and the community, which is beneficial to the study body.

There is potential to grow the program, which can be done in collaboration with the college and campus administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Curriculum-Undergraduate

The ABET report regarding Environmental Engineering found no issues with the program, and made observation regarding recognized strength.

The Environmental Engineering program benefits from faculty with strong ties to local municipalities, regulatory agencies, and utilities. These ties have resulted in the establishment of the Nevada Water Innovation Campus (NWIC); this collaboration allows students to work with real-world issues as part of course work and research. The NWIC provides educational outreach opportunities for students and faculty, and mentorship and employment prospects for students, resulting in an enhanced experience.

## Environmental Engineering, B.S.

### Space

Environmental labs would benefit from growth, particularly an increase in analytical equipment, and current space would allow for such growth. The existence of a full-time technician to support the environmental labs was identified as a highly positive benefit.

### Faculty

The ABET report on the undergraduate programs noted the strong mentorship program between new staff members and those with more experience, recognizing that the robust mentorship program helps to improve teaching, fosters a strong sense of community and enhances retention. This collaboration among faculty was noted to extend to administrative staff, lecturers, students, and the industrial advisory board (IAB).

Levels of female faculty across the program was also discussed, noting there was only one currently on staff which accounts for 5% of the total. Recent recruitments have resulted in offers extended to female candidates, two of whom accepted the positions and started in the fall 2019. Ongoing efforts should continue to increase these numbers.

It is encouraged that the college and department work with University administration to address issues that have resulted due to a lack of merit pay increases for several years, particularly as it applies to faculty recruitment and retention. While the department has not experienced issues regarding the recruitment of faculty due to lack of merit, there are recognized negative impacts, specifically for associate professors, that have resulted from the lack of state funding for merit-based salary increases. The department is committed to work with administration on this issue.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following the achievement of tenure so as to progress successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.
2. With the completion of the new Engineering building, some laboratory needs can be addressed; but comprehensive lab renovation would require the updating of SEM. The college and department will work together to determine what needs are emergent and can be feasibly addressed.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	78
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### B. Number of graduates from the program for the following years:

2016-17	17
2017-18	20
2018-19	18

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,513
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\* Cannot differentiate between Civil and Environmental

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Executive Master of Business Administration

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## I. Description of Program Reviewed

The Executive Master of Business Administration at The University of Nevada, Reno is one of the top online business programs in the country according to U.S. News and World Report and the Princeton Review. The program was ranked #33 in the U.S. News and World Report's 2018 Best Online Programs rankings. Providing for a superior educational experience at a competitive cost, earning the professional edge students need, while giving them the flexibility to balance the needs of their full-time job or family.

The online, 12-course curriculum is offered as a two-year cohort program. This allows students in each cohort to begin the program at the same point, move through the curriculum together, and build supportive working relationships in a stimulating online environment. Courses in the EMBA program are sequenced to assure continuity in learning.

EMBA students are required to complete their degrees in two years. Each year is divided into three semesters, each containing two courses: Fall, Spring, Summer. All coursework is completed online and each class runs for 12 weeks. For each class, students will have at least one proctored exam which will be taken through an online proctoring system or in the 365 Learning testing room.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students with experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDx University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community, participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the



# Executive Master of Business Administration

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Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Graduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Graduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI.
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	70
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### B. Number of graduates from the program for the following years:

2016-17	28
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2017-18	34
---------	----

2018-19	27
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	136
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Master of Science in Finance program is designed to help students develop technical and analytical skills in the area of finance and to acquire the core conceptual knowledge about the applications of those skills in solving financial issues and furthering the body of knowledge through ongoing research.

Master of Science in Finance students learn from accomplished professors and scholars who are committed to high-quality teaching. Topics include:

- The ability to value financial assets such as stocks, bonds, and derivatives using current valuation methods.
- A strong understanding of how to evaluate capital budgeting projects.
- The ability to construct efficient portfolios.
- A comprehensive understanding of how markets work according to the Efficient Market Hypothesis.

This program is designed to be a terminal degree for those looking to pursue a career in private or public sector after program completion.

While the Finance field is highly competitive, students may typically begin careers in industries such as wealth management, trusts, and banking in positions such as a financial advisor or financial or research analyst.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting parties took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly.

The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## **Graduate Curriculum & Education**

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## **Program Outcomes (assessment, placement, retention, graduation—Graduate)**

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## **Faculty**

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## **Action Items**

### **The college will:**

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued.

There is also an opportunity for an online undergraduate program in business, which College of Business will explore.

5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	15
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### B. Number of graduates from the program for the following years:

2016-17	10
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2017-18	8
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2018-19	7
---------	---

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	27
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The University of Nevada, Reno, Master of Science in Information Systems (MSIS) program is designed to help students develop the skills required to manage the high-level processes of gathering and analyzing large data sets and confronting complex technological issues.

Students within this MSIS program choose between two subject emphasis tracks, each tailored to helping students learn skills vital to a specific realm of Information Systems:

- **IS Management track.** This track highlights the management of information systems and enhances graduate understanding of how to manage technology-based information systems as a strategic resource in organizations. This curriculum is designed to help existing Information Systems professionals advance their careers through enhanced managerial and technical skills.
- **Data Analytics track.** This track focuses on the use of large data sets for decision-making within organizations. This curriculum is aimed at helping graduates of any undergraduate degree program gain professional skills that enhance their ability to find employment in a technical field.

While many entry-level positions in the Information Systems field are open to those with a Bachelor of Science in Information Systems, gaining an MSIS degree can significantly deepen the student's understanding of issues in the field and open a wider range of professional options.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting parties took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB,

including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Graduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Graduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs, and is undertaking a review of the undergraduate core and the MBA curriculum. This process will include a review of the assurance-of-learning program, which will jointly engage the curriculum and assessment committees.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. COB Administration will work with IA to ensure that COB analytics are accessible in a usable format in PowerBI.
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.



4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	25
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### B. Number of graduates from the program for the following years:

2016-17	5
2017-18	9
2018-19	11

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	77
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Master of Accountancy

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## I. Description of Program Reviewed

The MAcc program, offered by the AACSB-accredited Department of Accounting at the College of Business, develops strong technical and professional accounting skills considerably beyond the introductory courses presented to undergraduates. Students completing the program receive a well-rounded business education. In addition to graduate accounting courses, students are exposed to basic courses in the functional area of business. The MAcc program emphasizes the skills needed to succeed in the business community, including teamwork, leadership and the ability to communicate effectively.

This program is designed to be a terminal degree for those looking to pursue a career in private or public sector after program completion and Certified Public Accounting certification. Students completing the program develop strong technical and accounting skills and are exposed to state-of-the-art tools and techniques preparing them for careers involving auditing, financial reporting, and taxation. Students who complete the MAcc program may typically begin careers as public, corporate or government CPAs or financial analysts.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting parties took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to the faculty of their impact on local and global communities.

## Graduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Graduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.
5. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on

both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	29
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### B. Number of graduates from the program for the following years:

2016-17	10
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2017-18	12
---------	----

2018-19	17
---------	----

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	61
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Master of Business Administration

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## I. Description of Program Reviewed

The University's MBA program helps students tailor their education to their professional ambitions by offering areas of emphasis in accounting, entrepreneurship, finance, information technology and renewable energy. MBA students can also pursue other areas of emphasis by taking graduate courses of their choice outside of the College of Business.

According to a 2016 report from the Graduate Management Admission Council, those who earn a graduate degree in business recoup their tuition investment within an average of four years. Ninety-five percent of the alumni in the report rated their degree as an "excellent or outstanding" value.

The MBA program accommodates the needs of full- and part-time students by offering all evening courses. Students can complete a degree at their own pace without interrupting their professional career. This MBA program is also among a select group of worldwide graduate business programs accredited by the Association to Advance Collegiate Schools of Business (AACSB), the highest level of accreditation attainable in business education.

## II. Review Process and Criteria

The College of Business programs were scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the departments and their programs was developed by the faculty and completed in Fall, 2018. The report was provided to the four external reviewers before they conducted an on-campus visit on February 24-26, 2019. The reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on September 4, 2019. A final MOU of findings and recommendations from the review from the provost and vice provost was prepared on September 4, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The College of Business has again received the maximum 5-year allowable accreditation from the Association to Advance Collegiate Schools of Business (AACSB) for both the Business and Accounting programs.
2. The College of Business provides students will experiences that develop real world skills, contribute to the recognition of the university and support the community. Those include student involvement in programs such as TEDX University of Nevada and internships with the Small Business Development Center.
3. The College of Business has demonstrated an ongoing commitment of engagement in the global community. Participation in the Mandela Washington Fellowship for Young African American Leaders is an example of this commitment.
4. The College of Business participation in NevadaFIT with their BizFIT program prepares college freshman for the transition from home life to college, emphasizing time management. This program has demonstrated positive impact on retention rates and serves as a best practice, providing leadership and high quality continuous improvement in management of education.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

The College of Business completed their program review as part of their reaccreditation process through the Association to Advance Collegiate Schools of Business (AACSB). The College of Business is one of only 188 universities around the world to achieve dual-accreditation for both Business and Accounting by the AACSB, and was notified in May 2019 that they were once again granted the maximum 5-year accreditation for both programs. The College of Business was provided with areas of improvement as identified by the AACSB, including direction to identify evidence of impact as examples to the faculty and staff of ways they can positively influence invested parties through their research, teaching and service. These examples should be communicated and tracked regularly. The College of Business recognizes the value in the knowledge that it brings to the community and seeks to grow opportunities to increase collaborative relationships. Expanding the Nevada Global Business program, and encouraging faculty engagement with the Dean's Advisory Council are examples of ways that this continued growth can be achieved while providing clearly communicated examples to

# Master of Business Administration

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the faculty of their impact on local and global communities.

## Graduate Curriculum & Education

Through the AACSB accreditation progress no issues were expressed regarding curriculum or education for either the Business or Accounting programs, at the undergraduate or graduate levels. Several items were identified as being commendable and best practices, which demonstrated leadership and high-quality continuous improvement on the part of the College. Among those items were the BizFIT program that was viewed as unique and positively contributing to increased retention rates by providing incoming freshman with time-management skills as they transition from home life to college. Also of note was TEDX University of Nevada which was recognized as benefiting the College of Business students via their involvement with the planning and execution of the event, but also benefits the university and the state of Nevada as it puts them on the international stage. The Mandela Washington Fellowship for Young African American Leaders was cited as demonstrating the College's commitment to global engagement and having a positive impact on those who participate in the program. Finally, student internships with the Small Business Development Center was noted as providing students with real-world experience while providing value to community small businesses.

## Program Outcomes (assessment, placement, retention, graduation—Graduate)

The AACSB accreditation team recognized that regular assessment was taking place and that faculty were making changes based on assessment results, but noted that the college should consider how learning goals can be addressed across multiple courses and seek closer collaboration between the curriculum and the assurance of learning committees to ensure that curriculum changes consider assessment of learning results. As the College has grown in recent years, there has been increasing constraint on resources to meet student needs. The administration seeks ways to address these needs including increasing the number of faculty. The College is also looking to grow via exploring online-learning opportunities and additional degree programs, and is undertaking a review of the undergraduate core and the MBA curriculum. This process will include a review of the assurance-of-learning program, which will jointly engage the curriculum and assessment committees.

## Faculty

It was recommended that expectations for tenure-track faculty be clearly communicated in terms of expectations regarding research, expectations to secure external funding, and publications. The College has developed a comprehensive Junior Faculty Mentoring Program to support assistant professors through the tenure process. Grant-proposal support is provided by these mentors, as well as the University Research & Innovation Office. The College has an established program that provides incentives to those faculty who publishing in high-quality journals, and provides a research-focused culture with their Speaker Series in Economics and Research Brown Bags discussions.

The department should keep in mind that it is the expectation at the university that tenured associate professors in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

## Action Items

### The college will:

1. Create a defined statement regarding college outreach to assist the faculty in understanding their role.
2. The administration in the College of Business will work with UNR Institutional Analysis to ensure that College of Business analytics are accessible in a usable format in PowerBI
3. The Graduate School will work with College of Business administration to find ways to encourage enrollment and completion, particularly with the Ph.D. in Economics and consider options regarding the smaller Master programs.
4. A report will be produced out of the core curriculum comprehensive review the college is undertaking, as well as white paper regarding the MBA program requirements.
5. With the Pearson coming online for College of Business programs, progress will be closely monitored and exploration of determining if a move to online only options for other Master's programs will be pursued. There is also an opportunity for an online undergraduate program in business, which College of Business will explore.

## Master of Business Administration

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6. Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

### V. Descriptive Statistics

**A. Number of students with a declared major in the program area:**

2018-19	211
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**B. Number of graduates from the program for the following years:**

2016-17	94
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2017-18	95
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2018-19	85
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	503
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Materials Science and Engineering, B.S.

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## I. Description of Program Reviewed

The bachelor's degree in materials science and engineering teaches students to understand and apply advanced science and engineering principles to different materials such as ceramics, glasses or metals in order to develop new or better products.

In addition to a general course of study, students in the materials science and engineering program can choose to pursue an emphasis in extractive metallurgy or nuclear materials.

The program equips students for careers in materials processing and manufacturing, design and development of new materials, or materials selection.

Students gain skills in the following areas:

1. **Science and engineering:** Graduates are skilled in creatively applying science, math and engineering principles to contemporary problems in materials application and design. They have experience with glasses, semi-conductors, composites, metals and polymers, as well as concepts of material structure, behavior, processing and performance.
2. **Leadership and teamwork:** Graduates can make an impact in the engineering profession in various roles, including as team members and in leadership roles.
3. **Professional contributions:** Graduates are life-long learners who impact the developing understanding of research, design and application of materials.
4. **Broader impact:** Graduates are comfortable working in interdisciplinary environments and are aware of their legal, moral and environmental responsibilities as engineers.

The materials science and engineering program is accredited by the Engineering Accreditation Commission of ABET, which is the recognized worldwide leader in assuring quality and stimulating innovation in engineering education.

## II. Review Process and Criteria

The Materials Science and Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2019 for the Materials Science and Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Materials Science Engineering before they conducted an on-campus visit on March 4-5, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. Materials Science boasts faculty members with well-funded projects that allow student laboratory participation.
2. Undergraduate students in Materials Science and Engineering are recipients of nationally recognized scholarships through such entities as the Department of Energy and the American Nuclear Society.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

In terms of Materials Engineering strategic planning, updating of the strategic plans and working to ensure that faculty are conversant with the plan was encouraged, which the department is amenable to pursuing. It was also mentioned that participation in national and international engineering boards and councils, such as the University Materials Council (UMC), could enhance the recognition and national reputation of the department. It is noted that the department chair has been a member of UMC for a number of years, but is open to taking on a leadership role to assist in recognition of the program. Encouragement of working across disciplines, particularly with College of Science programs, to strengthen the course offerings and opportunities for students was put forth, and

## Materials Science and Engineering, B.S.

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it is a suggestion that the department has previously considered and interested in pursuing.

Looking at the longer-term goals and outcomes of having the Chemical and Materials programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

### **Curriculum—Undergraduate**

The Materials program was noted for having well-funded research faculty members who encourage undergraduate participation in the research, and students in the program have received nationally recognized scholarships. Areas of desired improvement include the strengthening of program educational objectives to better align with constituent needs, the accurate measurement of desired student outcomes and using that information for continuous improvement, and the consistent use of engineering design standards and realistic constraints, specifically with the design curriculum.

### **Undergraduate Recruitment/Enrollment/Progression**

Materials Science and Engineering, it was suggested that more effort be made to expose students to career opportunities earlier in their academic program. Introducing Materials Engineering to student across engineering, particularly those students who are undecided, can assist in growing the program and pathing students into the graduate studies in the field, which the department is interested in exploring.

### **Space**

Reviewers did note there had been modest improvements in shared research space in the Materials Engineering program, but encouraged efforts to continue on expanding resources and exploring shared resources options across campus, which the department is interested in pursuing.

### **Faculty**

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

It was noted that there was a lack of diversity among Materials Science and Engineering faculty, specifically with regard to female faculty. This lack of diversity was also noted among the student population. The department is aware of this deficiency and is exploring options to increase gender and ethnic diversity, and will be looking to administration and best practices to assist in this effort. Due to the lack of senior faculty in the Materials Engineering program, mentoring of junior faculty will be a challenge. Pursuing external mentorship programs was suggested and the department is interested in exploring this option with administration.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

### **Action Items**

#### **The department will:**

1. Complete revamping of the assessment process in alignment with ABET requests.
2. Explore more direct recruiting activities specifically for Chemical and Materials Science and Engineering in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is also a service opportunity for faculty.
3. Engage in an exercise to have faculty develop their own "elevator talk" regarding the department shared vision and strategic plan.
4. Carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those stu-

dents who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	43
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### B. Number of graduates from the program for the following years:

2016-17	4
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2017-18	8
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2018-19	6
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	334
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Materials Science and Engineering, M.S.

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## I. Description of Program Reviewed

Materials science engineers are at the forefront of developing and testing new materials that can stand up to extreme environments, such as high heat or high pressure, or that are lighter or stronger than their predecessors. These new materials may be used in diverse industries such as health care, manufacturing or energy.

Students in the materials science and engineering program use state-of-the-art characterization tools such as chromatographs, electron microscopes, and spectrometers to study these materials, and they gain both classroom knowledge and research experience as they work closely with accomplished faculty.

Materials science engineers graduate with a broad base of knowledge, covering areas from extracting minerals and metals from ore to the production of steel to the development and fabrication of pure metals, alloys and other materials. This skill set is particularly useful for students who want to pursue a career in the mineral industry, but materials engineers can be found everywhere from the aerospace industry to the electronics field.

The master's degree in materials science and engineering combines upper-level coursework with the opportunity to conduct research on a topic within materials science and write a thesis. To earn the master's degree, students must complete requirements in three main areas:

1. **Core coursework:** Core coursework requirements can be found in the course catalog.
2. **Elective coursework:** Elective coursework must be approved by the student's graduate advisor and advisory committee and filed with The Graduate School on the student's Program of Study.
3. **Thesis:** Students must write and defend a thesis that is approved by their advisory committee.

Students develop an individualized program of study with their advisory committee. The program of study describes the specific courses, research and related activities to meet degree requirements.

## II. Review Process and Criteria

The Materials Science and Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2019 for the Materials Science and Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Materials Science Engineering before they conducted an on-campus visit on March 4-5, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. Materials Science boasts faculty members with well-funded projects that allow student laboratory participation.
2. Undergraduate students in Materials Science and Engineering are recipients of nationally recognized scholarships through such entities as the Department of Energy and the American Nuclear Society.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

In terms of Materials Engineering strategic planning, updating of the strategic plans and working to ensure that faculty are conversant with the plan was encouraged, which the department is amenable to pursuing. It was also mentioned that participation in national and international engineering boards and councils, such as the University Materials Council (UMC), could enhance the recognition and national reputation of the department. It is noted that the department chair has been a member of UMC for a number of years, but is open to taking on a leadership role to assist in recognition of the program. Encouragement of working across disciplines, particularly

## Materials Science and Engineering, M.S.

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with College of Science programs, to strengthen the course offerings and opportunities for students was put forth, and it is a suggestion that the department has previously considered and interested in pursuing.

Looking at the longer-term goals and outcomes of having the Chemical and Materials programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

### Graduate Curriculum & Education

Several suggestions were put forth to enhance the experience for students in the Materials Engineering program. Those suggestions included: participation in Gradventure and GradFIT, development of core courses to encourage a consistent foundation, reconsideration of heavy course requirements that focus on classroom work, development of a graduate student organization, and ensuring that the Graduate Program Director is held by a tenured faculty member. The department was receptive to exploring and possibly implementing all of these recommendations.

### Space

Reviewers did note there had been modest improvements in shared research space in the Materials Engineering program, but encouraged efforts to continue on expanding resources and exploring shared resources options across campus, which the department is interested in pursuing.

### Faculty

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

It was noted that there was a lack of diversity among Materials Science and Engineering faculty, specifically with regard to female faculty. This lack of diversity was also noted among the student population. The department is aware of this deficiency and is exploring options to increase gender and ethnic diversity, and will be looking to administration and best practices to assist in this effort. Due to the lack of senior faculty in the Materials Engineering program, mentoring of junior faculty will be a challenge. Pursuing external mentorship programs was suggested and the department is interested in exploring this option with administration.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. Complete revamping of the assessment process in alignment with ABET requests.
2. Explore more direct recruiting activities specifically for Chemical and Materials Science and Engineering in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is also a service opportunity for faculty.
3. Explore the possibility of moving the Materials graduate program toward an interdisciplinary structure with support of Administration and participating colleges, and building a case for the benefit across all engaged programs.
4. Leverage the GradFIT and Gradventure programs to increase domestic graduate student enrollment and diversity. Also participate in the CIMER mentor training provided by the Graduate School in order to encourage positive interactions between mentors and students.
5. Encourage graduate directors to work with the Graduate School to develop tools and explore opportunities for strengthening graduate student engagement.
6. Develop a best practices argument to present to the graduate school for adjustment in course work requirements.
7. Engage in an exercise to have faculty develop their own "elevator talk" regarding the department shared vision and strategic plan.
8. Carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the

undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	6
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### B. Number of graduates from the program for the following years:

2016-17	4
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2017-18	3
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2018-19	4
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	61*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

Materials science engineers are at the forefront of developing and testing new materials that can stand up to extreme environments, such as high heat or high pressure, or that are lighter or stronger than their predecessors. These new materials may be used in diverse industries such as health care, manufacturing or energy.

The Ph.D. in materials science and engineering is a research-intensive program that prepares students for careers in research and teaching in the field.

Students in the program work closely with our materials science and engineering faculty, who have research strengths in the following areas:

- Metallurgy
- Nuclear materials
- Metals and alloys
- Renewable energy
- Nanomaterials synthesis and processing
- Metallic foams and porous materials
- Diffusion, crystallization and mass transport
- Materials modeling
- X-ray diffraction
- Biomaterials

## II. Review Process and Criteria

The Materials Science and Engineering programs were scheduled for regular program review as mandated by the Board of Regents and University policy. Self-study documents for the department and its programs were developed by the department faculty and completed in Summer 2017 for undergraduate programs and Spring 2019 for the Materials Science and Engineering graduate programs. These respective reports were provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017 and provided to the two reviewers for Materials Science Engineering before they conducted an on-campus visit on March 4-5, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 20, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 20, 2019.

## III. Major Findings and Conclusions of the Program Review

1. Materials Science boasts faculty members with well-funded projects that allow student laboratory participation.
2. Undergraduate students in Materials Science and Engineering are recipients of nationally recognized scholarships through such entities as the Department of Energy and the American Nuclear Society.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Strategic Planning and Building a Vision for the Department:

In terms of Materials Engineering strategic planning, updating of the strategic plans and working to ensure that faculty are conversant with the plan was encouraged, which the department is amenable to pursuing. It was also mentioned that participation in national and international engineering boards and councils, such as the University



## Materials Science and Engineering, Ph.D.

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Materials Council (UMC), could enhance the recognition and national reputation of the department. It is noted that the department chair has been a member of UMC for a number of years, but is open to taking on a leadership role to assist in recognition of the program. Encouragement of working across disciplines, particularly with College of Science programs, to strengthen the course offerings and opportunities for students was put forth, and it is a suggestion that the department has previously considered and interested in pursuing.

Looking at the longer-term goals and outcomes of having the Chemical and Materials programs managed in the same department was encouraged by reviewers to leverage synergies and identify issues needing correction.

### Graduate Curriculum & Education

Several suggestions were put forth to enhance the experience for students in the Materials Engineering program. Those suggestions included: participation in Gradventure and GradFIT, development of core courses to encourage a consistent foundation, reconsideration of heavy course requirements that focus on classroom work, development of a graduate student organization, and ensuring that the Graduate Program Director is held by a tenured faculty member. The department was receptive to exploring and possibly implementing all of these recommendations.

### Space

Reviewers did note there had been modest improvements in shared research space in the Materials Engineering program, but encouraged efforts to continue on expanding resources and exploring shared resources options across campus, which the department is interested in pursuing.

### Faculty

Teaching loads were cited as being high, particularly for a research institution, with the suggestion made to shift focus from coursework to research and augment teaching by utilizing industry professionals in the area. Finally, it was noted that faculty staffing levels should be increased to meet the needs of a program of this size.

It was noted that there was a lack of diversity among Materials Science and Engineering faculty, specifically with regard to female faculty. This lack of diversity was also noted among the student population. The department is aware of this deficiency and is exploring options to increase gender and ethnic diversity, and will be looking to administration and best practices to assist in this effort. Due to the lack of senior faculty in the Materials Engineering program, mentoring of junior faculty will be a challenge. Pursuing external mentorship programs was suggested and the department is interested in exploring this option with administration.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure in order to progress successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

1. Complete revamping of the assessment process in alignment with ABET requests.
2. Explore more direct recruiting activities specifically for Chemical and Materials Science and Engineering in collaboration with College of Engineering administration, specifically for undergraduate enrollment. This is also a service opportunity for faculty.
3. Explore the possibility of moving the Materials graduate program toward an interdisciplinary structure with support of Administration and participating colleges, and building a case for the benefit across all engaged programs.
4. Leverage the GradFIT and Gradventure programs to increase domestic graduate student enrollment and diversity. Also participate in the CIMER mentor training provided by the Graduate School in order to encourage positive interactions between mentors and students.
5. Encourage graduate directors to work with the Graduate School to develop tools and explore opportunities for strengthening graduate student engagement.

6. Develop a best practices argument to present to the graduate school for adjustment in course work requirements.
7. Engage in an exercise to have faculty develop their own “elevator talk” regarding the department shared vision and strategic plan.
8. Carry out a comparison study of peer institutions regarding program requirements. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	20
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### B. Number of graduates from the program for the following years:

2016-17	4
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2017-18	3
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2018-19	3
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	61*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Mechanical Engineering, B.S.

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## I. Description of Program Reviewed

The bachelor's degree in mechanical engineering is broadly designed to accommodate a variety of career goals. Students take a core of required courses in engineering, the humanities, mathematics and science, as well as supplementary elective courses. These courses introduce basic engineering science and design concepts and provide students with the opportunity to develop specific career interests in sub-fields of mechanical engineering such as renewable energy, nanotechnology or biomedical engineering.

The program gives students the chance to work closely with distinguished faculty and get hands-on experience as they move from building Lego cars as a freshman to designing a functional prototype of their own choosing as a senior. Students can take advantage of two teaching labs as well as a full-service machine and welding shop used for student projects and research equipment.

The program teaches students to apply their math and science knowledge, along with a creative approach to problem-solving and design, to the development of basic mechanical engineering systems.

Graduates of the bachelor's degree program should have the following skills:

- Proficiency in entry-level mechanical engineering analysis and design
- Ability to define, design, execute and analyze experiments with minimal supervision
- Ability to communicate effectively, verbally and in writing
- Graduates are prepared to pursue further professional study in mechanical engineering or related areas, or in medicine, business or law.

## II. Review Process and Criteria

The Mechanical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Summer 2017 for undergraduate programs. The reports was provided to the undergraduate reviewers from the Accreditation Board for Engineering and Technology (ABET) before they conducted an on-campus visit on September 17-19, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 28, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 28, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The move of the program to the newly renovated Palmer Engineering building, which allows faculty offices, classrooms and laboratories to be housed in a contiguous space has resulted in students spending higher quality time learning due to having these key resources in close proximity.
2. The program has attracted and retained talented faculty members, who along with the graduate students, publish in elite journals and secure very competitive research grants.
3. The program is well aligned with goals of the college and collaborates well with administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Curriculum—Undergraduate

The Mechanical Engineering program was noted as having well integrated facilities for undergraduate students in the newly renovated Palmer Engineering Building. It was observed that having all resources contiguously located allows students to spend higher quality time engaged in learning. Areas of desired improvement include the use of accurate assessment tools for continuous improvement and working to ensure that the student:faculty ratio is at a level that ensures a positive student-faculty interaction. The program is working to address both of these concerns. The assessment tool realignment is an iterative process that is being addressed through the fundamentals of engineering exam, and the student:faculty ratios will need to be considered in collaboration with administration.

### Space

At the undergraduate, the space provided to faculty and students was noted as being suitable, specifically due to recent renovation of the Palmer Engineering building, as described above. With the opening of the new engineering

## Mechanical Engineering, B.S.

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building, it is anticipated that space will not be an issue for the immediate future. It was also noted that the program in collaboration with administration has worked to provide support to new faculty in the forms of competitive salaries and start up packages, that, when coupled with the current facilities, is a positive step in attracting and retaining talented faculty.

### Faculty

The faculty in Mechanical Engineering were noted as being talented, with publications in elite journals, and successful at securing competitive research grants, with particular accolades being directed at the chair for his leadership. Concerns were stated regarding the preponderance of faculty at the assistant professor level, which may result in a lack of mentoring and thus turnover among those same assistant professors. The low numbers of associate and full professors also create a constraint on those individuals available to teach upper division undergraduate and graduate courses, which may be a contributing factor in the low levels of enrollment in the graduate programs. With the addition of Advanced Manufacturing and Aerospace Engineering to the program, it was suggested that this would be an opportunity to bring in individuals at the associate and full professor levels, while also opening up avenues to work with defense agencies. The program recognizes the value of the current faculty and seeks to strengthen efforts in collaboration with administration to ensure their success and retention, while bringing in new faculty to support program growth. The current staffing levels that support faculty were cited as adequate at this time, but it was acknowledged by the reviewers and the program that program expansion will require increases in support staffing.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

- Starting in 2021, the program will work toward submitting a proposal to implement a minor, major and then advanced degrees in Aerospace Engineering.
- Build stronger relationships with Alumni and Industry partners to help identify opportunities for students both during time in the program and post-graduation.
- Work with college administration to address any gaps in Fluid Mechanics faculty on staff.
- Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	714
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### B. Number of graduates from the program for the following years:

2016-17	132
2017-18	144
2018-19	168

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	1,704
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Mechanical Engineering, M.S.

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## I. Description of Program Reviewed

The Mechanical Engineering Department of the University of Nevada, Reno, has a strong tradition of excellence in research and teaching. The program has well-recognized faculty members actively engaging in advanced research in all areas of mechanical engineering and science.

A number of the research laboratories are outfitted with state-of-the-art equipment and computing facilities. Current research projects are sponsored by the National Science Foundation, the Department of Defense, the Department of Energy, the National Aeronautics and Space Agency, and private industries. Most of the graduate students receive research or teaching assistantships to support their graduate studies.

The program offers two degree options for master's students:

- Plan A: Includes 30 credits of graduate-level coursework and a research thesis
- Plan B: Requires 32 credits of graduate-level coursework and a comprehensive examination

All master's degree candidates are initially accepted into Plan B, but may be invited to complete Plan A in cooperation with a faculty research advisor. Admitted students are assigned a faculty advisor who will help students outline an individual program of study tailored to fit their background and interests.

Master's degree students pursuing Plan A can work with faculty who have expertise in the following topics:

- Solid mechanics
- Composite and intelligent materials
- Fluid flow & heat transfer
- Energy
- Biomedical engineering

In addition to pursuing a focused research topics, graduate students gain exposure to modern mechanical engineering research subjects including smart materials, nanotechnology, renewable energy and biomedical engineering.

## II. Review Process and Criteria

The Mechanical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on March 25-26, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 28, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 28, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The move of the program to the newly renovated Palmer Engineering building, which allows faculty offices, classrooms and laboratories to be housed in a contiguous space has resulted in students spending higher quality time learning due to having these key resources in close proximity.
2. The program has attracted and retained talented faculty members, who along with the graduate students, publish in elite journals and secure very competitive research grants.
3. The shift of a majority of the graduate students from the master's to the doctoral program is a positive change and will help strengthen the quality of research.
4. The program is well aligned with goals of the college and collaborates well with administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Graduate Curriculum & Education

It was noted that the program has recently experienced a shift of students in the graduate program with the majority now in the Ph.D. program rather than the master's program. This shift was cited as a positive change that will improve the quality of research in the program. It was noted that the quality of students that come from undergraduate programs outside of UNR is at times lacking, which is a concern the program is aware of and seeks to improve. It was suggested that the Graduate School has programs to assist with the recruitment of students, both domestic and international, which is a program is interested in exploring further.

### Space

At the graduate levels, the space provided to faculty and students was noted as being suitable, specifically due to recent renovation of the Palmer Engineering building. With the opening of the new engineering building, it is anticipated that space will not be an issue for the immediate future. It was also noted that the program in collaboration with administration has worked to provide support to new faculty in the forms of competitive salaries and start up packages, that, when coupled with the current facilities, is a positive step in attracting and retaining talented faculty.

### Faculty

The faculty in Mechanical Engineering were noted as being talented, with publications in elite journals, and successful at securing competitive research grants, with particular accolades being directed at the chair for his leadership. Concerns were stated regarding the preponderance of faculty at the assistant professor level, which may result in a lack of mentoring and thus turnover among those same assistant professors. The low numbers of associate and full professors also create a constraint on those individuals available to teach upper division undergraduate and graduate courses, which may be a contributing factor in the low levels of enrollment in the graduate programs. With the addition of Advanced Manufacturing and Aerospace Engineering to the program, it was suggested that this would be an opportunity to bring in individuals at the associate and full professor levels, while also opening up avenues to work with defense agencies. The program recognizes the value of the current faculty and seeks to strengthen efforts in collaboration with administration to ensure their success and retention, while bringing in new faculty to support program growth. The current staffing levels that support faculty were cited as adequate at this time, but it was acknowledged by the reviewers and the program that program expansion will require increases in support staffing.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

- Starting in 2021, the program will work toward submitting a proposal to implement a minor, major and then advanced degrees in Aerospace Engineering.
- Build stronger relationships with Alumni and Industry partners to help identify opportunities for students both during time in the program and post-graduation.
- Develop incentives for faculty who participate in the Graduate School's Mentoring Mentors program.
- Explore collaborating with other Engineering programs to create a Gradventure opportunity with the Graduate School. This can assist in recruiting stronger students and domestic students.
- Work with college administration to address any gaps in Fluid Mechanics faculty on staff.
- Explore with faculty and develop a plan for lowering graduate credit requirements, particularly with regard to

the Ph.D. program.

- Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	11
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### B. Number of graduates from the program for the following years:

2016-17	7
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2017-18	7
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2018-19	6
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	96*
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\* Cannot differentiate between M.S. and Ph.D.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

Representing one of the broadest areas within engineering, the University's rapidly growing Department of Mechanical Engineering reflects the diversity of research interests and applications found within the discipline.

This program includes core coursework in fundamental areas of mechanical engineering, offering a foundational breadth of knowledge across the subject, with advanced coursework available in emerging areas in the field, including advanced manufacturing, autonomous systems and high-performance computing.

The mechanical engineering faculty have research expertise in the following areas:

- **Solid mechanics** (smart/active composites, advanced manufacturing, fatigue, lightweight metals)
- **Thermal/fluids/energy sciences** (micro/nano & medical/biological/microbial flows, fire/nuclear packaging safety)
- **System dynamics and control** (autonomous systems, multi-agent systems, robotics, soft actuators)

Departmental research is sponsored by agencies such as the National Science Foundation, the Department of Energy, the Department of Transportation, the National Aeronautics and Space Agency, and private industries.

## II. Review Process and Criteria

The Mechanical Engineering program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Spring, 2019 for graduate programs. The report was provided to the two graduate reviewers before they conducted an on-campus visit on March 25-26, 2019. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 28, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 28, 2019.

## III. Major Findings and Conclusions of the Program Review

1. The move of the program to the newly renovated Palmer Engineering building, which allows faculty offices, classrooms and laboratories to be housed in a contiguous space has resulted in students spending higher quality time learning due to having these key resources in close proximity.
2. The program has attracted and retained talented faculty members, who along with the graduate students, publish in elite journals and secure very competitive research grants.
3. The shift of a majority of the graduate students from the master's to the doctoral program is a positive change and will help strengthen the quality of research.
4. The program is well aligned with goals of the college and collaborates well with administration.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Graduate Curriculum & Education

It was noted that the program has recently experienced a shift of students in the graduate program with the majority now in the Ph.D. program rather than the master's program. This shift was cited as a positive change that will improve the quality of research in the program. It was noted that the quality of students that come from undergraduate programs outside of UNR is at times lacking, which is a concern the program is aware of and seeks to improve. It was suggested that the Graduate School has programs to assist with the recruitment of students, both domestic and international, which is a program is interested in exploring further.

## Mechanical Engineering, Ph.D.

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### Space

At the graduate levels, the space provided to faculty and students was noted as being suitable, specifically due to recent renovation of the Palmer Engineering building. With the opening of the new engineering building, it is anticipated that space will not be an issue for the immediate future. It was also noted that the program in collaboration with administration has worked to provide support to new faculty in the forms of competitive salaries and start up packages, that, when coupled with the current facilities, is a positive step in attracting and retaining talented faculty.

### Faculty

The faculty in Mechanical Engineering were noted as being talented, with publications in elite journals, and successful at securing competitive research grants, with particular accolades being directed at the chair for his leadership. Concerns were stated regarding the preponderance of faculty at the assistant professor level, which may result in a lack of mentoring and thus turnover among those same assistant professors. The low numbers of associate and full professors also create a constraint on those individuals available to teach upper division undergraduate and graduate courses, which may be a contributing factor in the low levels of enrollment in the graduate programs. With the addition of Advanced Manufacturing and Aerospace Engineering to the program, it was suggested that this would be an opportunity to bring in individuals at the associate and full professor levels, while also opening up avenues to work with defense agencies. The program recognizes the value of the current faculty and seeks to strengthen efforts in collaboration with administration to ensure their success and retention, while bringing in new faculty to support program growth. The current staffing levels that support faculty were cited as adequate at this time, but it was acknowledged by the reviewers and the program that program expansion will require increases in support staffing.

The department should keep in mind that it is the expectation at the university that tenured faculty in all departments continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor.

### Action Items

#### The department will:

- Starting in 2021, the program will work toward submitting a proposal to implement a minor, major and then advanced degrees in Aerospace Engineering.
- Build stronger relationships with Alumni and Industry partners to help identify opportunities for students both during time in the program and post-graduation.
- Develop incentives for faculty who participate in the Graduate School's Mentoring Mentors program.
- Explore collaborating with other Engineering programs to create a Gradventure opportunity with the Graduate School. This can assist in recruiting stronger students and domestic students.
- Work with college administration to address any gaps in Fluid Mechanics faculty on staff.
- Explore with faculty and develop a plan for lowering graduate credit requirements, particularly with regard to the Ph.D. program.
- Comparison with peer institutions regarding program requirements will be completed. Using Curricular Analytics and Navigate (EAB), the college and department will examine degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths, and give advising to those students who appear not to be on a successful track. Emphasis on student success should be on both the undergraduate and graduate levels. This is being asked of all program across the University. The goal is to have reports by the end of the fall 2019 semester.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	29
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**B. Number of graduates from the program for the following years:**

2016-17	2
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2017-18	2
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2018-19	4
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	96*
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\* Cannot differentiate between M.S. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The University's social psychology Ph.D. program was formally established in 1967, making it the oldest interdisciplinary social psychology program in the nation. The program's interdisciplinary committee includes faculty from across the University's departments and colleges, including the College of Liberal Arts, the College of Business, the School of Community Health Sciences and more.

The program emphasizes training in theoretical foundations, as well as qualitative and quantitative methods in basic and applied research. Though not all students choose one of these specializations, areas of emphasis include psychology and law, personal and social relationships, social psychology and health, and organizational behavior. Gender, culture and development issues are integrated into the curriculum in each area of emphasis.

Faculty research specialties include:

- Attitudes
- Collective behavior
- Culture
- Emotion expression and regulation
- Gender
- Health and health policy
- Interpersonal communication and relationships
- Intergroup relations
- Law and juvenile studies
- Life span and aging research
- Political psychology
- Religion
- Social inequality
- Social networks
- Socialization

Incoming students develop a mentoring relationship with a faculty member of the program. Students are encouraged to engage in scholarly research, often in collaboration with faculty, to present findings at professional meetings and to publish in reviewed journals and volumes. In addition to the support offered by the University's Graduate Student Association, the social psychology Ph.D. program offers financial assistance for student travel and research.

The program's interdisciplinary focus allows students to experience a wide range of perspectives within the field of social psychology. This holistic approach prepares students for engaging and rewarding work in both academic and applied settings upon completion of the program.

Graduates of the program are today employed in a variety of capacities. Roughly one-third teach and conduct research at universities, typically in tenure-track positions. One-third have full-time research positions in the public sector (county, state or federal level positions, including nonprofit organizations). The final third of graduates work in the private sector, either for commercial organizations -- for example, Adobe or Hotwire -- or operate their own consulting business. In short, advanced graduate training in social psychology can lead to a wide range of career paths.

## **II. Review Process and Criteria**

The Social Psychology program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in Spring, 2019. The report was provided to the three reviewers before they conducted an on-campus visit on April 18-19, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 15, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## **III. Major Findings and Conclusions of the Program Review**

1. The program is highly regarded both on campus and within the industry due to the quality of the students and the program's methodologies and theoretical training across disciplines.
2. Faculty are highly motivated to participate in this interdisciplinary program due to the strength of leadership and the opportunity to work with the students attracted to the program.
3. The internships and assistantships that have been developed by this program, including those in industry, are unmatched at other universities.
4. The program has made significant strides in recent years in the time to degree.
5. The program may be the only truly interdisciplinary Social Psychology program in the nation, exposing students

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

### **Strategic Planning and Building a Vision for the Department:**

The program recently celebrated 50 years of success and growth; it is recognized as one of the few truly interdisciplinary Social Psychology programs in the nation. It was noted that the program receives whole-hearted support from the Graduate Dean, Dean of Liberal Arts, Vice-President for Research & Innovation and the Provost's Office. With the recent move of the Department of Psychology from the College of Liberal Arts to the College of Science, concern was expressed whether the same level of support would be continued. Articulation of support and encouragement of participation in the program by the Provost Office is encouraged, as well as recognition of work performed in support of the program by participating faculty was suggested in the review.

Alumni of the Social Psychology program hold noted positions in private and public sector industries, ranging from placements at companies such as Facebook and Adobe to roles in academia. Given the rich network of alumni from the program, working with Development and Alumni Relations to establish a development plan was recommended and would be expected to have positive outcomes. Funds received through development could support faculty and administrative staffing needs and fund assistantships, both areas of identified challenges with the program lacking adequate administrative support. The Dean of the Graduate School is supportive of this recommendation.

### **Graduate Curriculum & Education**

The program is recognized as having a positive reputation both in academia and in industry. The curriculum is rigorous and provides students with methodological and theoretical training across disciplines. Students who enter the program are of high quality and faculty appreciate the opportunity to work with them, which is a motivator for faculty involvement in the program. Due to community and alumni support, students in the program have access to internships and assistantships not normally available at other universities. It was recommended to invest in a Center for Teaching Excellence and explore other sources to provide graduate student pedagogical training and support, which is another area where development funds could be used.

### **Graduate Recruitment/Enrollment/Progression**

There are concerns with the funding for assistantships. Although, students state that they annually receive funding via assistantships, commitment cannot be made beyond one year. This results in uncertainty and related stress. Providing 3 years of committed assistantship funding per position was recommended. Other issues related to assistantships include discrepancy between types of work performed and training received among peers in various assistantship positions, lack of funding opportunities for those with a focus outside of law, and the loss of tax-exempt status and the heavy workload for those who teach through a letter of appointment.

### **Faculty**

Faculty, staff and students alike recognize and appreciate the value and hard work that the Director brings to the program. There is concern that Director position is called upon to do more work than one faculty member can reasonably accomplish. As the only full time formally dedicated position to the program, the Director is responsible for operations and the development of partnerships with other departments and programs to ensure adequate program staffing. The suggestion of an Associate Director position was put forth, as a means of relieving the workload of the Director and ensure succession. The Dean of the Graduate School is supportive of this suggestion and willing to provide a modest stipend for the Associate Director role.

Currently, beyond the Director there are two faculty members with a 50% teaching commitment to the program. It was observed that in order for the program to be successful as it has been, it is incumbent upon the Director to recruit faculty members via professional connections and good will. This process results on the program's success being dependent upon the individual in the Director role rather than ongoing recognition and explicit support by associated departments. There was also concern regarding ambivalence toward refilling positions vacated by individuals whose work is in support of the Social Psychology program with new faculty who are charged with the same focus/responsibility. The use of MOUs was suggested as a means of codifying support of the program, by both administration and other departments, to ensure ongoing commitment and dedication of resources ("supportive core"), thus shifting the lone burden of continued success off the Director role. The addition of faculty lines to the program was also recommended as a means of continued program support.

### **Action Items**

#### **The program will:**

- Explore with current core faculty the interest in creating an associate director role.
- Develop MOU with College of Science/Psychology department and College of Liberal Arts/Sociology department recognizing the importance of their engagement and a commitment to make efforts for continued support. The MOU is to include that major changes, such as discontinuation of pivotal positions, are via joint agreement and allow the director of the program to participate in hiring process for new faculty in the Psychology and Sociology departments and explicit language regarding work with Social Psychology program in role statements.
- Develop language to communicate that although GTA/GRA funding can only be committed for one year, historically continued funding has been provided and the program is committed to make every effort to provide ongoing GTA/GRA support.
- College of Science, College of Liberal Arts and the Graduate School to explore pooling resources to provide the administrative assistant support. The director will work with College of Science on finding workspace for the administrative assistant.
- Comparison will be completed with peer institutions regarding program requirements. Using appropriate analytics, the college and program will look at degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths and give advising to those students who appear not on the track to be successful. This is being asked of all programs across the University.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	2
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**B. Number of graduates from the program for the following years:**

2016-17	0
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2017-18	7
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2018-19	0
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	37*
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\* Cannot differentiate between M.A. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The University's social psychology Ph.D. program was formally established in 1967, making it the oldest interdisciplinary social psychology program in the nation. The program's interdisciplinary committee includes faculty from across the University's departments and colleges, including the College of Liberal Arts, the College of Business, the School of Community Health Sciences and more.

The program emphasizes training in theoretical foundations, as well as qualitative and quantitative methods in basic and applied research. Though not all students choose one of these specializations, areas of emphasis include psychology and law, personal and social relationships, social psychology and health, and organizational behavior. Gender, culture and development issues are integrated into the curriculum in each area of emphasis.

Faculty research specialties include:

- Attitudes
- Collective behavior
- Culture
- Emotion expression and regulation
- Gender
- Health and health policy
- Interpersonal communication and relationships
- Intergroup relations
- Law and juvenile studies
- Life span and aging research
- Political psychology
- Religion
- Social inequality
- Social networks
- Socialization

Incoming students develop a mentoring relationship with a faculty member of the program. Students are encouraged to engage in scholarly research, often in collaboration with faculty, to present findings at professional meetings and to publish in reviewed journals and volumes. In addition to the support offered by the University's Graduate Student Association, the social psychology Ph.D. program offers financial assistance for student travel and research.

The program's interdisciplinary focus allows students to experience a wide range of perspectives within the field of social psychology. This holistic approach prepares students for engaging and rewarding work in both academic and applied settings upon completion of the program.

Graduates of the program are today employed in a variety of capacities. Roughly one-third teach and conduct research at universities, typically in tenure-track positions. One-third have full-time research positions in the public sector (county, state or federal level positions, including nonprofit organizations). The final third of graduates work in the private sector, either for commercial organizations -- for example, Adobe or Hotwire -- or operate their own consulting business. In short, advanced graduate training in social psychology can lead to a wide range of career paths.

## **II. Review Process and Criteria**

The Social Psychology program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in Spring, 2019. The report was provided to the three reviewers before they conducted an on-campus visit on April 18-19, 2019. The external reviewers appraised the program and met with relevant faculty, staff, students and administrators to determine the department's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site visitors shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 15, 2019. A final MOU of findings and recommendations from the review from the provost and vice provosts was prepared on August 14, 2019.

## **III. Major Findings and Conclusions of the Program Review**

1. The program is highly regarded both on campus and within the industry due to the quality of the students and the program's methodologies and theoretical training across disciplines.
2. Faculty are highly motivated to participate in this interdisciplinary program due to the strength of leadership and the opportunity to work with the students attracted to the program.
3. The internships and assistantships that have been developed by this program, including those in industry, are unmatched at other universities.
4. The program has made significant strides in recent years in the time to degree.
5. The program may be the only truly interdisciplinary Social Psychology program in the nation, exposing students to multiple ways of conceptualizing and approaching research.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

### **Strategic Planning and Building a Vision for the Department:**

The program recently celebrated 50 years of success and growth; it is recognized as one of the few truly interdisciplinary Social Psychology programs in the nation. It was noted that the program receives whole-hearted support from the Graduate Dean, Dean of Liberal Arts, Vice-President for Research & Innovation and the Provost's Office. With the recent move of the Department of Psychology from the College of Liberal Arts to the College of Science, concern was expressed whether the same level of support would be continued. Articulation of support and encouragement of participation in the program by the Provost Office is encouraged, as well as recognition of work performed in support of the program by participating faculty was suggested in the review.

Alumni of the Social Psychology program hold noted positions in private and public sector industries, ranging from placements at companies such as Facebook and Adobe to roles in academia. Given the rich network of alumni from the program, working with Development and Alumni Relations to establish a development plan was recommended and would be expected to have positive outcomes. Funds received through development could support faculty and administrative staffing needs and fund assistantships, both areas of identified challenges with the program lacking adequate administrative support. The Dean of the Graduate School is supportive of this recommendation.

### **Graduate Curriculum & Education**

The program is recognized as having a positive reputation both in academia and in industry. The curriculum is rigorous and provides students with methodological and theoretical training across disciplines. Students who enter the program are of high quality and faculty appreciate the opportunity to work with them, which is a motivator for faculty involvement in the program. Due to community and alumni support, students in the program have access to internships and assistantships not normally available at other universities. It was recommended to invest in a Center for Teaching Excellence and explore other sources to provide graduate student pedagogical training and support, which is another area where development funds could be used.

### **Graduate Recruitment/Enrollment/Progression**

There are concerns with the funding for assistantships. Although, students state that they annually receive funding via assistantships, commitment cannot be made beyond one year. This results in uncertainty and related stress. Providing 3 years of committed assistantship funding per position was

recommended. Other issues related to assistantships include discrepancy between types of work performed and training received among peers in various assistantship positions, lack of funding opportunities for those with a focus outside of law, and the loss of tax-exempt status and the heavy workload for those who teach through a letter of appointment.

### **Faculty**

Faculty, staff and students alike recognize and appreciate the value and hard work that the Director brings to the program. There is concern that Director position is called upon to do more work than one faculty member can reasonably accomplish. As the only full time formally dedicated position to the program, the Director is responsible for operations and the development of partnerships with other departments and programs to ensure adequate program staffing. The suggestion of an Associate Director position was put forth, as a means of relieving the workload of the Director and ensure succession. The Dean of the Graduate School is supportive of this suggestion and willing to provide a modest stipend for the Associate Director role.

Currently, beyond the Director there are two faculty members with a 50% teaching commitment to the program. It was observed that in order for the program to be successful as it has been, it is incumbent upon the Director to recruit faculty members via professional connections and good will. This process results on the program's success being dependent upon the individual in the Director role rather than ongoing recognition and explicit support by associated departments. There was also concern regarding ambivalence toward refilling positions vacated by individuals whose work is in support of the Social Psychology program with new faculty who are charged with the same focus/responsibility. The use of MOUs was suggested as a means of codifying support of the program, by both administration and other departments, to ensure ongoing commitment and dedication of resources ("supportive core"), thus shifting the lone burden of continued success off the Director role. The addition of faculty lines to the program was also recommended as a means of continued program support.

### **Action Items**

#### **The program will:**

- Explore with current core faculty the interest in creating an associate director role.
- Develop MOU with College of Science/Psychology department and College of Liberal Arts/Sociology department recognizing the importance of their engagement and a commitment to make efforts for continued support. The MOU is to include that major changes, such as discontinuation of pivotal positions, are via joint agreement and allow the director of the program to participate in hiring process for new faculty in the Psychology and Sociology departments and explicit language regarding work with Social Psychology program in role statements.
- Develop language to communicate that although GTA/GRA funding can only be committed for one year, historically continued funding has been provided and the program is committed to make every effort to provide ongoing GTA/GRA support.
- College of Science, College of Liberal Arts and the Graduate School to explore pooling resources to provide the administrative assistant support. The director will work with College of Science on finding workspace for the administrative assistant.
- Comparison will be completed with peer institutions regarding program requirements. Using appropriate analytics, the college and program will look at degree pressure points (where students are not on track to be successful in the program), identify ways to simplify degree paths and give advising to those students who appear not on the track to be successful. This is being asked of all programs across the University.

## **V. Descriptive Statistics**

### **A. Number of students with a declared major in the program area:**

2018-19	36
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**B. Number of graduates from the program for the following years:**

2016-17            4

2017-18            4

2018-19            7

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018            37\*

\* Cannot differentiate between M.A. and Ph.D.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



## **Program Review**

### **Nevada State College**

#### **Degree Programs**

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.

Nevada State College did not have any programs scheduled for review during this academic year.

- II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.

Economics, B.A.

- III. List all new programs and corresponding degree programs that received Board approval in this academic year of review.

Speech Language Pathology, M.Ed.

#### **Certificates**

None





## **Program Review**

### **College of Southern Nevada**

#### **Degree Programs**

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.
  - Cardiorespiratory Sciences, A.A.S., B.A.S.
  - Clinical Laboratory Sciences (Medical Laboratory), A.A.S., B.A.S.
  - Dental Hygiene, A.S., B.S.
  - Diagnostic Medical Sonography, A.A.S.
  - Health Information Technology A.A.S.
  - Nursing, A.A.S., B.S.
  - Ophthalmic Dispensing Program, A.A.S.
  - Physical Therapy Assistant, A.A.S.
  - Radiation Therapy Program, A.A.S.
  - Surgical Technology Program, A.A.S.
  - Veterinary Technology Program, A.A.S.
- II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.

None
- III. List all new programs and corresponding degree programs that received Board approval in this academic year of review.
  - Dental Science, A.S.

#### **Certificates**

- I. List the certificates (at least 30 credits and under 30 credits) that were reviewed over this academic year of review.
  - Central Sterile Technician, Skills Certificate
  - Contact Lens Technician, Skills Certificate
  - Dental Assisting, C.A.
  - Medic to LPN, Skills Certificate
  - Medical Coding, C.A.

## Program Review

### College of Southern Nevada

- Medical Office Practices, Skills Certificate
- Medical Transcription, C.A.
- Medical Transcription, Skills Certificate
- Nursing Assistant, Skills Certificate
- Ophthalmic Dispensing for Registered Apprentices, Skills Certificate
- Optical Laboratory Technician, Skills Certificate
- Patient Registration, Skills Certificate
- Phlebotomy, Skills Certificate
- Practical Nursing, C.A.

II. List the certificate programs of at least 30 credits that received Academic Affairs Council (AAC) approval to be established in this academic year of review.

None

III. List the certificate programs of at least 30 credits that received AAC approval for elimination or deactivation in this academic year of review.

None

IV. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval to be established in this academic year of review and the corresponding state, national and/or industry recognized certification or license for which the certificate program provides such preparation.

V. None

VI. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval for elimination or deactivation in this academic year of review.

None



# Cardiorespiratory Sciences, A.A.S. & B.A.S.

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## I. Description of Program Reviewed

### A.A.S.

Cardiorespiratory Sciences (CRS) is a multi-disciplined, multi-credentialed program, preparing students in care, management, and life-support of individuals having deficiencies and abnormalities associated with the cardiopulmonary system. A successful graduate of this program will obtain credentials from the American Heart Association, Cardiovascular Credentialing International, and the National Board for Respiratory Care. Respiratory Care Practitioners (RCPs) and cardiac technicians work with people of all ages in hospitals, clinics, offices, home health, schools, public health, military, and the Federal Government. As our nation moves toward health care reform, these practitioners will continue to be in a valuable profession, thus ensuring job security. The Cardiorespiratory Sciences Program provides a quality academic experience preparing Respiratory Care Practitioners (RCPs) and Cardiac Technicians. The graduate will possess the attitudes, skills, and knowledge required to think critically, communicate effectively, and provide self-direction while administering care.

This program emphasizes developing competencies that integrate protocols, clinical practice guidelines, and critical pathways into an efficient cardiorespiratory care plan. The program includes classroom, laboratory, and clinical practice instruction. Critical thinking, patient assessment, and critical care skills are emphasized in preparing the student/graduate to sit for both certification and registry level testing. This A.A.S. program has obtained accreditation with the Commission on Accreditation for Respiratory Care. The program must file an annual report that includes benchmarks of student success.

### B.A.S.

Cardiorespiratory Sciences (CRS) was developed as an adjunct to the already established A.A.S. cardiorespiratory degree. Students in the A.A.S. CRS degree program graduated with a minimum of 81 credit hours. Changes in the health care industry in general and in Respiratory specifically has led to an increased demand for therapists with advanced degrees. It is becoming increasingly common that supervisory positions in Respiratory Care require a Bachelor degree as a minimum. To that end, a program for previous A.A.S. graduates was developed with an emphasis on such areas as leadership, education and mentoring, and research. This program builds on the A.A.S. degrees stated goals of developing competencies that integrate protocols, clinical practice guidelines, and critical pathways into an efficient cardiorespiratory care plan. The program includes classroom, laboratory, and clinical practice instruction. Critical thinking, patient assessment, and critical care skills are emphasized in preparing the student/graduate to sit for both certification and registry level testing. This B.A.S. program does not currently have any special accreditation however the Commission on

Accreditation for Respiratory Care has been notified of the plan to seek accreditation through them for the B.A.S. program and the process has been begun.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

### A.A.S.

Overall enrollment has trended upward over the last three years. The program completion rate is high with a current retention rate of 97%

### B.A.S.

Overall enrollment has remained steady the program continues to evolve. The program completion rate is good with a current graduation rate of rate of 65%.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### A.A.S.

The program accrediting body (CoARC) the national credentialing organization and the national industry

## Cardiorespiratory Sciences, A.A.S. & B.A.S.

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organization have all issued position papers supporting the moving of the entry-level degree for cardiorespiratory Science to a Bachelor degree at minimum. CoARC will no longer issue accreditation to any new programs that are not Bachelor level. They have asked that all program either transition to a Bachelor level or enter into a transfer agreement with a school that does. Due to the high number of credits currently needed to obtain an A.A.S. in Cardiorespiratory Sciences (81) it is not unusual for students to both cap out their financial aid as well as run into the College excessive credit fees. The program has already begun steps to merge the A.A.S. degree with the existing B.A.S. cardiorespiratory degree so that the only track will be a B.A.S.. Plans have been approved by the curriculum committee. The program is currently working with CoARC to extend accreditation to the B.A.S. program. By transferring to a B.A.S. the number of credits that are used for both financial aid and excess credit fee consideration would be increased 63making it much less likely for students to run into these pitfalls.

### **B.A.S.**

Students are all credentialed Respiratory Therapists that are working in the community. Due to the fact that they all have jobs and presumably home lives it has proven difficult for them to finish the program in the originally planned time frame. Students have been allowed to complete at their own pace. Due to the structure or lack thereof, it is often difficult to know where in the process individual students are. With the advancement to just a B.A.S. CRS degree, students will move along with their cohort. This will serve to increase on-time graduation. Students will not be eligible to obtain national credentials or licensure until they have completed all courses and graduated for the program.

## **V. Descriptive Statistics**

### **A. Number of students with a declared major in the program area:**

2018-19	63
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### **B. Number of graduates from the program for the following years:**

2016-17	19
2017-18	27
2018-19	25

### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	91
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## **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

# Clinical Laboratory Science, A.A.S. & B.A.S.

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## I. Description of Program Reviewed

### A.A.S.

The Medical Laboratory Technician Program prepares students to work in all areas of the clinical laboratory (i.e., hematology, chemistry, blood bank, immunology, microbiology and urinalysis). Courses in each of the disciplines mentioned above are presented in both lecture and laboratory format. Additionally, students are assigned to several local laboratories to obtain clinical experience at scheduled times during the program. The Medical Laboratory Technician program is the only NAACLS accredited program in the State of Nevada. Upon successful completion of the program, students will be awarded an Associate of Applied Science degree, and become eligible to challenge a national certification examination. Students who pass a qualifying certification examination are eligible for Nevada state licensure as a Medical Laboratory Technician. The Medical Laboratory Technician program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

### B.A.S.

The Medical Laboratory Scientist (MLS) is an important member of the health care team in hospitals, clinics, medical research and teaching centers, and is an indispensable participant with physicians in providing critical diagnostic information. The MLS functions as a dependable, ambitious and highly motivated professional capable of handling high stress situations with ease and confidence. The Medical Laboratory Scientist performs and interprets diagnostic laboratory procedures using state-of-the-art instrumentation to aid in the detection, diagnosis and treatment of disease; monitors the standards of accuracy and precision in the performance of tests; performs routine maintenance; analyzes and corrects instrument problems; researches, evaluates and implements new procedures; and may be responsible for fiscal/personnel management of laboratory. The Bachelor of Applied Science degree in Medical Laboratory Scientist combines academic and laboratory courses on campus with practical experience at clinical affiliate sites. Upon successful completion of the program, students are awarded a Bachelor of Applied Science degree and become eligible to challenge a national certification examination. Students who pass a qualifying certification examination are eligible for Nevada state licensure as a Medical Laboratory Scientist.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

### A.A.S.

Student performance overall is above average, with graduation rates, certification pass rates, and graduate employment, or continued education, above the benchmarks set by the National Accrediting Agency for Clinical Laboratory Sciences. Certification pass rates have increased over the preceding four years. No curricular changes at this time. Faculty will continue to monitor.

Practicum Evaluation: After faculty discussion, the notation of 'Critical Parameters' has been added to practicum evaluations. Students must earn a MPL rating of 3 or better on critical parameters; overall task areas; and/or performance area/professionalism, as determined by the clinical site. Critical parameters include basic laboratory skills critical for safe patient care, both for the overall clinical laboratory and specific discipline, as well as the soft-skills of professionalism. As reported to the National Accrediting Agency for Clinical Laboratory Sciences, the three-year average placement rate, which includes graduate employment and/or pursuing additional education, is 100%.

Action: Addition of "Critical Parameter" to practicum evaluations beginning Summer 2018.

Result: To date, all students have met critical parameters.

The Medical Laboratory Technician program has traditionally been run as a five-semester program. Problems involving Financial Aid due to the low number of credits per semester and student concerns of the amount of time for program completion have driven a change in the curriculum offering.

## Clinical Laboratory Science, A.A.S. & B.A.S.

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Action: Create a program track shortening the number of semester's in-program from five to three. This plan is due to take effect in Fall 2020, allowing students to finish the program in one-calendar year.

Result: Student success will be monitored with the compressed program. No data at this time

### **B.A.S.**

The Medical Laboratory Scientist program is the only NAACLS accredited program in the State of Nevada. Small class sizes allow for one-on-one instruction, if needed, for students. Well-equipped student laboratories encourage student interaction with the equipment that is necessary for the function of medical laboratories. Challenges facing the program are not unique to the College of Southern Nevada, however, are common for medical laboratory education. Medical laboratories are becoming increasingly corporatized, and therefore, services are consolidated to optimize finances. For the education sector, this equates to fewer clinical placement sites especially in Microbiology and Transfusion Medicine (Blood Bank). Due to the limitation of clinical placements, the number of students accepted into the program at the present time is 10. Funding for equipment, consumables, maintenance, and repair was decreased a number of years ago, due to a decrease in State funding. While the funding levels have been steady since then, services and reagents increase annually. Maintenance contracts are expensive, and unable to be supported through current operating accounts. In the past, the program has been able to use expired reagents in the student laboratories that have been donated by local clinical affiliates. However, advances in technology no longer allow for the use of expired reagents for a number of analyzers, and has, therefore, increased the cost to the program. As previously mentioned, program graduates also have concerns about program funding. A recent issue has surfaced with the Medical Laboratory Science program and students receiving Financial Aid. Recent changes have restricted funding for the MLS prerequisite course(s) that have been put in place to better prepare the student for advanced coursework. In addition, as many of our students have a degree from another institution; students have been unable to continue to the bachelor's program from the associate degree program. The MLS program graduates have a 96% placement rate. Graduates are filling positions in the community, and this trend is likely to continue. According the U.S. Bureau of Labor statistics, job prospects for Medical Laboratory Scientists are best for persons who complete an accredited educational program and earn a professional certification. Nationally employment rates are expected to increase by 12%, and in the State of Nevada, the projection is 21%.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

### **A.A.S.**

The CLS program has been the fortunate recipient of Perkins grant money for purchase of a variety of clinical laboratory equipment. The standard life expectancy of laboratory equipment is five years. The purchase of an annual service agreement can increase the equipment life span by another four to five years. None of the CLS laboratory equipment are covered by service agreements. The equipment is aging and replacement parts are difficult to find. Discussions with CSN Office of Sponsored Projects have resulted in different responses as to whether service agreements using Perkins grant funding is an allowable item. Without service agreements or a replacement plan, CLS equipment will eventually become non-operational. CLS student success will be impacted due to lack of functional equipment for learning proper laboratory techniques. During the last National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) accreditation site visit in 2014, the committee was impressed with the wide variety of equipment utilized in the CLS teaching laboratories. CLS faculty is committed to maintaining and upgrading laboratory equipment to provide students with the most realistic learning experience. The CLS program will continue to apply for Perkins grant funding for replacement equipment and will continue to try to get a definitive answer regarding use of Perkins grant dollars for service agreements. Additionally, CLS faculty will develop a rubric for rating replacement equipment to ensure that the most reliable and cost efficient equipment is chosen for purchase.

### **B.A.S.**

Student performance overall is above average, with graduation rates, certification pass rates, and graduate employment, or continued education, above the benchmarks set by the National Accrediting Agency for Clinical Laboratory Sciences. However, certification board passing rates have decreased over last 3 years. It was also noted that the Urinalysis/Body Fluid sub section of the certifying examination show below national average scores.

Action: Create discipline review courses. Create upper level Urinalysis & Body Fluids course. Approved through curriculum process and implemented in 2017.

Results: First cohort with curricular change in final semester. Will monitor effectiveness going forward.

## Clinical Laboratory Science, A.A.S. & B.A.S.

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Practicum Evaluation: After faculty discussion, the notation of 'Critical Parameters' has been added to practicum evaluations. Students must earn a MPL rating of 3 or better on critical parameters; overall task areas; and/or performance area/professionalism, as determined by the clinical site. Critical parameters include basic laboratory skills critical for safe patient care, both for the overall clinical laboratory and specific discipline, as well as the soft-skills of professionalism.

Action: Addition of "Critical Parameter" to practicum evaluations beginning Fall 2018.

Result: To date, all students have met critical parameters.

A recent issue has surfaced with the Medical Laboratory Scientist program and students receiving Financial Aid.

Recent changes have restricted funding for the MLS prerequisite course(s) that have been put in place to better prepare the student for advanced coursework. In addition, as many of our students have a degree from another institution, students have been unable to continue to the bachelor's program from the associate degree program.

Action: The MLS program will begin to directly admit students to the program without the requirement of the completion of an A.S. or A.A.S. degree (or equivalent) from an accredited Medical Laboratory Technician (MLT) program. The first cohort accepted via this route will begin Spring 2020.

Result: No data at this time.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	103
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#### B. Number of graduates from the program for the following years:

2016-17	18
2017-18	21
2018-19	16

#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	62
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

### **I. Description of Program Reviewed**

The Dental Assisting Program consists of classroom work, laboratory studies and hands-on clinical experiences. Students are trained to perform supportive dental procedures specified by the Nevada State Dental Practice Act. They also gain valuable work experience through clinical rotations and externship opportunities at the UNLV Dental School and residency programs, private dental offices and both community and public health clinics. Students can go on to careers ranging from working in general dentistry to lab tech support and public health.

The Dental Assisting Program accepts two classes each year, Spring and Fall. Admission to the program is limited (up to 16 students per semester), requires specific admission criteria, and is determined by clinical availability. The CSN Dental Assisting Program is accredited by the Commission on Dental Accreditation. Graduates are eligible to take the Certified Dental Assistant exam. This exam is recognized by the American Dental Association and is facilitated through the Dental Assisting National Board.

### **II. Review Process and Criteria**

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

### **III. Major Findings and Conclusions of the Program Review**

The completion rate for the 3 years of 2016, 2017, 2018 is 91%. One student left the program because she moved out of state. The other student left the program due to pregnancy and plan to come back in the future. Graduates from the 2016, 2017, and 2018 have an employment rate of 93%. To continue to the next semester students must pass all course in the prescribed sequence. Students are evaluated with written exams and quizzes, assignments, projects and presentations in lectures classes with a 75% or higher. Lab classes include a variety of skilled procedures that must be passed at a 75% as well. In their last semester students are placed in dental offices (with CSN affiliations) to provide them with hands-on experiences to interact as part of the healthcare team. Students must complete 300 hours in 15 weeks with a 75% satisfaction of the evaluator. The students' final assessment of the learning outcomes is completion of 300 hours in 3 different clinical affiliations with a 75%. The student is eligible for an entry level dental assisting position.

Very few of our students take the DANB National Board since the state of Nevada does not require a dental assistant to be certified or licensed, assistance can be on-the-job trained. However, in 2018, a candidate took the board and passed. We have a 100% pass rate.

### **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

**Strength:** The CSN dental assisting program has been very stable amidst the economic short falls of the state. We have been very successful in receiving Perkins grants and Capital improvement funding over the years to sustain our program with state of the art facilities.

**Weakness:** Assess the financial allocations for faculty salaries for its ability to recruit and retain qualified faculty.

**Strengths:** The program retention rate has increased and the faculty feels we have produced better qualified assistants. One of the board members is the past president of the local Dental Society, along with a local sales rep they attend board meeting on a regular basis. The local sales rep provides us with very candid views of the dental assisting needs.

**Weaknesses:** Employer surveys are conducted in a traditional paper format but responses are generally low unless the office has a graduate from the program currently working for them. We have discussed conducting the survey electronically that would include an automatic analysis of the information.

**Strength:** While enrollment has been down the students' achievement are higher since 2012. Students are given more one-on-one attention. The attention has allowed for a higher level of quality interaction between the students and faculty. Faculty is able to provide immediate feedback to ensure the mastery of the skills.

**Weakness:** That enrollment in the spring semesters over the past 3 years has been low.

**Strengths:** We have two classrooms primarily designated for the dental science programs. We have been designated for our program that we can accommodate all of the classes each semester.

**Weaknesses:** Unfortunately, we have to work around the dental hygiene schedule making it difficult to schedule classes back to back, so that students don't have split sessions.



**Strength:** The curriculum structure and sequence is designed to address the different learning styles of students. Faculty has created a variety of activities so the student can fully comprehend and retain what they are taught. The curriculum is comprehensive to provide them the skills, knowledge, principles to excel as a multifaceted dental assistant.

**Weakness:** The students don't take their national board because the State of Nevada doesn't require that a dental assistant be registered or certified.

**Strength:** At the end of the semester the faculty will fill out an "End of the Term Course Review Form" to evaluate the effectiveness of the course. The form is reviewed by the program director. If changes are to be made to the course or the curriculum the program fills out the proper paperwork and takes the changes to the Curriculum Committee for approval.

**Weakness:** Sometimes implementation of the changes can take up to a year to implement.

**Strengths:** Currently, the Dental Faculty Practice provided adequate supervisory and consultative services from the dental assisting program. The DFP practice has been an icebreaker for student who needed more practice on clinical skills before they are placed in a private dental office. The assistants in DFP have the students shadow them and allowed to ask questions concerning the task at hand offering the student a positive learning and working environment. After a few days of shadowing the DFP assistant has the student assist the dentist. The DFP dentist provide the student a positive comfortable learning environment to help them become successful in a real world situation. The DFP Practice over the years has been given many students opportunities to succeed that they wouldn't have had if we put them out on externship when they weren't ready.

**Weaknesses:** The weakness is after June 30, 2019 the DFP practice will close. This is a real deterrent to our program. Our retention in this program has been high and the skills that the students leave the program exceed entry level because many of students could get additional help that they needed in the DFP clinic. DFP was a safe learning environment for our students that need additional help in their clinical skills before we could place them in the out in the community. While the program has many externship sites one unprepared student turns the office off to our program. An office only remembers the bad student not the 10 good ones you send them.

Currently, we are in talks with 2 externship sites, UNLV Dental School Residency Program and Nevada Health Centers (NHC) Dental Department. We want to make arrangements for students that we have identified that need to gain more practical and real-life skills in a positive work environment. Students would work with more seasoned and experienced assistants to gain more confidence and to build their self-esteem working chairside with the dentist.

**Side note:** Both of these facilities are limited to availability which could make it difficult for our students to volunteer. Also, the UNLV Residency Program is 4 miles away and the NHC is 15 miles away not making it convenient to checking on in person.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	64
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### B. Number of graduates from the program for the following years:

2016-17	15
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2017-18	17
---------	----

2018-19	9
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	110
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## Dental Hygiene, A.S. & B.S.

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### I. Description of Program Reviewed

The Dental Hygiene Program at the College of Southern Nevada is a two-year course of study (88 credit hours). The program features a contemporary Dental Hygiene Clinic equipped with the latest in radiology facilities, dental units, ultrasonic scaling devices, hands-off washing stations, and disinfection and sterilization capabilities. Classrooms offer state-of-the-art visual equipment and laboratory facilities. Graduates of the Dental Hygiene program must complete the written National Board Dental Hygiene Examination and a clinical examination conducted by a state or regional board to acquire a licensed to practice dental hygiene. The Dental Hygienist is a licensed, professional member of the health care team who integrates the roles of educator, consumer advocate, practitioner, manager, change agent, and researcher to support total health through the promotion of oral health and wellness. Most Dental Hygienists work as integral members of the dental team in private dental offices, but many provide preventive and educational services in hospitals, military installations, and schools. The American Dental Association's Commission on Dental Accreditation (CODA) accredits the College of Southern Nevada's Dental Hygiene Program. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Dental Hygiene program received an Accreditation Site Visit on October 18-19, 2018 and was notified on March 1, 2019 that the program was reapproved with the accreditation status of "approval without reporting requirements" .

### II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

### III. Major Findings and Conclusions of the Program Review

The program accepts 20 students annually. Program Graduation rates over five years range from 60%-90% with an average 75% retention rate.

For 2018-2019 graduates, the program determined the following measures and indicators:

#### Student achievement indicators

Program Completion/Retention Rate: 80% of class successfully completed each program course at 80% or higher.

#### Student Learning Indicators

Student Achievement of Program Learning Outcomes: 80% of class achieved competence at 85% or higher.

Clinic Coordinator Assessment of Student Competence: The class average was 95%

#### In-direct Learning Indicators

Student self-assessment of competence: Student/Faculty score variance <.5

Student Professional Growth Plans and Portfolio: 95% of class achieved competence

#### External Success Indicators

National Board DH Exam Pass Rate: 100% pass rate for the past 30 years

Regional Board Clinical Exam Pass Rate Pass First attempt 95%, 2<sup>nd</sup> attempt 100%

Job Placement Rate: 90% of graduates were employed within 1 year

Student Exit Survey: 95% of student rated themselves as competent

Clinic Patient Survey: 90% of clinic patients provided a response of 95

### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The area of concern affecting the Dental Hygiene program currently is the potential closure of the Dental Faculty Practice. The demise of the Dental Faculty Practice (DFP) began over two years ago when the program

## Dental Hygiene, A.S. & B.S.

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was notified that management of the DFP was delegated to the VP of Finance. The past two academic cohorts have been adversely impacted by diminished patient referrals generated from the DFP. Therefore some student could not meet their patient requirements. Dental Faculty Practice has been a supporting entity to the Dental Hygiene program for twenty years. At one time, the CSN Dental Hygiene program was the only option to offer preventive services to the underserved populations of the Las Vegas area. Services were enhanced with the addition of the CSN Dental Faculty Practice in 1999. The cost of care will be borne by CSN to help the current cohort meet their clinical requirements and attain the skills necessary for clinical competence for licensure. The veterans from UNLV will be one avenue to help the students meet requirements and increase their clinical skills but they will be unable to supply all the students with patients to meet requirements and attain the necessary skills for clinical competence and licensure. Patients for student learning remains a concern.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	122
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#### B. Number of graduates from the program for the following years:

2016-17	26
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2017-18	16
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2018-19	15
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	147
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Diagnostic Medical Sonography, A.A.S.

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## I. Description of Program Reviewed

The Diagnostic Medical Sonography Program at the College of Southern Nevada is the only CAAHEP accredited ultrasound program in the State of Nevada. We have a state of the art scanning lab on campus and 56 clinical sites available for student placement. The ultrasound community is supportive of the program and most clinical instructors are program graduates.

### A.A.S. Cardiac/Vascular Ultrasound Track

The goal of the Cardiac/Vascular Ultrasound Track is to prepare competent entry-level adult cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. This goal is partially achieved by providing the student with the high-level training necessary in the skill-oriented field of Ultrasound Technology through scanning lab practice and clinical rotations. In order to provide a sound foundation for further advancement, emphasis is placed on the "why", not just the "how." Thus, a student learns why the skill is performed as prescribed and what results can be from the correct versus the incorrect technique. The program is committed to providing an integrated curriculum as determined by the JRC-DMS, which in turn will help ensure that our learners are prepared to sit for the national certification exams as well as become an integral part of the healthcare workforce as a sonographer at the local and national level. This directly supports CSN's mission by ensuring sonography students achieve their educational, professional, and personal goals. Through their education, students acquire economic stability and are in a position to advance themselves through the pursuit of a higher degree or in the profession of sonography itself.

### A.A.S. General/Vascular Ultrasound Track

The goal of the General/Vascular Ultrasound Track is to prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. This goal is partially achieved by providing the student with the high-level training necessary in the skill-oriented field of Ultrasound Technology through scanning lab practice and clinical rotations. In order to provide a sound foundation for further advancement, emphasis is placed on the "why", not just the "how." Thus, a student learns why the skill is performed as prescribed and what results can be from the correct versus the incorrect technique. The program is committed to providing an integrated curriculum as determined by the JRC-DMS, which in turn will help ensure that our learners are prepared to sit for the national certification exams as well as become an integral part of the healthcare workforce as a sonographer at the local and national level. This directly supports CSN's mission by ensuring sonography students achieve their educational, professional, and personal goals. Through their education, students acquire economic stability and are in a position to advance themselves through the pursuit of a higher degree or in the profession of sonography itself.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

### Cardiac/Vascular and General/Vascular Tracks Combined

The pass rate on the national registry exams has been 100% for the past two years. This indicators supports program effectiveness and appropriate curriculum.

The program has continuing accreditation status from the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

#### Assessment of Learning Results

All learning criterion categories seemed to be demonstrated appropriately by students. No major areas of weakness were identified. The number of students that successfully achieved program learning outcomes before graduation 2017 before commencing program review are as follows:

## Diagnostic Medical Sonography, A.A.S.

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PLO 1- Assess and facilitate basic patient care and comfort during sonographic procedures (100%).

PLO 2- Determine proper sonographic techniques, transducer size, and image settings to obtain quality images while operating ultrasound equipment (63%).

PLO 3- Evaluate ultrasonic images for appropriate anatomy and recognize pathologic conditions (100%).

PLO 4- Diagnose and adapt ultrasound examinations during the performance of ultrasound procedure (75%).

Faculty all agreed that the exit competency and the associated evaluation rubric were not effective tools for capturing any significant deficiencies that could be addressed. Faculty determined that an e-portfolio would be a more effective assessment tool. After the approval of the advisory board, the e-portfolio was introduced to the graduating class of 2018.

All program courses are reviewed annually by the faculty for relevancy and completeness.

Modification of some courses were completed and all of the clinical and scanning lab courses had outcome modifications. These changes will serve the students better and will allow faculty the improved ability to evaluate student scanning skills independently.

All instructors are required to take continuing medical education courses related to their discipline. This allows faculty to stay current with new ultrasound concepts and to reinforce basic information.

Graduate and employer satisfaction with the program is evaluated using graduate and employer surveys distributed six months after graduation. The response trend over the past four years has included no negative comments and has satisfied JRC-DMS guidelines. Overall program rating has been either "good" or "excellent."

The biggest challenges that most ultrasound programs face is the acquisition of up-to-date ultrasound equipment and its maintenance. We strive to have a variety of ultrasound machines that represent the type of equipment students will see in the field. Perkins Grants have been crucial in the viability of the program, as the operating budget would not support the purchase of ultrasound equipment. The other challenge is the consistent placement of student at clinical sites. While we have an extensive list of sites they do not always want students placed for a variety of reasons.

### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The Bureau of Labor statistics predicts a 23% national growth for sonographers from 2016-2026.

The sonography program frequently applies for Perkins Grants in the spring semester. This primary funding source has allowed us to acquire the number and quality of equipment that we have in the scanning lab. The program next steps include taking advantage of alternative funding sources to purchase and maintain instructional equipment.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	178
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#### B. Number of graduates from the program for the following years:

2016-17	10
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2017-18	16
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2018-19	9
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	31
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

# Health Information Technology, A.A.S. / Medical Coding, C.A. / Medical Transcription, C.A.

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## I. Description of Program Reviewed

### **A.A.S.**

The Associate of Applied Science Degree in Health Information Technology is a limited entry program in the department of Health Related Professions. The HIT Program consists of 3 full-time faculty, 2-3 part-time faculty, and 1 classified administrative assistant.

The program is limited entry, which means students complete program prerequisites, attend a health programs orientation, meet with a health programs advisor and complete a limited entry workshop before applying. The application deadline is June 1st each year. The Health Information Technology Program accepts 15-20 students each year, depending on clinical site availability. The Limited Entry Office is responsible for managing the application process. A selection committee reviews all applications. The A.A.S. Degree in Health Information Technology requires 67 credits: 14 program prerequisite credits, 16 general education credits, and 37 program course credits. The Associate Degree Health Information Technology Program at CSN is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). <http://cahiim.org>

The Health Information Technology Program (HIT) is an Associate of Applied Science Degree and is designed for the working student. The majority of students are part time and carry 6-7 credit hours per semester while continuing to work full time. The program courses are generally offered in the late afternoon and evening with some weekends. The HIT program will transfer into related Health Care Administrative programs or Baccalaureate Health Information Management programs depending on the receiving university.

### **C.A. Medical Coding**

The Certificate of Achievement in Medical Coding is a limited entry program in the department of Health Related Professions. The Program consists of 3 full-time faculty, 2-3 part-time faculty, and 1 classified administrative assistant. Students complete program prerequisites, attend a health programs orientation, meet with a health programs advisor and complete a limited entry workshop before applying. The application deadline is June 1st each year. The Medical Coding Program accepts 10-15 students each year, depending on clinical site availability. The Limited Entry Office is responsible for managing the application process. A selection committee reviews all applications. The Certificate of Achievement in Medical Coding requires 44 credits: 14 program prerequisite credits and 30 program course credits. The Certificate of Achievement in Medical Coding Program at CSN is approved by the Professional Certificate Approval Program (PCAP). The courses in the Medical Coding CoA will apply towards the Associate of Applied Science Degree in Health Information Technology.

The Medical Coding program is designed for the working student. The majority of students are part-time and carry 6 - 9 credit hours per semester and continue to work full-time jobs. The standard rule for study time is approximately 2 hours for every 1 credit hour. The program courses are generally offered in the late afternoon and evening with some weekends. The Medical Coding Program prepares students for the coding credentialing exams administered by the American Health Information Management Association (AHIMA). A high school diploma or equivalent educational background is required for the exam. More information can be found at [www.ahima.org](http://www.ahima.org).

### **C.A. Medical Transcription**

The Certificate of Achievement in Medical Transcription is an open-entry program in the department of Health Related Professions. The Program consists of 3 full-time faculty, 2-3 part-time faculty, and 1 classified administrative assistant. The program is open entry, which means students can start taking classes whenever they are ready. However, there is a prescribed sequence to some classes. Students do need to follow the sequence once they begin. The Certificate of Achievement in Medical Transcription requires 31 credits. It is an open entry program so students can start taking classes when they are ready. The Medical Transcription program is designed for the working student. The majority of students are part time and carry 6-7 credit hours per semester while continuing to work full time jobs. The program courses are offered in the late afternoon and evening with some weekends. The courses in the Medical Transcription CoA will apply towards the Associate of Applied Science Degree in Health Information Technology and/or the Certificate of Achievement in Medical Coding.

# Health Information Technology, A.A.S. / Medical Coding, C.A. / Medical Transcription, C.A.

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## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

### A.A.S.

The employment of health information technicians is projected to grow 13 percent from 2016 to 2026, faster than the average for all occupations.

The Health Information Technology (HIT) Program completion rates vary depending on number of students selected into the program and if any are removed from the limited entry program for unsuccessful completion of a course(s) or professional misconduct. 2015-2016 (n = 14), 2016-2017 (n=13), 2017-2018 (n= 9). Graduation rate for 2017-2018 is 91%. For 2017, 81% of graduates successfully passed the RHIT Certification Exam on the first attempt and 70% on 1<sup>st</sup> attempt of the National Board.

The final assessment, the mock RHIT Exam, will be delivered to students at the end of their course studies within HIT 207 Health Information management. Effectiveness of learning is demonstrated by student scores of at least 73% in concept areas.

The program acquired an award-winning, cloud-based physician practice management system, giving students experience in many different HIM activities, including building clinical document templates, registering new patients, editing patient data, scheduling patient appointments, and generating bills, among others. This EHR system includes pre-built patient cases and allows students to register and build their own cases too.

### C.A. Medical Coding

The Medical Coding Program completion rates vary depending on number of students selected into the program and if any are removed from the limited entry program for unsuccessful completion of a course(s) or professional misconduct. 2015-2016 (n = 4), 2016-2017 (n=6), 2017-2018 (n= 11). The final assessment is delivered to students at the end of their course studies in HIT 210 Coding Practice Experience. Student competencies are at least 73%. At least 70% of the students who enter the HIT Program will graduate within four semesters of entry in the program. The Medical Coding program is approved as a Professional Certificate Approved program (PCAP).

### C.A. Medical Transcription

The Medical Transcription Program is an open entry program, therefore students can start taking classes whenever they are ready. This program can be taken full-time or part-time as long as students follow the sequence of courses. 2015-2016 (n = 81), 2016-2017 (n=75), 2017-2018 (n= 31). Medical Transcription classes are kept to a maximum enrollment of 5-7 students because of the high rigor coursework.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

Due to what is happening in the field, employees working from home, it is increasingly difficult to place students at a clinical site for professional practice experience hours.

Proposed Solution: HIT faculty continue to work with the advisory committee members to develop creative ways to use clinical sites in an efficient manner and still have real-world experiences available for students.

This is not an area of concern but is an area that will require time to review and revise the program curriculum.

## Health Information Technology, A.A.S. / Medical Coding, C.A. / Medical Transcription, C.A.

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The national standards recently changed which requires programs to adhere to those changes in a timely manner.

Plan: HIT faculty already began drafting changes and presented to the advisory committee in fall 2018. We will continue reviewing and revising degree and courses over summer 2019 in preparation to submit changes to the CSN Curriculum Committee in fall 2019.

### Medical Transcription

Due to what is happening in the medical transcription field, there is a declining need.

Proposed Solution: The CSN Medical Transcription Program continues to offer the high quality education. This program is fully online so does not require physical CSN resources. All but 2 of the certificate classes are required by the HIT A.A.S. degree and Medical Coding Certificate of Achievement so course enrollment is not an issue.

1. Work towards revising curriculum and program and course titles to match national association.
2. Revise the student learning outcomes for program and courses.

### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	179
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#### B. Number of graduates from the program for the following years:

2016-17	28
2017-18	26
2018-19	32

#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	311
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## I. Description of Program Reviewed

The CSN Medical Assisting Program is a one-year full time limited entry program that produces highly educated and skilled graduates that are ready to enter the workforce upon, and in some cases before, graduation. The program provides inclusive learning environments and supports diversity by helping students highlight the qualities they start the program with as well as the new skills they have gained upon program completion. Graduates from this program are sought out by employers due to the high level of quality they provide as valued members of the healthcare team. On November 1, 2018, the Medical Assisting Education Review Board (MAERB) awarded the CSN Medical assisting program Continuing Accreditation.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

Program graduates have been successful in completing the certification exam with an average of 84% for the last four years and a 70% retention rate.

All instructional equipment available for the teaching of program curriculum is adequate and is updated as needed through the use of available funding.

Enrollment was down 2016-2017 but is now growing. The program has undergone many changes, which include a decrease of admission cohorts from twice a year to once a year, and some course and credit changes in order to improve student experiences throughout the program. The changes appear to be effective because enrollment in MA 104B, a program feeder course and prerequisite, has greatly increased and we are expecting a larger cohort for Fall 2019 than we have had in years.

The program curriculum changes have also led to a decrease in faculty from one full time with two adjunct faculty to only one full-time faculty member. The addition of an adjunct faculty member is anticipated for Fall 2019.

We have had a 100% graduate satisfaction rate, of those students completing the graduate survey, over the past 3 years.

According to the Bureau of Labor Statistics, "employment of medical assistants is projected to grow 29 percent from 2016 to 2026, much faster than the average for all occupations." Both graduate and employer surveys provide evidence of the satisfaction with and quality of the program.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

Currently, the program has 3 citations from the MAERB that are presently being corrected and the report is due by Nov. 1, 2020.

The program enrollment is not at capacity.

Proposed Solution: The program has been working on retention of students in the program prerequisite course and in program courses. The program director is expecting an increase in the number of applicants for the fall 2019 cohort.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	130
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**B. Number of graduates from the program for the following years:**

2016-17	10
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2017-18	6
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2018-19	5
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**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	10
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The College of Southern Nevada (CSN) Associate Degree Nursing (ADN) Program admitted its first class in Fall 1987 and received initial National League for Nursing (NLN) accreditation in 1990. The Accreditation Commission for Education in Nursing (ACEN) has accredited the program since that time with the last accreditation visit successfully occurring in February, 2018. The Nevada State Board of Nursing (NSBN) surveyed the ADN Program in April, 2014 with the result of continued full approval status.

The original Associate Degree program was a "one-plus-one" pathway requiring students, upon completion of the first year, to test for and successfully achieve licensure as an LPN in order to qualify for the second year of coursework. The curriculum changed as a result of community input and became a two-year program with an Advanced Placement option for Licensed Practical Nurses (LPNs) in Fall, 1996.

The program has three approved tracks:

- Full-time (69 credits over four semesters of nursing core courses);
- Part-time (69 credits over seven semesters of nursing core courses);
- LPN to RN Bridge (69 credits [up to 8 credits transferred from the Practical Nursing (PN) program of study] over three semesters of nursing core courses).

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

Student enrollment into the ADN Program has been relatively stable. Qualified student applicants have increased since Fall 2016 in the range of 152-204 each semester.

From 2016-2018 CSN awarded tenure to seven ADN faculty. During this time many faculty have furthered their education or are currently in nursing programs. Two full-time faculty were awarded PhDs, four full-time faculty earned their Doctor of Nursing Practice (DNP), two full-time faculty completed their MSN degrees, and one full-time faculty passed the CNE exam. Currently one full-time faculty is a Ph.D. candidate, one full-time faculty is in a Ph.D. program, and one full-time faculty is in a DNP program.

70% of the students who enter the Associate Degree Nursing Program will graduate within three years. The 70% completion rate is based on an average of the completion rates for 2015-2016 (66.6%), 2016-2017 (72%), and 2017-2018 (72.4%).

80% of ADN Program graduates who complete the 6-12 month post-graduation survey will indicate employment as a RN.

Over the last three years, 100% of students have achieved at least a score of 3.0 for each SLO.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The minimum standard set by the Nevada State Board of Nursing for first-time NCLEXRN pass rates is 80%. CSN has consistently met or exceeded the 80% pass rate standard every year. Most recently, a drop in pass rates from 93.3% in 2017 to 88.14% in 2018. The change in pass rates has been presented to the Course Coordinating Committee and Nursing Faculty by the Program Director. Strategies to address the change in pass rates include: 1) exploring the use of standardized testing and remediation in every course across the curriculum; 2) giving the ATI Comprehensive Predictor Exam in between NURS 211 and NURS 296 instead of at the end of NURS 208, thereby allowing increased time for remediation; and 3) assigning a task force committee outside the Curriculum Committee to review course syllabi and completed course mapping.

The Associates Degree Nursing program is a strong program with upwards of 400 students crossing our thresholds every semester. We continue to have stable tenured faculty with approximately sixteen out our thirty-four faculty holding Doctorate degrees. Nursing faculty continue to assess and revise the curriculum to meet current evidenced based practices. During the Fall 2016 and Spring 2017 semesters, prior to implementing the Three-Year

Assessment Plan, the Curriculum Committee reviewed the content and concepts for each nursing course, books, clinical sites, use of simulation teaching methods and evaluation methods. The curriculum committee also reviewed which medications were covered in each nursing course. During this evaluation, some areas of weakness, requiring improvements were noted. These areas included the redundancy of some medications taught in Med-Surgical courses and the lack of test blue prints in each nursing course. Members of the Curriculum Committee, including course coordinators aided in revising the course content and creating blue prints for each course exam.

Due to curriculum mapping that began in Fall 2017-May 2018, inconsistencies across the curriculum regarding course assignments were assessed including the lack of rubrics, assignment purpose statements, assignment descriptions, and assignment objectives that align with course objectives.

Requirements for a rubric were defined and examples provided so that course coordinators could develop assignment rubrics with consistent criteria across the curriculum.

Curriculum Committee members assigned to a specific course mapping or review assisted

Course Coordinators with development or critique of rubrics by December 2018.

Faculty from each course meet at least once a year to review their course in terms of content, assignments, and evaluation methods to help ensure best practice from current, rigid, and valid research, websites, and journals that drive the curriculum. Course coordinators review and revise their individual course with their faculty at least once a year. At the time of the course evaluation, the faculty have information related to student performance, course evaluations, ADN graduate surveys, end of program evaluations, and facility evaluations.

As previously stated, curriculum weaknesses or inconsistencies are assessed during Course Coordinating and Curriculum Committee meetings. Strategies to address issues are presented in these same committees and in monthly Faculty meetings. In Fall 2018, a leadership committee was developed that includes the membership of all Nursing Program Directors, the Clinical Coordinator, and Department Chair. This Committee has come to identify issues and propose strategies including policies/procedures and degree progression within the Nursing Program.

## **V. Descriptive Statistics**

### **A. Number of students with a declared major in the program area:**

2018-19	1,207
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### **B. Number of graduates from the program for the following years:**

2016-17	243
2017-18	218
2018-19	209

### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	727
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## **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

# Ophthalmic Dispensing Program, A.A.S.

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## I. Description of Program Reviewed

The Ophthalmic Technology Program, (hereafter referred to as The Program), is housed in the Ralph and Betty Engelstad School of Health Sciences, under the Department of Dental, Diagnostic and Rehabilitative Services.

The Program has been a part of the CSN community since 1998.

The Program is the only one of its type in Nevada and the surrounding region, (Nevada, Arizona, Utah, California, Colorado and New Mexico<sup>1</sup>.)

The Program is the only one of its type in Nevada, approved by the Nevada Board of Dispensing Opticians, for satisfying the educational requirement for licensure as an optician in Nevada.

The Program prepares students to be professional licensed opticians. Completers of The Program are currently licensed and practicing the art of Opticianry in Nevada, Arizona, New York, Virginia, Florida, Utah, Hawaii and Washington.

The Program is fully accredited by the Commission on Opticianry Accreditation, (COA). The last site visit for the program by COA was completed on November 9th 2015. Based on the self-study report and site visit the program was granted a six-year accreditation period.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

Completers of The Program have competed in the National Federation of Opticianry School Annual College Bowl. These students have earned the distinction of First, Second and Third place positions over the various years of The Program.

Completers of the Program have been very satisfied with their experience in the program. Many Program completers have referred friends, family members – spouses/children, and others, to The Program for acquiring the knowledge, skills and abilities needed to become licensed opticians.

Numerous completers have come to The Program as individuals who were working at “dead end jobs” for minimum wage. Completers of the Program have earned status as licensed opticians, thereby tripling<sup>3</sup> their household income, and are now living fulfilling lives and raising families in the Las Vegas Market area.

Many completers of The Program have entered the profession as opticians subsequently earned promotions, and now serve as General Managers and Area managers for a variety of national corporate optical providers in Nevada.

Nevada Licensed Opticians who earned their Nevada License before the school existed have come to CSN and taken courses in The Program in order to round out their skills.

Completers of the Program have continued their commitment to education by transferring to UNLV and Nevada State College in order to earn a baccalaureate degree.

The Program maintains a completion/graduation rate of 86% or higher over the last eight-year period. This is significantly higher than the current CSN average of 7.4% and within acceptable norms for NFOS schools, and Health Science Professions.

Students of the program experience an 83% job placement rate of higher for the last five-year period. If a student wants to work in the field there is a place for them. Many student have a job in the optical field by the second semester of the program.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

Area(s) of Concern: H105 room modification.

## Ophthalmic Dispensing Program, A.A.S.

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The Program has been broadcasting its lecture courses using the NSHE video conference system since 2001. Since 2006, The Program has been using room H105, West Charleston Campus. Room H105 West Charleston campus needs to be modified for more efficient usage. H105 is currently the only classroom on the West Charleston campus that is set up for video conferencing using the NSHE conference system. The Program has used this classroom since 200X in order to deliver its lecture course to students enrolled in The Program who live in remote parts of Nevada. (Elko, Pahrump, Logandale, Mesquite, Carson City, and Reno).

In the past these remote sites have been generous with allocating rooms on their respective campuses during the time period optical lecture course are offered. The lecture courses are offered Tuesday and Thursday mornings 8 am to 9am, Monday and Wed mornings 10 am to 11:50 am, Wed and Friday night's 6-7:30 pm and Tuesday/Thursday night's 5-6:30pm. On occasion, an optical seminar course is held on nontraditional days and times.

Over the last two years, scheduling has become difficult due to two factors. The first factor is scheduling conflicts with the optical course times here at CSN and the usage needs of the remote hosting site. The remote hosting sites are experiencing an increase in room usage on their campuses during the period the optical courses are available for broadcasting. The second factor is staff scheduling issues. The remote sites are experiencing staff scheduling difficulties on Friday nights as their staff is spread too thin, therefore making it difficult to have on site personnel present when the remote room is in use on Friday nights.

Both situations require The Program to "Think Outside the Box". There are times when the course instructor has to use three delivery systems during a given class. This means that the instructor has 30 students in the H105 classroom, students at a remote site receiving a video broadcast and students at home on their computer receiving the lecture through Canvas using Big Blue Button web casts, all at the same time!

This requires the instructor to pause during white board work to make sure that the camera system in the room is focused on the white board for video broadcast purposes and to realign the computer monitor with the white board for Big Blue Button.

H105 needs to have its camera system set up such that it connects to the video broadcast system AND through Canvas using Big Blue Button at the same time. This would allow the instructor to use the in room camera system to focus on the white board and TV monitors used during lectures for students at distance sites and at a computer of their choice.

### B) Area(s) of Recommendation

Based on the numerous assessment plans completed by The Program, (LEAP, Curriculum Mapping, CSN Three-year plan, CSN one year report, COA annual report, COA self-study, and this Program Assessment report ) The Program should implement the following recommendations/assessment outcome indicators:

- 1) The Program should meet with CSNs OTC office and the NESHE video conference staff to implement changes to room H105 West Charleston campus. Changes should include modifying the existing camera system so that it can capture classroom activities and broadcast them via both the NSHE video conference sites and Canvas using the Blue Button portal, or its equivalent, at the same time. This would help multiple programs on campus, (Optical, Surgical Tech, and Radiology) who have started broadcasting their lecture courses to remote sites in Nevada.
- 2) The Program should continue to find innovative opportunities for its on campus community service clinic.
- 3) The program should continue to develop its teaching strategies to include greater usage of discussion board postings, and case studies as identified in the LEAP report. This should enable students to be better prepared for the new format of the Nevada State Board of Opticians licensing process.
- 4) The Program should continue to develop their working relationship with CSN writing/reading labs in order to upgrade the learning skills of its students.
- 5) The Program should continue to develop their working relationship with CSN Disability Resource Center and, the entry level reading course instructors, in order to provide assistance with optical aids for the individuals seeking services from the disability office and entry level reading courses. The Program should work with CSN Disability Resource Center, and entry level reading course instructors, to identify potential grant opportunities to pay for optical aids for CSN students who are clients of the Disability Office or enrolled in entry level reading courses.

## Ophthalmic Dispensing Program, A.A.S.

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### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	53
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#### B. Number of graduates from the program for the following years:

2016-17	12
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2017-18	6
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2018-19	11
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	17
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Physical Therapy Assistant, A.A.S.

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## I. Description of Program Reviewed

Physical therapy is a dynamic profession with established theoretical and scientific base and widespread clinical applications in the restoration, maintenance, and promotion of optimal physical function. Physical therapist assistants would, as part of the team to provide physical therapy interventions under the direction and supervision of the physical therapist.

Physical therapist assistants provide these interventions to individuals of all ages, from newborns to the very oldest, who have medical problems or other health related conditions that limit their abilities to move and perform functional activities in their daily lives.

The Physical Therapist Assistant (PTA) Program is an accredited, rigorous, limited entry two-year program that provides contemporary curriculum, teaching and technology to ensure high quality, competent, entry level graduates that are able to safely and ethically provide physical therapy treatment interventions as defined by evidence based practice, under the direction and supervision of a licensed physical therapist. Once students complete the associate of applied science degree, they must then pass the PTA licensure exam and meet all other requirements of licensure. As a licensed PTA they have the opportunity to work as a PTA, under the direction and supervision of a licensed physical therapist, in a variety of healthcare settings including hospitals, rehabilitation hospitals, nursing homes/extended care facilities, outpatient clinics and home health.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

The completion rate for the 3 years of 2015, 2016, 2017 is 71%. Several students left the program due to academic failure or professional misconduct. However, some students left the program for various personal reasons: financial, decided this career path not for them, etc.

Completers (graduates) of 2015, 2016, 2017 have 100% employment rate.

Final assessment of these student learning outcomes, and thus overall performance in the PTA program, are the scores achieved on the CPI in their final clinical affiliation that is the final course of the program. Passing this clinical affiliation at entry level is required in order to graduate.

For years 2015, 2016, 2017, 2018 there is 100% pass rate.

The number of applicants varies from year to year in the range of 30-50. Enrollment is set at a maximum of 12 per year. It is a 2-year program so there are 2 cohorts at any given time making faculty to student ratio 1-12. There are no other PTA programs in the NSHE system to compare to.

Results of graduate and employer surveys are over 90% positive in all categories for 2015, 2016, 2017. Results for 2018 are pending.

Completers (graduates) of 2015, 2016, 2017 have 100% employment rate.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The challenge our program faces is the increased number of PTA graduates with two for-profit programs entering the market over the last 5 years. To add value to the CSN PTA degree, NSC and CSN entered into an articulation agreement for students who complete the Certificate of Completion in Allied Health Sciences and the Associate of Applied Science (A.A.S.) degree in Physical Therapist Assistant at CSN and transfer to NSC to complete the Bachelor of Applied Science in Allied Health Sciences.

## Physical Therapy Assistant, A.A.S.

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### V. Descriptive Statistics

#### A. Number of students with a declared major in the program area:

2018-19	66
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#### B. Number of graduates from the program for the following years:

2016-17	8
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2017-18	8
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2018-19	9
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#### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	41
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### VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The CSN Radiation Therapy Program is a twenty-one month Associate of Applied Science program that demonstrates education and licensing requirements of the Nevada System of Higher Education Compliance, compliance to The Northwest Commission on Colleges and Universities Standards for accreditation, offers the student a curriculum akin to the nationally recognized American Association of Radiologic Technologists (ASRT) Radiation Therapy Curriculum and is recognized by the American Registry of Radiologic Technologists (ARRT) to grant national registration status in Radiation Therapy to our graduates. The Radiation Therapy Program at the College of Southern Nevada does not have any specialized accrediting body but is accredited by the Northwest Commission on Colleges and Universities (NWCCU). The American Society of Radiologic Technologists (ASRT) Radiation Therapy Curriculum is a collaborative effort designed to offer foundational professional development as well as meet the accreditation requirements of the Joint Review Committee on Education in Radiologic

Technology (JRCERT) Standards and the National Registration Examination administered by the American Registry of Radiologic Technologists (ARRT). The ASRT radiation therapy professional curriculum professes to be in line with a baccalaureate education. The American Registry of Radiologic Technologists® (ARRT) establishes qualifications for certification and registration in the discipline of radiation therapy. These qualifications include the candidates' successful completion of the ARRT Radiation Therapy Didactic and Clinical Competency Requirements as part of the educational program. The CSN Radiation Therapy Program is mostly comprised of Nevada residents. A small percentage (approximately 10%) of our students come from states that do not afford the resident the opportunity to complete an accredited Radiation Therapy program in a 21-month period. Due to the location of the college and the clinical education training centers, most of our students are residents of Clark County. Since we are the only college-based Radiation Therapy training program in NV, we have attracted students from nine additional counties. The majority of the out-of-county students come from Washoe county.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

The Radiation Therapy Technology Program has been offered at CSN since 2002, and this year is the second opportunity for us to perform a program review. Since our first graduating class in 2003 there has been significant developments in curriculum, student assessment and student support.

The ARRT first-attempt pass rate for the current five-year period from 2012-2017 is 88%. This is a significant increase from 74% in the previous five years from 2008-2012. The overall pass rate, including second attempts, for the past five years is 98%.

The curriculum course content has been revised in 2010 and 2015 to be in compliance with the ARRT curriculum guidelines. These revisions offer the student the latest data relevant to the profession and reflect the dynamic health care environment. The program is web enhanced. Handouts, quizzes, homework assignments, tests and exams utilize Canvas Learning Platform for delivery. Critical thinking skills and group dynamics are developed and tested in the laboratory experience using the Virtual Environment in Radiation Therapy (VERT) machine.

The program has achieved support from the college community. The Tutoring Center, Career Development, the Library and Continuing Education all play an integral part in the training of our Radiation Therapists. Additionally, the Foundation offers CSN graduates the opportunity for scholarship funding for Radiation Therapy students.

The program has gained recognition throughout Nevada and the surrounding states. In addition to sixteen (16) Nevada counties, we have graduates from California, United Kingdom, Canada, and Australia. The ethnicity and level of education of our students as well as the age range is diverse. The fact that our program is community college based and requires only twenty-one months makes it attractive and affordable in value and time commitment.

The program revised its outcome assessment plan in 2015 and implemented the new plan in 2015.

- The program changed many assessment tools to better assure reliability and validity in that the assessment process is effective in measuring student learning outcomes. Rubrics were added to help assure equitable grading.
- Job Placement Rate: In addition to the state of Nevada, we have numerous graduates employed in other states such as California, Arizona, Texas, Washington, Alaska, Georgia, and Maryland. Of the students who were actively seeking employment in the field post-graduation, the overall program job placement rate was 83.3%.
- Retention Rate: Our 90% program completion rate represents the success of our students and an effective outcome assessment tool.
- Our American Registry of Radiologic Technologists (ARRT) Radiation Therapy Credentialing Examination pass rate data documents program improvement.

The program is in compliance with JRCERT requirements of a 75% benchmark for first attempt credentialing pass rate on the ARRT National Registry Exam in Radiation Therapy over a five-year period. The program has documented a 92% first attempt pass rate for five of the past five years. The program aspires to continue to demonstrate a stable first attempt pass rate of 90%.

Program Effectiveness data:

National Comparison Report: ARRT Pass Rate from 2015 to 2018 documents an annual pass rate of 91.3%.

## Program Achievements and Progress

1. The on-line Canvas system is employed by all faculty to provide the student with PowerPoint presentations as well as supplemental reading material.
  2. The program employs the Canvas on-line system to administer homework, quizzes, test, and exams, including exit/terminal exams.
  3. The program instituted an in-class registry review in preparation for the terminal exit exams and the national registry exam.
  4. The program collaborates with the Career Development Office to offer the student a Resume Writing and Interview Technique Workshop.
  5. The program collaborates with the Library to provide the student with a Research Methodology Presentation.
  6. The program collaborates with the CLS Department to provide the student with Venipuncture competency training.
  7. The program collaborates with the Tutoring Center to provide the Radiation Therapy student with Math tutoring relevant to Radiation Therapy dosimetry and dose calculations.
  8. The program introduced a math assessment test to be administered in the beginning of the Fall and Spring semesters. These tests are used to increase the student awareness of their level of mathematical knowledge and to provide the student the opportunity for mathematical tutoring to support success in the program.
  9. The program collaborates with Q-Fix, an immobilization device company, to provide the student with an entire one-day immobilization device laboratory focusing on hands-on experience in the fabrication of immobilization devices essential to the practice of radiation therapy.
  10. The program collaborates with the American Heart Association to provide the student with CPR training and certification at low cost to the student.
  11. The program provides career development and employment opportunities through field trips. Field trips include ASTRO Annual meeting, Loma Linda Proton Therapy Center, Varian Medical Systems, Las Vegas office.
- 
1. Critical thinking skills have been heightened in multiple content areas of the program. With our on-

campus laboratory

a. The RDTP 230 and RDTP 231 Clinical Applications lab experience has incorporated patient set-ups, machine functions, immobilization techniques, and triangulation and treatment field delineations. At the end of the lab experiences, student is required to accurately create radiation therapy portals on the virtual simulation workstation.

The RDTP final exam incorporates a real patient set-up with multiple challenges.

b. In the RDTP 214 Methodologies II final mastery exam, a team of two students are expected to complete the entire treatment process on a patient. The patients are students from other health programs who volunteer to be patients for that day. The RDTP students will perform the entire treatment set up from identifying the patient to review of short and long term side effects. This exam is the final step to completing the required competencies from the ARRT.

c. Treatment Concept Case Studies have been created and incorporated into the RDTP 219 class. Clinical and didactic competencies have been correlated within this course. They require the student to review the patient chart for each of the 18 required treatment competencies and correlate history and physical, stage of disease, grade of disease, laboratory reports, pathology reports and to complete a differential diagnosis to determine a probable long-term prognosis.

2. Active reading strategies were incorporated in RDTP 213 Clinical Oncology, with a patient case study presentation assignment. In RDTP 229 Board Review, the student is given the opportunity to complete five (5) mock board review examinations using the ARRT content specifications for the registry exam in Radiation Therapy.
3. Three additional clinical education center has been added to our existing five sites. These three centers are located in the Reno area and will serve as training sites for our TMCC students. The program continues to seek out additional clinical education centers to better accommodate the student who resides outside of Clark County.
4. The program has collaborated with the CSN Englestad Foundation to provide scholarship opportunity for students of the CSN Radiation Therapy Program.
5. From 2016 to present, the program has achieved a 91.33% ARRT National Registry Exam Pass Rate.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

Program capacity:

- The program capacity is highly correlated to clinical education center capacity. The program determines clinical capacity based on clinical site preference. Together, our clinical education centers can accommodate nine to ten students per year; however, that number is variable. Circumstances that may result in a decreased student capacity include an unexpected decrease in the patient load at the clinical education center, a change in administration and workforce at the site and the installation of new equipment and the training of staff.
- The required prerequisite entrance requirements may delay entrance of the applicant into the program; however, this time interval also allows the applicant to discern this career choice, hence, the program holds a 87.8% completion rate.

Recommendations for Change

1. Transition to an electronic tracking system for the clinical education component of the program. Trajecsys Corporation offers a comprehensive system for clinical recordkeeping for health education. <https://www.trajecsys.com/Default.aspx>
2. Extending grant and/or scholarship opportunities for students residing outside of Clark County.
3. Acquisition of additional clinical education centers to accommodate students commuting from outside of Clark County. The addition of our Reno campus (TMCC) has opened up three additional treatment centers for training. We are also looking into affiliating with Northern Arizona University to see if we can expand our program by another two students. We currently have clinical affiliates in Flagstaff as well as Sedona.

4. The Radiation Oncology community would benefit from an opportunity to network and acquire continuing education credits through a symposium format. The CSN Radiation Therapy Program aspires to initiate an annual on-campus Radiation Therapy Symposium that would be open to all Radiologic Science professionals.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	39
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### B. Number of graduates from the program for the following years:

2016-17	11
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2017-18	6
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2018-19	6
---------	---

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	4
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Surgical Technology Program at the College of Southern Nevada will provide students with the opportunities to develop skills and knowledge necessary to gain employment as entry-level surgical technologists, and becoming contributing members of the health care team.

Graduates of the Surgical Technology Program will have achieved their educational, professional, and personal goals.

The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). It was awarded continuing accreditation on November 15, 2013. The next on-site review is scheduled to occur no later than 2023.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

The program has seen an overall increase in enrollment after the Spring of 2017. The program is regularly accepting 10% and above FTE from the total enrollment. Most students are only taking one 3 credit course in the Summer semester. For that reason, the FTE is significantly less during the Summer semester. 2015-2016 shows 6 graduates, there were a total of 10 students that completed our program. 12 were accepted making our retention for this year 83% 2016-2017 shows 9 graduates, there were a total of 7 students that completed our program. 9 were accepted making our retention for this year 78% 2017-2018 shows 7 graduates, there were a total of 12 students that completed our program. 14 were accepted making our retention for this year 86% For these past 3 years the number of students completing the program is 29. For this programmatically accredited program, the National Certification Exam is looked at as a major achievement of success. In Nevada, it is also a law that operating rooms only have Certified Surgical Technologists working in them. Of these 29 completers, 28 successfully passed this exam on their first attempt and the one student that did not pass on the first attempt, passed on the second and is now a Certified Surgical Technologist. Of the 29 completers, 26 are employed as Certified Surgical Technologists.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

### Identified Area of Concern:

1. Program funding — Despite the program doubling in size and expanding to Reno, there has been no budget increase. The Reno extension requires the exact same instruction and testing as the Las Vegas Cohort. This requires the program director to travel to Reno on a regular basis every semester. We have scrambled to ensure this is happening but permanent solution must be found for this extension to continue.

**Proposed Solution:** Appropriate, permanent increase in Surgical Technology budget.



## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	52
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### B. Number of graduates from the program for the following years:

2016-17	9
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2017-18	7
---------	---

2018-19	11
---------	----

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	14
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Veterinary Technology program is part of the fulfillment of the mission of the College of Southern Nevada in that it is one of the opportunities that has been created to enrich the lives of students with an interest in the field of veterinary medicine. This opportunity exposes students to current and evolving knowledge, as well as practical experience in the field that will allow them to obtain nationally recognized credentials as veterinary technicians (nurses). As program students reach their goals, individual communities and the State of Nevada benefit by having new veterinary professionals enter into the work force and contribute to economic development as well as the public well-being through health care of companion and production animals. A licensed veterinary technician's duties are those of a veterinary nurse, nurse-anesthetist, operation room technician, dental hygienist, medical laboratory technician, and radiology technician. A graduate of this program may sit for the Veterinary Technician National Exam (VTNE) and Nevada Veterinary Technician exam. Veterinary technicians provide professional support services to veterinarians. A licensed veterinary technician's duties are those of a veterinary nurse, nurse-anesthetist, operating room technician, dental hygienist, medical laboratory technician, and radiology technician. The veterinary technician also performs administrative duties pertaining to the practice's management. The Veterinary Technology program at the College of Southern Nevada was the first such program in the State of Nevada to be fully accredited by the American Veterinary Medical Association's Committee on Veterinary Technician Education and Activities (AVMA-CVTEA). The initial accreditation was awarded in 2006. The most recent site visit was March of 2017 and the report provided again granted full accreditation. The letter indicating full accreditation with deficiencies is attached.

## II. Review Process and Criteria

Academic Program Reviews are faculty driven with the review process involving faculty from the program and external review from other institutions if possible. Department chairs appoint a Program Review Committee (PRC), and requests all relevant program information from Institutional Research. In addition, curriculum and assessment materials are used by the PRC to evaluate program effectiveness. The Program Review Committee analyzes the data and prepares a Program Review Document. Programs with specialized accreditation can draw additional data from those reports.

## III. Major Findings and Conclusions of the Program Review

Many students that complete the program are hired as veterinary technicians-in-training before they actually complete the course work and virtually 100% that seek employment are hired into the field after completion. Four students that have completed the program have gone on to Colleges of Veterinary Medicine and have or soon will receive a Doctor of Veterinary Medicine degree.

The program curriculum is designed to be easily updated as knowledge increases. The Veterinary Technician National Examination (VTNE) is offered three times per year for one month periods. The current three year pass rate for the Veterinary Technician National Examination is 77%. This is above the national average. At the most recent testing period CSN had 100% pass rate and the first time takers average scores for each section of the exam were between 10- 20% above the national average. The Clinical Competency Test pass rate for 2018 was 94.4%. Contributing to curriculum strength is the interrelation with the clinical affiliations that augments the didactic and laboratory learning. There are 13 sites that cooperate with CSN in delivering clinical experiences to the students. The Western Veterinary Conference (WVC) affiliation is unique in the United States for veterinary technician programs. In this affiliation CSN faculty are able to supervise students directly and utilize the staff of the WVC to augment the opportunity. In this arrangement, veterinarians from across the country participate in a monthly Clinical Proficiency Examinations for veterinarians desiring licensure in the United States and the CSN students act as nurses to the doctors. In this way the students are given access to some of the premiere veterinary specialists to gain experience and knowledge. Additionally, each year the WVC convenes the largest convention for veterinarians in the world and the CSN program students are given the opportunity to assist in 'hands-on' laboratory exercises to gain additional experience as well as given a complimentary registration to attend all aspects of the convention. In this way students are given access to any aspect of veterinary medicine and surgery to again augment their learning. The remaining affiliations are limited to unique locations where specialists in various fields help deliver some of the most up-to-date information and provide experiential learning that complements the didactic curricular offerings.

Another augmentation to the curricular strength is the program advisory board and the accreditation process. Curriculum is evaluated by both entities and recommendations are provided for improvement. Curriculum must meet the standard established by the AVMA-CVTEA in order for continued accreditation. CSN has been fully accredited since 2006.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

When weaknesses or deficiencies in the curriculum are identified by faculty, the advisory board, or the AVMA-CVTEA the faculty member that is responsible for the particular area immediately searches for updates in the current literature. This includes new editions of textbooks, new and pertinent journal publications, and alternative textbooks. Once alternatives are located the information is updated both didactically and for laboratory exercises.

If curriculum management requires course alteration to mitigate the deficiency then the advisory board is consulted to discuss the advisability of any proposed changes. Following discussion and incorporation of acceptable concepts, proposals are submitted to the CSN curriculum committee for consideration and potential adoption.

Weakness or deficiencies in equipment/ technology is addressed immediately if program budgetary resources allow procurement of the new equipment. When the program budget is inadequate then alternatives are sought such as CSN equipment grants, federal grants such as Perkins, and philanthropic sources.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	88
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### B. Number of graduates from the program for the following years:

2016-17	17
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2017-18	11
---------	----

2018-19	14
---------	----

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	26
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



## Program Review Great Basin College

### Degree Programs

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.
  - **Computer Technologies:**
    - ◊ Computer Programming A.A.S.
    - ◊ Graphic Communications, A.A., A.A.S
    - ◊ Network Specialist, A.A.S.
    - ◊ Office Technology, A.A.S.
  - Early Childhood Education, A.A., A.A.S. & C.A. / Infant & Toddler Education, A.A.S. & C.A.
- II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.

None
- III. List all new programs and corresponding degree for all programs that received Board approval in this academic year of review.

Manufacturing Machining Technology, A.A.S.

### Certificates

- I. List the certificates (at least 30 credits and under 30 credits) were reviewed over this academic year of review.
  - Graphic Communications, C.A.
  - Medical Coding and Billing, C.A.
  - Office Technology, C.A.
  - Early Childhood Education, C.A.
  - Infant & Toddler Education, C.A.
- II. List the certificate programs of at least 30 credits that received Academic Affairs Council (AAC) approval to be established in this academic year of review.

Manufacturing Machining Technology, C.A.

## **Program Review**

### **Great Basin College**

III. List the certificate programs of at least 30 credits that received AAC approval for elimination or deactivation in this academic year of review.

None

IV. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval to be established in this academic year of review and the corresponding state, national and/or industry recognized certification or license for which the certificate program provides such preparation.

None

V. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval for elimination or deactivation in this academic year of review.

None

# Computer Programming, A.A.S. / Graphic Communications, A.A., A.A.S., & C.A. / Medical Coding and Billing, CA/ Network Specialist, A.A.S. / Office Technology, A.A.S. &

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## I. Description of Program Reviewed

The Computer Technology (CT) Department offers a variety of program emphasis. The emphasis areas are Computer Programming A.A.S.; Network Specialist A.A.S.; Office Technology A.A.S. and C.A.; Graphic Communications A.A., A.A.S. and C.A.; Medical Coding and Billing C.A.. This program review covers all these Computer Technology programs and pattern of studies. These degrees are offered completely online and address local and rural Nevada needs.

## II. Review Process and Criteria

The process for this program review followed the NSHE code. Information was gathered from many sources to complete the review; institutional research, advisory board members, faculty and staff, students and graduates. This information along with program data was used to compile the initial report. An external reviewer validated the accuracy of the information in the report and provided guidance for the program's future.

## III. Major Findings and Conclusions of the Program Review

The program continues to provide quality education in the four emphasis areas. Students appreciate the ability to access courses through online delivery 24/7. The employment opportunities remain strong for CT graduates. The program remains flexible and is able to respond to industry demands by adding courses and skill certificates. An area to be improved upon is the recruiting and hiring of program faculty to fill vacant positions.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

- Recruit faculty with the option of serving anywhere within GBC's service area.
- Continue to seek funding to keep hardware and software up-to-date.
- Provide professional development opportunities to keep faculty current in their fields.
- Work with the College's IT Department to create a campus of current technologies.
- Follow IT workforce demands and respond by adjusting current programs or create new ones.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	149
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### B. Number of graduates from the program for the following years:

2016-17	25
2017-18	14
2018-19	32

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	478
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# Early Childhood Education, A.A., A.A.S. & C.A. / Infant/Toddler Education, A.A.S. & C.A.

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## I. Description of Program Reviewed

The Early Childhood Education (ECE) programs prepares students for entry-level employment in licensed preschool and child care programs. The Early Childhood Education program is composed of overlapping and parallel pathways that include Associate of Arts, Associate of Applied Science (two emphases) and Certificate of Achievement (two emphases). All were reviewed as one program.

## II. Review Process and Criteria

The process and criteria conform to NSHE Code, Title 4, Chapter 14, Section 5. GBC policy 3.40 provides additional institutional guidelines followed for program reviews. Collection and analysis of student data; program content, outcomes, and student performance; future planning; and comments from an external reviewer were all reviewed and considered for the program.

## III. Major Findings and Conclusions of the Program Review

GBC ECE program has many strengths and continues to be a viable program. The ECE program has creatively offered courses to address their students needs by utilizing online and hybrid format courses. The faculty, student, and community support for ECE program are strong. The job placement rate for graduates from 2014-2018 is at 87%. Graduate survey indicates that 89.06% are very satisfied with the ECE program.

Some opportunities for improvement were identified, as well. The development of an online Bachelor Degree in Early Childhoods Education was suggested by the outside reviewers and the students. Another suggestion was to expand practicum options by utilizing child care programs participating in the Nevada's Silver State Start QRIS Program. There was a suggestion to hire a second faculty member and this was completed in July 1, 2019.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

The next approach for the ECE program is to continue to create partnerships throughout the GBC communities for additional practicum placements and to create an online B.A. in Early Childhood Education. The B.A. will be placed on GBC's master plan for develop with a goal to implement the program in Fall of 2021 if resources and funding is available.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	127
---------	-----

### B. Number of graduates from the program for the following years:

2016-17	24
2017-18	18
2018-19	18

### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	243
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.





## **Program Review**

# **Truckee Meadows Community College**

### **Degree Programs**

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.
  - Anthropology, A.A .
  - Education
    - ◆ Elementary Education Teacher Preparation, A.A.
    - ◆ Secondary Education, A.A.
    - ◆ Secondary Education, A.S.
  - English, A.A.
  - Mathematics, A.S.
  - Transportation Technologies, A.A.S.
- II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.
  - Dental Hygiene, A.S.
  - Philosophy, A.A.
  - Renewable Energy and Resources, A.S.
- III. List all new programs and corresponding degree for all programs that received Board approval in this academic year of review.
  - Cyber Physical Manufacturing, B.A.S.

# Program Review

## Truckee Meadows Community College

### Certificates

- I. List the certificates (at least 30 credits and under 30 credits) that were reviewed over this academic year of review.
  - Automotive ASE Technician, C.A.
  - Automotive General Service Technician, C.A.
  - Diesel General Service Technician, C.A.
  - Automotive Service Excellence
    - ◆ Basic, Skills Certificate
    - ◆ Diesel Technician: Heavy Duty Power Trains, Skills Certificate
    - ◆ Diesel Technician: Light and Heavy Duty (HD) Diesel Engines, Skills Certificate
    - ◆ General Service, Skills Certificate
    - ◆ Master, Skills Certificate
- II. List the certificate programs of at least 30 credits that received Academic Affairs Council (AAC) approval to be established in this academic year of review.
  - Paramedic, C.A.
  - Personal Trainer, C.A.
  - Massage Therapist, C.A.
- III. List the certificate programs of at least 30 credits that received AAC approval for elimination or deactivation in this academic year of review.
  - Medical Imaging for Re-Entry Radiographers, C.A.
  - Paramedic, C.A. (should not have been eliminated)
  - Power Plant Operator, C.A.
- IV. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval to be established in this academic year of review and the corresponding state, national and/or industry recognized certification or license for which the certificate program provides such preparation.
  - Computed Tomography, Skills Certificate
  - Construction Technologies, Critical Systems, Skills Certificate
- V. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval for elimination or deactivation in this academic year of review.
  - Emergency Medical Technician Instructor Training, Skills Certificate
  - Wind Energy Technician, Skills Certificate

# Anthropology, A.A.

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## I. Description of Program Reviewed

The Anthropology Program is currently housed in the Division of Business and Social Science. The Associate of Arts degree in Anthropology is designed for students seeking careers in anthropology or related fields. As of Spring 2018, students enrolled in the A.A. Anthropology degree numbered 70. The program includes two full-time faculty and a pool of 11 part-time lecturers. The degree requirements include general education requirements to gain a breadth of knowledge in a wide array of disciplines. Students will also obtain fundamental knowledge in the theoretical, methodological, and topical frameworks of anthropology. This course of study is designed as a university transfer degree or can be tailored for those wishing an emphasis in anthropology for entering the workforce in entry-level positions. The A.A. degree in Anthropology is fully accepted at any four-year institution in the NSHE system and is fully transferable to most four-year schools in the nation.

## II. Review Process and Criteria

Programs and academic units undergo the program/unit review (PUR) process every 5 years, which consists of a reflective self-study that is reviewed by faculty in the Academic Standards and Assessment Committee (ASA), the academic dean, and Vice President of Academic Affairs (VPAA).

The self-study report describes the program, presents evidence of curriculum review and program assessment, provides analysis of enrollment, completion and demographics data, and culminates in a 5-year plan with resource requests that align to the Academic Affairs division's strategic plan and/or that of the College. The report is first reviewed by the academic dean and ASA, who identify program strengths and areas for improvement, and make recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the VPAA, who confirms, declines, and/or makes further recommendations for the program and charges the department and dean to implement the recommendations.

In the years between PUR, academic areas are required to complete an Annual Progress Report (APR), which addresses their progress made towards their 5-year plan and recommendations that arose from the review process. APRs are drafted by program faculty and then reviewed and approved by the dean and finally the VPAA, thereby closing the loop on the status of recommendations from the review process and strategies from the program's 5-year plan.

## III. Major Findings and Conclusions of the Program Review

### VPAA's Findings:

I am impressed with the focus on assessment as led by the coordinator and supported by full time and part time faculty. As suggested, showing direct impact of this assessment would be beneficial. The strength of the General Education component of the discipline should be the focus at this point. The faculty do an excellent job inspiring enthusiasm for the discipline within their students. Anthropology's mission aligns well with TMCC's mission and supports the overall goals of the institution.

### Deans Findings:

The Anthropology program at TMCC is primarily focused on providing General Education coursework for students in Social Science and Science. Additionally an A.A. transfer degree is offered but this is not the primary focus of the program as this is a small and not growing career field.

The program assesses every course every semester and even part time faculty are required to participate in this assessment which seemed like a bit too much assessment to me. However, I spoke to the two full time faculty about this practice and they explained that they do not do the CAR process every semester but have an internal process that allows them to look at new courses, changes to courses, evaluate effectiveness of each course and instructor and watch for anomalies so that they are on top of what is happening in the program and work towards continuous improvement. With this reasoning it does seem like a good practice. I encourage them to ensure that they are using the results of the assessment effectively to improve the program so that this is not just a practice that takes time but one that makes a difference.

### Academic Standards and Assessment Committee's Findings:

The Anthropology program at TMCC was the first program to complete the new revised PUR, and the first to do so using the eLumen software application. In addition, the Anthropology PUR was the first to be evaluated by the

Academic Standards and Assessment Committee using an assessment rubric. The committee acknowledges that both the PUR and the rubric can still be improved. The ASA Committee aims to move TMCC away from assessing courses in isolation and toward program learning outcomes assessment. Furthermore, the committee acknowledges that “programs” can be defined as degrees and certificates as well as general education courses if departments serve more students in general education than in their majors. The committee plans to make this distinction clearer in further revisions of the PUR template.

With that in mind, The ASA Committee acknowledges that the Anthropology program at TMCC is primarily focused on providing General Education coursework for students in Social Science and Science.

The ASA Committee found that Anthropology clearly mapped course student learning outcomes (CSLOs) to program student learning outcomes (PSLOs) as well as to general education learning outcomes, and that the Anthropology program mission is well-aligned to the TMCC mission. The department as a whole practices frequent, consistent, and meaningful assessment with an impressive degree of participation from full and part-time faculty. The committee agreed that learning outcomes could be more clearly articulated to enable assessment by measurable criteria, and that specific assessment instruments could be more clearly described or that samples of specific instruments and criteria could be presented in the report. In addition, the committee recommends a more complete analysis of specific assessment benchmarks presented in the report. Finally, the committee recommends updating a new needs assessment for a proposed Skills Certificate.

#### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

1. Both the VPAA and dean support the program faculty’s recommendation to hire a student worker to digitize materials and prepare collections for return to home sites. (Spring 20-Fall20)
2. The VPAA, dean, and ASA Committee support the recommendation to remodel the lab space, RDMT 244, to make it more useable, improve the learning environment, and increase the capacity of the room. Timeline of Summer 2020 is recommended. Depending on available funds, this may be prioritized on the list of classrooms for upgrades.
3. Both the VPAA and dean will consider supporting the request for the computer/tablet cart for RDMT 244 but would like to see more details of the problem with current options and or the intended regular use of the equipment if we do make this purchase to ensure responsible use of funds. The recommended that faculty present a proposal that expresses the issues, needs, and uses with a timeline of Spring 2019 for potential purchase and funding prior to Fall 2019. The VPAA would like the department to first see if a cart could be shared with another department that already has one and may have complementary scheduling.
4. The ASA Committee was split regarding the request for a full-time faculty member. There are concerns that the small size of the existing Anthropology program, coupled with changes at UNR that may further negatively affect student enrollment may not warrant a full-time hire. Both the VPAA and dean believe that the program has sufficient full time faculty and does not currently see an urgent need to meet the request for an additional full time faculty member. However, the issues of finding instructors who can teach daytime, in-person courses is acknowledged and so it is recommended to keep an eye on this situation and determine the need in a future APR. Enrollment in this program has been on a decline and we may be able to adjust course offerings to work with the current staffing situation until we can see a decisive trend. A new position in Anthropology is not foreseen in the near future.
5. Supplement Skill Certificate needs assessment from 2015 with more recent data to determine whether the need still exists, and identify a specific state, national, or disciplinary certifying/licensure exam for which the proposed certificate will prepare students. Include student input regarding interested and the anticipated enrollment in the needs analysis.
6. Focus assessment analysis and department discussion of where there might be gaps in areas of learning, and plans for improvement. Or, if already doing, document more clearly.
7. Develop a visual curriculum map of A.A. Anthropology PLO to CLO alignment using the description and assessment data outline in the PUR self-study.
8. The ASA Committee recognizes that the current PUR template focused on degree and/or certificate PLOs disproportionately to general education SLOs (GELOs), and Anthropology affects a larger number of students through its GE offerings. Given its impact on general education, the ASA committee also recommends that the Anthropology department develop a visual curriculum map of GELOs to CLOs in classes that have been designated as GE classes (i.e. ANTH 101, 102/110L, 201, 202, 205, 208)
9. Formalize, or create an Anthropology Advisory Committee composed of state and local professionals in the

field that meet on a regular basis.

10. Delete ANTH 229 and 279 as proposed.

#### **V. Descriptive Statistics**

##### **A. Number of students with a declared major in the program area:**

2018-19	33
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##### **B. Number of graduates from the program for the following years:**

2016-17	4
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2017-18	1
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2018-19	6
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##### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	1,223
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#### **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



# Elementary Education Teacher Preparation, A.A. / Secondary Education, A.A. & A.S.

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## I. Description of Program Reviewed

The Education program is an academic unit within the Social Science Department under the Division of Business and Social Sciences. There are two full time faculty teaching the majority of the eight education courses offered during the time of this study. The Education program has three transfer degrees, two in Secondary Education and one in Elementary Education. All three degrees meet general education and foundation education undergraduate requirements for education majors at the University of Nevada, Reno (UNR) and Nevada State College (NSC). The Education curriculum includes educational theory as well as practical fieldwork in elementary and secondary school settings. Degree and course outcomes are based on the scope of knowledge and skills within the Interstate New Teacher Assessment and Support Consortium (INTASC) Standards.

This program includes the following degrees.

### **A.A. Degree Secondary Education**

The Associate of Arts degree in Secondary Education is designed for students seeking careers in secondary education. The degree requirements include a well-balanced general education curriculum. Education coursework provides students with education theory and practical fieldwork in secondary education school settings. In addition, students will also need to select a "teaching major" and may complete some of the major coursework prior to transfer. This course of study is designated as a university transfer program that substantially meets the requirements for the first two years of study for the B.A. in Secondary Education at UNR. In order to complete an A.A., the "teaching major" courses will include a focus in foreign languages, English, social studies, history, music, art, career and technical.

### **A.S. Degree Secondary Education Emphasis**

The Associate of Science degree in Secondary Education is designed for students seeking careers in secondary education. The degree requirements include a well-balanced general education curriculum. Education curriculum provides students with educational theory and practical fieldwork in Secondary Education school settings. In addition, students will also need to select a "teaching major" and may complete some of the major coursework prior to transfer. This course of study is designated as a university transfer program that substantially meets the requirements for the first two years of study towards the B.S. for Secondary Education majors at UNR. In order to complete an A.S., the "teaching major" courses will include a focus in foreign languages, English, social studies, history, music, art, career and technical.

### **A.A. Degree Elementary Education Teacher Preparation (was Integrated Elementary Education with Specializations)**

The Associate of Arts, Elementary Education Teacher Preparation degree is designed for students seeking careers in elementary education. The degree requirements include a well-balanced general education curriculum. The specific curriculum provides students with educational theory and practical fieldwork in the elementary school setting. This course of study is designated as a university transfer program that fully meets the requirements for the first two years of Elementary Education and Special Education majors at Nevada State College and substantially meets the requirements for the first two years of study for the Elementary Education majors at UNR.

## II. Review Process and Criteria

Programs and academic units undergo the program/unit review (PUR) process every 5 years, which consists of a reflective self-study that is review by faculty in the Academic Standards and Assessment Committee (ASA), the academic dean, and Vice President of Academic Affairs (VPAA).

The self-study report describes the program, presents evidence of curriculum review and program assessment, provides analysis of enrollment, completion and demographics data, and culminates in a 5-year plan with resource requests that align to the Academic Affairs division's strategic plan and/or that of the College. The report is first reviewed by the academic dean and ASA, who identify program strengths and areas for improvement, and make recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the VPAA, who confirms, declines, and/or makes further recommendations for the program and charges the department and dean to implement the recommendations.

In the years between PUR, academic areas are required to complete an Annual Progress Report (APR), which addresses their progress made towards their 5-year plan and recommendations that arose from the review process. APRs are drafted by program faculty and then reviewed and approved by the dean and finally the VPAA, thereby closing the loop on the status of recommendations from the review process and strategies from the program's 5-year plan.

# Elementary Education Teacher Preparation, A.A. / Secondary Education, A.A. & A.S.

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### III. Major Findings and Conclusions of the Program Review

#### **VPAA's Findings:**

There is a great dearth of elementary and secondary teachers in Northern Nevada; hence, well-structured and articulated Elementary and Secondary education programs are of vital importance to the region. I believe the work done to revamp the degrees, which historically have been of little use due to very poor articulation, is a step in the right direction and that as students see the value of earning a degree will lead them to being full-standing juniors at a university, we will see increases in both declared majors and graduation rates. The addition of a coordinator beginning Fall '19 should foster the overall improvement and marketing of the EDU degrees.

#### **Academic Dean's Findings:**

TMCC's Education program is mirroring the national trend of a decrease in majors in the teaching professions. This has led to a crisis in the field as there is a teacher shortage and Nevada is feeling the impact of that shortage. NSHE institutions are striving to work together better to help meet the demands and as such TMCC has been participating in a process of reengineering the Education degrees to better align with new state requirements and requirements with transfer institutions, particularly UNR and NSC. The Elementary Education degree was redone last academic year and has been greatly strengthened. Work is being done to improve the Secondary Education degrees which are more complicated due to their areas of emphasis. It is hoped that new degrees will be submitted for approval in the next academic year in at least two areas of Secondary Education. The goal is to ensure TMCC Education majors have the opportunity to graduate from TMCC and have seamless transfer opportunities that fully articulate to our four year partner institutions.

#### **Academic Standards and Assessment Committee's Findings:**

The Education program at TMCC was in the first round of programs to complete the new revised PUR, and the first to do so using the eLumen software application. In addition, the Education PUR was among the first to be evaluated by the Academic Standards and Assessment Committee using an assessment rubric. The committee acknowledges that both the PUR and the rubric can still be improved. The ASA Committee aims to move TMCC away from assessing courses in isolation and toward program learning outcomes assessment. Furthermore, the committee acknowledges that "programs" can be defined as degrees and certificates as well as general education courses if departments serve more students in general education than in their majors. The committee plans to make this distinction clearer in further revisions of the PUR template.

The Academic Standards and Assessment Committee found that the Education department/program is addressing internal and external pressures on the enrollment and curriculum of the department with foresight in a challenging and changing field. In addition, the program is making clear efforts to give their students opportunities to participate in fieldwork and other learning opportunities with the Washoe County School District, that the program has a higher-than-average percentage of full-time-enrolled students, and is offering multiple bilingual opportunities through the curriculum. The committee agrees that the program should focus on addressing the alignment of curriculum with other Nevada colleges and universities for Education and Secondary Education degrees, and that the program should revisit the Program Student Learning Outcomes and Course Student Learning Outcomes to make sure they are measurable at the institutional level in addition to meeting the national INTASC standards. Finally, the committee recommends that the department hire a coordinator to work full time on transfer and articulation agreements, continuing to promote partnerships with the local school district, and to further articulate and pursue assessment and curriculum management.

### IV. Next Steps for this Program Based on Program Review Findings and Recommendations

VPAA's Goals for the program:

1. Grow declared Elementary Education majors by 20%
2. Grow declared Secondary Education majors by 10%
3. Twenty percent of declared elementary education majors will complete their degrees (up from the current rate of less than 5% completion.)
4. Ten percent of secondary education majors will complete their degrees (up from 4% completion rate for secondary education A.A. and a 0% completion for secondary education A.S. degrees.)



# Elementary Education Teacher Preparation, A.A. / Secondary Education, A.A. & A.S.

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## Recommendations:

1. The Elementary Education degree was just revamped for this current academic year and should be evaluated to see if it has improved retention and graduation rates after a few years. The Secondary Education degrees need to be rearticulated to four year partners after they have completed their current curriculum changes. It is hoped that these changes will help more students choose to declare and complete Education degrees rather than general transfer degrees. Timeline goal for completion of revamped secondary education degrees is fiscal year 2020.
2. The program will continue its efforts to partner with WCSD both in fieldwork and practicum experiences as well as in teaching dual credit WeTeach courses in the high schools to support the establishment of a pipeline of education majors in Washoe County. It is hoped that these efforts will increase enrollment in EDU courses as well as increase awareness and interest in the field of teaching to help meet the demand for educators in Nevada. Timeline begins in Spring 2019 and will be ongoing.
3. It is recommended that the program be granted a Coordinator or Lead Faculty position with a 2-3 credit stipend to conduct the activities outlined in the PUR report. Timeline goal is Fall 2019.
4. Explore options to include NVTC courses in the TMCC Secondary Education degrees through reverse transfer agreements if possible.
5. Develop Program Student Learning Outcomes that incorporate the INTASC standards but that map to Course Student Learning Outcomes in ways that clearly articulate classroom learning and assessment, and address terms such as "students" in the appropriate context.
6. Develop major objectives for the program with timelines and clear goals for the Five-Year Plan that are tied to assessment, core themes, and program learning outcomes.
7. Collect, analyze, and clearly present student testing data from PRAXIS and/or CBEST exams.
8. The committee supports the recommendation that the Education department hire a coordinator in order to focus on transfer alignment with UNR and NSC, and coordinate activities and fieldwork with Washoe County School District.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	177*
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### B. Number of graduates from the program for the following years:

2016-17	6*
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2017-18	1*
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2018-19	2*
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	475*
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\*Reflects all three degree programs.

## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The English Department is an academic unit in the Liberal Arts Division at Truckee Meadows Community College. We currently offer an A.A. emphasis in English, but we are also a support unit for nearly all of TMCC's Degrees. English is one of two departments offering Gateway courses as prescribed by the Nevada System of Higher Education. We also provide a good number of general education courses, developmental courses, and English as a second language courses. We serve an average of 720 FTE in an average of 155 sections per semester. The Department includes twenty-three Full-Time faculty. Two are Full-time temporary appointments, while two of our FT faculty are on reduced loads. We employ 25-30 part-time faculty members.

The department offers a variety of courses in English composition, language, and/or literature, both in traditional English and ESL. We also offer creative writing courses, reading courses, and journalism courses, and produce the award-winning literary magazine, *The Meadow*. Our composition courses in English and ESL provide the traditional academic sequence in freshman composition and sophomore-level courses; they are also designed to provide experiences for students who might not be pursuing a traditional academic path or degree.

The array of courses meets the needs of diverse populations, from traditional transfer students to occupational students to community members taking the courses for personal interest and growth. English pedagogy can take several potent forms. Most of our classes emphasize reading and writing as primary teaching modes. As a faculty, we also employ strategies such as group work, deep discussions, peer editing, test taking, multimodal composition, and most of all, critical thinking and problem solving.

## II. Review Process and Criteria

Programs and academic units undergo the program/unit review (PUR) process every 5 years, which consists of a reflective self-study that is review by faculty in the Academic Standards and Assessment Committee (ASA), the academic dean, and Vice President of Academic Affairs (VPAA).

The self-study report describes the program, presents evidence of curriculum review and program assessment, provides analysis of enrollment, completion and demographics data, and culminates in a 5-year plan with resource requests that align to the Academic Affairs division's strategic plan and/or that of the College. The report is first reviewed by the academic dean and ASA, who identify program strengths and areas for improvement, and make recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the VPAA, who confirms, declines, and/or makes further recommendations for the program and charges the department and dean to implement the recommendations.

In the years between PUR, academic areas are required to complete an Annual Progress Report (APR), which addresses their progress made towards their 5-year plan and recommendations that arose from the review process. APRs are drafted by program faculty and then reviewed and approved by the dean and finally the VPAA, thereby closing the loop on the status of recommendations from the review process and strategies from the program's 5-year plan.

## III. Major Findings and Conclusions of the Program Review

The English department plays a vital role for TMCC students in the delivery of the Gateway ENG 101 and the required ENG 102 that the vast majority of students need for their A.A. and A.S. degrees. The challenge for the department seems to be making its English A.A. truly a useful transfer degree. Additionally, the 200-level courses although desirable to teach, do not respond to student degree needs as currently structured. It appears that the department would benefit from a concerted effort in addressing the issues with the English A.A. degree, the oversaturation leading to cannibalization of the Fine Arts GE category, and looking forward to the future of the WICHE Passport. The department has achieved a great deal and the faculty members add significant value to the institution. Kudos to the department, its faculty, and the accomplishments of the past five years.

The English department has a strong focus on assessment and continual improvement. This has positioned them well to be nimble, which is apparent in their swift response to the coreq pilot project. English faculty are very active and engaged in their service to the College. The role of faculty advising of students is going to become more and more important as we work toward the 350:1 ratio goal established by the Board of Regents and the English department has long been advising students. The department has done an excellent job of scheduling their Gateway classes, which has resulted in high levels of compliance to the Gateway mandate for access. In addition, English has been a leader in the development and scheduling of our Learning Commons pilot.

The department deserves kudos for stepping up when it came to developing and implementing (beginning Fall 2019 semester) the rotation schedule for 200-level courses. A fair and equitable workplace that offers variety and opportunity for all equally is vital to long-term success. I expect this to be fully implemented in Fall 2019 and continue as the standard practice moving forward.

One of the main areas for improvement is the actual English A.A. degree. It is not fair to students to have a degree where most courses will transfer only as electives. The department must stay focused on what students need. The department should fulfill the recommendations of the 2012-13 PUR including exploring reading and writing across the curriculum.

Two very enlightening data points discussed are 1) the focus and effort put into the degree while it generates so little FTE, and 2) the need to examine if students are gaining the requisite skills from ENG 101 to be successful in ENG 102.

The effort to make the ENG courses fulfill GE Fine Arts requirements is doing students a disservice and diluting the focus of the department on its primary responsibility as well as cannibalizing enrollment from the Fine Arts.

#### **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

##### **VPAAs Recommendations:**

I agree with Dean's recommendations 1 – 7. I believe #7 has already been accomplished. I also concur with the Support of Resources #1 and 3. I would like to see how well the coreq needs can be met by existing faculty and part time faculty before adding a tenure track line.

Although I agree with ASAC's recommendations, between the Dean's and the Committee's recommendations, there are 17 (with some overlap) items that need to be addressed. ASAC recommendations 1 – 10 are important but need to be prioritized. ASAC recommendations 5 and 6 relate to the Dean's recommendation 1, ASAC recommendation 7 relates to the Dean's support of resources #3, and ASAC's recommendation #8 relates to the Dean's #4 (and is from the last PUR). These (ASAC's recommendations 5, 6, 7, and 8) should be focused on first.

##### **Dean's Recommendations:**

- Explore 300 level courses currently offered as sophomore coursework in transfer 2 + 2 programs with UNR English, but also explore utilizing English 246 as a shell course for the array of other 200 level offerings currently listed as part of English A.A. that rarely, if ever get taught. Also explore conversation with Humanities Department to teach Hum 101 and Hum 102 (as appropriate to the learning outcomes listed by that department for those courses) utilizing thematized approach that would include some of the content currently present in English 200 offerings. (Timeline Fall 2021)
- Explore the viability of a Creative Writing pathway with a clear portfolio project that can be utilized by students upon applying to the Writing emphasis at UNR. (Timeline Fall 2021)
- Work with the Dean of Liberal Arts to establish criteria for teaching specific 200 level courses. (Timeline Fall 2020)
- Create a "Writing and Reading Across the Curriculum" option for Gateway courses and for content support in other disciplines. This effort should coincide with the curriculum discussion for how to generate co-requisite courses per system mandate. (Timeline Fall 2020)
- Explore the viability of an Intensive Language Program offered by ESL faculty working with the International Program. (Timeline Fall 2020)
- In coordination with the Dean of Liberal Arts, research impacts of placement practices and changes made on students prior to establishing final Accuplacer cut off scores for co-requisite courses offered starting fall 2020. (Timeline: Utilize pilot year 2019-2020 for data)
- Realign existing coordinators and department chair duties to ensure writing program needs are met. To this end, consider folding release time of ESL/Reading Coordinator into the Department Coordinator position. Create an ESL presence in the core English Office Vista 300 suite for advisement and visibility purposes.

##### **Resources Necessary for Implementation of Recommendations:**

The English Department will require replacement of two faculty lines upon retirement of existing faculty.

1. The English Department will possibly require one additional tenure track line to meet the needs of the corequisite model mandate.
2. The English Department routinely relies on one year fulltime lines and LOBs for coverage. The college should consider creation of 3 year lectureships to be competitive with UNR for these positions and to ensure stable coverage of writing program sections.

**Academic Standards and Assessment Committee's Recommendations:**

1. Perhaps the department can work with the library on information literacy (Five-Year Plan Curricular Goals; PSLO #4 Assessment box).
2. Although not addressed in the PUR because of timing, move forward with plans to pilot co-requisite models in Fall 2019.
3. Submit a visual matrix/curriculum map of A.A. English PLOs/CLOs mapping that was described in the report for eLumen.
4. Continue the work started to define PLOs for a "composition program" (developmental co-reqs, ENG 101, 102), which would emphasize composition as the core service of the department noted in the interim dean's evaluation (and by the department chair in PUR discussions).
5. Evaluate the A.A. English for improved alignment with UNR's B.A. English. The interim dean suggests viable strategies with the modification of ENG 246 as a Rotating Topics course and utilization of existing courses in other departments (CH 201, 202, 203, HUM 101 and 102, and THTR 210) towards degree electives that should be explored. The committee supports the dean's suggestion.
6. Explore offering ENG 303 - Introduction to Literary Theory and Criticism as part of the English A.A.. ENG 303, in UNR's Literature Specialization, is the only 300-level course required in the first two years of UNR's B.A. English degree specializations.
7. Agree with the strategy of 3-year lectureships in composition as opposed to 1-year FT temporary hires. Work with the dean to pursue this.
8. Pursue "writing across the curriculum" from the last PUR.
9. Reexamine five-year plan in order to provide sufficient time to realize the admirable goals. Include the impact of the co-requisite policy in this plan.
10. Explore the possibility of developing an A.A. English/Secondary Education degree to align with UNR's Pack Teach.
11. Clarify degree and emphasis requirements: <http://catalog.tmcc.edu/degrees-certificates/programs/english/aa-english-emphasis/#programrequirementstext>

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	99
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**B. Number of graduates from the program for the following years:**

2016-17	10
2017-18	14
2018-19	12

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	6,292
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**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.

## I. Description of Program Reviewed

The Mathematics Department is a unit of TMCC's Sciences Division. The department currently has 22 full-time faculty. The department offers a 2-year transferable degree: Associate of Science, Mathematics. The curriculum offered emphasizes knowledge and practice through a variety of pedagogical approaches (lecture, lab, small group work, "flipped classroom," etc.).

## II. Review Process and Criteria

Programs and academic units undergo the program/unit review (PUR) process every 5 years, which consists of a reflective self-study that is review by faculty in the Academic Standards and Assessment Committee (ASA), the academic dean, and Vice President of Academic Affairs (VPAA).

The self-study report describes the program, presents evidence of curriculum review and program assessment, provides analysis of enrollment, completion and demographics data, and culminates in a 5-year plan with resource requests that align to the Academic Affairs division's strategic plan and/or that of the College. The report is first reviewed by the academic dean and ASA, who identify program strengths and areas for improvement, and make recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the VPAA, who confirms, declines, and/or makes further recommendations for the program and charges the department and dean to implement the recommendations.

In the years between PUR, academic areas are required to complete an Annual Progress Report (APR), which addresses their progress made towards their 5-year plan and recommendations that arose from the review process. APRs are drafted by program faculty and then reviewed and approved by the dean and finally the VPAA, thereby closing the loop on the status of recommendations from the review process and strategies from the program's 5-year plan.

## III. Major Findings and Conclusions of the Program Review

### VPAA's Findings:

Math is a robust program with growing FTE. The faculty and staff have been very proactive in working to achieve the access requirements for the NSHE mandated Gateway initiative. I am pleased to see the high representation of Hispanic students as Math majors. I am impressed with the incredible amount of work that has been put into all aspects of improving access and outcomes for students. The deep dive into placement score, the development of Drillz and \$killz Workshops, the student-focused scheduling that includes mini sessions, stretch, etc., all are innovative approaches to helping our students succeed. Unfortunately, with the co-req NSHE mandate, we will not be able to see the true impact of these endeavors. It must be noted that the Math department will be greatly impacted by the co-req policy and we will not know the true cost or impact for some time.

### Dean's Findings:

The challenges of the dual roles of the Math Department are apparent. They serve Math majors as well as all students needing math in all other majors, and these are very different and sometimes conflicting missions. I strongly advocate for keeping the Math major, even though there are a small number of students who pursue this pathway. The community college is the pathway for under-represented students, and this mission is reflected in TMCC Math majors who were 38.9% Hispanic, while TMCC overall was 28.8% Hispanic in the reporting period. I do not know the percentage of Hispanic Math majors at UNR, but their overall percentage of Hispanic students was reported as 19% in Fall 2017. TMCC is likely a substantial component of the minority student pipeline to Math majors at the university. This should be collaboratively tracked along with the pipeline to other math-intensive degrees, like Engineering. A high percentage of TMCC Math majors transfer (75%) and the majority of those went on to UNR (73% of those) in the reporting period. The department must show due diligence to the major, while also providing a huge service component to the college. This is a challenge. The department understands both sides of their mission, but more resources, professional development, and targeted faculty recruitment are required to fulfil this mission fully. Also, the PUR process needs to adapt to this reality and include different datasets for analysis for departments with very large service components, like Math and English.

An expanded analysis of the entry Gateway math courses (Math 120 and 126) will become imperative with the new NSHE co-requisite policy. Math 120 is not part of the math major at all (it is a large service course for non-STEM majors), and Math 126 is only included in the major for students starting with low math preparation. While they are not part of the Math major, together these two courses (Math 120 and 126), along with their pre-reqs

(Math 95 and 96), account for the vast majority of students and FTE. Fill rates and unsuccessful enrollment attempts are informative when comparing courses, but the addition of respective FTE per course would help tell the full story. Many of the department's initiatives toward improving curriculum and pedagogy focus on these courses and they received little mention compared to the upper level math courses in the major because of the structure of the PUR.

The Math PUR data show that Math majors who start with Math 126 take longer to complete the major (2 semesters longer). This makes sense because they have more foundational knowledge to build before they can take the true math major's sequence starting with calculus. With the implementation of the co-req policy we will need to be sure to maintain the curriculum of Math 126 so that it continues to be a preparatory pathway to the math sequence required of STEM majors. I recommend partitioning out the analyses of course pass rates into "service courses" (below Math 127) and "majors' courses" (Math 127 and higher), and the success of Math 126 students based on whether or not Math 126 is their terminal math course or a pre-req in their major.

The NSHE co-requisite policy will dominate all discussions of TMCC math courses for the foreseeable future. The resources that will be needed to implement the policy will be significant and they were not included in this PUR due to timing. I believe the Math Department has strong leadership at this important juncture and faculty committed to continual assessment and improvement of curriculum and pedagogy. They are poised to rise to the challenges of improving student learning through the delivery of high quality co-req math courses and major's math courses as long as they are provided the necessary resources and infrastructure.

### **ASA Committee Findings:**

The Math program at TMCC was in the first round of programs to complete the new revised PUR, and the first to do so using the eLumen software application. In addition, the Math PUR was among the first to be evaluated by the Academic Standards and Assessment Committee using an assessment rubric. The committee acknowledges that both the PUR and the rubric can still be improved. The ASA Committee aims to move TMCC away from assessing courses in isolation and toward program learning outcomes assessment. Furthermore, the committee acknowledges that "programs" can be defined as degrees and certificates as well as general education courses if departments serve more students in general education than in their majors. The committee plans to make this distinction clearer in further revisions of the PUR template.

The Academic Standards and Assessment Committee found that the Math department/program has clear Program and Course Student Learning Outcomes, solid assessment protocols and strong FTE growth. In addition, the department provides clear evidence of assessment-driven improvement, as well as student-centered scheduling to accommodate the program's strong enrollment. The committee agrees that the program may see a significant impact from planned co-requisite course requirements to potentially be mandated by the NSHE Board of Regents. Further, the committee recommends considering program curriculum and the continuation of the A.S. Mathematics degree, and studying the implications for courses such as Math 295 and Math 330. Additional concerns were raised regarding resource requests not directly tied to assessment results and the Strategic Master Plan, as well as the statement regarding student success. Finally, the committee recommends: that the department develop a set of "service/general education" Program Student Learning Outcomes; to develop Math 295 and Math 330 by continuing to offer an A.S. in Mathematics; research a possible collaboration with the Education department to create a dual A.S. Mathematics/As Secondary Education degree; and update the program assessment cycle.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

**The VPAA** Upholds the Dean's recommendations 1 (ASAC #3), 2, 3 – if funding is available, 4, and 5.

The VPAA upholds The ASAC's recommendations 1 – but time it with the co-req implementation, 2, 3 (Dean's #1), and 4.

### **Dean's Recommendations:**

1. I recommend maintaining the Math A.S. degree and exploring the possibility of adding an A.S. degree that combines math and secondary education in order to increase the pipeline of students going into math teaching to meet the needs of our local school district.
2. Course and pathway revisions will be forthcoming per the NSHE co-requisite policy. We will work within the department and the division, with our counterparts at other institutions, and within the framework of the NSHE co-req Task Force to do this in an effective and fiscally responsible way.



3. Departments with very large service components need different datasets to evaluate their effectiveness. Adding respective FTE per course in addition to reporting fill rate percentages would improve the PUR datasets. For Math I recommend partitioning out the analyses of course pass rates into "service courses" (below Math 127) and "majors' courses" (Math 127 and higher), and the success of Math 126 students based on whether or not Math 126 is their terminal math course or a pre-req in their major.
4. Service to other disciplines should not impact the pathway of students in the major. The curriculum of Math 126 must be maintained so that it continues to be a preparatory pathway to the math sequence required of STEM majors.

## ASAC recommendations.

1. Given the department's significant service function to general education, it is recommended that the department develop a set of "service/general education" Program Student Learning Outcomes that could be assessed in the appropriate developmental-gateway course pathways, for example Math 96-Math 126, or Math 95-Math 120.
2. In order to develop Math 295 and Math 330, the department should continue to offer the A.S. in Mathematics.
3. If the department decides to continue offering the A.S. in Mathematics, it should consider collaborating with Education faculty to develop a dual A.S. Mathematics/A.S. Secondary Education. There is room for electives in the A.S. Mathematics degree.
4. Update the assessment cycle so there is regular Course and General Education Assessment.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	45
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### B. Number of graduates from the program for the following years:

2016-17	6
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2017-18	7
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2018-19	5
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	7,139
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



# **Transportation Technologies Program: Transportation Technology: Automotive Certified Technician; Diesel Technician, A.A.S./Automotive ASE Technician, C.A./Automotive General Service Technician, C.A./Diesel Service Technician, C.A./Skills Certificates: Automotive Service Excellence (ASE) Basic; Diesel Technician Heavy Duty Power Trains; Diesel Technician Light and Heavy Duty Diesel Engines; General Services; Master**

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## **I. Description of Program Reviewed**

The Transportation Technologies Unit of Truckee Meadows Community College provides training that meets industry and government standards and aids in the growth and development of northern Nevada's workforce by providing quality education to those seeking to begin or advance their career in the transportation industry. Individual unit programs consist of general education courses and emphasis-specific technical courses, which provide students with the knowledge and skills needed to be successful in today's high-tech transportation workplace.

The Transportation Technologies Unit is a member of the Technical Sciences Division of Truckee Meadows Community College and is located at the Edison campus William N. Pennington Applied Technology Center. The major programs and area of study within the Transportation Technologies Unit are Automotive, Diesel and Aviation. The majority of Transportation Technologies students attend their specialized emphasis training and many of their general education courses at Edison campus.

## **II. Review Process and Criteria**

Programs and academic units undergo the program/unit review (PUR) process every 5 years, which consists of a reflective self-study that is review by faculty in the Academic Standards and Assessment Committee (ASA), the academic dean, and Vice President of Academic Affairs (VPAA).

The self-study report describes the program, presents evidence of curriculum review and program assessment, provides analysis of enrollment, completion and demographics data, and culminates in a 5-year plan with resource requests that align to the Academic Affairs division's strategic plan and/or that of the College. The report is first reviewed by the academic dean and ASA, who identify program strengths and areas for improvement, and make recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the VPAA, who confirms, declines, and/or makes further recommendations for the program and charges the department and dean to implement the recommendations.

In the years between PUR, academic areas are required to complete an Annual Progress Report (APR), which addresses their progress made towards their 5-year plan and recommendations that arose from the review process. APRs are drafted by program faculty and then reviewed and approved by the dean and finally the VPAA, thereby closing the loop on the status of recommendations from the review process and strategies from the program's 5-year plan.

## **III. Major Findings and Conclusions of the Program Review**

### **VPAA's Findings:**

The Transportation Department has worked hard this past few years to ensure that students will be able to test and earn specialized manufacturer certifications that directly positively affect their earning potential. Faculty attended a Webinar on block scheduling and immediately implemented a pilot. The enrollment numbers were down due to a staffing opening but should recover well now that positions were successfully filled. This department is open to new pedagogy, scheduling models, and other actions that will help their students be successful, not just in the classroom but in their profession.

## **Transportation Technologies Program: Transportation Technology: Automotive Certified Technician; Diesel Technician, A.A.S./Automotive ASE Technician, C.A./Automotive General Service Technician, CA/Diesel Service Technician, C.A./Skills Certificates: Automotive Service Excellence (ASE) Basic; Diesel Technician Heavy Duty Power Trains; Diesel Technician Light and Heavy Duty Diesel Engines; General Services; Master**

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### **Academic Dean's Findings:**

The Transportation program has steady enrollment and above average course completion rates. In the past two years, the instructors have worked on outreach to the regional employers and have seen more engagement as a result. Work for this program needs to be ongoing to ensure the program technology stays current to the employment market. The transportation program has gone through many changes in the past two years. The automotive side had added new equipment and updated the content to add a new emphasis. It has also changed the delivery format of the course to a block schedule intended to benefit students by being quicker to complete and easier to schedule. The diesel technology side has challenges with outdated technology. Both sides have added new instructors and in AY18-19 went with a vacant instructor position. Once fully staffed, the program will have room for growth and increased student capacity.

### **Academic Standards and Assessment Committee's Findings:**

The Transportation Technology program at TMCC was in the first round of programs to complete the new revised PUR, and the first to do so using the eLumen software application. In addition, the Transportation Technology PUR was among the first to be evaluated by the Academic Standards and Assessment Committee using an assessment rubric. The committee acknowledges that both the PUR and the rubric can still be improved. The ASA Committee aims to move TMCC away from assessing courses in isolation and toward program learning outcomes assessment. Furthermore, the committee acknowledges that "programs" can be defined as degrees and certificates as well as general education courses if departments serve more students in general education than in their majors. The committee plans to make this distinction clearer in further revisions of the PUR template.

The Academic Standards and Assessment Committee found that the Transportation Technology department/program has achievable and well-thought-out ideas to address rapidly changing technologies in the transportation sector, is closely tied to an advisory committee that keeps curriculum and instructors connected to national best practices and standards, has clear and specific Program Student Learning Outcomes, and offers multiple, flexible program pathways and student-centered course scheduling. The committee has concerns that the Course Program Student Learning Outcome assessment does not yet clearly map to the Program Student Learning Outcomes, and that Automotive enrollments are showing a slight decline during a time frame when the rest of the division is showing a slight increase. Furthermore, the committee recommends creating a narrative that clearly ties the program mission to the college's mission, that the program clearly and specifically tie capital and staffing needs to Program Student Learning Outcomes and the TMCC Strategic Master Plan, measure the embedded General Education learning outcomes through assessment, and evaluate and analyze how Program Student Learning Outcomes are achieved through the Course Student Learning Outcomes assessment tools.

## **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

1. AY18-19 Document need and pursue resources for equipment/facility needs identified for during the course assessment reviews and by employer Advisory Boards. The ASA Committee supports the recommendations for additional equipment and staffing needs. Clearly and specifically tie requested staffing and capital improvement needs to Program Student Learning Outcomes and the Strategic Master Plan.
2. AY19-20 Review all credentials for complete alignment of CLOs with the credential SLOs; revise course CLOs if gaps are identified; submit changes as needed for CRC approval. The program needs to evaluate how well the Course Student Learning Outcomes of individual courses are helping meet the Program Student Learning Outcomes of the degrees and certificates. There seems to be a clear correlation, but little to no analysis.

**Transportation Technologies Program: Transportation Technology: Automotive Certified Technician; Diesel Technician, **A.A.S./Automotive ASE Technician, C.A./Automotive General Service Technician, C.A./Diesel Service Technician, CA/Skills Certificates:** Automotive Service Excellence (ASE) Basic; Diesel Technician Heavy Duty Power Trains; Diesel Technician Light and Heavy Duty Diesel Engines; General Services; Master**

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3. AY20-21 Review Diesel program for addition/deletion of courses as needed to incorporate new technology. Make sure new courses are consistent with format for CLO and SLO alignment developed in previous year.
4. AYs 18-19, 19-20, 20-21 Follow up with resource allocation to obtain new equipment as it is identified and edit courses as need. The large investment needed to upgrade Diesel might take 2-3 years.
5. Measure the embedded Math and Human Relations/Communications Course Student Learning Outcomes for General Education assessment.

**V. Descriptive Statistics**

**A. Number of students with a declared major in the program area:**

2018-19	172*
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**B. Number of graduates from the program for the following years:**

2016-17	87*
2017-18	109*
2018-19	99*

**C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	732*
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\* Includes all degrees and certificates reviewed.

**VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.



## Program Review Western Nevada College

### Degree Programs

- I. List the existing programs and corresponding degree for all programs that were reviewed over this academic year of review.  
Criminal Justice, A.A.S.  
Technology, A.A.S.
- II. List any programs and corresponding degree level for all programs that received Board approval for elimination or deactivation in this academic year of review.  
None
- III. List all new programs and corresponding degree for all programs that received Board approval in this academic year of review.  
None

### Certificates

- I. List the certificates (at least 30 credits and under 30 credits) that were reviewed over this academic year of review.  
None
- II. List the certificate programs of at least 30 credits that received Academic Affairs Council (AAC) approval to be established in this academic year of review.  
Building Trades, C.A.
- III. List the certificate programs of at least 30 credits that received AAC approval for elimination or deactivation in this academic year of review.  
None
- IV. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval to be established in this academic year of review and the corresponding state, national and/or industry recognized certification or license for which the certificate program provides such preparation.
  - Automotive Automatic Transmission and Transaxle, Automotive Service Excellence (ASE) Exam
  - Automotive Brakes, Automotive Service Excellence (ASE) Exam
  - Automotive Electrical/Electronic Systems, Automotive Service Excellence (ASE) Exam
  - Automotive Engine Performance, Automotive Service Excellence (ASE) Exam





## Program Review Western Nevada College

- Automotive Engine Repair, Automotive Service Excellence (ASE) Exam
- Automotive Heating and Air Conditioning, Automotive Service Excellence (ASE) Exam
- Automotive Maintenance and Light Repair, Automotive Service Excellence (ASE) Exam
- Automotive Suspension and Steering, Automotive Service Excellence (ASE) Exam
- Advanced Emergency Medical Technician (AEMT), National Registry of Emergency Medical Technicians Certification Exam
- Festo Industry 4.0 Certification, Level 1, Festo Industry 4.0 Certification Program, Level 1
- Level 2: Siemens Certified Mechatronic Systems Associate

IV. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval for elimination or deactivation in this academic year of review.

None

## I. Description of Program Reviewed

The Associate of Applied Science in Criminal Justice provides the academic knowledge and skills needed to succeed in the criminal justice field. Students are given the opportunity to explore all areas of the criminal justice system, including law enforcement, policing and investigations, corrections, parole and probation, prosecution and courts, juvenile justice, and rehabilitation options within the community. Students receive valuable access and networking with experienced instructors who have studied and worked extensively in all areas of the criminal justice system.

Students who complete the Associate of Applied Science degree in Criminal Justice are expected to demonstrate they can:

- Meet the general education requirements of WNC.
- Maintain proper professional attitude for law enforcement.
- Articulate the legal requirements of search and seizure.
- Recognize and evaluate criminal law.
- Process crime scenes.
- Analyze theories for committing crimes.
- Maintain vocabulary necessary for criminal justice.
- Have an acute awareness of cultural diversity.
- Maintain crime scenes.

## II. Review Process and Criteria

Academic Program Review at Western Nevada College is guided by the Program Assessment and Review Committee (PARC), with additional guidance and support provided by the interim Vice President of Academic and Student Affairs (VPASA), Institutional Research and Effectiveness (IRE), and the Academic Division Director overseeing the academic program undergoing review.

The Associate of Applied Science in Criminal Justice program review was conducted by a Program Review Team headed by academic faculty members Richard Finn (now retired) and Greg Sly. WNC Professional and Applied Technology (PAT) Division Director Georgia White was selected as the internal reviewer, and Katie Durbin was external reviewer.

The process involves a program self-assessment, curriculum review, formal report, presentation of findings to the college community, and student panel interviews. Following the presentation and review of the report, VPASA, PARC, and the Program Review Team met to discuss program review conclusions and recommendations. Finally, the Program Review Team used these findings to develop a five-year action and assessment plan for the next five-year period.

## III. Major Findings and Conclusions of the Program Review

After completing the A.A.S. Criminal Justice program review, the program has concluded that creating a two-year course schedule with an appropriate mix of online and in-person course offerings will help enrolled students better plan and complete the degree program in two years. Additionally, while there has been past interest in exploring an A.A. in Criminal Justice as a transfer degree option, the program review found that there is not sufficient student enrollment to support an A.A. degree offering at this time. Instead, the degree program will remain an A.A.S.. Students interested in transferring to a four-year Criminal Justice program are encouraged to instead declare WNC's A.A. degree and work closely with WNC academic advisors to take appropriate Criminal Justice transfer coursework.

## IV. Next Steps for this Program Based on Program Review Findings and Recommendations

PARC provided the following recommended next steps following the program review presentation and exit interview with the Program Review Team and WNC leadership:

- Revising and updating program Mission.
- Creating an annual plan with specific goals for the A.A.S. Criminal Justice Program.
- Creating a regular schedule of face-to-face and online course offerings to better enable two-year program completion.
- Working with Information and Marketing Services to update A.A.S. CRJ Program Guide information in print and online.
- Working with Counseling and faculty advisors to provide a clear pathway for A.A. students looking to transfer into four-year CRJ programs.
- Beginning a project to realign CRJ course, program, and WNC institutional learning outcomes.
- Working to standardize first week assessment in CRJ 101 to better evaluate and track student goals and interests within the program and upon completing the program.
- Greg Sly's upcoming work in the Assessment and Planning Lead Faculty position to continue developing and tracking meaningful course and program learning outcome assessment.
- Hiring a full-time instructor.
- Reviewing the need for a program coordinator or additional administrative support to coordinate adjunct faculty and program assessment at all levels.
- Moving forward with previously described positive changes and projects within the program.

## V. Descriptive Statistics

### A. Number of students with a declared major in the program area:

2018-19	83
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### B. Number of graduates from the program for the following years:

2016-17	12
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2017-18	20
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2018-19	8
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### C. Headcount of students enrolled in any course related to the program (duplicated):

Fall 2018	203
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## VI. Institutional Reports

Click [here](#) for a copy of the institutional report summarized above.



### **I. Description of Program Reviewed**

The Associate of Applied Science in Technology provides employment-related knowledge and skills necessary as a professional in one of eight areas of study: automated systems, automotive mechanics, computer information technology, construction, general industry, machine tool technology, mechatronics, and welding.

Students who complete an Associate of Applied Science in Technology are expected to:

- Know the subject matter appropriate to the emphasis of the degree.
- Communicate effectively and appropriately, in oral and written form.
- Locate, evaluate and properly utilize the tools and resources appropriate to a technology degree professional.
- Acquire skills and perform tasks necessary for employment or career enhancement.
- Develop an appreciation of the importance of social, ethical, legal and diversity issues.
- Develop an appreciation of the need and importance of lifelong learning.

### **II. Review Process and Criteria**

Academic Program Review at Western Nevada College is guided by the Program Assessment and Review Committee (PARC), with additional guidance and support provided by the interim Vice President of Academics and Student Affairs (VPASA), Institutional Research and Effectiveness (IRE), and the Academic Division Director overseeing the academic program undergoing review.

The Associate of Applied Science (A.A.S.) Technology program review was conducted by a Program Review Team headed by academic faculty member Nigel Harrison with assistance from faculty representatives in each of the eight areas of study under the A.A.S. Technology degree. WNC Professional and Applied Technology (PAT) Division Director Georgia White was selected as the internal reviewer.

The process involves a program self-assessment, curriculum review, formal report, presentation of findings to the college community, and student panel interviews. Following the presentation and review of the report, WNC President Vincent Solis, VPASA, PARC, and the Program Review Team met to discuss program review conclusions and recommendations. Finally, the Program Review Team used these findings to develop a five-year action and assessment plan for the next five-year period.

### **III. Major Findings and Conclusions of the Program Review**

The A.A.S. Technology degree covers a range of diverse professional training and skills. All subject areas under this degree provided excellent evidence of strong connections with area industry, hands-on student training and employment opportunities, and plans to continue growing these connections. A shared emphasis on teaching A.A.S. Technology students in-demand soft skills, in addition to industry-ready technical skills, was another strength of the degree. Enrollment numbers support increased course offerings in alignment with area industry needs.

### **IV. Next Steps for this Program Based on Program Review Findings and Recommendations**

PARC provided the following recommended next steps following the program review presentation and exit interview with the Program Review Team and WNC leadership:

PARC supports the recommendations discussed during the presentation and exit interview, which include:

- Working with outreach staff campus-wide to support expanded outreach efforts.
- Creating a full-time outreach position, especially in support of connecting with nontraditional/adult/returning/part-time student populations.

- Reviewing curriculum and course offerings within certain areas to match student interest and changing professional pathways (such as an increased emphasis on security within the area of Computer Information Technology).
- Exploring the creation of a Soft Skills certificate.
- PARC recommends that the Technology Program Review Team submit the final Internal Reviewer Report, External Reviewer Report, and standard Five-Year Action Plan as the final portion of their 2018 Academic Program Review.
- PARC recommends that progress toward positive program developments and plans discussed in the presentation and exit interview be included in the forthcoming May 2019 Program Update Report and the November 2019 Annual Program Assessment Report. These reports are part of WNC's new planning and assessment cycles, and will be completed by the CTE Assessment and Planning Lead Faculty.
- PARC recommends better tracking "job upgrade" students who are not seeking degrees or certificates. As a part of this effort, programs could communicate with industry partners about their preference for students who can demonstrate competency and skills in specific areas (those taking a collection of courses as a "job upgrade") vs. those who complete full degree programs.

## **V. Descriptive Statistics**

### **A. Number of students with a declared major in the program area:**

2018-19	264
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### **B. Number of graduates from the program for the following years:**

2016-17	24
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2017-18	21
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2018-19	29
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### **C. Headcount of students enrolled in any course related to the program (duplicated):**

Fall 2018	999
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## **VI. Institutional Reports**

Click [here](#) for a copy of the institutional report summarized above.