2017-18
Existing Program Review

November 2018

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

NSHE Leadership

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Executive Summary

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 extracts and compiles data from the institutional reports regarding the unduplicated student headcount for the Fall of 2017 for each program and the number of students with a declared major in the program in 2017-18. 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 that 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 2017-18, and reports from prior years are available online through the NSHE website (nshe.nevada.edu).

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Summary of Eliminated and New Programs by Institution

Program	Elimination or Deactivation	New Program
University of Nevada, Las Vegas		
Kinesiology, PhD	Deactivation	
Occupational Therapy Doctorate, PhD (OTD)		X
Public Policy Doctorate (DPP)		X
University of Nevada, Reno		
Animal and Rangeland Sciences, MS and PhD		X
Business Administration, PhD		X
Counseling and Educational Psychology, MS	Deactivation	
Nevada State College		
Criminal Justice, BAS	Elimination	
Speech Language Pathology, MEd		X
College of Southern Nevada		
Architectural Design Technology, AAS	Deactivation	
Engineering Technology—Utility—Natural Gas, Skills Certificate		X
Environmental Safety and Health, AAS	Deactivation	
Nursing, RN to BSN		X
Project Management, BAS		X
Great Basin College		
Cisco Certified Network Associate (CCNA), Routing and Switching Preparation, Skills Certificate		X
CCNA, Security Preparation, Skills Certificate		X
Human Services, BAS		X
Truckee Meadows Community College		
Air Conditioning Critical Systems, CA		X
Dental Hygiene, BS		X
Graphic Arts and Media Technology, CA and AA		X
Hospitality and Tourism Management, AA		X
Logistics Technician, CA	Elimination	
Manufacturing Technologies, Advanced Manufacturing Panasonic Preferred Pathway (P3), Skills Certificate		X
Paramedic, CA	Elimination	
Web Design, CA	Deactivation	
Western Nevada College		
Cybersecurity, Skills Certificate		X
Mechatronics Foundation – Level 1, Skills Certificate		X
Mechatronics – Level 2, Skills Certificate		X
Retail Management, CA	Elimination	

2017-18
Summary of Characteristics of Reviewed Programs

Program	Number of Students with Declared Major 2017-18	Number of Graduates from Program			Service Headcount Fall 2017
		2015-16	2016-17	2017-18	
University of Nevada, Las Vegas					
Architecture, BS	253	20	22	20	633
Comprehensive Medical Imaging, BS/ Nuclear Medicine, BS	596	44	31	55	697
Health Care Administration and Policy, BS	273	49	69	61	463
Health Care Administration, MHA	44	13	11	16	179
Nutrition Sciences, BS	295	47	34	41	4,822
Public Health, BS	148	7	16	25	982
University of Nevada, Reno					
Ecohydrology, BS	37	5	5	9	2,824
Environmental Science, BS	167	22	36	37	2,824
Forest Management and Ecology, BS	53	8	13	12	2,824
Higher Education Administration, MA	70	32	29	32	577
Natural Resources and Environmental Science, MS	23	3	5	3	229
Wildlife Ecology and Conservation, BS	206	27	25	46	2,824
Nevada State College					
Nevada State College did not have any programs scheduled for review during this academic year.	-	-	-	-	-
College of Southern Nevada					
Computing & Information Technology:					
Cybersecurity, AAS & CA	1,171	0	1	6	419
Networking, AAS	741	17	24	29	336
Software, AAS	1,627	42	32	29	618
Media Technologies:					
CADD Technology, CA	5	2	4	1	75
Graphic Communications, AAS	221	11	13	17	464
Photography-Commercial Photography, AAS	174	20	23	14	300
Photography-Videography and Film, AAS	413	11	13	10	306
Applied Technologies:					
Air Conditioning Technology, AAS & CA	260	20	24	3	171
Automotive Technology, AAS & CA	309	25	16	3	405
Collision Repair, AAS & CA	47	0	2	0	56
Aviation Technology, AAS & CA	110	16	1	1	120
Construction Management, AAS	102	4	3	0	85
Diesel/Heavy Equipment, AAS & CA	121	7	11	5	84
Engineering Technology, AAS & CA	16	3	1	0	167
Welding Technology, AAS & CA	223	4	6	1	186

2017-18
Summary of Characteristics of Reviewed Programs

Program	Number of Students with Declared Major 2017-18	Number of Graduates from Program			Service Headcount Fall 2017
		2015-16	2016-17	2017-18	
Great Basin College					
Digital Information Technology, BAS	16	6	1	3	138
Truckee Meadows Community College					
Computer Technology Program: Computer Information Technology, AAS Computer Technologies, CA Skills Certificates: CISCO Certification-Certified Network Associate (CCNA), Routing and Switching Preparation CISCO Certification-Certified Network Associate (CCNA), Security Preparation CompTIA Certification Preparation Cybersecurity Skills Preparation Linux Professional Certification Preparation	224	31	30	64	763
Construction Technology Program: Critical Systems, AAS Heating, Ventilation, Air Condition/ Refrigeration (HVAC/R), AAS, CA & Skills Certificate Air Conditioning Critical Systems, CA Commercial Refrigeration, Skills Certificate	56	32	26	23	97
Logistics Program: Logistics Operations Management, BAS Logistics Management, AAS & CA	72	2	6	6	115
Psychology, AA	393	22	27	26	1,025
Radiologic Technology Program: Radiologic Technology, AAS Medical Imaging for Re-Entry Radiographers, CA Magnetic Resonance Imaging (MRI), Skills Certificate	52	31	30	25	291
Spanish, AA	37	1	6	7	561
Western Nevada College					
Associate of General Studies Degree Program (AGS)	478	50	48	26	5,499

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, BS
- Comprehensive Medical Imaging, BS/ Nuclear Medicine, BS
- Health Care Administration and Policy, BS
- Master of Health Care Administration, MHA
- Nutrition Sciences, BS
- Public Health, BS

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.

- Kinesiology, PhD

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

- Occupational Therapy Doctorate (OTD)
- Public Policy Doctorate (DPP)

Certificates

None

Architecture, BS

I. Description of Program Reviewed

The Architecture B.S. degree is awarded to students who can build abstract relationships and understand the impact of ideas and communicate architectural ideas graphically in a range of media including writing, speaking, drawing, and model making. The School of Architecture (SoA) has four different design tracks for students to choose.

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 and the 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, Veteran's Home for Women studio project, the Hundred Year Plan for the Historic Westside Community, and the UNLV Downtown Design Center (DDC) located in the Historic Fifth Street School. 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 two years.

The program revises curriculum as needed evidenced by a couple of 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 understating of financial considerations relating to project financing and professional ethics.
- ◊ Improve student understating of project management and legal responsibilities.

IV. Descriptive Statistics

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

2017-18	253

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

2015-16	20
2016-17	22
2017-18	20

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

Fall 2017	633

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Comprehensive Medical Imaging, BS/Nuclear Medicine, BS

I. Description of Program Reviewed

The Comprehensive Medical Imaging and Nuclear Medicine B.S. degrees are awarded to select candidates who successfully complete one of these three rigorous tracks. A source of pride for the programs is the high pass rate of each of their certification exams. The Radiography pass rate is 95% for the American Registry of Radiologic Technologists (ARRT). The Ultrasound pass rate is 80% for the American Registry of Diagnostic Medical Sonography (ARDMS). The Nuclear Medicine pass rate is 100% for the Nuclear Medicine Technology Certification Board (NMTCB). Students in all three programs receive extensive hands-on training as all have access to clinical site experience while in the programs

II. Review Process and Criteria

The program review is based on a comprehensive self-study completed by each of the three tracks with the involvement of the faculty and a survey of the students. The external review portion of the program review process was waived for these programs as they have a very small overall student population.

III. Major Findings and Conclusions of the Program Review

Employment needs in Nuclear Medicine and Comprehensive Medical Imaging are on the rise nationally. The programs provide students with extensive knowledge in math and science. Additionally, the combination of classroom instruction that students experience along with their participation in clinical rotations, ensures that students are workforce-ready upon program completion. Assessment of student learning is well tracked by surveying the clinical site supervisors who evaluate students as if they are employees. This workforce training model continues to make these programs extremely competitive at UNLV.

A significant finding during this program review was that these three programs cannot grow. More faculty would have to be hired for each track of the Comprehensive Imaging and certainly for the Nuclear Medicine degree as it currently has only one permanent faculty member. The faculty teach all courses, organize clinical sites, attend national conferences, and keep abreast of new advancements in the field. More resources could help these programs expand to meet the growing employment demands for this field.

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

- ◊ Increase the number of faculty and resources for potential program growth.
- ◊ Continue to provide relevant education and experience based on new advancements in the field.

IV. Descriptive Statistics

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

2017-18	596

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

2015-16	44
2016-17	31
2017-18	55

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

Fall 2017	697

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Health Care Administration and Policy, BS

I. Description of Program Reviewed

The Health Care Administration and Policy B.S. degree is awarded to students, future health care administrators, who can research and disseminate knowledge about management, organization, financing, and function of health care systems. Program faculty actively conduct research to further the field of health care administration and provide service to the profession and the community incorporating integrity, ethical behavior and professional development.

II. Review Process and Criteria

The program review was based on a disciplinary accreditation report for the Association of University Programs in Health Care Administration (AUPHA) and a self-study completed by the program with the involvement of the faculty. External experts in the field visited the campus, conducted interviews with the faculty and the leadership, and produced a comprehensive report on the program.

III. Major Findings and Conclusions of the Program Review

Students must complete certain courses in "pre-major" status before officially being accepted in the program and need a cumulative GPA of 2.5. Once in the major, the advising staff work with students to assure success. A 300-hour internship provides experiential learning and professional contacts. Additionally, the program utilizes guest lectures, team projects, presentations and case studies to achieve learning objectives.

Strong community and professional support is apparent for the Health Care Administration and Policy program through the Health Care Administration Student Association and inclusion of speakers from local health care organizations.

Program faculty actively represent the Health Care Administration and Policy Department (HCAP) in several professional organizations as members and officers, as reviewers of national journals and as consultants for the community. Students are continuously encouraged to attend such meetings and network with health care managers.

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

- ◊ Increase amount of space for the program.
- ◊ Develop curriculum map to ensure required topics are covered at an appropriate level.
- ◊ Develop annual formal curriculum evaluation.

IV. Descriptive Statistics

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

2017-18	273

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

2015-16	49
2016-17	69
2017-18	61

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

Fall 2017	463

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Health Care Administration, MHA

I. Description of Program Reviewed

The Master of Health Care Administration (MHA) degree is awarded to students who can demonstrate the knowledge, skills, and practical experiences to become health care management leaders. Program faculty actively conduct research to further the field of health care administration and provide service to the profession and the community incorporating integrity, ethical behavior, and professional development.

II. Review Process and Criteria

The program review was based on a disciplinary accreditation report for the Commission of Accreditation of Healthcare Management Education (CAHME) and a self-study completed by the program with the involvement of the faculty. External experts in the field visited the campus, conducted interviews with the faculty and the leadership, and produced a comprehensive report on the program.

III. Major Findings and Conclusions of the Program Review

A dedicated MHA Graduate Coordinator assists admitted students with course selection for the first semester and students are assigned a faculty advisor to assist with program progression thereafter.

Career advising is an active part of the curriculum and takes place during Internship and Capstone Courses as well as with the internship coordinator for the student body and the School of Community Health Sciences (SCHS) Annual Job Fair and the Health Care Administration Student Association Career Night. 78% of program graduates in 2015 and 2016 were employed within the health care sector within three months of graduation.

The program curriculum and competencies are regularly examined closely by the faculty, students, and the Health Care Administration and Policy (HCAP) Advisory Board and changes are implemented as needed. Students receive ample contact with health care professionals throughout their career through guest lectures, practitioner interviews, health care professional organization events, and working directly with health care administrators during internships and capstone courses.

The program realizes that a barrier to success for students is physical location and is actively working with the Office of Online Education to offer more online classes. Program faculty remain productive and engaged in their fields as well as devote 20% of their time to service and community based activities in addition to regular departmental duties such as teaching.

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

- ◊ Increase amount of space for the program.
- ◊ Increase job placement for graduates of the program to above 80%.

IV. Descriptive Statistics

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

2017-18	44

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

2015-16	13
2016-17	11
2017-18	16

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

Fall 2017	179

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Nutrition Sciences, BS

I. Description of Program Reviewed

The Nutrition Sciences B.S. degree is awarded to candidates who are motivated and engaged, as evidenced by their strong academic performance. The program has an 81% percent pass rate on the Registered Dietitian Exam along with the majority of students remaining in the Las Vegas area for employment.

II. Review Process and Criteria

The program review was based on a disciplinary accreditation report for the Accreditation Council for Education in Nutrition and Dietetics (ACEND) and a self-study completed by the program with the involvement of the faculty. Two external experts in the field visited the campus, conducted interviews with students, faculty, staff, and the program leadership, and then produced a comprehensive report on the program.

III. Major Findings and Conclusions of the Program Review

The program faculty are very engaged in the field. Many of the faculty hold multiple certifications in the health fields associated with the nutrition program. The program has grown significantly over the past several years and is highly popular with both in state and out-of-state students. The program's involvement in the community is a major draw for students. Faculty work diligently to maintain long-standing relationships with organizations and companies in the region who willingly accept students as volunteers and employees. Effective Fall 2015, all students interested in the Nutrition Sciences program were admitted to UNLV as pre-majors and accepted into the program beginning their junior year. This admissions requirement change has increased the competitiveness of the program. Additionally, the program curriculum is updated and advanced yearly as required by ACEND.

A major finding of the program review was that the program is in need of more faculty members due to the growing popularity of the program. Currently the ACEND accrediting body caps this program to 50-55 students per class for each academic year. A general education course, NUTR 101, which is offered to all students at UNLV, is extremely popular. With more resources, the program could be allowed to expand and accept more willing and passionate students. Despite these challenges, graduation rates remain high for this program producing 90% of the practicing dietitians in the state of Nevada.

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

- ◊ Increase the first-time pass rate on the Registration Examination for Dietitian Nutritionists.
- ◊ Increase the number of faculty and resources for potential program growth.

IV. Descriptive Statistics

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

2017-18	295

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

2015-16	47
2016-17	34
2017-18	41

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

Fall 2017	4,822

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Public Health, BS

I. Description of Program Reviewed

The B.S. in Public Health degree is awarded to students who can demonstrate the ability to locate, use, evaluate, synthesize, and communicate public health information in both written and oral form, through a variety of media and to diverse audiences.

II. Review Process and Criteria

The program review was based on a disciplinary accreditation report for the Council on Education for Public Health (CEPH) and a self-study completed by the program with the involvement of the faculty. External experts in the field visited the campus, conducted interviews with the faculty and the leadership, and produced a comprehensive report on the program.

III. Major Findings and Conclusions of the Program Review

Undergraduate learning objectives are covered extensively in many courses through the entire undergraduate program. Students achieve competencies through methods including research papers, projects, presentations and journal assignments. Students must integrate and synthesize these competencies through applied experience or an inquiry project in the form of a capstone course. The capstone encourages exposure to local-level public health professionals and agencies. Students may select to either write a professional paper or engage in a 120-hour internship.

Workload reports are used by the School of Community Health Sciences (SCHS) to monitor faculty activity and thus accurately review workload. This system encourages faculty to engage in professional development, research, and service. Faculty activity in turn promotes extramurally funded research and scholarship therefore promoting public health research opportunities for students and furthering growth of the field.

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

- ◊ Increase amount of space for the program.
- ◊ Create new exit survey procedures and improve tracking of graduating students.

IV. Descriptive Statistics

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

2017-18	148

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

2015-16	7
2016-17	16
2017-18	25

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

Fall 2017	982

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.

- Ecohydrology, BS
- Environmental Science, BS
- Forest Management and Ecology, BS
- Higher Education Administration (Formerly, Educational Leadership), MA
- Natural Resources and Environmental Science, MS
- Wildlife Ecology and Conservation, BS

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.

- Counseling and Educational Psychology, MS

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

- Animal and Rangeland Sciences, MS and PhD
- Business Administration, PhD

Certificates

None

Ecohydrology, BS

I. Description of Program Reviewed

The Bachelor of Science degree in Ecohydrology is the only such B.S. program offered in the United States. This major combines the biological and ecological sciences with hydrology (the study of water quality, quantity and distribution). The program prepares students for water-oriented careers in hydrology, watershed science, geographic information system applications for hydrologic analysis, water-quality assessment, ecology of aquatic systems, and management and restoration.

II. Review Process and Criteria

The B.S. in Ecohydrology program was scheduled for regular program review with other degree programs in the Natural Resources and Environmental Science Department as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the chair and faculty and completed in Fall 2017. The report was provided to five reviewers before they conducted an on-campus visit on April 2-3, 2018. The external reviewers reviewed the program and met with relevant faculty, staff, students, and administrators to determine the program's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site evaluators shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the program and dean. A final meeting of all parties took place on August 24, 2018. A document representing the final MOU of recommendations and findings from the review was provided to the chair and dean on September 11, 2018.

III. Major Findings and Conclusions of the Program Review

1. General: The department is vibrant and is clearly on a positive trajectory in research, the training of its students, and public engagement.
2. The department is emerging as a national leader in the study and management of arid lands and ecosystems; its vibrant new faculty contribute to the positive trajectory the department is likely to continue on for the coming decades.
3. There is a committed department chair who keeps the interests of the department as his top priority.
4. The faculty is a notably talented and productive group with an abundance of impressive recent hires and a collective enthusiasm for what the department has accomplished and what it can become.
5. The department is especially strong in applied ecology with expertise in ecosystem, landscape, and wildlife research.
6. The department has significantly increased its number of undergraduate majors and is committed to excellence in undergraduate education and adapting its curriculum to meet the needs of students enrolled in a diverse suite of degree options.

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

1. Strategic Planning and Building a Vision for the Department:

   While there are many matters upon which the department faculty and college leadership agree, there is a need for clarity and understanding about program directions and faculty hiring. The reviewers noted a lack of unity within the department concerning what the department should look like in 3-5 years. This lack of unity and lack of alignment on some matters between the college and department and even within the department must be resolved as the department begins the work outlined in its program-review response. In particular the priorities for new and replacement faculty positions and the disciplines for those positions must be settled. This issue is complicated by many factors including the need to cover the department's large undergraduate programs, the number of retirements in environmental science, the department's desire to create or shape new programs in emerging areas, and the college vision. The department faculty will continue conversations on the future directions of the department and its programs, guided and balanced by the college's mission and vision. Other departments and colleges that engage in these types of discussions have found the use of a facilitator to be extremely beneficial at least as these conversations begin, and the chair and dean will consider this. It is expected that the outcome of these conversations will be agreement between the college and department on future curriculum, research, and service directions and in particular the faculty hires (both new and replacement) that will help with these directions over the next 3-5 years. The plan for faculty hires will be in writing so that there are no misunderstandings in the future. This document is subject to agreed-upon changes based on unforeseen circumstances or the changing landscape.

2. Communication

   It was agreed that communication between the department and college needs to improve. The planning conversations required above will be an important first step toward this goal. It is hoped that there will soon be a consensus within the department on any unresolved issues related to the department's future directions and vision, and that the department's plan will be in line with the college's vision and mission and therefore supported by all. Naturally, there may be some difficult conversations ahead, but again the use of

a facilitator will be useful to keep these conversations civil and useful. Once these issues are resolved, the chair and dean will identify steps each could take to improve communication between each other and well as between them and the department faculty.

Other communication issues related to allocation of resource decisions at the college level could improve with the conversations described above. A discussion of the rationale for decisions regarding allocation of resources at the university level with the dean and/or chair will occur as those questions arise.

3. Curriculum—Undergraduate

   Several recommendations and ideas regarding the curriculum were expressed by the reviewers or identified by the department. These ideas included bringing the Ecohydrology program into the Environmental Science major, creating a new consolidated major for other majors in the department, and revising some of the courses in the Environmental Chemistry curriculum. There was also a proposal by the department to combine the Forest Management and Ecology major with the Environmental Science Restoration emphasis to form a program in Wild Lands Restoration Ecology. The department will develop these plans, but decisions on how to proceed will be advised by the conversations that occur in regard to department planning described above. The department was cautioned that decisions should also take into account what stakeholder groups have to say about their needs in regards to student preparation as well as what other departments that offer courses that NRES students take think about the impact on them of any proposed changes.

4. Undergraduate Recruitment/Enrollment/Progression

   It was agreed that student recruitment would likely benefit from an improved departmental website. The department has plans for how it will discontinue its practice of offering courses on an alternate-year schedule. As program changes are planned, it will also be important to map the curriculum in order to confirm that students can graduate in a timely manner. The department stated other reasons in its response for students taking longer to complete their degrees, one of them being the lack of preparation in math and or science. The department's recent implementation of math level requirement for entry into the NRES and ENVS majors should address this issue. It was advised that the department understand exactly what the expected effect will be on student enrollments in the department's programs as it undertakes any change so that it can plan accordingly.

5. Program Outcomes (assessment, placement, retention, graduation—Undergraduate/Graduate)

   The department is committed to developing a full program of assessment for both undergraduate and graduate programs. In addition to this important step, the department was encouraged to continue to review retention and graduation figures regularly. An exit survey of all undergraduates should be developed and implemented as soon as practicable.

6. Space

   Conversations regarding the assignment of space in Fleischman Agriculture have begun. While not addressing all the space issues identified in the review, it is a positive step.

7. Faculty

   Concerns from junior faculty regarding progress toward tenure and inequity of teaching loads are to be addressed. The chair has begun conversations on the topic of teaching loads, and these should continue. This reexamination of teaching loads could address the need to regularize course offerings while also addressing the junior faculty's concerns regarding inequity.

   As for uncertainty about progress toward tenure, the department and college have plans to offer workshops on this topic in the near future. These workshops will be communicated to faculty and Vice Provost, Faculty Affairs Jill Heaton will be invited to participate in workshops or discussions on this topic. New tenure-track faculty were encouraged to attend the New Tenure Track Academic Faculty Orientation sponsored by the provost's office on September 14 (9-11:30 a.m., MIKC Room 107) where the promotion-and-tenure application process was discussed at length.

   The department was reminded 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. The college and program leadership will monitor and support progression of associate professors in required progress toward promotion.

IV. Descriptive Statistics

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

2017-18	37

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

2015-16	5
2016-17	5
2017-18	9

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

Fall 2017	2,824

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Environmental Science, BS

I. Description of Program Reviewed

The Bachelor of Science degree in Environmental Science program prepares students to solve a wide variety of environmental problems using a sound scientific approach. Students develop a strong background in the basic sciences (e.g. chemistry, biology, geology). Students have the opportunity to take electives in topics of special interest such as ecological toxicology, environmental pollution, risk assessment, risk management, and local, regional, and global environmental issues. This highly interdisciplinary major encourages students to focus in areas such as environmental pollution, policy, ecological restoration and conservation, and soil science and biogeochemistry.

II. Review Process and Criteria

The B.S. in Environmental Science program was scheduled for regular program review with other degree programs in the Natural Resources and Environmental Science Department as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the chair and faculty and completed in Fall 2017. The report was provided to five reviewers before they conducted an on-campus visit on April 2-3, 2018. The external reviewers reviewed the program and met with relevant faculty, staff, students, and administrators to determine the program'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 program and college. A final meeting of all parties took place on August 24, 2018. A final MOU of recommendations and findings from the review was provided to the dean and chair on September 11, 2018.

III. Major Findings and Conclusions of the Program Review

1. General: The department is vibrant and is clearly on a positive trajectory in research, the training of its students, and public engagement.
2. The department is emerging as a national leader in the study and management of arid lands and ecosystems; its vibrant new faculty contribute to the positive trajectory the department is likely to continue on for the coming decades.
3. There is a committed department chair who keeps the interests of the department as his top priority.
4. The faculty is a notably talented and productive group with an abundance of impressive recent hires and a collective enthusiasm for what the department has accomplished and what it can become.
5. The department is especially strong in applied ecology with expertise in ecosystem, landscape and wildlife research.
6. The department has significantly increased its number of undergraduate majors and is committed to excellence in undergraduate education and adapting its curriculum to meet the needs of students enrolled in a diverse suite of degree options..

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

1. Strategic Planning and Building a Vision for the Department:

   While there were many matters upon which the department faculty and college leadership agreed, there is a need for clarity and understanding about program directions and faculty hiring. The reviewers noted a lack of unity within the department concerning what the department should look like in 3-5 years. This lack of unity and lack of alignment on some matters between the college and department and even within the department must be resolved as the department begins the work outlined in its program-review response. In particular the priorities for new and replacement faculty positions and the disciplines for those positions must be settled. This issue is complicated by many factors including the need to cover the department's large undergraduate programs, the number of retirements in environmental science, the department's desire to create or shape new programs in emerging areas, and the college vision. The department faculty will continue conversations on the future directions of the department and its programs, guided and balanced by the college's mission and vision. Other departments and colleges that engage in these types of discussions have found the use of a facilitator to be extremely beneficial at least as these conversations begin, and this was suggested here. It is expected that the outcome of these conversations will be agreement between the college and department on future curriculum, research, and service directions and in particular the faculty hires (both new and replacement) that will help with these directions over the next 3 -5 years. The plan for faculty hires will be in writing so that there are no misunderstandings in the future. This document is subject to agreed-upon changes based on unforeseen circumstances or the changing landscape.

2. Communication

   It was agreed that communication between the department and college needs to improve. The planning conversations required above will be an important first step toward this goal. It is hoped that there will soon be a consensus within the department on any unresolved issues related to the department's future

directions and vision, and that the department's plan will be in line with the college's vision and mission and therefore supported by all. Naturally, there may be some difficult conversations ahead, but again the use of a facilitator will be useful to keep these conversations civil and useful. Once these issues are resolved, the chair and dean will identify steps each could take to improve communication between each other and well as between them and the department faculty.

Other communication issues related to allocation of resource decisions at the college level could improve with the conversations described above. Rationale for decisions regarding allocation of resources at the university level will occur as needed.

3. Curriculum—Undergraduate

   Several recommendations and ideas regarding the curriculum were expressed by the reviewers or identified by the department. These ideas included bringing the Ecohydrology program into the Environmental Science major, creating a new consolidated major for other majors in the department, and revising some of the courses in the Environmental Chemistry curriculum. There was also a proposal by the department to combine the Forest Management and Ecology major with the Environmental Science Restoration emphasis to form a program in Wild Lands Restoration Ecology. The department was encouraged to develop these plans, advised by the conversations that occur in regard to department planning described above. Decisions will take into account what stakeholder groups have to say about their needs in regards to student preparation as well as what other departments that offer courses that NRES students take think about the impact on them of any proposed changes.

4. Undergraduate Recruitment/Enrollment/Progression

   It was agreed that student recruitment would likely benefit from an improved departmental website. The department has plans for how it will discontinue its practice of offering courses on an alternate-year schedule. As program changes are planned, it will also be important to map the curriculum in order to confirm that students can graduate in a timely manner. The department stated other reasons in its response for students taking longer to complete their degrees, one of them being the lack of preparation in math and or science. The department's recent implementation of math level requirement for entry into the NRES and ENVS majors should address this issue. It was advised that the department understand exactly what the expected effect will be on student enrollments in the department's programs as it undertakes any change so that it can plan accordingly.

5. Program Outcomes (assessment, placement, retention, graduation—Undergraduate/Graduate)

   The department is committed to developing a full program of assessment for both undergraduate and graduate programs. In addition to this important step, the department was encouraged to continue to review retention and graduation figures regularly. An exit survey of all undergraduates should be developed and implemented as soon as practicable.

6. Space

   Conversations regarding the assignment of space in Fleischman Agriculture have begun. While not addressing all the space issues identified in the review, it is a positive step.

7. Faculty

   Concerns from junior faculty regarding progress toward tenure and inequity of teaching loads will be addressed. The chair has begun conversations on the topic of teaching loads, and these should continue. This reexamination of teaching loads could address the need to regularize course offerings while also addressing the junior faculty's concerns regarding inequity.

   As for uncertainty about progress toward tenure, the department and college have plans to offer workshops on this topic in the near future. These workshops should be communicated to faculty as soon as possible and Vice Provost, Faculty Affairs Jill Heaton will be invited to participate in workshops or discussions on this topic. New tenure-track faculty were encouraged to attend the New Tenure Track Academic Faculty Orientation sponsored by the provost's office on September 14 where the promotion-and-tenure process application process was discussed at length.

   The department will 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.

IV. Descriptive Statistics

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

2017-18	167

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

2015-16	22
2016-17	36
2017-18	37

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

Fall 2017	2,824

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Forest Management and Ecology, BS

I. Description of Program Reviewed

The Bachelor of Science degree in Forest Management and Ecology prepares students to manage forest resources from a science-based perspective. Students incorporate the related disciplines of plant and wildlife ecology, hydrology, and policy to solve current issues involved in the sustainable management of our natural resources. The curriculum provides a solid, multidisciplinary foundation for science-based decision making in natural resource management. Coursework addresses critical issues in vegetation ecology and management, sustainability and restoration of forest resources, watershed integrity, wildlife habitat, forage and wood production, and conservation of natural ecosystems. Graduating seniors are prepared for graduate study or may enter employment with state and federal agencies, private firms, and non-profit organizations that own and manage forests.

II. Review Process and Criteria

The B.S. in Forest Management and Ecology program was scheduled for regular program review with other degree programs in the Natural Resources and Environmental Science Department as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the chair and faculty and completed in Fall 2017. The report was provided to five reviewers before they conducted an on-campus visit on April 2-3, 2018. The external reviewers reviewed the program and met with relevant faculty, staff, students, and administrators to determine the program'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 program and college. A final meeting of all parties took place on August 24, 2018. A final MOU of recommendations and findings from the review was provided to the dean and chair on September 11, 2018.

III. Major Findings and Conclusions of the Program Review

1. General: The department is vibrant and is clearly on a positive trajectory in research, the training of its students, and public engagement.
2. The department is emerging as a national leader in the study and management of arid lands and ecosystems; its vibrant new faculty contribute to the positive trajectory the department is likely to continue on for the coming decades.
3. There is a committed department chair who keeps the interests of the department as his top priority.
4. The faculty is a notably talented and productive group with an abundance of impressive recent hires and a collective enthusiasm for what the department has accomplished and what it can become.
5. The department is especially strong in applied ecology with expertise in ecosystem, landscape and wildlife research.
6. The department has significantly increased its number of undergraduate majors and is committed to excellence in undergraduate education and adapting its curriculum to meet the needs of students enrolled in a diverse suite of degree options.

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

1. Strategic Planning and Building a Vision for the Department:

   While there are many matters upon which the department faculty and college leadership agree, there is a need for clarity and understanding about program directions and faculty hiring. The reviewers noted a lack of unity within the department concerning what the department should look like in 3-5 years. This lack of unity and lack of alignment on some matters between the college and department and even within the department must be resolved as the department begins the work outlined in its program-review response. In particular the priorities for new and replacement faculty positions and the disciplines for those positions must be settled. This issue is complicated by many factors including the need to cover the department's large undergraduate programs, the number of retirements in environmental science, the department's desire to create or shape new programs in emerging areas, and the college vision. The department faculty will continue conversations on the future directions of the department and its programs, guided and balanced by the college's mission and vision. Other departments and colleges that engage in these types of discussions have found the use of a facilitator to be extremely beneficial at least as these conversations begin, and this was suggested. The outcome of these conversations will be agreement between the college and department on future curriculum, research, and service directions and in particular the faculty hires (both new and replacement) that will help with these directions over the next 3-5 years. The plan for faculty hires will be in writing so that there are no misunderstandings in the future. This document is subject to agreed-upon changes based on unforeseen circumstances or the changing landscape.

2. Communication

   It was agreed that communication between the department and college needs to improve. The planning conversations required above will be an important first step toward this goal. It is hoped that there will soon be a consensus within the department on any unresolved issues related to the department's future directions and vision, and that the department's plan will be in line with the college's vision and mission and therefore supported by all. Naturally, there may be some difficult conversations ahead, but again the use of a facilitator will be useful to keep these conversations civil and useful. Once these issues are resolved, the chair and dean should identify steps each could take to improve communication between each other and well as between them and the department faculty.

   Other communication issues related to allocation of resource decisions at the college level could improve with the conversations described above. A discussion of the rationale for decisions regarding allocation of resources at the university level with the dean and/or chair will occur as those questions arise.

3. Curriculum—Undergraduate

   Several recommendations and ideas regarding the curriculum were expressed by the reviewers or identified by the department. These ideas included bringing the Ecohydrology program into the Environmental Science major, creating a new consolidated major for other majors in the department, and revising some of the courses in the Environmental Chemistry curriculum. There was also a proposal by the department to combine the Forest Management and Ecology major with the Environmental Science Restoration emphasis to form a program in Wild Lands Restoration Ecology. The department will develop these plans, but decisions on how to proceed will be advised by the conversations that occur in regard to department planning described above. The department was cautioned that decisions should also take into account what stakeholder groups have to say about their needs in regards to student preparation as well as what other departments that offer courses that NRES students take think about the impact on them of any proposed changes.

4. Undergraduate Recruitment/Enrollment/Progression

   It was agreed that student recruitment would likely benefit from an improved departmental website. The department has plans for how it will discontinue its practice of offering courses on an alternate-year schedule. As program changes are planned, it will also be important to map the curriculum in order to confirm that students can graduate in a timely manner. The department stated other reasons in its response for students taking longer to complete their degrees, one of them being the lack of preparation in math and or science. The department's recent implementation of math level requirement for entry into the NRES and ENVS majors should address this issue. It was advised that the department understand exactly what the expected effect will be on student enrollments in the department's programs as it undertakes any change so that it can plan accordingly.

5. Program Outcomes (assessment, placement, retention, graduation—Undergraduate/Graduate)

   The department is committed to developing a full program of assessment for both undergraduate and graduate programs. In addition to this important step, the department was encouraged to continue to review retention and graduation figures regularly. An exit survey of all undergraduates should be developed and implemented as soon as practicable.

6. Space

   Conversations regarding the assignment of space in Fleischman Agriculture have begun. While not addressing all the space issues identified in the review, it is a positive step.

7. Faculty

   Concerns from junior faculty regarding progress toward tenure and inequity of teaching loads are to be addressed. The chair has begun conversations on the topic of teaching loads, and these should continue. This reexamination of teaching loads could address the need to regularize course offerings while also addressing the junior faculty's concerns regarding inequity.

   As for uncertainty about progress toward tenure, the department and college have plans to offer workshops on this topic in the near future. These workshops will be communicated to faculty and Vice Provost, Faculty Affairs Jill Heaton will be invited to participate in workshops or discussions on this topic. New tenure-track faculty were encouraged to attend the New Tenure Track Academic Faculty Orientation sponsored by the provost's office on September 14 (9-11:30 a.m., MIKC Room 107) where the promotion-and-tenure process application process was discussed at length.

   The department was reminded 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. The college and program leadership will monitor and support progression of associate professors in required progress toward promotion.

IV. Descriptive Statistics

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

2017-18	53

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

2015-16	8
2016-17	13
2017-18	12

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

Fall 2017	2,824

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Higher Education Administration, MA

I. Description of Program Reviewed

The Master of Arts degree in Higher Education (formerly M.A. in Educational Leadership) is designed to prepare students for entry- and mid-level positions in the field of higher education. The program is ideal for individuals pursing careers in areas such as student affairs administration, athletics administration, development and fundraising, admissions and financial aid, alumni relations, and university relations. The curriculum is equally valuable for careers in other organizations that focus on post-secondary education including policy and research organizations, government, and non-profit organizations. Students examine all areas of higher education, develop skills in research and analysis, and complete an individualized program of electives to match their professional needs and interests.

II. Review Process and Criteria

The M.A. in Higher Education Administration (formerly, Educational Leadership) program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the director and faculty and completed in early Fall 2017. The report was provided to two reviewers before they conducted an on-campus visit on October 23-24, 2017. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the program'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 program. A final meeting of all parties took place on July 18, 2018. A document representing the final MOU of recommendations and findings from the review was provided to the dean and director on August 15, 2018.

III. Major Findings and Conclusions of the Program Review

1. There is a high demand for a master's program in this subject area, and the program fills an important local need for early career professionals from TMCC and UNR.
2. The UNR Athletics Department uses the program, and other educational leadership programs, as a recruitment tool to attract/retain early career professions; Student Services also uses it as a recruitment tool.
3. The current diversity of the student body is strong.
4. The program offers flexibility in the sequencing of courses needed by students, and courses are offered in the evening to meet the needs of employed students.
5. The program name needs to be changed to clearly distinguish it (already done). In addition, certain program entrance and completion requirements need to be examined for needed changes.
6. The program needs to make improvements in the advising and orientation provided to students and should consider professional development activities for students to increase their sense of belonging to the college and program.
7. There were some recommendations regarding the curriculum that have already been implemented or are being considered.
8. The program leadership has already implemented many positive changes. There is a need for comprehensive and strategic planning to guide the program for the next 4 or 5 years.

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

1. Program Name

   The process to change the program name was begun shortly after the review visit. The program name change to the M.A., Higher Education Administration received final approval at the June 6, 2018, NSHE Academic Affairs Council meeting and has been implemented.

   The UNR General Catalog descriptions for both of the programs need to be updated. Both catalog descriptions contain generic text that is applicable to both programs, and will be revised to be specific to the program. Additionally, the catalog description for the Ph.D. in Education program is co-mingled with a description of the Ed.D. program. As discussed at the closing meeting, this will be clarified.

2. Program Tracks

   Given the utilization of the M.A. program by students involved in intercollegiate athletics, it was suggested by the reviewers that the program develop a designated focus area in this. The program has developed a suggested course sequence for students interested in focusing their coursework on athletics and will consider whether something more formal is feasible in this and other areas.

   The program's advising manual has been updated to identify program required courses, other courses available to fulfill program requirements, when those courses will be offered over the next three academic years, and 2- and 3-year plans for completion with different topic areas. The Graduate School will be requiring these handbooks for all graduate programs, which will be vetted through the Curriculog process, and be included in the catalog next year.

3. Recruiting and Advising

   The external reviewers provided a number of recommendations to improve the quality of students recruited into the program and to more effectively manage enrollment and advising of the students. The program has addressed several of the recommendations contained in the evaluation report. These include:

   a. Shifting to a once-each-semester admit policy;
   b. Raising the undergraduate GPA expectation to 3.0;
   c. No longer using LOAs for advising;
   d. Recalibrating advising loads among full-time faculty;
   e. Setting a schedule for data collection about students;
   f. Hosting a department-specific orientation for all incoming students; and
   g. Establishing a more strategic relationship with the Division of Student Services by including the Vice President for Student Services [or a designee] on the program's Advising Committee.

   The program indicates it will identify recruiting targets for the total number of students in the program, the number of students in the athletics sequence, and the number of students with a student-affairs focus, and track those numbers as the program grows In addition, it will identify targets for time-to-degree and track that as well as student-completion data. The program is also interested in exploring the recruitment of students from other northern NSHE institutions and from the Sacramento area and the viability of offering courses online.

4. Curriculum

   The external reviewers provided recommendations on the program requirements and the need to explore the sequencing and availability of courses, the expertise of faculty teaching courses, the improvement of student writing skills, and the internship experience. The dean's response described how the program has addressed these recommendations, including:

   a. Minimizing use of LOAs for the program so that courses are now taught by regular academic faculty with expertise in the course topic. (The program expects to use no LOAs in Fall 2018);
   b. Aligning program needs with faculty searches, so that regular faculty with expertise are available to teach necessary courses in accordance with the schedule in the new advising manual. (This was done with the last two tenure-track faculty hires and will be done in a search planned for 2018-19);
   c. Reviewing the core requirements. (The required courses were reduced from 7 to 6, and one of them is an introductory research class as recommended by the reviewers.)

   The program faculty have conducted an audit of student internship experiences and will begin to work collaboratively to revise the internship experience. In addition, they were advised to look at the Internship, Service-Learning and Civic Engagement Policy in University Administrative Manual 3,100 to ensure the program's internship experiences are in compliance with university policy. If additional internship or assistantship sites are needed, the program is reminded to check with offices on campus for possible opportunities.

   The program leadership reports that faculty have begun collaborating on ways of improving student writing throughout program coursework and implementing changes. Faculty were also advised to consult with Prof. Bill Macauley, Director of Composition and Communication in the Disciplines, for additional recommendations on how to strengthen the presence of writing in the curriculum through the use of various methods within courses, internship reflections, the comprehensive examination, and the thesis (for those students who elect that option).

5. Building a Sense of Community

   The reviewers reported that students wished to see more program activities for professional development and to increase their "sense of belonging." In addition to a student orientation and group advising, arranging a seminar series or some professional brown-bag sessions for students was discussed, and the program will explore these.

6. Student Data, Student Success, Academic Assessment, Diversity

   The external reviewers provided a number of recommendations in these areas, and there is a need to comply with UNR academic assessment procedures. The following work, already begun, will continue:

   a. Tracking alumni employment/placement/progression more exhaustively;
   b. Setting targets for enrollment and progression (mentioned previously) and tracking and evaluating these metrics;

c. Evaluating FTE versus enrollment (This is closely related to progression); and
d. Setting targets for diversity and tracking the targets.

7. Program Strategic Planning

   A planning document for this program (as well as the Ph.D. program) was recommended to guide the program faculty and leadership in the "build out" of the program over the next 3-5 years. The areas that should be addressed include the following:

   a. Program vision. The program leadership has taken several steps to shift the program from a professional -development program to a rigorous academic program. The planning document will expand upon this vision and the goals and objectives it will use to further it.
   b. Program growth. Identify recruitment and enrollment targets for manageable growth of the program in line with the vision and link those to:
      - Expectations/desires in each focus area, including diversity;
      - Desired time-to-degree and completion rates;
      - Methods for achieving the targets.
   c. Faculty growth. The program has already shifted from a reliance on LOAs to instruction of program courses by full-time faculty. It has also planned its next faculty hire to fulfill program needs. The planning document should predict its next 2-3 needed faculty hires, particularly in the event of any known retirements and increased advising and mentoring and with its enrollment and recruitment targets determined. Likewise, the plan will include a section on how shifting courses to online or hybrid courses will play a role in addressing program growth and instructional needs.
   d. Program leadership. The program has a new director as of July 1, 2018. The plan should address how the program envisions handling its leadership in the next 3-5 years and ensure that steps are being planned to prepare future leaders for this role.

8. There is an expectation that tenured faculty in all colleges and departments s continue to build a portfolio of scholarly work following achievement of tenure so as to move successfully through the promotional ranks to full professor. The college and program leadership will monitor and support progression of associate professors in required progress toward promotion.

IV. Descriptive Statistics

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

2017-18	70

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

2015-16	32
2016-17	29
2017-18	32

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

Fall 2017	577

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Natural Resources and Environmental Science, MS

I. Description of Program Reviewed

The mission of M.S. program in Natural Resources and Environmental Science (NRES) is to provide graduates with the scientific and communication skills and knowledge necessary to understand the interrelationships among people, living organisms, and the environments of the Intermountain West, and to prepare them for entry into doctoral programs or the professional workforce. Graduate study of the ecology and management and restoration of range, forest, and wildlife ecosystems with several areas of specialization is offered.

II. Review Process and Criteria

The M.S. in Natural Resources and Environmental Science was scheduled for regular program review with other degree programs in the Natural Resources and Environmental Science Department as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the chair and faculty and completed in Fall 2017. The report was provided to five reviewers before they conducted an on-campus visit on April 2-3, 2018. The external reviewers reviewed the program and met with relevant faculty, staff, students, and administrators to determine the program's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site evaluators shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the program and dean. A final meeting of all parties took place on August 24, 2018. A document representing the final MOU of recommendations and findings from the review was provided to the chair and dean on September 11, 2018.

III. Major Findings and Conclusions of the Program Review

1. General: The department is vibrant and is clearly on a positive trajectory in research, the training of its students, and public engagement.
2. The department is emerging as a national leader in the study and management of arid lands and ecosystems; its vibrant new faculty contribute to the positive trajectory the department is likely to continue on for the coming decades.
3. There is a committed department chair who keeps the interests of the department as his top priority.
4. The faculty is a notably talented and productive group with an abundance of impressive recent hires and a collective enthusiasm for what the department has accomplished and what it can become.
5. The department is especially strong in applied ecology with expertise in ecosystem, landscape and wildlife research.
6. The department has significantly increased its number of undergraduate majors and is committed to excellence in undergraduate education and adapting its curriculum to meet the needs of students enrolled in a diverse suite of degree options.

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

1. Strategic Planning and Building a Vision for the Department:

   While there are many matters upon which the department faculty and college leadership agree, there is a need for clarity and understanding about program directions and faculty hiring. The reviewers noted a lack of unity within the department concerning what the department should look like in 3-5 years. This lack of unity and lack of alignment on some matters between the college and department and even within the department must be resolved as the department begins the work outlined in its program-review response. In particular the priorities for new and replacement faculty positions and the disciplines for those positions must be settled. This issue is complicated by many factors including the need to cover the department's large undergraduate programs, the number of retirements in environmental science, the department's desire to create or shape new programs in emerging areas, and the college vision. The department faculty will continue conversations on the future directions of the department and its programs, guided and balanced by the college's mission and vision. Other departments and colleges that engage in these types of discussions have found the use of a facilitator to be extremely beneficial at least as these conversations begin, and this was suggested. The outcome of these conversations will be agreement between the college and department on future curriculum, research, and service directions and in particular the faculty hires (both new and replacement) that will help with these directions over the next 3-5 years. The plan for faculty hires will be in writing so that there are no misunderstandings in the future. This document is subject to agreed-upon changes based on unforeseen circumstances or the changing landscape.

2. Communication

   It was agreed that communication between the department and college needs to improve. The planning conversations required above will be an important first step toward this goal. It is hoped that there will soon be a consensus within the department on any unresolved issues related to the department's future directions and vision, and that the department's plan will be in line with the college's vision and mission and therefore supported by all. Naturally, there may be some difficult conversations ahead, but again the use of a facilitator will be useful to keep these conversations civil and useful. Once these issues are resolved, the chair and dean should identify steps each could take to improve communication between each other and

well as between them and the department faculty.

Other communication issues related to allocation of resource decisions at the college level could improve with the conversations described above. A discussion of the rationale for decisions regarding allocation of resources at the university level with the dean and/or chair will occur as those questions arise.

3. Graduate Curriculum & Education

   The reviewers were positive on the number of NRES faculty involved in interdisciplinary programs but indicated they felt the program should have more graduate students than it currently does. One reason for is that faculty are reluctant to accept Ph.D. students without having confirmed funding for them for 5 years. The chair has encouraged faculty to reconsider how they have approached this issue in the past, particularly as they look at their historical record in generating funding to support graduate assistants.

   The department was encouraged to expand recruitment beyond individual faculty efforts and beyond the local area to address the observation by the reviewers that most graduate students seem to be from the local area or were undergraduates here. Likewise, the graduate dean indicates that improvements to the department's website will make it more of a recruiting tool.

   The graduate curriculum will be revised after the faculty determines any universal foundational courses needed by all MS students. This step will have a role in student cohort building, another recommendation by the reviewers, as will the department's plan to create a departmental seminar series that would be required for MS students.

   The department will investigate the development of a NRES Ph.D. program to complement the NRES MS degree and were advised to conduct a careful analysis of future enrollment and resource availability. They will also enter into discussions with the program directors of the EECB and ES Ph.D. programs to address the impact that adding a new and potentially competing graduate program would have on their respective enrollment. A conversation will also occur with the EECB and ES leadership to discuss ways that these two existing programs could address the concerns of these NRES faculty.

4. Program Outcomes (assessment, placement, retention, graduation—Undergraduate/Graduate

   The department is committed to developing a full program of assessment for both undergraduate and graduate programs. In addition to this important step, we encourage the department to continue to review retention and graduation figures regularly.

5. Space

   Conversations regarding the assignment of space in Fleischman Agriculture have begun. While not addressing all the space issues identified in the review, it is a positive step.

6. Faculty

   Concerns from junior faculty regarding progress toward tenure and inequity of teaching loads are to be addressed. The chair has begun conversations on the topic of teaching loads, and these should continue. This reexamination of teaching loads could address the need to regularize course offerings while also addressing the junior faculty's concerns regarding inequity.

   As for uncertainty about progress toward tenure, the department and college have plans to offer workshops on this topic in the near future. These workshops will be communicated to faculty and Vice Provost, Faculty Affairs Jill Heaton will be invited to participate in workshops or discussions on this topic. New tenure-track faculty were encouraged to attend the New Tenure Track Academic Faculty Orientation sponsored by the provost's office on September 14 (9-11:30 a.m., MIKC Room 107) where the promotion-and-tenure process application process was discussed at length.

   The department was reminded 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. The college and program leadership will monitor and support progression of associate professors in required progress toward promotion.

IV. Descriptive Statistics

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

2017-18	23

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

2015-16	3
2016-17	5
2017-18	3

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

Fall 2017	229

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Wildlife Ecology and Conservation, BS

I. Description of Program Reviewed

The Wildlife Ecology and Conservation major provides a solid, multidisciplinary foundation for science-based decision making in wildlife ecology and conservation biology. Students acquire a strong background in basic science (e.g., biology, chemistry, and mathematics) as well as courses addressing critical issues in management, restoration and conservation of wildlife, and other biological resources. This major is designed for students interested in pursuing careers focused on the ecology and management of wildlife and other biota. Coursework develops skills needed to evaluate impacts of human activities on natural and managed biological systems. Graduating seniors are prepared for graduate study or may enter the work force directly.

II. Review Process and Criteria

The B.S. in Wildlife Ecology and Conservation program was scheduled for regular program review with other degree programs in the Natural Resources and Environmental Science Department as mandated by the Board of Regents and University policy. A self-study document for the program was developed by the chair and faculty and completed in Fall 2017. The report was provided to five reviewers before they conducted an on-campus visit on April 2-3, 2018. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the program's accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the site evaluators shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the program and dean. A final meeting of all parties took place on August 24, 2018. A document representing the final MOU of recommendations and findings from the review was provided to the chair and dean on September 11, 2018.

III. Major Findings and Conclusions of the Program Review

1. General: The department is vibrant and is clearly on a positive trajectory in research, the training of its students, and public engagement.
2. The department is emerging as a national leader in the study and management of arid lands and ecosystems; its vibrant new faculty contribute to the positive trajectory the department is likely to continue on for the coming decades.
3. There is a committed department chair who keeps the interests of the department as his top priority.
4. The faculty is a notably talented and productive group with an abundance of impressive recent hires and a collective enthusiasm for what the department has accomplished and what it can become.
5. The department is especially strong in applied ecology with expertise in ecosystem, landscape and wildlife research.
6. The department has significantly increased its number of undergraduate majors and is committed to excellence in undergraduate education and adapting its curriculum to meet the needs of students enrolled in a diverse suite of degree options..

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

1. Strategic Planning and Building a Vision for the Department:

   While there are many matters upon which the department faculty and college leadership agree, there is a need for clarity and understanding about program directions and faculty hiring. The reviewers noted a lack of unity within the department concerning what the department should look like in 3-5 years. This lack of unity and lack of alignment on some matters between the college and department and even within the department must be resolved as the department begins the work outlined in its program-review response. In particular the priorities for new and replacement faculty positions and the disciplines for those positions must be settled. This issue is complicated by many factors including the need to cover the department's large undergraduate programs, the number of retirements in environmental science, the department's desire to create or shape new programs in emerging areas, and the college vision. The department faculty will continue conversations on the future directions of the department and its programs, guided and balanced by the college's mission and vision. Other departments and colleges that engage in these types of discussions have found the use of a facilitator to be extremely beneficial at least as these conversations begin, and this was suggested. The outcome of these conversations will be agreement between the college and department on future curriculum, research, and service directions and in particular the faculty hires (both new and replacement) that will help with these directions over the next 3-5 years. The plan for faculty hires will be in writing so that there are no misunderstandings in the future. This document is subject to agreed-upon changes based on unforeseen circumstances or the changing landscape.

2. Communication

   It was agreed that communication between the department and college needs to improve. The planning conversations required above will be an important first step toward this goal. It is hoped that there will soon be a consensus within the department on any unresolved issues related to the department's future directions and vision, and that the department's plan will be in line with the college's vision and mission and

therefore supported by all. Naturally, there may be some difficult conversations ahead, but again the use of a facilitator will be useful to keep these conversations civil and useful. Once these issues are resolved, the chair and dean should identify steps each could take to improve communication between each other and well as between them and the department faculty.

Other communication issues related to allocation of resource decisions at the college level could improve with the conversations described above. A discussion of the rationale for decisions regarding allocation of resources at the university level with the dean and/or chair will occur as those questions arise.

3. Curriculum—Undergraduate

   Several recommendations and ideas regarding the curriculum were expressed by the reviewers or identified by the department. These ideas included bringing the Ecohydrology program into the Environmental Science major, creating a new consolidated major for other majors in the department, and revising some of the courses in the Environmental Chemistry curriculum. There was also a proposal by the department to combine the Forest Management and Ecology major with the Environmental Science Restoration emphasis to form a program in Wild Lands Restoration Ecology. The department will develop these plans, but decisions on how to proceed will be advised by the conversations that occur in regard to department planning described above. The department was cautioned that decisions should also take into account what stakeholder groups have to say about their needs in regards to student preparation as well as what other departments that offer courses that NRES students take think about the impact on them of any proposed changes.

4. Undergraduate Recruitment/Enrollment/Progression

   It was agreed that student recruitment would likely benefit from an improved departmental website. The department has plans for how it will discontinue its practice of offering courses on an alternate-year schedule. As program changes are planned, it will also be important to map the curriculum in order to confirm that students can graduate in a timely manner. The department stated other reasons in its response for students taking longer to complete their degrees, one of them being the lack of preparation in math and or science. The department's recent implementation of math level requirement for entry into the NRES and ENVS majors should address this issue. It was advised that the department understand exactly what the expected effect will be on student enrollments in the department's programs as it undertakes any change so that it can plan accordingly.

5. Program Outcomes (assessment, placement, retention, graduation—Undergraduate/Graduate

   The department is committed to developing a full program of assessment for both undergraduate and graduate programs. In addition to this important step, the department was encouraged to continue to review retention and graduation figures regularly. An exit survey of all undergraduates should be developed and implemented as soon as practicable.

6. Space

   Conversations regarding the assignment of space in Fleischman Agriculture have begun. While not addressing all the space issues identified in the review, it is a positive step.

7. Faculty

   Concerns from junior faculty regarding progress toward tenure and inequity of teaching loads are to be addressed. The chair has begun conversations on the topic of teaching loads, and these should continue. This reexamination of teaching loads could address the need to regularize course offerings while also addressing the junior faculty's concerns regarding inequity.

   As for uncertainty about progress toward tenure, the department and college have plans to offer workshops on this topic in the near future. These workshops will be communicated to faculty and Vice Provost, Faculty Affairs Jill Heaton will be invited to participate in workshops or discussions on this topic. New tenure-track faculty were encouraged to attend the New Tenure Track Academic Faculty Orientation sponsored by the provost's office on September 14 (9-11:30 a.m., MIKC Room 107) where the promotion-and-tenure process application process was discussed at length.

   The department was reminded 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. The college and program leadership will monitor and support progression of associate professors in required progress toward promotion.

IV. Descriptive Statistics

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

2017-18	206

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

2015-16	27
2016-17	25
2017-18	46

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

Fall 2017	2,824

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.

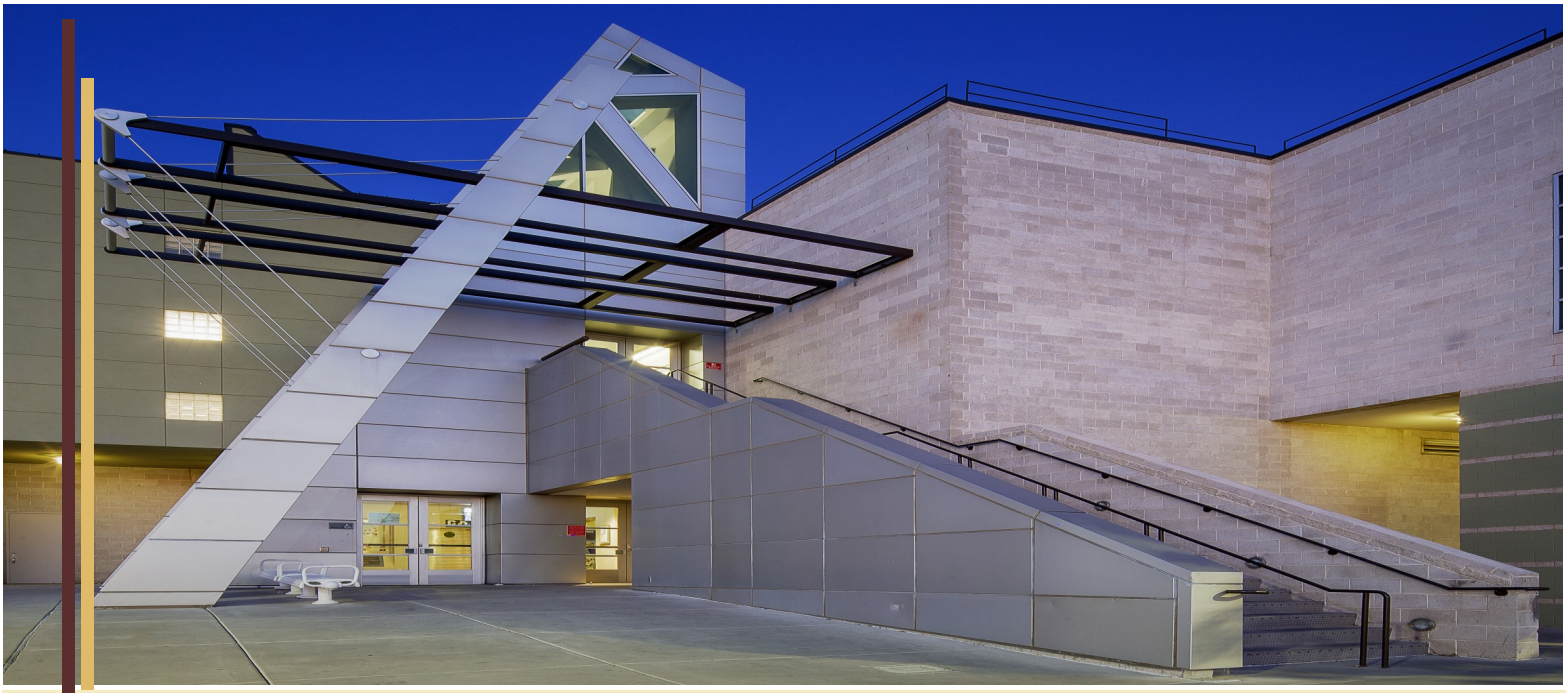
Criminal Justice, BAS

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

Speech Language Pathology, MEd

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.

- Computing & Information Technology
  - Cybersecurity, AAS
  - Networking, AAS
  - Software, AAS
- Media Technologies
  - Graphic Communications, AAS
  - Photography
    - Commercial Photography, AAS
    - Videography and Film, AAS
- Applied Technologies
  - Air Conditioning Technology, AAS
  - Automotive Technology, AAS
    - Collision Repair, AAS
  - Aviation Technology, AAS
  - Construction Management, AAS
  - Diesel/Heavy Equipment, AAS
  - Engineering Technology, AAS
  - Welding Technology, AAS

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.

- Architectural Design Technology, AAS
- Environmental Safety and Health, AAS

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

- Project Management, BAS
- Nursing RN to BSN

Certificates

I. List the certificates (at least 30 credits and under 30 credits) that were reviewed over this academic year of review.

- Computing & Information Technology
  - Cybersecurity, CA
- Media Technologies
  - CADD Technology, CA
- Applied Technologies
  - Air Conditioning Technology, CA
  - Automotive Technology, CA
    - Collison Repair, CA
  - Aviation Technology, CA
  - Diesel/Heavy Equipment, CA
  - Engineering Technology, CA
  - Welding Technology, CA

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.

Engineering Technology – Utility – Natural Gas: National Center for Construction Education and Research (NCCER Core)

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

College of Southern Nevada

Computing & Information Technology: Cybersecurity, AAS & CA

I. Description of Program Reviewed

The Computing & Information Technology Cyber Security Program includes a Digital Forensics Certificate, Digital Forensics AAS degree, and Network Security AAS degree. The program prepares students to assist in providing support for information technology, cyber security, forensics, or data network technician . Curriculum covers Internet and Computer Forensics, Digital Crime Investigation, Advances Computer Forensics, Cisco Networking, Introduction to Programming, and Project Management. The Computing & Information Technology Cyber Security Program degrees prepares graduates as technicians and the certificate of achievement prepares students for entry level positions in Information Technology support.The Computing & Information Technology Cyber Security Program AAS graduates provides opportunities to pursue a four-year degree at several institutions.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Cybersecurity technician employment remains very strong. Specialized skills in penetration testing, site hardening, wireless protection, and intrusion awareness will continue to drive market demands.

Conclusion: Expansion of learning opportunities in laboratory settings and increased access to internships is critical for developing Cybersecurity personnel with intimate knowledge of the growing Las Vegas digital infrastructure. Additional pathways to bachelor degree programs for technicians is required.

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

Next steps for the Cybersecurity program will be to develop a program in Compliance. This will meet the last known discipline within the industry unserved by CSN. Compliance identifies the regulatory requirements and the ability of cybersecurity departments to conform. Procedures for defense, testing, and breach response are codified and verified. Cybersecurity technicians manage the technical aspects of the digital defenses and IT management is tasked with assuring compliance with the industry standards.

V. Descriptive Statistics

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

2017-18	1,171

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

2015-16	0
2016-17	1
2017-18	6

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

Fall 2017	419

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Computing & Information Technology: Networking, AAS

I. Description of Program Reviewed

This program course of study provides students with the necessary education and skills required by today's computer networking industry. Instruction includes courses on client/server centric LAN networking, router/ switch centric internetworking, as well as operation and administration of high-end web server environments. It provides students with a wide array of training in various functional areas related to computer networking. Completion of this program prepares students for successful completion of a number of industry certification exams, such as CompTia A+/N+, Cisco CCNA, Microsoft MCITP and others.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Computer hardware and network technician employment remain very strong. Specialized skills in fiber optics, server operations, router and switch installation and virtual machines will continue to drive market demands.

Conclusion: Expansion of learning opportunities in laboratory setting and increased access to VMware is critical for the growing Las Vegas digital infrastructure. Additional pathways to bachelor degree programs for network technicians is required.

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

The next actions in Networking will be the expansion of current virtual machine operations. This will afford remote delivery of course content with no break in 'hands-on' instructional quality. This will afford education and industry the flexibility of operating in multiple environments and platforms without rebuilding the physical environment. New certification may be arriving from industry credentialing groups.

V. Descriptive Statistics

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

2017-18	741

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

2015-16	17
2016-17	24
2017-18	29

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

Fall 2017	336

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Computing & Information Technology: Software, AAS

I. Description of Program Reviewed

This degree prepares students for employment in fields related primarily to computer software. Concentration areas include: Computer Applications, Database, Programming, and Web Development.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Finding: Microsoft application certification is of much less utility than in previous years. Focus on programming, mobile, game, web, and database functions should yield a better return on student investment.

Conclusion: Redefine concentrations to reflect higher demand IT professions. Develop bachelor degree pathways to facilitate growth of system administrators and IT management while retaining core technical competence.

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

New language applications are always forthcoming. Demand for coders is leveling but the need for software developers that can combine program design, coding, and software evaluation has increased exponentially.

V. Descriptive Statistics

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

2017-18	1,627

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

2015-16	42
2016-17	32
2017-18	29

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

Fall 2017	618

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Media Technologies: CADD Technology, CA

I. Description of Program Reviewed

The program prepares drafting professionals for developing and interpreting construction documents and drawings.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from related local industry professionals on employment trends and new technologies.

III. Major Findings and Conclusions of the Program Review

Finding: The trend in drafting is for design professionals such as architects and engineers to develop their own drawings using computer based design tools. The advancement of the technology has eliminated much of the need for dedicated professionals as intermediate drawing technicians. Understanding basic CADD functions, however, is very much in demand as a core technical skill for many professions. The coursework is transitioning to a correlate rather than a career focus.

Conclusion: The CADD AAS program has been deleted. The next iteration for the program should be an integrated manufacturing pathway at the certificate level that includes additive and subtractive production processes like 3d printing and CNC machining, digital information control, metrology, and quality assurance concepts.

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

A result of the review is a re-assignment of the CADD program to the Media Technologies Department. The changing nature of Computer Assisted Drafting & Design and it's correlation with the content of the Graphic Communications program affords a synergy that could stimulate both disciplines. The CADD program is migrating to include subtractive manufacturing to the existing 3d printing/additive manufacturing capability. CADD is likely to be an integral component to the development of an Industrial Design major.

V. Descriptive Statistics

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

2017-18	5

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

2015-16	2
2016-17	4
2017-18	1

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

Fall 2017	75

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Media Technologies: Graphic Communications, AAS

I. Description of Program Reviewed

This program trains people to use digital tools for employment in design and creative production. This degree is directed toward designing, producing, and assembling digital assets into professional communications and deliverables.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Refocusing the program from print toward digital media has improved concurrence with industry direction. Personnel and facilities are more than adequate to meet placement needs. Graduation rates remain low. Student retention processes require further study.

Conclusion: Recruitment and retention of students in the program must be a near term priority. Articulation with local school district programs must be resolved in the next academic year. Improving concurrence with programs at the other state colleges is required as is exploration of bachelor degree pathways with regional universities.

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

A result of program review discussions is the identification of a currently underserved discipline in Industrial Design (ID). This profession is an amalgamation of design principles, software expertise, and engineering technologies.

V. Descriptive Statistics

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

2017-18	221

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

2015-16	11
2016-17	13
2017-18	17

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

Fall 2017	464

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Media Technologies: Photography–Commercial Photography, AAS

I. Description of Program Reviewed

The Photography program offers instruction in commercial photographic skills and creative photographic processes. Beginning and intermediate photographic processes and skills are addressed. Advanced instruction in photographic lighting, photographic commercial illustration, photojournalism, color lab technologies and portraiture is provided.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: The Photography program has been recognized by industry as one of the nation's best. New efforts in assessment of students entering the advanced courses in the program are ensuring the premier status of the degree. Placement or employment data for postgraduates remain a singularly difficult to obtain reference for quality assurance. Facilities have been improved remarkably to afford more professional instructional environments. Course sequences and a master schedule are needed to provide students a clear progression in the degree

Conclusions: Continuous attention to new digital equipment needs is critical to maintaining the program preeminence. Additional efforts in personalized contacts to collect post-graduate data is required.

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

Expansion of the skillsets of commercial photographers has grown remarkably. Currently, the professional demands include digital image manipulation (graphic design), live action capture (videography), and sound recording/editing. Program changes will accommodate the expanding nature of the profession.

V. Descriptive Statistics

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

2017-18	174

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

2015-16	20
2016-17	23
2017-18	14

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

Fall 2017	300

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Media Technologies: Photography–Videography and Film, AAS

I. Description of Program Reviewed

The CSN Videography Program is a hands-on digital program that stresses traditional film grammar and the creative documentary. Courses address basic and intermediate film making techniques using digital video equipment. Other topics include cameras usage, production planning, script writing, lighting, directing and digital editing with commercial applications.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: The Videography program has excellent growth potential. Faculty are well prepared and are recipients of several industry honors. New efforts in assessment of students entering the program are needed to assure better program completion. Placement or employment data for postgraduates remain a singularly difficult to obtain reference for quality assurance. Facilities are being improved however good venues for shooting are not fully available and thus do not afford complete professional instructional environments. Course sequences and a master schedule are needed to provide students a clear progression in the program of study.

Conclusions: Continuous attention to new digital equipment needs is critical to maintaining the program viability. Additional efforts in personalized contacts to collect post-graduate data is required. More appropriate studio space is needed for continued program growth. A new course prefix and course sequence was installed last academic year to designate more clearly the specific videographic coursework.

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

With the recent addition of the audio suites and the equipment for sound editing, no new equipment of facilities issues are apparent. One sustaining issue of off-campus filming did resurface and will be under review shortly. Currently any filming off-campus requires permitting by one or more of twelve different jurisdictions in the Clark County area. Resolution of this problem is necessary if students are to explore safely the videographic potential of the city and surrounding areas.

V. Descriptive Statistics

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

2017-18	413

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

2015-16	11
2016-17	13
2017-18	10

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

Fall 2017	306

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Air Conditioning Technology, AAS & CA

I. Description of Program Reviewed

This program prepares students to install, maintain, service, troubleshoot and repair residential and commercial heating and cooling systems. Additionally, the program includes commercial refrigeration courses enabling students to learn how to maintain, troubleshoot and repair walk-in freezers, ice machines and other related machinery.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: The CSN Air Conditioning program is accredited through HVAC Excellence and PAHRA and is ranked among the elite in the country. It's strengths are the rigor and robust delivery in commercial refrigeration and residential/light commercial air. The only shortcoming is in an abbreviated central plant operations laboratory experience which should be addressed by current facilities efforts.

Conclusion: The program will complete expansion operations to a new site to complete the central plant operations laboratory and expand the delivery of courses in chillers, boilers, furnaces, and sheet metal fabrication. No program in the nation will have the depth and breadth of CSN's Air Conditioning Technology coursework.

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

A result of the targeted CTE funding from the last legislative session is the consolidation and refinement of the HVACR program in a new facility with state-of-the-art capabilities. Both accrediting bodies (PAHRA and HVAC Excellence) recognized CSN's program as one of the national leaders. The advent of the new facility will cement that reputation. The program addresses all aspects of the industry in great detail with special recognition going to a relatively new program direction in Critical Systems. The complete the consolidation of all aspects of the program at the new Western High Tech Center facility. With the capacity for expanded operations comes the potential for dual credit offerings. The Clark County School District no longer offers the HVAC program and a dual-credit option affords the high school student an avenue into the profession and expands the college enrollment plan considerably. An additional benefit to the new facility is the opportunity for short duration programming to meet entry-level training in collaboration with state programs at OWINN and other workforce education venues.

V. Descriptive Statistics

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

2017-18	260

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

2015-16	20
2016-17	24
2017-18	3

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

Fall 2017	171

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Automotive Technology, AAS & CA

I. Description of Program Reviewed

This degree program, one of the largest of its kind in the west, prepares students for lucrative careers as automotive technicians, as well as related automotive occupations. Master Accredited by ASE/NATEF, instruction is provided on state-of-the-art equipment in both classrooms and labs. ASE Master Certified technicians provide all instruction, with the focus on understanding automotive systems operation, efficient diagnostics, and service. Additional emphasis is placed on preparing students to pass ASE certification exams.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Facilities, equipment, curriculum, and faculty qualifications are among the best in the nation. Further effort must be expended on student preparedness and general education readiness. Student retention throughout the program must be a primary focus for program personnel.

Conclusion: An examination of student academic skills on entry into the Automotive Technology program is required. Mechanisms to assure college readiness must be developed and deployed.

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

One issue from review discussion concerns the need for technicians in the motorsport area, that is, motorcycle and other small engine vehicles. Area motorcycle dealers have long been concerned about the availability of technicians capable of handling the advanced technology being introduced into motorcycle design. Recent innovations in computer controlled ignition, braking, suspension and fuel systems have left the casual maintenance person unable to function. Technologies not unlike that of the most recently designed automobiles are now commonly found in motorsport vehicles. The self-trained motorcycle mechanic is woefully unprepared for current technologies and employers are facing extreme difficulties in providing factory-service training. A new Certificate of Achievement program will be developed and critiqued by the advisory committee.

V. Descriptive Statistics

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

2017-18	309

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

2015-16	25
2016-17	16
2017-18	3

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

Fall 2017	405

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Automotive Technology-Collision Repair, AAS & CA

I. Description of Program Reviewed

The Collision Repair program is designed to prepare students as entry level collision repair technicians. Students will earn I-CAR (Industry Council for Automotive Repair) certification points in 26 different areas, including customer service, estimating, welding, plastics and paint and refinish. Successful students will become proficient in safe working procedures, structural and non-structural repairs, refinishing techniques and estimating.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Student retention and completion rates are a source of great concern. The program has improved it's focus on the collision curriculum. Recent instructor hiring has been a significant factor in improving course outcomes but retention rates are not improving as quickly as anticipated. Improved student assessments of general education skills are warranted.

Conclusion: The last factor to address in the quality improvement process is the student body. Better assessment of academic skills and more tutorial support for basic reading, writing, and math skills is required. Plans for industry credentials and internship development are needed.

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

The primary issue for the near future is the restructuring of the schedules to accommodate a short (one semester) intense basic program in Collision Repair. The academy-style delivery could accommodate a skills certificate, which would serve as an entree into the profession, and a stackable credential wholly contained in the Certificate of Achievement.

V. Descriptive Statistics

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

2017-18	47

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

2015-16	0
2016-17	2
2017-18	0

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

Fall 2017	56

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Aviation Technology, AAS & CA

I. Description of Program Reviewed

The Aviation Technology degree program is designed specifically for students who have a desire to work in aviation-related careers. Thorough coverage of the Federal Aviation Regulations will apply to all aspects of study. The degree will provide the application of concepts pertaining to airport and aircraft operations for domestic and international flights. Students may select from Track options that place an emphasis on either Professional Pilot or Flight Operations areas of study. The degree will prepare students to enter the employment market as Professional Pilots, Flight Crew Members, OR, Flight Operations Specialist, Crew Scheduler, Flight Follower, Customer Service Representative, Aircraft Servicing Personnel.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the FAA on new license requirements.

III. Major Findings and Conclusions of the Program Review

Findings: Aviation Technology remains a viable program and may become even more attractive as Unmanned Systems becomes functional. Low completion rates are primarily a result of the extended time and cost of flight hours to reach minimum FAA requirements. Mandatory check rides prior to licensure should not be included in course outcomes.

Conclusion: New course outcomes that do not include FAA check rides and stackable certificates may be employed to facilitate better program completion rates.

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

Complete the re-alignment of aviation and related programs at the Henderson Campus. No changes in the Commercial Pilot or Flight Operations programs are anticipated but collaboration with the Unmanned Aviation Systems program in Engineering Technology will improve Aviation enrollments and stabilize class offerings. New simulators and improved computing resources will complete the program enhancements. The discussions with industry aviation maintenance personnel during the review indicate that expansion into Airframe and Powerplant Mechanics is not feasible; however, new cooperative ventures with Engineering Technology Electronics could result in a pathway for an Avionics degree.

V. Descriptive Statistics

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

2017-18	110

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

2015-16	16
2016-17	1
2017-18	1

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

Fall 2017	120

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Construction Management, AAS

I. Description of Program Reviewed

This AAS degree prepares students to inspect and oversee the construction of commercial and residential buildings, including sustainable (green) construction. Students learn proper procedures and materials that comply with plans, specifications, building codes, landscape procedures, energy audits and/or the LEED rating system. Students are prepared for employment as construction estimators, project managers, green specialists and other supervisory positions in the construction industries.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: The CSN Construction Technology program is undergoing a major restructuring. It's strengths are the rigor and directed delivery in commercial and residential construction management. The primary shortcoming is in articulation to higher education management programs.

Conclusion: The program will not reactivate operations in skills coursework in favor of agreements with local apprenticeships. The program will need to collaborate with the school district for greater articulation with preparatory secondary sequences. The program will develop a proposal for pathways to the Project Management baccalaureate degree.

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

A result of the discussions in this review is the future re-introduction of Building Inspection as a separate degree pathway in Construction. Additional inquiries of employers and the local chapter of the American Society of Professional Estimators is needed to determine whether the preliminary interest in Construction Estimating should result in a new Certificate of Achievement or an expansion of the existing coursework.

V. Descriptive Statistics

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

2017-18	102

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

2015-16	4
2016-17	3
2017-18	0

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

Fall 2017	85

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Diesel/Heavy Equipment, AAS & CA

I. Description of Program Reviewed

The Diesel/Heavy Equipment program prepares students to enter the workforce as technicians to maintain, diagnose, and repair heavy equipment. The program focuses both on over the road trucks as well as diesel powered heavy equipment typically used in the construction industry. Students will learn diesel engine and propulsion systems, fuel management systems, related accessory components, as well as hydraulics, welding certifications, and HVAC certifications.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Facilities, equipment, curriculum, and faculty qualifications are among the best in the nation. Industry responses to inquiries about the appropriateness of the certificate as opposed to the degree raises question about the viability of the abbreviated program.

Conclusion: An examination of student academic skills on entry into the Diesel Technology program is required. Mechanisms to assure college readiness must be developed and deployed as general education coursework is mandated as prerequisites to DT courses. Additional surveys of employers concerning the viability of the certificate program is required.

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

The only significant issue to address in the near future is the availability of part-time faculty. In today's employment market, diesel technicians are in great demand and are capable of earning six figure salaries. The access to master technicians who have either a desire or availability to work as adjunct faculty is grossly limited. Full-time hires are more likely acquisitions in the current market.

V. Descriptive Statistics

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

2017-18	121

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

2015-16	7
2016-17	11
2017-18	5

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

Fall 2017	84

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

College of Southern Nevada

Applied Technologies: Engineering Technology, AAS & CA

I. Description of Program Reviewed

The Associate of Applied Science Degree in Engineering Technology with Electronics emphasis prepares students to assist in providing support for engineering functions or to function as an Electronics Technician. Instruction includes analog and digital circuit design, implementation and testing, fabrication techniques, telecommunications, microprocessor programming and interface.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Recent program refinements in response to ABET accreditation have produced a degree path to serve an industry demand that far outstrips the capacity of the program output. Facilities, faculty qualifications, and curriculum plans are exceptional. Growing shortages of talent as instructors is an ongoing concern. Additionally, student preparedness for the program rigor continues to concern faculty. Lastly, demand for advanced credit that leads to a bachelor's degree has been increasing.

Conclusions: Additional efforts to expand course offerings to other sites is necessary. Further efforts to recruit part-time faculty is required. Articulations with regional institutions to build a bachelor's degree pathway is essential to maintain positive relationships with industry partners and with alumni.

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

Discussions with the advisory committee has directed program faculty attention to refining programs in support of the Power Utilities. Specific needs expressed by the gas and electric utilities indicate different skillsets and, consequently, different pathways from those previously offered. Additional considerations from the electronics disciplines it ET present the opportunity to collaborate with the Aviation program on offering in support of the Unmanned Aviation Systems industry and for examination of a potential Avionics program pathway.

V. Descriptive Statistics

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

2017-18	16

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

2015-16	3
2016-17	1
2017-18	0

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

Fall 2017	167

VI. Institutional Reports

Click **here** for a copy of the institutional report summarized above.

Applied Technologies: Welding Technology, AAS & CA

I. Description of Program Reviewed

The program provides students with the skills and knowledge necessary for successful employment as entry level welders in welding and related metal working industries.

II. Review Process and Criteria

The Program Director surveys employers formally or informally as directed by the respective accreditation organization or by the program's industry advisory committee. Faculty reviewed the enrollment and graduation data for presentation to the industry representatives. Feedback is received on the relevance and quality of the professional curriculum, preparedness for entry level employment and the nature or needs of the local industry. Other review tools include employment data from the state Occupational Outlook database and guidance from the local industry association on employment trends and new technological skill demands.

III. Major Findings and Conclusions of the Program Review

Findings: Facilities are in need of basic environmental improvements. Faculty are well positioned for the scope of competencies required for AWS credentialing.

Conclusion: More capabilities to conduct AWS certification testing is required. Reassessment of general education skills of student body is needed to improve graduation rates.

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

A result of the facility re-alignment in HVACR is the opening of laboratory space for expansion of the Welding program. New floorspace will allow for dedicated centers for specialized welding processes. This opportunity will allow the program to identify process-based skills certificates that correspond to the certifications offered though the American Welding Society and recognized by construction, maintenance, and fabrication employers.

V. Descriptive Statistics

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

2017-18	223

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

2015-16	4
2016-17	6
2017-18	1

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

Fall 2017	186

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.

Digital Information Technology, BAS

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.

Human Services, BAS

Certificates

I. List the certificates (at least 30 credits and under 30 credits) 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.

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.

- Cisco Certified network Associate (CCNA), Routing and Switching Preparation: CCNA Routing and Switching
- CCNA, Security Preparation: CCNA Security

V. List the certificate programs of less than 30 credits ("skills certificates") that received AAC approval for elimination or deactivation n this academic year of review.

None

Digital Information Technology, BAS

I. Description of Program Reviewed

The Digital Information Technology of the BAS degree prepares students for beginning management level jobs in information technology departments of business and industry. Since these jobs typically supervise many areas of information technology this degree adds advanced level skills in digital information production, communications, and storage, graphics/multimedia, information management, networking, and office technology, as well as business decision making, strategic planning, accounting, human resource management skills, and professional ethics.

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

Great Basin College's review of its Bachelor of Applied Science in Digital Information Technology (BAS-DIT) program suggests that it has lagged behind student and industry needs, but is beginning the process of innovation to better serve these needs in the future.

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

A next approach to program improvement will involve the development of track concentrations, as opposed to the generalist framework currently in place. Anticipated track concentrations will be web development, network specialist and computer programming.

V. Descriptive Statistics

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

2017-18	16

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

2015-16	6
2016-17	1
2017-18	3

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

Fall 2017	138

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.

- Computer Information Technology, AAS
- Construction Technologies
  - Critical Systems, AAS
  - Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R), AAS
- Logistics Program
  - Logistics Management, AAS
  - Logistics Operations Management, BAS
- Psychology, AA
- Radiologic Technology, AAS
- Spanish, AA

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.

- Dental Hygiene, BS
- Graphic Arts and Media Technology, AA
- Hospitality and Tourism Management, AA

Certificates

I. List the certificates (at least 30 credits and under 30 credits) that were reviewed over this academic year of review.

- Computer Technologies
  - Computer Technologies, CA
  - CISCO Certification-Certified Network Associate (CCNA), Routing and Switching Preparation, Skills Certificate
  - CCNA, Security Preparation, Skills Certificate
  - CompTIA Certification Preparation, Skills Certificate
  - Cybersecurity Skills Preparation, Skills Certificate
  - Linux Professional Certification Program, Skills Certificate
- Construction Technologies
  - Air Conditioning Critical Systems, CA
  - Commercial Refrigeration, Skills Certificate
  - Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R), CA and Skills Certificate
- Logistics Program
  - Logistics Management, CA
- Radiologic Technology Program
  - Magnetic Resonance Imaging (MRI) Technology, Skills Certificate
  - Medical Imaging for Re-Entry Radiographs, CA

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.

- Graphic Arts and Media Technology, CA
- Air Conditioning Critical Systems, CA

III. List the certificate programs of at least 30 credits that received AAC approval for elimination or deactivation in this academic year of review.

- Logistics Technician, CA
- Paramedic, CA
- Web Design Fast Track, CA

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.

Manufacturing Technologies, Advanced Manufacturing Panasonic Preferred Pathway (P3), Skills Certificate: Specifically requested by industry, Panasonic Corporation

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 Technologies Program: Computer Information Technology, AAS/Computer Technologies, CA/Skills Certificates: CISCO Certification-Certified Network Associate (CCNA), Routing and Switching Preparation; CISCO Certification-Certified Network Associate (CCNA), Security Preparation; CompTIA Certification Preparation; Cybersecurity Skills Preparation; Linux Professional Certification Program

I. Description of Program Reviewed

The Computer Technologies (CT) Department is part of the Technical Sciences Division, and the department is structured to offer students the opportunity to learn about basic computers, networking infrastructures, web development and cyber security. Computer science (programming) programs are now with the Science Division.

The technology of today is requires students to obtain certain skill sets to succeed in the workplace. The CT Department has determined that the students' needs are best met by offering an AAS degree along with several skill certificates that meet employers' needs. This change was brought about because several highly visible companies like Tesla, Switch, Apple and Amazon (to name just a few) have moved or have indicated they are moving to this area and need a trained workforce. The department now offers an Associate of Applied Science (AAS) degree with four emphasis: Programming, Networking, Cybersecurity and Web Development. These emphases more closely align with the workforce demand for trained employees. This degree has embedded four Skill Certificates, which students may earn when completing the full requirements of the degree or the skill certificates can be earned separately. The Skill Certificates are: 1) CompTIA Certification Preparation, 2) Cisco Certification: Cisco Certified Network Associate (CCNA) Routing and Switching Preparation, 3) Cisco Certification: Cisco Certified Network Associate (CCNA) Security Preparation and 4) Linux Professional Certification Preparation.

The Programming emphasis degree will be revised in the near future to support the Nevada Governor's Office of Economic Development to begin training students in the areas of Advanced Automation & Robotics and Machine Learning (Artificial Intelligence).

The average student enrollment during the past five years is 864 students per semester, 1,727 per year and a total of 8,636 students since the last PUR.

The faculty of the CT Department have embraced the Scenario Based Learning (SBL) model in many of its courses. Students are presented with a real-world situation and must solve it based on what they have learned. Since technology is ever changing and students need to complete tasks given to them by their employers. In classes that teach a technical curriculum, faculty are using the andragogical approach to adult education, which means to teach theory but link it to practical applications (SBL) given the idea that adults: 1) have a need to know. 2) have a foundation of life experience, 3) are responsible for their decisions, 4) want to be sure they are learning concepts and skills that will be directly applied to their current employment or the chosen employment of the future. This approach is problem-centered rather than content-oriented and uses more of a critical thinking approach versus the pedagogical approach. The adult learner is motivated when they learn practical applications that can be used in the workplace.

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

- The revamped degree and certificate offerings should streamline and improve pathways to useful, employable degrees and certificates.
- The opportunity to do non-credit training could provide a pipeline of interested students. In addition, the growth of Jumpstart could help with this pipeline.
- Due to continual security breaches, the Cybersecurity degree emphasis and skills certificate could attract a large base of students.
- Plans to buildout a classroom to showcase the more visually interesting aspects of the field of study should help recruit students.

Areas for Improvement:

- The plan to update and expand the Advisory Council will add great value and improve the program.
- The issue with classes not attracting the enrollment needed to run has been an issue for a while and should be addressed head-on. It may be necessary to eliminate some of the certificates to trim up the offerings or to greatly increase the pipeline of students to ensure viability of the overall program.
- Per the Dean's findings, the discipline should explore Badges.
- The phasing out of two full time tenured faculty is problematic for the program.

Executive Summary:
The program should be continued but undergo a full evaluation of the offerings in light of the new advisory board's input and direction. Scheduling must be student-focused.

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

- Review current curricula with help of new advisory council and process updates through CRC as needed (start spring 2018); leverage CIT classes with other programs in the division, including advanced manufacturing and HVAC (ongoing).
  - ◊ Outcome: cleanup of class offerings and expanded offerings as needed.
- Rebuild advisory council (spring 2018).
  - ◊ Outcome: relevant attendance and feedback.
- Build a "showcase classroom" for instruction and visibility (fall 18).
  - ◊ Outcome: State-of-the-art instructional facility.
- Outline new tenure-track position (FY19) for hiring for FY20 academic year.

Computer Technologies Program: Computer Information Technology, AAS/Computer Technologies, CA/Skills Certificates: CISCO Certification-Certified Network Associate (CCNA), Routing and Switching Preparation; CISCO Certification-Certified Network Associate (CCNA), Security Preparation; CompTIA Certification Preparation; Cybersecurity Skills Preparation; Linux Professional Certification Program

V. Descriptive Statistics

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

2017-18	224

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

2015-16	31
2016-17	30
2017-18	64

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

Fall 2017	763

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.

Construction Technologies Program: Critical Systems, AAS/ Heating, Ventilation, Air Condition/Refrigeration (HVAC/R), AAS, CA & Skills Certificate/Air Conditioning Critical Systems, CA/Commercial Refrigeration, Skills Certificate

I. Description of Program Reviewed

With the reorganization of the Construction Management and Architectural Design programs under one unit. Construction Technologies now only includes the Heating, Ventilation, Air-Conditioning/Refrigeration (HVAC/R) program. The HVAC/R program concentrates studies in heating, cooling, and refrigeration systems commonly found in commercial, industrial, and residential structures. Technical theory, ranging from thermodynamics, basic electrical, controls, and Building Automation Systems (BAS) is combined with hands-on experience including lecture and lab to ensure student success in the field. The HVAC/R program is housed within the Applied Technologies (AT) division. The Applied Technologies division is located at the TMCC Pennington Applied Technology Center. The Applied Technologies division is part of the division of Technical Sciences within Truckee Meadows Community College. As the HVAC/R labs and lecture rooms are located at the TMCC Pennington Applied Technology Center, the majority of students in the HVAC/R program attend their classes at the center. The TMCC Air Conditioning Technology Program prepares students for job opportunities in the local community. In state-of-the-art labs, students will learn to work on innovative training systems in heating, ventilation, air conditioning and refrigeration (HVAC/R). Highlighting practical skills and hands-on techniques, this program prepares students to systematically approach, analyze, troubleshoot and solve HVAC/R problems.

A variety of certifications and degrees are offered in the program of study that further acknowledges students' preparation in the field of HVAC/R.

Students are urged to take multiple exams in HVAC Excellence Employment Readiness Certification to prove their readiness in their field of study, and to become more competitive when seeking employment. Students are also tested for the new EPA regulations, Section 608.

The program is designed around industry needs for the Truckee Meadows and surrounding communities. The program utilized employment ready exams to ensure a working knowledge that is suitable for the community needs.

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

- This is a high-demand employment sector.
- This program is very responsive to industry as can be seen in their new curriculum and programs.
- The advisory board is robust and active.
- The program has obtained outside financial support that has helped the program.

- The program has strong partnership with ACE high School, Vaughn Middle School, and Children's Cabinet to help students earn certificates, be introduced to the trades, or be a part of a youth-oriented building program.
- There are excellent strategies being used to attract females to the field.
- Retention in AC courses outpaces that of the Division and College.
- The open entry model is both an opportunity and challenge.

Areas for Improvement:

- Assessment efforts need to be improved and all course assessment reports (CARs) must be completed an submitted on time.
- There is a need for updated equipment in the commercial refrigeration area, and to move all labs to one floor. Having a single instructor also creates a safety hazard when having to supervise multiple labs on different floors.

Executive Summary:
This program should continue and should grow now that there is a focus on industrial HVAC that complements the residential program that was traditionally taught.

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

- Finalize critical systems curricula (Fall 18)
  - ◊ AAS listed for FY19; Certificate possible for FY20.
  - ◊ Maintain CAR cycle.
- Increase in Faculty as the program grows will be looked at in the overall context of college need vs budget.
- Move refrigeration lab (Summer 2018) to floor 2 with other HVAC resources.
- Meet with industry to determine where HVAC graduates are needed (ongoing)
  - ◊ This element includes working with large, commercial businesses that are in need of trained workers in this field. For example, Tesla can use 20+ trained in critical systems related skills now.

V. Descriptive Statistics

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

2017-18	56

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

2015-16	32
2016-17	26
2017-18	23

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

Fall 2017	97

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.

Logistics Program: Logistics Operations Management, BAS/ Logistics Management, AAS and CA

I. Description of Program Reviewed

The Logistics Operations Management program provides students with the technical expertise and knowledge needed to meet the Northern Nevada operations and logistics industry technical workforce needs. The program is designed to offer a two and four-year degree option focused on the critical skills needed in the logistics workforce. This program prepares students in the areas of manufacturing, operations, logistics, and supply chain through an industry-driven curriculum encompassing such areas as manufacturing processes, quality principles, warehousing, sustainability, safety, and operations planning and control. Students in the program are given the skills and knowledge to manage both material and information flows in complex environments. The Logistics Management AAS and Operations Systems AAS are feeder degrees to the Logistics Operations Management BAS program. All three degrees respond to employers' expressed needs to have a well-qualified logistics operations workforce trained and ready to meet workforce demand, thus ensuring long-term economic success for the region. The recent addition of the BAS degree completed the educational pathway for this important business sector workforce.

A full-time tenure track instructor was hired in August 2015. There is a strong part-time instructor pool consisting of subject matter experts identified by the Advisory Board.

TMCC has acquired several Library resources that are specifically relevant to the Logistics program, including a new database (ABI/Inform in 2016) and many new logistics hard copy printed books. Supplies and operating expenses are funded equally by state funds and industry philanthropic giving. Administrative support is provided by existing administrative positions in the Dean of the Division of Business and Social Sciences' office

Courses are taught online or online/lecture hybrid with evening lectures to accommodate the working adult student population. Lectures are held at the Meadowood Campus which is a preferred location for working students due to proximity of the bus depot at the Meadowood Mall with many convenient routes and schedules to support their class and work schedules.

The Logistics Operations Management program is enhanced by the Center for Applied Logistics Management (CALM), which is a collaboration between industry, academia, and community dedicated to leading and coordinating education and training efforts to build and enhance a competitive northern Nevada workforce in a global economy. The Center provides practical industry/academic applied logistics knowledge through workshops, classes and special programs as needs are identified by stakeholders.

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

The Logistics program has many strengths including a very active Advisory Board, which is representative of the region's logistics industry. Other strengths include an excellent full-time faculty lead, a high-quality part-time pool, a BAS degree that rounds out the offerings from CA, AAS, and now BAS. It is good to see that revitalizing the program with a FT faculty member and the BAS degree has been impactful in growing what was a diminishing head count and FTE. The program is also enhanced by the Center for Applied Logistics Management (CALM), which will bring more attention to the program.

Opportunities for Improvement:

If the program continues to grow, adding another FT faculty member would be warranted and welcomed. Working with the Advisory Board to market the program to employees who have tuition reimbursement through their employers could help accelerate the program growth. Another great opportunity to help grow the program would be to offer the BAS degree 100% online. It may be useful to explore the opportunity for short-term skills certificates that respond directly to industry need and/or certification.

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

1. Continue marketing campaign in Spring 2018 and onward
2. Continue outreach efforts on an ongoing basis.
3. Connect with declared majors at least once per semester and provide any mentoring or advisement needed.
4. Explore the option for a fully online option and make recommendation to board and college in FY19 with a program start in FY20.
5. If program grows dramatically as expected a second full time faculty member should be hired to meet the growing need, at this writing this might be expected in FY20.

Executive Summary:
This program should be continued as it has excellent potential for growth, it serves a large industry group in the region, and it prepares students for employment and career growth opportunities. It also has superb faculty, administration, advisory board, and community involvement.

V. Descriptive Statistics

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

2017-18	72

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

2015-16	2
2016-17	6
2017-18	6

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

Fall 2017	115

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.

Psychology, AA

I. Description of Program Reviewed

The Psychology Program at TMCC is designed to meet the needs of students needing general education, transfer degree programs, and occupational/technical degrees as well as lifelong learning. The program is housed in the Division of Business and Social Sciences within the department of Social Sciences. It currently has three tenured and one tenure track instructor with one of those instructors on Phase In at 50% FTE. The program shares a Coordinator with Sociology that recruits and manages the psychology adjuncts.

A cornerstone of the program is the Associate of Arts in Psychology designed for students seeking careers in psychology or related fields. This course of study is a university transfer program that substantially meets the requirements for the first two years of study for the B.A. in Psychology at UNR, including lower division courses that meet requirements of the three areas of specialization. The degree requirements include a well-balanced general education curriculum which provides students with major concepts, theoretical perspectives, and empirical findings in psychology. In addition, students will come to understand and apply basic research methods in psychology.

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

The program's transfer degree is well articulated to UNR degrees, thus giving our students a clean pathway to their BA degrees. It is a positive sign that minority enrollment is increasing. There are well-qualified full time and part time faculty. The impending retirement of one of the faculty members in light of the declining enrollment provides the Dean some flexibility In ensuring that the department is rightsized. The reestablishment of the student club will be helpful in student engagement, retention, and recruitment.

Opportunities for Improvement:

The drop in enrollment based on the change in the GE requirements should be addressed through recruitment efforts in the traditional and non-traditional potential student markets. A reduction of Summer School offerings should be seriously considered to offset Fall enrollment declines.

Executive Summary:

Psychology education is an important part of a well-rounded knowledge base and assist students succeed in all aspects of work and life. This program is well structured, has well-qualified faculty, and is rigorous. although there is an enrollment decline, recruitment efforts and improved retention as well as strategic scheduling can help. This should be continued.

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

1. Connect with declared majors at least once per semester to provide support and any needed mentoring and advisement. Begin Spring 2018 and make an ongoing endeavor.
2. Continue to promote Psychology Club and partnerships for bachelor's degrees at UNR and SNC to try to increase student engagement and persistence. Begin Spring 2018 and make an ongoing endeavor.
3. Review all course offerings in PSY and determine if any others can be put forward to meet general education requirements. Complete by end of FY19.
4. Research retention issue. Possibly poll students and try to find barriers to completion of degree program by end of FY19. Work to resolve barriers with a plan in place by end of FY20.
5. Consider limiting Summer School offerings as stated above beginning Summer 2019.

V. Descriptive Statistics

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

2017-18	393

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

2015-16	22
2016-17	27
2017-18	26

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

Fall 2017	1,025

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.

Truckee Meadows Community College

Radiologic Technology Program: Radiologic Technology, AAS/Medical Imaging for Re-Entry Radiographers, CA/ Magnetic Resonance Imaging (MRI), Skills Certificate

I. Description of Program Reviewed

The Radiologic Technology Program is part of the Science Division. The degrees and certificates offered are the AAS degree in Radiologic Technology, Certificate of Achievement in Medical Imaging for Re-Entry Radiographers, and a Skills Certificate in MRI.

The AAS degree in Radiologic Technology can have a maximum of 40 students (20 first year students and 20 second year students). The Skills Certificate in MRI can have a maximum of 30 students per year; however, since the inception of the program in 2016, the enrollment has had 10 - 16 students enrolled each year based on qualified applications received. The Radiologic Technology Department is working on increasing the number of MRI applicants through a media campaign to technologists in the Reno area as well as nationwide. The Certificate of Achievement in Medical Imaging for Re-Entry Radiographers has had 2 students enrolled in the 2016 -2017 year, 1 student in the 2017-2018 year, but no enrollment in the 5 years prior.

The radiologic technology program has had three full-time faculty for the past two years. The program faculty consisted of; one tenured faculty member, 1 tenure track faculty member about to apply for tenure, and 1 full-time faculty member through a Perkins Grant. The faculty position funded through Perkins has recently been approved as a tenure track position and the program is currently seeking to fill that position.

All degrees and certificates follow curriculum suggested by the American Society of Radiologic Technologists (ASRT) in order to qualify to take the national certification board of the American Registry of Radiologic Technologists (ARRT).

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

This program has returned to a position of strength. Working towards and achieving JRCERT Accreditation re-establishment is important for the program and its graduates. This certification is a big attractor for potential students. The program has well-qualified faculty. It also has a director who has a strong understanding of the industry as well as what is required to prepare students to pass the national certification exam and be productive, successful Rad Techs. The majority of jobs are in the area, which is good for our students and the local economy. Graduates from this discipline are in high demand in the local area, which can be seen by the large percentage (97.5%) of students who are employed in their profession within 6 months of graduating.

Areas for Improvement:

Overall the program is strong with the exception of the SC enrollment numbers. I believe this could be remedied with some data gathering and marketing. The director will be retiring in 2019; hence, a proactive search should begin for a new director (who has a Master's Degree). The lack of a life-cycle replacement plan needs to be rectified ASAP.

Radiologic Technology Program: Radiologic Technology, AAS/Medical Imaging for Re-Entry Radiographs, CA/ Magnetic Resonance Imaging (MRI), Skills Certificate

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

Continuation of the AAS Degree in Radiologic Technology and the Skills Certificate in Magnetic Resonance Imaging (MRI) is highly recommended, as well as the proposed revision of the Certificate of Achievement in Medical Imaging for Re-entry Radiographers. The U.S. Bureau of Labor and Statistics data projects growth in the Radiologic Technology field, and the Advisory Board clearly supports the need for MRI training in the community as well as the need for trained personnel in other modalities, including CT, Mammography, and Ultrasound. All of these modalities are recognized by the Advisory Board as being high-need in our local community, with expected growth in the future. The proposal to increase the promotion of the MRI certificate and develop regional collaborations for feeders into the program from UNLV and CSN is supported. These collaborations will also be important to adding and maximizing enrollment in new modalities in the future. The addition of the CT modality as the next addition to the program is also supported.

The current faculty in the Radiologic Technology program have the required expertise in CT, so Perkins funds are being used to support additional work by these faculty to develop a CT curriculum, with the plan that this would be the next modality added to the program. The JRCERT report of findings recommended the program assessment plan be revised, and I also this recommended action.

The update to the program assessment plan is ongoing and I concur with the JRCERT timeline for completion in 2019 with ongoing assessment of all courses every two years. In addition to the previously mentioned outreach to UNLV and CSN for the MRI certificate program, particularly with the Radiation Therapy Program at CSN, there is agreement with the program's plan to engage in recruitment of diverse students through the TMCC Success First Summer Bridge program. Increasing program visibility at the Dandini and Meadowood campuses so that a wide range of students are aware of programs and opportunities in Radiologic Technology is also recommended. The reported five year average for new Radiologic Technology students was 18% Hispanic, whereas the five year average for all TMCC students during this same period was 24%. Targeted recruitment activities should help improve these numbers.

V. Descriptive Statistics

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

2017-18	52

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

2015-16	31
2016-17	30
2017-18	25

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

Fall 2017	291

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.

Spanish, AA

I. Description of Program Reviewed

Communications and Foreign Languages areas belong to the Humanities Department within the Division of Liberal Arts. Faculty currently offer an Associate of Arts, Spanish and are submitting an Associate of Arts-Communication Studies degree for Board of Regents approval for the Fall 2018 catalog. The five-year average for enrollment is 1,347 students for Communications (COM) and Foreign Language courses. The Communications and Foreign Languages areas have five full-time faculty members, two tenured and three tenure-track.

II. Review Process and Criteria

Programs undergo the program/unit review (PUR) process every 5 years that consists of a self-study and review by faculty, the academic dean, the Vice President of Academic Affairs, and finally the President. PURs include review of any degrees and certificates within the unit being reviewed. In this case, the review includes the AA Spanish, in addition to the entire Communications and Foreign Language areas within the Humanities Department.

Program faculty complete a self-study report with input from the supervising dean, which 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 that plan and to the overall strategic plan of the College. The report is first reviewed by the academic dean and Academic Standards and Assessment (ASA) Committee, who identifies program strengths and areas for improvement, and makes recommendations to address those improvement areas. Following a meeting with the self-study chair and dean, the ASA reports the results to the Vice President of Academic Affairs (VPAA), who confirms, declines, and/or makes further recommendations for the program. The VPAA then forwards these recommendations to the President. Upon approval of the President, the VPAA 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 program strategies and recommendations from the 5-year plan and PUR process.

III. Major Findings and Conclusions of the Program Review

Strengths:

- The 14-credit requirement is a strong driver for enrollment.
- Faculty are well qualified and very involved.
- Course assessment reports (CARs) are well done and on track.
- There are many opportunities in the community to promote both communications and foreign languages. Businesses claim that students are lacking in 'soft skills' related to communications. The Panasonic connection provides opportunities to expand Japanese language offerings.
- QM certification in Spanish and the resulting retention rates are important and should be looked at for other language online courses.

Areas for Improvement:

- Many foreign language classes have low enrollment.
- With the failed search in FL, finding qualified PT faculty can be difficult.
- In American Sign Language (ASL), the demand is not able to be met because of the difficulty in finding qualified instructors.

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

Recommendations and Implementation Timelines:

- Spring 2018: the Department will recruit and hire a new Spanish Instructor.
- Fall 2018 and Spring 2019: faculty will explore the possibility of hosting language lounge programming at the DISCO or will collaborate with the Dean and facilities staff to locate another possible space.
- Fall 2018 and Spring 2019, the Dean, Chair, and faculty will work with the Technical Science Dean to make contacts at Panasonic and Tesla to pursue a partnership and possible course offerings there.
- Fall 2018: the Chair and faculty will work with the Marketing Department to recruit students for the A.A. emphases (Spanish and Communication Studies) and for other diverse language course offerings.

- 2018-2019: faculty will collaborate with the Dean and facilities staff on classroom design as the third floor of Red Mountain will be remodeled, resulting in a new classroom on the fourth floor of Red Mountain for the Humanities to replace space taken by the third floor remodel; this room is proposed to be available Fall 2020.
- 2018-2019: it is recommended that faculty investigate and research the possibility of a medical Spanish credit course offering. If they find this to be feasible, it is recommend that faculty propose curriculum in Spring 2019.

Executive Summary:
This program should continue. Addition of the AA Communication Studies (if passed) will be a positive addition. Language programs could grow with marketing and support.

V. Descriptive Statistics

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

2017-18	37

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

2015-16	1
2016-17	6
2017-18	7

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

Fall 2017	561

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.

Associate of General Studies Degree Program (AGS)

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.

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.

Retail Management, CA

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.

- Cybersecurity: EC Council
- Mechatronics Foundation (Level 1): Siemens Certified Mechatronic Systems Assistant Level 1
- Mechatronics 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

Western Nevada College

Associate of General Studies Degree Program (AGS)

I. Description of Program Reviewed

The purpose of the Associate of General Studies degree is to provide academic knowledge and skills for personal growth, professional advancement, and/or successful transfer.

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 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 General Studies (AGS) program review began with the formation of a Program Review Team headed by academic faculty member Amy Ghilieri and the selection of internal and external reviewers. Internal reviewers are selected from WNC faculty members teaching outside of the program undergoing review. WNC CTE Division Director Georgia White was selected as the internal reviewer. External reviewers are academic or administrative faculty members familiar with the discipline from another college of university. Truckee Meadows Community College Associate Dean of Assessment and Planning Melissa Deadmond was selected as the external reviewer.

The process involves a program self-assessment, curriculum review, formal report, internal and external reviewers, presentation of findings to the college community, and student panel interviews. Following the site visit, the internal and external reviewers wrote their reports and sent them to the Program Review Team within 30 days. These reports include commendation and recommendations, emphasizing recommendations for improvement that require no new resources. These internal and external reviewer reports were then shared with PARC, the President, VPASA, and the Liberal Arts Division Director. Finally, an action plan based on the self-study findings and the reviewer reports was completed

III. Major Findings and Conclusions of the Program Review

One of the major findings in the AGS program review was that the program lacks a clear and cohesive mission. Interviews with program graduates and current students found that there was confusion regarding the difference between the AGS and other Liberal Arts programs, particularly around its transferability. While students reported appreciating the program's flexibility, its flexibility may also cause it to lack a clear identity. Gaps in consistent outreach to and tracking of AGS-declared students and graduates has impacted opportunities to better define and communicate the purpose and mission of the program.

Additionally, the program's flexibility was found to be of special interest to returning and non-traditional students.

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

1. Change the degree program mission
2. Create an AGS certificate
3. Include a 6-credit, 200-level requirement for the AGS degree
4. Create and mandate entrance and exit interviews in order to track student data.

V. Descriptive Statistics

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

2017-18	478

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

2015-16	50
2016-17	48
2017-18	26

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

Fall 2017	5,499

VI. Institutional Reports

Click here for a copy of the institutional report summarized above.