

Spring 2017

# Applied Science 2017 Los Alamos Self-Study & Documents

University of New Mexico - Los Alamos Campus

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## Academic Department and Program Review

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### 2016-2017 Academic Year

The Academic Program Review process at UNM-Los Alamos has been developed to complement the on-going institutional effectiveness process and to become a vital part of institutional planning. The program review is a comprehensive, systematic method of evaluation and review of achievement conducted every 3 years within academic programs for the following purposes:

1. To improve teaching and learning
2. To evaluate and analyze current practices
3. To promote faculty discussion about curriculum within a program
4. To ensure that program planning is related to goals at the institutional, programmatic, and course levels
5. To evaluate program support in the areas of technology, equipment, supplies, facilities and staffing

The program review process at UNM-LA is comprehensive and cyclical and consists of the following components:

1. The development of a written report by program faculty and Department Chair
2. Submission to Institutional Effectiveness Committee
3. Recommendation report from the IE committee to the department
4. Submission to Dean of Instruction for review
5. Recommendation from the Dean of instruction to the department
6. Response from the department about planned changes as a result of the process

The following information will be considered during the review for each department and program.

- Overview of the department including disciplines and programs
- Mission of the department
- Mission of each program being reviewed
- Goals for each program being reviewed
- Curriculum
- Continuous improvement (Assessment)
- Students
- Faculty
- Resources and planning
- Facilities
- Program comparisons and articulation with UNM or other entities if appropriate
- Summary and future direction

### I. Introduction, Background, and Mission

**Provide a brief description of your department including disciplines and programs within the department by completing the areas below.**

#### General Information

Date of submission

11/15/2017
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Name and Description of Department. Please include names of all degree programs within the department.

Applied Science: AAS Applied Technologies, AAS Robotics, CERT-Solar, CERT-Electro Mechanical, CERT EMT-B, EMT-I, C.N.A., and PCA programs. AS EMS, AAS Fire Science, AAS Public Safety

History of Programs: Please provide information about each program being reviewed, including known history, date started, etc.

Applied Technologies was developed and approved in 2008, and included in the 2009 catalog. The EMS certificate programs were approved in 2016 and included in the fall 2107 catalog, along with PCA and CNA programs.

Please describe any advisory committees for programs being reviewed, and list names of members. Also indicate if there is no advisory committee and if one is planned.

The only advisory committee in this department is for the Applied Technologies Program. Committee was formed Spring 2017 and included: Christopher Rose, Jay Rutten and John Bernardin.

Do you have outside accreditations or do you plan to pursue them? If not please indicate that you do not have external accreditations.

n/a

Provide a summary of the last Academic Program Review for the department and each program being reviewed this year. Include the date it was conducted, a summary of the findings, and a summary of the action plan made as a result of the recommendations, as well as any actions you have taken.

1. A focus for the next year should be the Electro-Mechanical concentration of the Applied Technologies degree program. There is a big need for this type of technician at the laboratory. There should be an effort to contact the appropriate individuals at the lab to determine if our degree program will meet the needs of their workforce. Then the program should be reviewed and changed if needed. Recruitment into the program is a high priority as well as.
2. Determine if the Solar Technology concentration should continue. Currently, it has very few declared majors with only one in the certificate program. My current thought is that it should be discontinued, but we should leave it for one more year and re-evaluate in the spring. If nothing has improved, I would recommend teaching it out.
3. Encourage our dual credit students to complete a Robotics degree.
4. Fire Science & EMS need to work on graduating their majors. Perhaps cohort/major meetings would be useful. Joe and Steve should work on this.
5. The certificates in the department need to be reduced to 30 credit hours.
6. EMS and Fire Science need to be reduced to 60 credit hours.
7. Create an EMS certificate that would include EMS Systems, EMT Basic, EMT Intermediate plus 9 more hours.
8. Complete a curriculum map for each program, concentration, and certificate during this year.
9. Physical space for Robotics needs to be organized and reduced. Make the room less crowded by using the new storeroom for robot components. Reorganize and eliminate cabinets.
10. Organize and reduce the Electronics components. There is much wasted space currently making the room difficult to fully utilize.
11. Re-invigorate the Electro-Mechanical concentration of the Applied Technologies degree program, including increased student recruitment efforts, curriculum review, and updated workforce needs at LANI-.
12. Create a Certificate Program in Robotics and encourage dual credit students to enroll and complete it. The Program Chair in this area will make this a priority for next year.
13. Increase graduation numbers for the Fire Science & EMS programs. The Program Chairs in these areas will make this a priority for next year.

- 14. Reduce the certificates in the department to 30 credit hours.
- 15. Complete curriculum maps for all degree programs, concentrations, and certificates this year
- 16. Program degree maps have been completed.
- 17. Programs have been reduced to 60 cr/hrs for Associate and 30 credits for cert, except EMS, PCA and C.N.A which are Mini certs and are aligned to national certification requirements.

Provide the mission and vision of both the department and each program being reviewed. How does this vision and mission support UNM-LA’s mission and goals, as well as the mission and goals of UNM? How does the program benefit the students from the area? When the students complete the program, will they likely transfer or find a job? What types of jobs will they be prepared to find?

The mission of the Applied Science Department is to provide educational experiences to Northern New Mexico students in the Applied Science areas and prepare them for careers.  
**Applied Technologies:** The mission of the degree program is to demonstrate a broad knowledge of the role and application of technological principles and applications.  
**AAS Robotics:** The mission of the program is to provide broad knowledge of the role and application of robotics principles and applications.  
**Fire Science:** The mission of the program is to provide broad knowledge of the role and application of fire science principles and procedures for a successful career in public fire departments, ambulance services, and fire protection manufacturing and research groups.

## II. Program Goals

Complete for each Academic Degree program and certificate:

**Program 1.**

Full Official Name of Academic Program.

**Applied Technology AAS/Electro-mechanical Technology Certificate/Solar Technology Certificate**

List the learning goal(s) (measurable) for the Academic Program:

- 1. Teach the basic elements of DC/AC electronic components, electronic devices, mechanical systems
- 2. Focus instruction on technologies and methods related to solar technology
- 3. Prepare students for careers in electronics and solar technologies.

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment in applied technology areas.

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

Program chair participated in community events such as science fest, robo rave, college days; Hosted HR representatives from LANL to speaks on employment opportunities at LANL;

**Program 2.**

Full Official Name of Academic Program.

**AAS Robotics**

List the learning goal(s) (measurable) for the Academic Program:

1. Integrate electromechanical skills into the design of robotic platforms.
2. Safely operate an industrial robot arm (jog, access programs, set-up End of Arm Of Tooling (EAOT).  
Create a “teach pendant” program for a given robotically performed task.

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment in robotics.

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

Program Chair attends community events such as Science Fest and Robo Rave with his robots and his students.

**Program 3.**

Full Official Name of Academic Program.

**AAS Fire Science**

List the learning goal(s) (measurable) for the Academic Program:

1. Define the principles of emergency services
2. Demonstrate the fire and emergency services safety and survival
3. Explain the processes of building construction for fire prevention

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment in fire departments across the nation and career advancement opportunities.

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

Program chair attends science fest, outreach in schools and community events.

**Program 4.**

Full Official Name of Academic Program.

**AS-Emergency Medical Services; CERT-EMT Basic and CERT-EMT I**

List the learning goal(s) (measurable) for the Academic Program:

1. Students will be qualified for New Mexico and National registry testing.
2. Students will be prepared to sit for the New Mexico EMT-Basic and EMT-1 licensing tests.
3. Students will demonstrate multicultural knowledge and competence.

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment as EMTs and prepares students to take the National Registry exam.

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

Program chair attends science fest, outreach in schools and community events. Program chair works with medical center and assisted living providers to provide clinical experience for students. Program chair also works with the SUNPATH grant coordinator and the JDCC to provide employment assistance for graduates.

**Program 5.**

Full Official Name of Academic Program.

**Certificate: Allied Health-PCA and C.N.A. programs**

List the learning goal(s) (measurable) for the Academic Program:

4. The program is designed to meet the basic requirements to provide patient care in a home or assisted living center PCA
5. Incorporates requirements necessary for students to pass the National Direct Care Givers Coalition certification exam. PCA
6. Build on basic skills required for the provision of care at various levels in the healthcare field.
7. Prepare students to sit for the certification exam and for work in healthcare facilities under the supervision of a Registered Nurse (RN).

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment as personal care attendants and nursing assistants.

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

Program chair attends science fest, outreach in schools and community events. Program chair works with medical center and assisted living providers to provide clinical experience for students. Program

chair also works with the SUNPATH grant coordinator and the JDCC to provide employment assistance for graduates.

**Program 6.**

Full Official Name of Academic Program.

**AAS-Public Safety**

List the learning goal(s) (measurable) for the Academic Program:

1. Build a workforce that is customized to the expected needs of Police departments, Emergency Management groups, and Homeland Security departments in Northern New Mexico and beyond.
2. Provide training and formal education for those entering the areas of Police operations, Emergency Management operations, and Homeland Security operations.

Explain the manner in which learning goals are communicated to students and provide specific examples.

Course Syllabi for courses in the program provide course learning objectives; program chair hosting advising meetings, academic advisors.

Provide examples of how satisfaction of the program goals serves constituents.

Program prepares students for employment in Police departments, Emergency Management groups, and Homeland Security

Provide examples of outreach and/or community activities offered by the program including any conferences, speakers, community service, and community participation at events. Provide an assessment of these outside activities.

New program. Program chair will engage in community events to promote program.

### III. Teaching and Learning: Curriculum

#### Curriculum

In the first box, list all catalog courses which are service courses in the department. This would include courses taught by the department which are general education courses or other courses for general use, and not necessarily for a specific degree in the department. For areas such as Math and Communications, this would include most of the courses. In the remaining boxes, list courses which are specific to departmental degrees. Do not include courses taught by a different department. Indicate how many sections were successfully offered during each of the last six semesters (3 years); include courses that have not been taught at all. Please mark all general education core classes.

**Department Service Courses: APPLIED SCIENCES**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
DRFT 103 (3)				X		X		X
DRFT 119 (3)			X		X			
ELCT 101L (4)				X	X	X	X	
ELCT 102L (4)	X		X					X
ELCT 103 (3)	X		X					X
ELCT 105L (3)	X	X	X		X		X	
ELCT 137 (3)								X

ELCT 162 (3)	X	X	X	X	X	X	X	X
ELCT 163 (3)	X	X	X	X	X	X	X	X
ELCT 193 (1-3)			X					
ELCT 203L (4)					X			
ELCT 204L (2)					X			X
ELCT 205L (4)								
ELCT 264 (3)	X	X	X	X	X	X	X	X
EMS 113	X	X	X	X	X	X	X	X
EMS 120	X	X	X	X		X		
EMS 143	X	X	X		X		X	X
EMS 142	X	X	X	X	X	X	X	X
EMS 151	X	X		X	X		X	X
EMS 180	X	X	X		X		X	X
FISC 101	X	X	X	X	X		X	
FISC 102		X				X		X
FISC 103		X						
FISC 104				X				
FISC 105	X				X			X
FISC 106	X	X				X	X	
FISC 201		X		X		X	X	
FISC 202			X					X
FISC 210	X					X		
FISC 212					X			
FISC 220				X				X
FISC 225			X					
MCHT 101L (4)	X	X	X	X	X	X	X	X
MCHT 120 (3)	X							
MFGT 101 (1)							X	
NANO 101 (3)								
NANO 105 (3)								
NANO 130 (3)								
NANO 130L (1)								
NANO 210 (3)								
NANO 250 (3)								
ROBO 201 (3)			X		X	X	X	X
ROBO 202 (3)				X	X	X		X
ROBO 204 (3)	X		X		X			
ROBO 290 (3)		X			X	X		X
ROBO 293 (1-3)								
SLRT 101 (3)								
SLRT 162 (3)			X				X	
SLRT 163 (3)								X
SLRT 210 (3)								
SLRT 250 (4)					X			

**Program Name: AAS APPLIED TECHNOLOGIES**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>60 CR HRS</b>								
ANTH 130					X		X	
BSTC 113		X		X		X		X



CHEM 111	X			X		X	X	X
CJ 130		X	X	X			X	X
CT 102	X	X	X	X	X	X	X	X
DRFT 103				X		X		X
DRFT 119			X		X			
ECON 105	X	X	X	X	X	X	X	X
ECON 106	X	X	X	X	X	X	X	X
ELCT 101				X	X	X	X	
ELCT 102	X		X					X
ELCT 103	X		X					X
ELCT 105L	X	X	X		X		X	
ELCT 137								X
ELCT 203					X			
ELCT 204					X			X
ENGL 110	X	X	X	X	X	X		
ENGL 112		X		X	X	X		
ENGL 113	X	X	X	X	X			
ENGL 119								
ENGL 219	X	X	X	X	X	X	X	X
MATH 107	X	X		X	X	X	X	X
MATH 121	X	X	X	X	X	X	X	X
MATH 123	X	X	X	X				
MCHT 101L	X	X	X	X	X	X	X	X
PHYC 102		X		X		X	X	X
PHYC 102L		X		X		X	X	X
POLS 200								X
PSY 105	X	X	X	X	X	X	X	X
SLRT 101								
SLRT 162			X				X	
SLRT 163								X
SLRT 210								
SLRT 250					X			
SOC 101	X	X	X	X	X	X	X	X

Please describe the general education requirement for this program.

<b>General Education Requirements</b>	
WRITING AND SPEAKING (9 CREDIT HOURS)	
⑥ ENGL 110: Accelerated Composition (3) <i>or</i> ENGL 112: Composition II (3) <i>or</i> ENGL 113: Enhanced Composition (3)	
⑥ ENGL 119 or 219: Technical Communications (3)	
⑥ CJ 130: Public Speaking (3)	
MATHEMATICS (7 CREDIT HOURS)	
⑥ MATH 121: College Algebra (3)	
⑥ MATH 107: Problems in College Algebra (1)	
⑥ MATH 123: Trigonometry (3)	
PHYSICAL AND NATURAL SCIENCES (8 CREDIT HOURS)	
⑥ CHEM 111: Elements of General Chemistry (4)	
⑥ PHYC 102: Introduction to Physics (3)	
⑥ PHYC 102L: Physics Laboratory (1)	
SOCIAL AND BEHAVIORAL SCIENCES (3 CREDIT HOURS)	
<i>Select from the following:</i>	
⑥ ANTH 130, ECON 105, ECON 106, POLS 200, PSY 105, SOC 101	
TOTAL GENERAL EDUCATION REQUIREMENTS	27 CREDIT HOURS

Please describe the delivery mode for delivering classes in this program.

Mostly live, some general education classes offered online.

**Program Name: AAS ROBOTICS**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>61 CR HRS</b>								
BSTC 113		X		X		X		X
CHEM 111	X			X		X	X	X
CJ 130		X	X	X			X	X
CT 111	X		X					X
CT 119								
DRFT 103				X		X		X
DRFT 119			X		X			
ELCT 101				X	X	X	X	
ELCT 102	X		X					X
ELCT 103	X		X					X
ELCT 105L	X	X	X		X		X	
ELCT 162	X	X	X	X	X	X	X	X
ELCT 163	X	X	X	X	X	X	X	X

ELCT 264	X	X	X	X	X	X	X	X
ENGL 110	X	X	X	X	X	X		
ENGL 112		X		X	X	X		
ENGL 113	X	X	X	X	X			
ENGL 119								
ENGL 120	X	X	X	X	X	X		
ENGL 219	X	X	X	X	X	X	X	X
MATH 107	X	X		X	X	X	X	X
MATH 120				X	X	X	X	X
MATH 121	X	X	X	X	X	X	X	X
MCHT 101L	X	X	X	X	X	X	X	X
PHYC 102		X		X		X	X	X
PHYC 102L		X		X		X	X	X
ROBO 201			X		X	X	X	X
ROBO 202				X	X	X		X
ROBO 204	X		X		X			
ROBO 290		X			X	X		X
ROBO 293								X

Please describe the general education requirement for this program.

General Education Requirements	
WRITING AND SPEAKING (9 CREDIT HOURS)	
⑥ ENGL 110: Accelerated Composition (3) <i>or</i> ENGL 112: Composition II (3) <i>or</i> ENGL 113: Enhanced Composition (3)	
⑥ CJ 130: Public Speaking (3)	
⑥ ENGL 119: Technical Communications (3)	
<i>or</i>	
⑥ ENGL 219: Technical and Professional Writing (3)	
<i>or</i>	
⑥ ENGL 120: Composition III (3)	
MATHEMATICS AND STATISTICS (7 CREDIT HOURS)	
⑥ MATH 121: College Algebra (3)	
<i>and</i>	
⑥ MATH 107: Problems in College Algebra (1)	
⑥ MATH 123: Trigonometry (3)	
<i>OR higher</i>	
PHYSICAL AND NATURAL SCIENCES (8 CREDIT HOURS)	
⑥ CHEM 111L: Elements of General Chemistry (4)	
<i>OR higher</i>	
⑥ PHYC 102: Introduction to Physics (3)	
<i>and</i>	
⑥ PHYC 102L: Physics Laboratory (1)	
<i>OR higher</i>	
SOCIAL AND BEHAVIORAL SCIENCES (3 CREDIT HOURS)	
Select from UNM Core Curriculum in Social and Behavioral Sciences.	
TOTAL GENERAL EDUCATION REQUIREMENTS	27 CREDIT HOURS

Please describe the delivery mode for delivering classes in this program.

Mostly live, some general education classes offered online.

Program Name: **CERTIFICATE SOLAR**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>30 CR HRS</b>								
BSTC 113		X		X		X		X
CT 111	X		X					X
DRFT 103				X		X		X
MATH 121	X	X	X	X	X	X	X	X
MATH 123	X	X	X	X	X	X	X	X
PHYC 102		X		X		X	X	X
PHYC 102L		X		X		X	X	X
SLRT 162			X				X	

SLRT 163								X
SLRT 210								
SLRT 250					X			

Please describe the general education requirement for this program.

MATHEMATICS (6 CREDIT HOURS) ⑥ MATH 121: College Algebra (3) ⑥ MATH 123: Trigonometry (3)
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Please describe the delivery mode for delivering classes in this program.

Mostly live, some general education classes offered online.
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**Program Name: CERTIFICATE ELECTRO-MECHANICAL TECHNOLOGY**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>32 CR HRS</b>								
CT 111	X		X					X
DRFT 103				X		X		X
ELCT 101				X	X	X	X	
ELCT 102	X		X					X
ELCT 103	X		X					X
ELCT 105L	X		X		X		X	
ELCT 137								X
ELCT 162	X	X	X	X	X	X	X	X
ELCT 163	X	X	X	X	X	X	X	X
MATH 121	X	X	X	X	X	X	X	X
MATH 123	X	X	X	X	X	X	X	X
MCHT 101	X	X	X	X	X	X	X	X
PHYC 102		X		X		X	X	X
PHYC 102L		X		X		X	X	X

Please describe the general education requirement for this program.

MATHEMATICS (6 CREDIT HOURS) ⑥ MATH 121: College Algebra (3) ⑥ MATH 123: Trigonometry (3)
---

Please describe the delivery mode for delivering classes in this program.

Mostly live, some general education classes offered online.
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**Program Name: AS-EMS**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
ENGL 110	X	X	X	X	X	X		
ENGL 112		X		X	X	X		
ENGL 113	X	X	X	X	X			
ENGL 120	X	X	X	X	X	X		
CJ 130		X	X	X			X	X
MATH 121	X	X	X	X	X	X	X	X

STAT 145	X	X	X	X	X	X	X	X
BIOL 123	X	X	X	X	X	X	X	X
BIOL 124L	X	X	X	X	X	X	X	X
BIOL 237	X		X		X		X	
BIOL 247L	X		X		X		X	
CHEM 121	X		X		X		X	
PSY 105	X	X	X	X	X	X	X	X
EMS 113	X	X	X	X	X	X	X	X
EMS 120	X	X	X	X		X		
EMS 142	X	X	X	X	X	X	X	X
EMS 151	X	X		X	X		X	X
EMS 180	X	X	X		X		X	X

Please describe the general education requirement for this program.

General Education Requirements	
WRITING AND SPEAKING (9 CREDIT HOURS)	
⑥ ENGL 110: Accelerated Composition (3) <i>or</i> ENGL 112: Composition II (3) <i>or</i> ENGL 113: Enhanced Composition (3)	
⑥ ENGL 120: Composition III (3)	
⑥ CJ 133: Public Speaking (3)	
MATHEMATICS AND STATISTICS (6 CREDIT HOURS)	
⑥ MATH 121: College Algebra (3)	
⑥ STAT 145: Introduction to Statistics (3)	
PHYSICAL AND NATURAL SCIENCES (12 CREDIT HOURS)	
⑥ BIOL 123: Biology for Health-Related Sciences and Non Majors (3) <i>and</i> BIOL 124L Biology for Health-Related Sciences and Non Majors Lab (1)	
⑥ BIOL Human Anatomy and Physiology I for the Health Sciences (3) <i>and</i> BIOL 247L: Human Anatomy and Physiology I for the Health Sciences Lab (1)	
⑥ CHEM 121: General Chemistry (3) <i>and</i> CHEM 123L: General Chemistry Lab (1)	
SOCIAL AND BEHAVIORAL SCIENCES (3 CREDIT HOURS)	
⑥ PSY 105: General Psychology (3)	
HUMANITIES (3 CREDIT HOURS)	
<i>Select one course from the UNM Core Curriculum in Humanities</i>	
FINE ARTS (3 CREDIT HOURS)	
<i>Select one course from the UNM Core Curriculum in Fine Arts</i>	
FOREIGN LANGUAGE (3 CREDIT HOURS)	
<i>Select one course from the UNM Core Curriculum in Foreign Language</i>	
TOTAL GENERAL EDUCATION REQUIREMENTS	39 CREDIT HOURS

Please describe the delivery mode for delivering classes in this program.

Mostly live, some general education classes offered online.

Program Name: **AAS-FIRE SCIENCE (includes EMS and FISC concentrations)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
BIOL 123	X	X	X	X	X	X	X	X
BIOL 124L	X	X	X	X	X	X	X	X
CHEM 111	X			X		X	X	X
CHEM 121	X		X		X		X	
CHEM 123L	X		X		X		X	
CJ 101			X		X		X	
CJ 130		X	X	X			X	X
CS 150L	X	X	X	X	X	X	X	X
CT 102	X	X	X	X	X	X	X	X
EMS 113	X	X	X	X	X	X	X	X
EMS 142	X	X	X	X	X	X	X	X
EMS 143	X	X	X		X		X	X
EMS 151	X	X		X	X		X	X
EMS 180	X	X	X		X		X	X
ENGL 110	X	X	X	X	X	X		
ENGL 112		X		X	X	X		
ENGL 113	X	X	X	X	X			
ENGL 120	X	X	X	X	X	X		
ENGL 219	X	X	X	X	X	X	X	X
ENGL 220					X	X	X	X
EPS 101	X					X	X	
EPS 105L	X					X	X	
FISC 101	X	X	X	X	X		X	
FISC 102		X				X		X
FISC 103		X						
FISC 104				X				
FISC 105	X				X			X
FISC 106	X	X				X	X	
FISC 201		X		X		X	X	
FISC 202			X					X
FISC 210	X					X		
FISC 212					X			
FISC 220				X				X
FISC 225			X					
MATH 101/102/103	X	X	X	X		X		
MATH 120					X	X	X	X
MATH 121	X	X	X	X	X	X	X	X
PENP 193				X		X	X	
PHIL 156	X					X		X
PSY 105	X	X	X	X	X	X	X	X
SOC 101	X	X	X	X	X	X	X	X

Please describe the general education requirement for this program.

## General Education Requirements

## WRITING AND SPEAKING (9 CREDIT HOURS)

**For Both Concentrations:**

- ⑥ ENGL 110: Accelerated Composition (3) *or* ENGL 112: Composition II (3) *or* ENGL 113: Enhanced Composition (3)

**For Fire Science Concentration:**

*Choose 6 credit hours from:*

- ⑥ ENGL 120: Composition III (3)
  - ⑥ ENGL 219: Technical and Professional Writing (3)
  - ⑥ ENGL 220: Expository Writing (3)
  - ⑥ CJ 101: Introduction to Communication (3)
- or*
- ⑥ CJ 130: Public Speaking

**For Emergency Medical Services Concentration:**

*Choose 6 credit hours from:*

- ⑥ \*ENGL 120: Composition III (3)
- ⑥ ENGL 220: Expository Writing (3)
- ⑥ CJ 130: Public Speaking (3)
- ⑥ PHIL 156: Reasoning and Critical Thinking (3)

*\*Required prerequisites for admission into the UNM Paramedic Bachelor program.*

## MATHEMATICS (3 CREDIT HOURS)

**For Fire Science Concentration:**

- ⑥ MATH 120: Intermediate Algebra (3)\* *or* (Math 101, 102, and 103: Intermediate Algebra I, II, III) *or* higher

**For Emergency Medical Services Concentration:**

- ⑥ Math 121: College Algebra (3)

## PHYSICAL AND NATURAL SCIENCES (4 CREDIT HOURS)

**For Fire Science Concentration:**

*Select from the following:*

- ⑥ CHEM 111: Elements of General Chemistry (4)
- or*
- ⑥ CHEM 121: General Chemistry I (3)
- and*
- ⑥ CHEM 123L: General Chemistry I Lab (1)
- ⑥ BIOL 123: Biology for Health-Related Sciences and Non-Majors (3)
- and*
- ⑥ BIOL 124L: Biology for Health-Related Sciences and Non-Majors Lab (1)
- ⑥ EPS 101: How the Earth Works—An Introduction to Geology (3)
- and*
- ⑥ EPS 105L: Physical Geology Lab (1)

**For Emergency Medical Services Concentration:**



<i>Select from the following:</i>	
⑥ *CHEM 121: General Chemistry I (3)	
<i>and</i>	
⑥ *CHEM 123L: General Chemistry I Lab (1)	
⑥ *BIOL 123: Biology for Health-Related Sciences and Non-Majors (3)	
<i>and</i>	
⑥ *BIOL 124L: Biology for Health-Related Sciences and Non-Majors Lab (1)	
<i>*Required prerequisites for admission into the UNM Paramedic Bachelor program.</i>	
SOCIAL AND BEHAVIORAL SCIENCES (3 CREDIT HOURS)	
<b>For Both Concentrations</b>	
<i>Select from the following:</i>	
⑥ SOC 101: Introduction to Sociology (3)	
⑥ PSY 105: General Psychology (3)	
PHYSICAL EDUCATION (2 CREDIT HOURS)	
<b>For Both Concentrations</b>	
⑥ PENP 193: Topics: Physical Fitness (2)	
COMPUTER SCIENCE (3 CREDIT HOURS)	
<b>For Both Concentrations</b>	
⑥ CS 150L: Computing for Business Students (3)	
<i>or</i>	
⑥ CT 102: Introduction to Microcomputers on the PC (4)	
TOTAL GENERAL EDUCATION REQUIREMENTS	24 CREDIT HOURS

Please describe the delivery mode for delivering classes in this program.

Mostly online, some general education classes offered face to face.

**Program Name: CERTIFICATE-CERTIFIED NURSING ASSISTANT (8 hours)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
C.N.A. 101		x						

Please describe the general education requirement for this program.

None

Please describe the delivery mode for delivering classes in this program.

Courses taught live.

**Program Name: CERTIFICATE-PERSONAL CARE ATTENDANT (5 hours)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
PCA	X	X						

Please describe the general education requirement for this program.

None

Please describe the delivery mode for delivering classes in this program.

Courses taught live.

**Program Name: CERTIFICATE-EMERGENCY MEDICAL TECHNICIAN EMT-BASIC (10 hours)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
EMS 113	X	X	X	X	X	X	X	X
EMS 142	X	X	X	X	X	X	X	X

Please describe the general education requirement for this program.

None

Please describe the delivery mode for delivering classes in this program.

Courses taught live.

**Program Name: CERTIFICATE-EMERGENCY MEDICAL TECHNICIAN (EMT-I)-INTERMEDIATE (8 hours)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
EMS 143	X	X	X		X		X	X
EMS 151	X	X		X	X		X	X
EMS 180	X	X	X		X		X	X

Please describe the general education requirement for this program.

None

Please describe the delivery mode for delivering classes in this program.

Courses taught live.

**Program Name: AAS-PUBLIC SAFETY (Includes Emergency Management, Homeland Security, & Police Science Concentrations)**

Course Number	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<i>*Note: This program will start in Spring 2018, where PBST courses will begin being offered at UNM-LA.</i>								
BIOL 123	X	X	X	X	X	X	X	X
BIOL 124L	X	X	X	X	X	X	X	X
CHEM 111	X			X		X	X	X
CJ 101L			X		X		X	
CJ 130		X	X	X			X	X
CRJS 201								
CRJS 210								
CRJS 221								
CRJS 260								
CS 102			X		X		X	
CS 150L	X	X	X	X	X	X	X	X
ENGL 110	X	X	X	X	X	X		

ENGL 112		X		X	X	X		
ENGL 113	X	X	X	X	X			
ENTC 204L								
IT 193	X							X
MATH 107	X	X	X	X	X	X		X
MATH 121	X	X	X	X	X	X	X	X
PBST 101								
PBST 102								
PBST 105								
PBST 106								
PBST 107								
PBST 108								
PBST 109								
PBST 110								
PBST 119								
PBST 120								
PBST 121								
PBST 131								
PBST 193								
PBST 204								
PBST 220								
PBST 221								
PBST 230								
PBST 232								
PENP 193	X			X		X	X	
PHIL 245				X				
PSY 105	X	X	X	X	X	X	X	X
PSY 271			X					
SOC 101	X	X	X	X	X	X	X	X
SOC 205								
STAT 145	X	X	X	X	X	X	X	X

Please describe the general education requirement for this program.

General Education Requirements	
WRITING AND SPEAKING (6 CREDIT HOURS)	
⑥ ENGL 110: Accelerated Composition (3) <i>or</i> ENGL 112: Composition II (3) <i>or</i> ENGL 113: Enhanced Composition (3)	
AND	
⑥ CJ 130: Public Speaking (3)	
MATHEMATICS (3-4 CREDIT HOURS)	
⑥ MATH 121: College Algebra (3) AND MATH 107: Problems in College Algebra (1)	
OR	
⑥ STAT 145: Introduction to Statistics (3)	
PHYSICAL AND NATURAL SCIENCES (4 CREDIT HOURS)	
⑥ BIOL 123: Biology for Health-Related Sciences and Non-Majors (3)	
AND	
⑥ BIOL 124L Biology for Health-Related Sciences and Non-Majors Lab (1)	
OR	
CHEM 111: Elements of General Chemistry (4)* Chemistry is required for the Emergency	
SOCIAL AND BEHAVIORAL SCIENCES (6 CREDIT HOURS)	
⑥ SOC 101: Introduction to Sociology (3)	
AND	
⑥ PSY 105: General Psychology (3)	
TOTAL GENERAL EDUCATION REQUIREMENTS	19 CREDIT HOURS

Please describe the delivery mode for delivering classes in this program.

Combination of live and online classes.

#### IV. Teaching and Learning: Continuous Improvement

Has a Program Assessment Plan been created and submitted for each program in the department?

YES    NO    NA

If "YES", please give date of submission for each and explain any changes you have made or expect to make to each plan. **(Please attach all plans to the end of this review document.)**

Plans have been submitted to the Assessment Coordinator. Except for new programs, Public Safety, PCA and C.N.A.

If "NO", when do you expect to have each plan completed?

Has a Program Assessment Report been submitted for each program (currently being reviewed) in the department? **(Please attach the most current Assessment Report to the end of this review.)**

YES  NO  NA

If "YES", give the date of submission for each. **(Please attach the latest report to the end of this review document.)**

Reports have been submitted to the Assessment Coordinator. Except for new programs, Public Safety, PCA and C.N.A.

If "NO", when do you expect to have each report completed?

**What are the student Learning Outcomes for each program being reviewed?**

See program Assessment Report/documents for each program.

**How are the student Learning Outcomes for each program being reviewed communicated to faculty? To students?**

Learning Outcomes are communicated to faculty through meetings, emails and phone conversations, department meetings, assessment meetings, and faculty orientation meetings. They are communicated to the students through syllabi, advisement and with in class discussions.

**What are the direct and indirect methods for assessing the student Learning Outcomes for each program being reviewed?**

See program Assessment Report/documents for each program.

**Does the use of assessment processes result in continuous improvement in the program/unit?**

YES  NO

If yes, describe any changes being planned as well as the recent improvements that have come about in response to needs identified through these evaluation processes:

See program Assessment Report/documents for each program.

If no, outline your plans for incorporating needed improvements (as identified by your assessment) into your program.

Overall, how is the department/program engaged in a cohesive process of continuous improvement? How do you monitor the effects of the changes made?

Learning Outcomes are communicated to faculty through meetings, emails and phone conversations, department meetings, assessment meetings, and faculty orientation meetings. They are communicated to the students through syllabi, advisement and within class discussions.

## V. Students

**Please answer these questions about each program within your department. (Enrollment, Retention, Graduates and Licensing Exams)**

**Degree Program Name: AAS Applied Technology**

Academic Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of students taking exam	Number of students passing exam
2016-2017	7	6	2			
2015-2016	12	15	0			
2014-2015	20	21	3			
2013-2014	24	23	1			

**Degree Program Name: AAS Robotics**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of students taking exam	Number of students passing exam
2016-2017	9	9	0			
2015-2016	9	8	3			
2014-2015	8	8	1			
2013-2014	2	6	0			

**Degree Program Name: Certificate-Solar**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of students taking exam	Number of students passing exam
2016-2017	0	0	1			
2015-2016	1	1	0			
2014-2015	1	1	0			
2013-2014	1	1	0			

**Degree Program Name: Certificate-Electro-Mechanical**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of student s taking exam	Number of student s passing exam
2016-2017	1	0	1			
2015-2016	2	2	0			
2014-2015	0	2	0			
2013-2014	2	2	0			

**Degree Program Name: AS-EMS; CERT-EMT-Basic; CERT-EMT-Intermediate**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of student s taking exam	Number of student s passing exam
2016-2017						
2015-2016						
2014-2015						
2013-2014						

**Degree Program Name: AAS-FIRE SCIENCE**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of student s taking exam	Number of student s passing exam
2016-2017						
2015-2016						
2014-2015						
2013-2014						

**Degree Program Name: CERTIFICATE-C.N.A.; PCA**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of students taking exam	Number of students passing exam
<a href="#">2016-2017</a>						
<a href="#">2015-2016</a>						
<a href="#">2014-2015</a>						
<a href="#">2013-2014</a>						

**Degree Program Name: [AAS-PUBLIC SAFETY](#)**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year <b>IF APPLICABLE</b>		
				Name of Examination	Number of students taking exam	Number of students passing exam
<b><i>*Note: This program will not start until Spring 2018</i></b>						

**Course Completion Rates**

Please enter all courses taught by the department on excel spreadsheet. **See excel spreadsheet labeled "Course Completion Rates" to enter and interpret Data. Include spreadsheet as part of your Program Review package.**

**Please describe any observed trends in the enrollment and retention of students in the program. Include your comments about the percentages of Dual Credit students (non-paying) in your observations.**

The robotics classes (therefore the Program) consists largely of dual credit (non-paying) students, close to 100% of all students in the robotics courses earn, C or better. Ems courses have very low percentage of Dual Credit students and most students earn C or better. There is a higher withdrawal rate on these courses. Per program chair students do not understand the time commitment required to complete the EMS program and students tend to withdraw midway through the semester. Solar classes have not been offered in several semesters, they are on the spring 2018 schedule. The fire science program had 4 out 9 students in spring 2017 that were dual credit. All four of these students earned a D or an F in the class. This data suggests that dual credit students may not be ready for the rigor of the course. Data on public safety and allied health not yet available.



**Advisement and Support**

Provide a description of program advisement for students.

Department Chair, Dr. Alvestad advised in electro mechanical, solar, applied technologies. Program chairs: Don Davis, Joseph Candelaria and Steven Dawald all advise students on program requirements and enrollment.

Describe any student support services that are provided by the program.

Dr. Alvestad hosted an open-house for applied technologies in May 2017. This program was funded by a grant from LANL.

Describe any student success and retention initiatives in which the program participates.

Department Chair, Dr. Alvestad advised in electro mechanical, solar, applied technologies. Program chairs: Don Davis, Joseph Candelaria and Steven Dawald all advise students on program requirements and enrollment.

**VI. Faculty**

Please answer these questions about your department.

**Number of Continuing Faculty:** 3

**Number of Part Time Faculty:** 11 (active)

**Do the programs in the department have a “champion?” This could be a department/program chair or a volunteer. YES  NO**

If Yes, please enter name(s) for each program.

Robotics/Solar: Don Davis; Fire Science: Steve Dawald; EMS: Joe Candelaria; PCA/C.N.A. Melanie Colgan; Public Safety Matt Cosby; Irina Alvestad, Department Chair

**Please list all existing support positions: (Example: Lab Tech)**

Raymond Canfield welding lab manager

**Is the number of personnel adequate to support your department and program areas?**

YES  NO

If “NO”, explain below.

**Provide information about professional development activities of faculty within the department, particularly continuing faculty.**

Joseph Candelaria and Steven Dawald participate in required continuing education for their professional certifications; Dr. Alvestad attends professional development as opportunities arise.

**Does the evidence exist to show that faculty members teaching in this department have involved themselves with our in-service training (Faculty orientation and/or Faculty Assembly events) and other professional development?**

YES  NO

If “NO,” please explain:

**Provide information about any research/creative work activities of faculty within the department, particularly continuing faculty.**

<p>Dr. Alvestad wrote and submitted an NSF grant Fall 2016. (Grant not funded). Joseph Candelaria spoke at a conference fall 2017; Joseph Candelaria is completing his Masters degree Fall 2017; Matt Cosby completed his masters spring 2016 and is pursuing a PhD in his field.</p>
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**Please complete the faculty information in the following table, including faculty credentials and courses each faculty has taught.**

**Faculty Roster Form**  
**Qualifications of Full-Time and Part-Time Faculty**

Name of Department: Applied Sciences  
 Academic Term(s) Included: Fall 2013-Spring 2017  
 Date Form Completed: December 8, 2017

Complete the following table with faculty names (both core and TPT) and highest degree for each. Are Academic credentialing forms and transcripts and/or copies of relevant certifications on file?

Faculty Name	C, TPT D, UN, UT List all that apply	Courses Taught for the last 3 academic years (Include term & course number) List all that apply	Academic degrees & graduate coursework (if needed to qualify to teach); Include certifications, work experience if needed to qualify to teach a course	Completed Academic Credentialing form	Transcripts on file	Copies of certifications on file IF APPLICABLE
Acedo, Rick	TPT	EMS 113, 142	Cert-EMS Academy with MREMT Cert <b>Need to collect Transcript</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Baker, Zachary	TPT	ELCT 137	PhD-Electrical Engineering (2006); MS-Electrical Engineering (2002); BS-Electrical Engineering (2001)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Bernardin, John	TPT	ELCT 103	PhD-Mechanical Engineering (1996); MS-Mech Engin (1993); BS- Mech Engin (1991)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Candelaria, Joe	Core	EMS 113, 120, 142, 180	BS-Emergency Medical Services; BOE- Professional Technical Education; <b>working on Masters</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Canfield, Raymond	TPT	MCHT 101L, 120	Certified Welder	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Colgan, Melanie	TPT	C.N.A. 101, PCA 101	MS-Nursing (2004); BS Nursing (2001)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Cooke, James	TPT	ELCT 102L, 137	BA-Physics (Minor-Math) (1962); PhD Physics (Minor-Math)(1967)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Davis, Donald	Core	ELCT 162, 163, 264; ROBO 201, 202, 204, 290; SLRT 162, 163, 250; ENGF 293; MFGT 101	BA-Psychology, Physics (1970); MS- Education (1973); FANUC Robotics- training Certificate; Process Engineering	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> NA
Dawald, Steven	Core	FISC 101, 102, 103, 104, 105, 106, 201, 202, 212, 225	AS-Liberal Arts; AAS-Fire Protection Tech; BA-Occupational Ed; MA- Public Administration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Gioia, Jack	TPT	ELCT 101L, ELCT 102L	<b>Need to collect: FC, TR, RES</b> No longer teaching	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

Hand, David	TPT	ELCT 105L	AS-PreEngineering (2014); Owner Jona Manufacturing (1992-Present)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Holaday, Rene	TPT	SLRT 162	No longer teaching	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Lake, Katrina	TPT	ELCT 162	MS-Math & Science Teaching; BS-Math Need to collect: FC, TR	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Loveland, R	TPT	ELCT 162, 163	No longer teaching	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
MdHenry, Donna	TPT	EMS 113, 142	MS-Management; BS-Healthcare Management; AS-Management Need to collect transcript	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Phillips, D	TPT	ROBO 201, 202, 290	No longer teaching	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Stone, Ben	TPT	EMS 113, 120, 143; FISC 102	BA-EMS (2016); Associates-EMS (2012), working on Masters	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Trout, Richard	TPT	DRFT 103, 119	Need to collect: FC, TR, RES	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

C, TPT: Core, Temporary Part-time (adjunct); D, UN, UT: Developmental, Undergraduate Nontransferable, Undergraduate Transferable

## VII. Resources and Planning

Part of the program review is to determine how much the program costs the institution.

### Financial Information

Is the budget/expense information available to department and program chairs?

YES  NO

What was the total budget for the department including adjunct faculty (TPT) for the academic year?

	2016-2017	2015-2016	2014-2015	2013-2014
Amount budgeted for the year				

What was the total budget for the department including adjunct faculty (TPT) for the academic year?

	2016-2017	2015-2016	2014-2015	2013-2014
Amount budgeted for the year				

Indicate departmental (program courses and/or departmental support courses) enrollment for the past 4 years for fall and spring.

Numbers	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Course Enrollments (number of students)	171	208	219	n/a	169	217	146	220
Total Course Enrollments for Academic year	379		219		386		366	
Percentage of students who were dual credit								
	2016-2017		2015-2016		2014-2015		2013-2014	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Student Credit Hours for Department/Program	2489	2448	2833	n/a	3111	3927	1414	4545
Total Student Credit hours for Academic year	4937		2833		7038		5959	
Percentage of students who were dual credit								

Please give an approximate cost of the department per credit hour. (Amount expended ÷ number of credit hours generated) for each academic year.

	2016-2017*	2015-2016	2014-2015	2013-2014
Amount expended for the year				
Cost per credit hour				

\*to date

Comments: Please discuss the cost per credit hour and how this could be affected by the percentage of dual credit students in the courses.

--

### Library Resources

Describe the library resources that support the program's academic and research initiatives.

### Advisory Boards

Do any the programs under review have advisory boards?

YES  NO

If yes, how are the boards utilized for planning purposes?

### External Funding

Has the department pursued any external sources of funding such as grants?

YES  NO

Please explain.

Does the department have any plans to pursue external sources of funding?

YES  NO

Please explain.

Indicate the approximate amount of fee dollars generated for the last 3 years. **Course fees/Live only:**

Fall semester Course Number	2016	2015	2014	2013
DRFT 119 (3)		120.00	90.00	
ELCT 101L (4)			160.00	200.00
ELCT 102L (4)	160.00	160.00		
ELCT 105L (3)	1680.00	480.00	840.00	720.00
ELCT 162 (3)	600.00	500.00	900.00	200.00
ELCT 163 (3)	1500.00	1100.00	500.00	200.00
ELCT 204L (2)			80.00	
ELCT 264 (3)	600.00	400.00	200.00	200.00
MCHT 101L (4)	1080.00	2160.00	2280.00	960.00
ROBO 201 (3)		700.00	100.00	200.00
ROBO 202 (3)			100.00	
ROBO 204 (4)	600.00	200.00	600.00	
ROBO 290 (3)			200.00	
Spring Semester Course Number	2017	2016	2015	2014
DRFT 103 (3)		270.00	300.00	150.00
ELCT 101L (4)		160.00	200.00	
ELCT 102L (4)				80.00
ELCT 103 (3)				120.00
ELCT 105 (3)	960.00			
ELCT 137 (3)				120.00
ELCT 162 (3)	6000.00 (deduct DC)	300.00	300.00	200.00
ELCT 163 (3)	600.00	800.00	600.00	400.00
ELCT 204L (2)				160.00
ELCT 264 (3)	1100.00	600.00	300.00	200.00
MCHT 101L (4)	2040.00 (deduct DC)	2160.00	1920.00	2040.00
ROBO 201 (3)			150.00	200.00
ROBO 202 (3)		750.00	150.00	300.00
ROBO 290 (3)	1100.00	150.00		100.00

Is adequate financial support available to meet the needs of this program?

YES  NO

If "NO", please explain.

## VIII. Facilities

### Facilities and Equipment

Briefly describe the facilities occupied by your Department/Academic program. (i.e. classrooms, offices, labs, etc.)

Is the space adequate to support the mission of your program for day and evening classes, if applicable?

YES  NO

If no, please explain

Briefly describe current types equipment (does not need to be extremely detailed) used by your Department/Academic program and indicate.

Is the equipment adequate to support the mission of your program for day and evening classes, if applicable?

YES  NO

If no, please explain

## IX. Program Comparison and Articulation with UNM

When appropriate, describe how the program being reviewed aligns with program requirements at UNM.

Provide information on the distinguishing characteristics of the program being reviewed and discuss the program in comparison with other programs such as number of faculty, students, etc.

## X. Summary and Future Direction

After completing the above review of your program, synthesize the data you have provided, focusing on both the program's strengths and weaknesses. Answer the following questions:

a. Is the program contributing to the mission/strategic plan?

b. Is the program contributing to the general education of students?

c. Describe the overall strengths of the program.

**d. Describe the overall weaknesses (opportunities for improvement) of the program.**

**e. Within existing resources, how can the program be improved, more students recruited, and obtain certification (if applicable)?**

**f. Describe actions to be taken as a result of this review, including instructional resources and practices, and curricular changes to be made.**

**g. What is your vision for the future of this program?**