DEGREE/PROGRAM CHANGE
FORM C
Form Number: C1936

Fields marked with * are required

Name of Initiator: Kateri Ruth Morris **Email:** katerim@unm.edu **Phone Number:** 505 661-4693 **Date:** 10-25-2016

Associated Forms exist? Yes Initiator's Title Admin Assistant to the Dean: Los Alamos Branch

Faculty Contact Irina Alvestad Administrative Contact Kateri Morris

Department Engineering Admin Email katerim@unm.edu

Branch UNM-Los Alamos Admin Phone 505-661-4693

Proposed effective term

Semester Fall Year 2017

Course Information

Select Appropriate Program Undergraduate Degree Program

Name of New or Existing Program AS Pre-Engineering (LA)

Select Category Degree Degree Type Associate

Select Action Revision

Exact Title and Requirements as they should appear in the catalog. If there is a change, upload current and proposed requirements.
See current catalog for format within the respective college (upload a doc/pdf file)

FormC-ASPE_approved_10-19-16.pdf

☐ **Does this change affect other departmental program/branch campuses? If yes, indicate below.**

Reason(s) for Request (enter text below or upload a doc/pdf file)
This degree program provides students with the first two years of study toward a Bachelor's Degree in an engineering discipline at a 4-year institution. These revisions will bring the program at UNM-LA into compliance with the University requirements for an associate degree to be no more than 60 hours.

FormC-ASPE_approved_10-19-16.pdf

Upload a document that inlcudes justification for the program, impact on long-range planning, detailed budget analysis and faculty workload implications.(upload a doc/pdf file)

☐ **Are you proposing a new undergraduate degree or new undergraduate certificate? If yes, upload the following documents.**

Upload a two-page Executive Summary authorized by Associate Provost. (upload a doc/pdf file)

Upload memo from Associate Provost authorizing go-ahead to full proposal. (upload a doc/pdf file)

Proposed Revision of UNM-LA's Associate of Science in Pre-Engineering

Overall rationale for change: *The Associate Science in Pre-Engineering degree program at the University of New Mexico-Los Alamos provides students with the first two years of study toward a Bachelor's Degree in an engineering discipline at a 4-year institution. These revisions will bring the program at UNM-LA into compliance with University requirements for an associate degree to be no more than 60 credit hours.*

CURRENT TEXT	PROPOSED REVISION
About the Program This program represents the course work for the first two years of the baccalaureate degree at UNM Albuquerque Campus and is in compliance with the New Mexico Pre-Engineering Transfer Module. The courses are pertinent to all fields of engineering: mechanical, chemical, nuclear, civil, construction and computer. Students with this degree are qualified to enter the work force as technicians in various engineering fields or to continue their studies to the baccalaureate level.	**About the Program** This program represents the course work for the first two years of the baccalaureate degree at UNM Albuquerque Campus and is in compliance with the New Mexico Pre-Engineering Transfer Module. The courses are pertinent to all fields of engineering: mechanical, chemical, nuclear, civil, construction and computer. Students with this degree are qualified to enter the work force as technicians in various engineering fields or to continue their studies to the baccalaureate level. ***(No changes here)***
Specific Requirements A minimum of 66 credit hours with a minimum grade point average of 2.2 overall, with a grade of 2.5. or better in any specifically required course. At least 15 of these 66 hours must be UNM catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the BS in the particular area of engineering of interest (chemical and nuclear, civil, electrical and computer, mechanical etc.) in order to make the best choices among the optional courses.	**Specific Requirements** A minimum of 60 credit hours with a minimum grade point average of 2.2 overall, with a grade of 2.5. or better in any specifically required course. At least 15 of these 60 hours must be UNM catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the BS in the particular area of engineering of interest (chemical and nuclear, civil, electrical and computer, mechanical etc.) in order to make the best choices among the optional courses. ***Rationale: Minimum credit hours revised to 60.***
General Education Requirements	**General Education Requirements**
WRITING AND SPEAKING (9 credit hours) ENGL 110: Accelerated Composition (3) or ENGL 112: Composition II (3) or ENGL 113: Enhanced Composition (3) ENGL 120: Composition III (3)	**WRITING AND SPEAKING (9 credit hours)** ENGL 110: Accelerated Composition (3) or ENGL 112: Composition II (3) or ENGL 113: Enhanced Composition (3) ENGL 120: Composition III (3)

ENGL 219: Technical Writing (3)	ENGL 219: Technical Writing (3) ***(No changes here)***
PHYSICAL/NATURAL SCIENCES (12 credit hours) CHEM 121: General Chemistry I (3) CHEM 123L: General Chemistry I Lab (1) PHYC 160: General Physics (3) PHYC 160L: General Physics Laboratory (1) PHYC 161: General Physics (3) PHYC 161L: General Physics Laboratory (1)	**PHYSICAL/NATURAL SCIENCES (12 credit hours)** CHEM 121: General Chemistry I (3) CHEM 123L: General Chemistry I Lab (1) PHYC 160: General Physics (3) PHYC 160L: General Physics Laboratory (1) PHYC 161: General Physics (3) PHYC 161L: General Physics Laboratory (1) ***(No changes here)***
MATHEMATICS AND STATISTICS (12 credit hours) MATH 162: Calculus I (4) MATH 163: Calculus II (4) MATH 264: Calculus III (4)	**MATHEMATICS AND STATISTICS (12 credit hours)** MATH 162: Calculus I (4) MATH 163: Calculus II (4) MATH 264: Calculus III (4) ***(No changes here)***
SOCIAL AND BEHAVIORAL SCIENCES (6 credit hours) Including: ECON 105: Introductory Macroeconomics (3) and *Select one other UNM core curriculum course in this area.*	**SOCIAL AND BEHAVIORAL SCIENCES (6 credit hours)** Including: ECON 105: Introductory Macroeconomics (3) and *Select one other UNM core curriculum course in this area.* ***(No changes here)***
HUMANITIES (6 credit hours) *Select any UNM core curriculum courses in this area.*	**HUMANITIES (6 credit hours)** *Select any UNM core curriculum courses in this area.* ***(No changes here)***
FINE ARTS (3 credit hours) *Select any UNM core curriculum course in this area, or substitute one additional course from the core curriculum in either Humanities or Social & Behavioral Sciences.*	**FINE ARTS (3 credit hours)** *Select any UNM core curriculum course in this area, or substitute one additional course from the core curriculum in either Humanities or Social & Behavioral Sciences.* ***(No changes here)***
TOTAL GENERAL EDUCATION REQUIREMENTS 48 CREDIT HOURS	TOTAL GENERAL EDUCATION REQUIREMENTS 48 CREDIT HOURS
Technical Core Requirements	**Technical Core Requirements**
ENGINEERING/COMPUTER SCIENCE (6 credit hours) CS 151L: Computer Programming Fundamentals	**ENGINEERING/COMPUTER SCIENCE (6 credit hours)** CS 151L: Computer Programming Fundamentals

for Non-Majors (3)
and 3 credit hours selected from:
CE 160L: Civil Engineering Design (3)
CE 202: Engineering Statics (3)
ECE 203L: Circuit Analysis I (3)
ECE 213: Circuit Analysis II (3)
ECE 238L: Computer Logic Design (4)
ME 160L: Mechanical Engineering Design I (3)
ME 260L: Mechanical Engineering Design II (3)
NOTE: Other engineering courses specified in the B.S. degree plan of interest may be substituted, if offered by UNM-LA.

OTHER (12 Credit Hours)
To complete the required number of hours for this degree, other courses (12 credit hours) may be chosen from the following if not already counted in degree program.

Engineering/Computer Science
CE 160L: Civil Engineering Design (3)
CE 202: Engineering Statics (3)
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ME 260L: Mechanical Engineering Design II (3)
ME 217: Energy, Environment & Society (3)
NOTE: Other engineering courses specified in the B.S. degree plan of interest may be substituted, if offered by UNM-LA.

Physical/Natural Sciences
CHEM 122: General Chemistry II (3)
CHEM 124L: General Chemistry II Lab (1)
EPS 101: How the Earth Works – An Introduction to Geology (3)
PHYC 167: Problems in General Physics (1)
PHYC 168: Problems in General Physics (1)
PHYC 262: General Physics (3)

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Rationale: CE160L is not a required course in the BS degrees in engineering and since most Pre-Engineering AS degree seekers transfer to complete a BS in Engineering, it is no longer needed.

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PHYC 267: Problems in General Physics (1)	PHYC 267: Problems in General Physics (1) ***(No changes here)***
Foreign Language (Maximum of 3 credit hours) *Select any UNM core curriculum course in this area.*	**Foreign Language (Maximum of 3 credit hours)** *Select any UNM core curriculum course in this area.* ***(No changes here)***
TOTAL TECHNICAL CORE REQUIREMENTS 18 CREDIT HOURS	TOTAL TECHNICAL CORE REQUIREMENTS 12 CREDIT HOURS
TOTAL CREDIT HOURS 66 CREDIT HOURS	**TOTAL CREDIT HOURS 60 CREDIT HOURS**

Memorandum

To: Kay Willerton, Dean of Instruction

From: Dennis Davies-Wilson, Library Director

Date: October 6, 2016

Re: Library support for the Associate of Science in Pre-Engineering Form C

Proposed changes will not impact the library.

UNM-Los Alamos
Degree Program Change Proposal

Associate of Science in Pre-Engineering

The UNM-Los Alamos Curriculum Committee has approved the proposed changes associated with the degree program indicated above.

Dennis Davies-Wilson 10-19-16

Dennis Davies-Wilson, Chair Date

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Dennis Davies-Wilson 10-19-16

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