

STATE BOARD OF COMMUNITY COLLEGES
Career and College Promise College Transfer Pathway
Leading to the Associate in Engineering

Request: The State Board is asked to approve the Career and College Promise (CCP) Transfer Pathway Leading to the Associate in Engineering (AE).

Background: The Associate in Engineering credential was approved by the State Board of Community Colleges on February 20, 2015. Since that time 24 community colleges have been approved to offer the AE degree.

There are currently two college transfer pathways (Associate in Arts and Science) that are approved for offering under the Career and College Promise program.

A NC Engineering Pathways group comprised of five faculty members from colleges approved for the AE credential and System Office staff worked to develop the proposed AE pathway.

Rationale: The Career and College Promise pathway leading to the Associate in Engineering will assist high school juniors and seniors who wish to begin study toward the Associate in Engineering degree and a baccalaureate degree in a STEM or technical major.

Vote Results:

Colleges approved to offer the Associate in Engineering degree:	24
Colleges in favor of the proposed AE CCP Pathway:	22
Colleges not in favor of the proposed AE CCP Pathway:	2

The two colleges that were not in favor of the proposed AE CCP Pathway were opposed to the requirement of the *DFT 170 Engineering Graphics* course since the course appears as an option on the Associate in Engineering curriculum standard.

Contact:

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Programs

**Career and College Promise College Transfer Pathway
Leading to the Associate in Engineering (P10XXC)**

The College Transfer Pathway (CCP) leading to the Associate in Engineering is designed for high school juniors and seniors who wish to begin study toward the Associate in Engineering degree and a baccalaureate degree in a STEM or technical major.

GENERAL EDUCATION (28 SHC)		
The general education requirement includes study in courses selected from the Universal General Education Transfer Component (UGETC).		
English Composition (6 SHC)		
<i>The following two English composition courses are required.</i>		
ENG 111	Writing and Inquiry	(3 SHC)
ENG 112	Writing/Research in the Disciplines	(3 SHC)
Humanities, Fine Arts and Communications		
<i>Select one course from the following (3 SHC):</i>		
ART 111	Art Appreciation	(3 SHC)
ART 114	Art History Survey I	(3 SHC)
ART 115	Art History Survey II	(3 SHC)
COM 231	Public Speaking	(3 SHC)
ENG 231	American Literature I	(3 SHC)
ENG 232	American Literature II	(3 SHC)
ENG 241	British Literature I	(3 SHC)
ENG 242	British Literature II	(3 SHC)
MUS 110	Music Appreciation	(3 SHC)
MUS 112	Introduction to Jazz	(3 SHC)
PHI 215	Philosophical Issues	(3 SHC)
PHI 240	Introduction to Ethics	(3 SHC)
Social/Behavioral Sciences		
<i>The following course is required (3 SHC):</i>		
ECO 251	Principles of Microeconomics	(3 SHC)

Mathematics (8 SHC)

The following courses are required (8 SHC):

*Calculus I is the lowest level math course that will be accepted by the engineering programs for transfer as a math credit. Students who are not calculus-ready will need to take additional math courses.**

MAT 271	Calculus I	(4 SHC)
MAT 272	Calculus II	(4 SHC)

High school students in the CCP College Transfer Pathway Leading to the Associate in Engineering must complete the entire pathway before taking additional courses in the Associate in Engineering degree with the following exception: Students may take additional math courses beyond MAT 272 that are required for the Associate in Engineering degree.

Please see CC15-017 at www.nccommunitycolleges.edu/numbered-memos for direct placement criteria for MAT 271 Calculus I.

Natural Sciences (8 SHC)

Select 8 SHC from the following course(s):

CHM 151	General Chemistry I	(4 SHC)
PHY 251	General Physics I	(4 SHC)
PHY 252	General Physics II	(4 SHC)

Other Required Hours (6 SHC)**Academic Transition (1 SHC)**

The following course is required:

ACA 122	College Transfer Success	(1 SHC)
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Engineering (5 SHC)

The following courses are required:

EGR 150	Introduction to Engineering	(2 SHC)
DFT 170	Engineering Graphics	(3 SHC)

***PREREQUISITE GENERAL EDUCATION HOURS (0-8 SHC)**

- MAT 171 Pre-Calculus Algebra
- MAT 172 Pre-Calculus Trigonometry

Students who do not place directly into MAT 271 must complete MAT 171 and MAT 172 prior to enrolling in MAT 271 Calculus I.

OPTIONAL GENERAL EDUCATION HOURS (0-8 SHC)*Foreign Language:**

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of "C" or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

Total Semester Hours Credit (SHC) in Pathway: 34-50