College of
Eastern Utah

CIVIL ENGINEERING

Degree Options:
-Associate of Pre-Engineering

Program Description:
The Associate of Pre-Engineering (APE) degree is offered to students who plan to transfer to a university and pursue a baccalaureate degree in any of the traditional fields of engineering. This degree requires an emphasis of course work in engineering, mathematics, and science, with fewer general education requirements than the Associate of Science/Arts degree. It is anticipated that the balance of general education requirements necessary for a bachelor's degree will be taken during the summer semester or as a junior and/or senior at the 4-year transfer institution. This program is consistent with recent Accreditation Board for Engineering and Technology (ABET) standards. Course work for the APE degree must include the completion of at least 68 to 76 semester hours.

The recommended course of study is as follows:

TWO-YEAR PLAN

First Year:

Fall Semester

ENGN 1000	Intro to Engineering	2*
ENGN 1005	Intro to Engineering Lab	1*
MATH 1210	Calculus I	4*
PHYS 2210	Physics for Scientists & Engineers	4*
PHYS 2215	Physics for Scientists & Engineers Lab	1*
GEO 1110	Physical Geology	3
GEO 1115	Physical Geology Lab	1*
Gen. Education or Technical Elective***		3*
Semester Total		19

Spring Semester

MATH 1220	Calculus II	4*
MATH 2280	Ordinary Diff. Equations	3*
ENGL 1010	Introduction to Writing	3
PHYS 2220	Physics for Scientists & Engineers	4*
PHYS 2225	Physics for Scientists & Engineers Lab	1*
BCIS 2550	Fund. of FORTRAN	3*
Semester Total		18

Second Year:

Fall Semester

MATH 2270	Linear Algebra	3*
EDDT 1400	CAD Level I: Intro. to CAD	3*
CHEM 1210	General Chemistry I	4*
CHEM 1215	General Chemistry I Lab	1*
ENGN 2010	Statics	3*
ENGL 2010	Intermediate Writing	3
Semester Total		17

Spring Semester

ENGN 2030	Dynamics	3*
ENGN 2140	Strength of Materials	3*
ENGN 2240	Surveying	3*
Numerical Methods, General Education, or Technical Elective***		5*
CHEM 1220	General Chemistry II	4*
CHEM 1225	General Chemistry II Lab	1*
-or-		
General Education/Technical Electives***		5
Semester Total		19

Program Total 73

THREE-YEAR PLAN

First Year:

Fall Semester

ENGN 1000	Intro to Engineering	2*
ENGN 1005	Intro to Engineering Lab	1*
MATH 1060	Trigonometry	3*
ENGL 1010	Introduction to Writing	3
GEO 1110	Physical Geology	3
GEO 1115	Physical Geology Lab	1*
Gen. Education or Technical Elective***		3*
Semester Total		16

Spring Semester

MATH 1210	Calculus I	4*
ENGN 2240	Surveying	3*

ENGL 2010 Intermediate Writing 3*
Gen. Education or Technical Elective(s)***9*
Semester Total 19

Second Year:

Fall Semester

MATH 2270 Linear Algebra 3*
CHEM 1210 General Chemistry I 4*
CHEM 1215 General Chemistry I Lab 1*
PHYS 2210 Physics for Scientists & Engineers I 4*
PHYS 2215 Physics for Scientists & Engineers I Lab 1*
Gen. Education or Technical Elective*** 3*
Semester Total 16

Spring Semester

MATH 1220 Calculus II 4*
PHYS 2220 Physics for Scientists & Engineers II 4*
PHYS 2225 Physics for Scientists & Engineers II Lab 1*
EDDT 1400 CAD Level 1: Intro. to CAD 3*
BCIS 2550 Fund. of FORTRAN 3*

CHEM 1220 General Chemistry II . . . 4*
CHEM 1225 General Chemistry II Lab 1*
-or-
General Education 4*
-or-
Technical Elective(s)*** 4*
Semester Total 19-20

Third Year:

Fall Semester

MATH 2210 Multivariable Calculus . . 3*
ENGN 2010 Statics 3*
Numerical Methods, General Education, or
Technical Elective(s)*** 12*
Semester Total 18

Spring Semester

MATH 2280 Ord. Differential Equations. 3*
ENGN 2140 Strength of Materials . . . 3*
ENGN 2030 Dynamics 3*
ENGN 2300 Thermodynamics** 3*
Technical Electives*** 6*
Semester Total 18

Program Total 106-107

*means class has pre-requisite(s) and/or corequisite(s)
or technical elective*

***can be chosen from approved classes in Physics, Chemistry, Engineering, Mathematics, Life Science, Electronics, Computer Science, and others

Note: MATH 2210 Multivariable Calculus is required at some four-year colleges/universities in the second year. It is strongly suggested that is be taken here to ensure better success at the transfer school.

For more information contact:

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