

Upper-Division Admission Requirements

MATHEMATICS (24 cr minimum for graduation)

Course #	Cr	Title	AA	BIO E	CHM E	CEE	COMP E	EE	IE	ME	MSE	PSE
MATH 124,125,126	(5,5,5)	Calc 1,2,3	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
MATH 307	(3)	Diff Equations	◆	◇	◆	◇		◇	◇	◇	◆	◆
MATH 308	(3)	Matrix Algebra	◆	◇	◇	◆	◇	◇	◇	◇	◇	
MATH 309	(3)	Linear Analysis			R*					R**	◇*	
MATH 324	(3)	Adv Calculus I	◆+					◇		R**	◇*	
IND E 315	(3)	Prob & Stat for Engr			R*	◇†		◇†	◇	◇†	◇*	
MATH/STAT 390	(4)	Prob & Stat		◇	R*	◇†	◇	◇†		◇†	◇*	

AMATH 351 is an acceptable alternative to MATH 307 for AA, CHM E, CEE, EE, IE, ME and MSE.

AMATH 352 is an acceptable alternative to MATH 308 for AA, CHM E, CEE, EE, and ME.

◆+MATH 324 must be taken no later than Autumn Quarter of admission.

R*CHM E requires one of MATH 309, INDE 315, MATH/STAT 390, or AMATH 353.

R**ME requires either MATH 309, 324, or AMATH 353.

◇* Materials Science & Engineering – must select one of the four courses as a math elective (this is for graduation not admission).

† CEE, EE and ME require either MATH/STAT 390 or IND E 315 for graduation.

NATURAL SCIENCES

Course #	Cr	Title	AA	BIO E	CHM E	CEE	COMP E	EE	IE	ME	MSE	PSE
BIOL 180, 200	(5,5)	Intro Biology		◆*								
CHEM 142	(5)	Gen Chem I/lab	◆	◆	◆	◆	R	◆	◆	◆	◆	◆
CHEM 152	(5)	Gen Chem II/lab	R	◆	◆	◇			◆	◆	◆	◆
CHEM 162	(5)	Gen Chem III/lab		◆	◆							◆
CHEM 223 or 237	(4)	Org Chem		◇	◆							◆
CHEM 224 or 238	(4)	Org Chem			◇							◇
PHYS 121	(4/1)	Mechanics/lab	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
PHYS 122	(4/1)	Elec & Mag/lab	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
PHYS 123	(4/1)	Waves/lab	◆	◇	◆	◇	R	◇	◆	◇	◇	◇

*Contact departmental adviser if Bio 180 is full for fall quarter.

WRITTEN AND ORAL COMMUNICATION (12 cr minimum for graduation)

Course #	Cr	Title	AA	BIO E	CHM E	CEE	COMP E	EE	IE	ME	MSE	PSE
Engl. Comp	(5)		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
TC 231	(3)	Tech Writing	◆	◇	◇	◇	◇	◇	◇	◆	◇	◇
TC 333	(4)	Adv Tech Writing	◇*		◇**		◇	◇	◇	◇***	◇	

◇* Aero/Astro Engr. accepts Department Approved Elective in place of TC 333. Contact AA Department for list of Department Approved Electives.

◇** Chemical Engr. accepts the following courses in place of TC 333: ENGL 182, ENGL 381, COM 220.

◇*** Mechanical Engineering will accept the following courses in place of TC 333: ENGL 182, ENGL 281, ENGL 381.

ENGINEERING FUNDAMENTALS (24 cr minimum for graduation—except for BIOE, CHM E, EE, COMP E, PSE)

Course #	Cr	Title	AA	BIO E	CHM E	CEE	COMP E	EE	IE	ME	MSE	PSE
ME 123	(4)	Visualization & CAD								◇	◇*	
CSE 142	(4)	Computer Prog I	◆	◆	◆	◆	◆	◇	◇	◆	◆	◆
CSE 143	(5)	Computer Prog II		◇			◆	◇				
MSE 170	(4)	Materials Science							◇	◇	◆	
AA 210	(4)	Statics	◆			◆			◇	◆	◇	
EE 215	(4)	Fund Elec Engr		◇			◇	◇	◇	◇	◇*	
CEE 220	(4)	Mech of Mtls	◆			◆			◇	◆	◇	
ME 230	(4)	Dynamics	◆			◆			◇	◆	◇*	
IND E 250	(4)	Engr Econ				R			◇		◇*	
CHEM E 260	(4)	Thermo	◆	◇	◆	R					◇*	◆

◇*Materials Science & Engineering – must select two of the five engineering fundamental courses as electives.

Pre-engineering status is required for priority registration for most introductory engineering courses.

◆ REQUIRED for upper-division admission. Courses generally must be completed before application deadline. Contact an advisor if courses will be in-progress at the time of application.

◇ REQUIRED for graduation.

R Recommended as a good choice to complete subject area requirement.

AA	Aeronautics & Astronautics
BIO E	Bioengineering
CHM E	Chemical Engineering
CEE	Civil & Environmental Engineering
COMP E	Computer Engineering
EE	Electrical Engineering
IND E	Industrial Engineering
ME	Mechanical Engineering
MSE	Materials Science & Engineering
PSE	Paper Science and Engineering