PRE-ENGINEERING ASSOCIATE OF SCIENCE

Degree Plan

Code	Title	Credits
General Education Requirements		
Communications (9 credits)		
COM 110	Fund. of Public Speaking	3
ENG 110	Composition I	3
ENG 120	Composition II	3
Arts Humanities (3 credits)		
See Gen. Ed Matrix (https://uttc-public.courseleaf.com/academic-affairs/general-education-matrix/)		3
Social Sciences (3 credits)		
See Gen. Ed Matrix (https://uttc-public.courseleaf.com/academic-affairs/general-education-matrix/)		3
Math, Science Technology (23 credits)		
CHM 121	General Chemistry I/LAB (/Lab)	4
CSC 160	Computer Science I	4
MTH 165	Calculus I	4
MTH 166	Calculus II	4
MTH 265	Calculus III	4
MTH 266	Differential Equations	3
or MTH 210	Elementary Statistics	
Institutional Specific (2 Credits) (2 credits)		
FND 106	First Year Exp & Health Living	2
REQUIRED PROGRAM CORE COURSES: (7 CREDITS)		
ENR 116	Introduction to Engineering	3
ENR 117	Computer-Aided Design and Drafting	1
or ENR 212	Fundamentals of Visual Communications for Engineering	
ENR 201	Statics	3
PROGRAM CORE ELECTIVES: (13 CREDITS)		**13**
ENR 202	Dynamics	
ENR 203	Mechanics of Materials	
ENR 204	Surveying	
ENR 211	Analysis and Design Methods for Environmental Engineers	
ENR 212	Fundamentals of Visual Communications for Engineering	
ENR 217	Advanced Manufacturing	
ENR 250	Fundamentals of Environmental Engineering	
ENR 275	Digital Systems	
ENR 290	Manufacturing Processes	
MTH 129	Basic Linear Algebra	
CHM 122	General Chemistry II/LAB (/Lab)	
CHM 341	Organic Chemistry I/LAB (/Lab)	
CHM 342	Organic Chemistry II/LAB (/Lab)	
PHY 251	University Physics I	
PHY 252	University Physics II	
LAB 252	University Physics II Laboratory	
GEO 105	Physical Geology with Lab (with lab)	
BIO 150	General Biology I/LAB (with lab)	
Subtotal		
Total Credits		**60**

[1] Denotes Native Studies institutional requirement.

Program Learner Outcomes

Graduates of the UTTC Pre-Engineering AS degree program will:

1. Evaluate ethical responsibilities of engineers.
2. Communicate effectively with a range of audiences.
3. Utilize software for engineering application
4. Solve complex problems