

Student: _____

ID#: _____

Advisor: _____

BS in Engineering Physics Pre-Engineering Program

2019-2020 Catalog

DATE: ____/____/____

Overall Requirements to Graduate

- 120+ semester hours* (98 at UST)
- Completion of core curriculum
- Completion of a major
- 36 upper division credit hours
- GPA above 2.0
- Major GPA above 2.0



UNIVERSITY OF
ST. THOMAS

Credit Hour Breakdown	
Hours completed	
Hours in progress	
Core hours needed	
Major hours needed	
(Minor hours needed)	
(Other hours needed)	
Elective hours needed	
TOTAL HOURS (98*)	
*reduced hours at UST	

Core Curriculum (43 hours) Adapted for the Pre-Engineering Program	Complete	Needed
Theology (9 credit hours) Must take in order. (Pre-req: Phil 1311 or 1315/3315)		
<input type="checkbox"/> THEO 1301/3301 Intro to Sacred Scriptures <input type="checkbox"/> THEO 2301/3311 Teachings of the Catholic Church <input type="checkbox"/> THEO 3349 Christ and the Moral Life (Phil 2314 or 2316/3316)		
Philosophy (9 credit hours)		
<input type="checkbox"/> PHIL 1311 Philosophy of the Human Person <input type="checkbox"/> PHIL 2314 Ethics <input type="checkbox"/> PHIL 3333 Logic		
English (9 credit hours) Must take in order.		
<input type="checkbox"/> ENGL 1341 - The Classical Tradition: Literature & Composition I <input type="checkbox"/> ENGL 1342 - The Middle Ages: Literature & Composition II <input type="checkbox"/> ENGL 4393 - Technical Writing		
History (6 credit hours)		
<input type="checkbox"/> HIST 2333 – United States to 1877 <input type="checkbox"/> HIST 2334 – United States since 1877		
Social and Behavioral Sciences (6 credit hours)		
<input type="checkbox"/> POSC 2331 – American Federal Government <input type="checkbox"/> Choose 3 hours from Social & Behavioral Science list		
Natural Sciences (8-10 Credit Hours)	Included in Major	
(Included in cooperative engineering major requirements)		
Mathematics (3 credit hours)	Included in Major	
(Included in cooperative engineering major requirements)		
Fine Arts (3 credit hours)		
<input type="checkbox"/> ARTHS 2352 – Survey of Art II (recommended; consult with Department Chair)		
Freshman Symposium (1 credit hour) Required for all incoming freshmen.		
<input type="checkbox"/> UNIV 1111 Freshman Symposium		

Pre-Engineering Program

The University of St. Thomas has cooperative agreements with Catholic University and the University of Notre Dame. The student earns a BS degree in Engineering Physics from UST and a BS degree in the chosen engineering discipline at the cooperative institution upon completion of the program.

Students interested in participating in the Pre-Engineering Program must formally apply to the program by contacting the Chair of the Physics and Engineering. Students must maintain certain GPA standards and complete 98 credit hours before going to the engineering college.

**BS in Engineering Physics
Pre-Engineering Program
2019-2020 Catalog**

Major Requirements (55 credit hours)	Completed	Needed
Physics (31 credit hours)		
<input type="checkbox"/> PHYS 1314 – Fundamentals of Computer-Aided Design <input type="checkbox"/> PHYS 2333/2111 – University Physics I w/ lab (MATH 1431 co-req or pre-req) <input type="checkbox"/> PHYS 2334/2112 – University Physics II w/ lab (PHYS 2333/2111, MATH 1432 co-req or pre-req) <input type="checkbox"/> PHYS 3337/3137 – Modern Physics w/ Lab (PHYS 2334/2112) <input type="checkbox"/> PHYS 3341 – Mechanics I [Statics] (MATH 2431, PHYS 2333) <input type="checkbox"/> PHYS 3342 – Mechanics II [Dynamics] (PHYS 3341) <input type="checkbox"/> PHYS 3333/3133 – Electrical Circuits w/ Laboratory** (PHYS 3343, PHYS 2334/2112) <input type="checkbox"/> PHYS 3343 – Mathematical Methods for Physics and Engineering (PHYS 2334, MATH 1432) <input type="checkbox"/> PHYS 3030 – Junior/Senior Seminar <input type="checkbox"/> PHYS 3336 – Thermodynamics (CHEM 1342/1142; MATH 1431/1432; PHYS 2333/2334)		
Mathematics (12 credit hours)		
<input type="checkbox"/> MATH 1431 – Calculus I (MATH 1331 with a C or better) <input type="checkbox"/> MATH 1432 – Calculus II (MATH 1431 with a C or better) <input type="checkbox"/> MATH 2431 – Calculus III (MATH 1432 with a C or better)		
Computer Science (4 credit hours)		
<input type="checkbox"/> COMSC 1460 – Computer Programming for Science & Engineering		
Chemistry (8 credit hours) Must take in order.		
<input type="checkbox"/> CHEM 1341/1141 – General Chemistry I w/ lab <input type="checkbox"/> CHEM 1342/1142 – General Chemistry II w/ lab (CHEM 1341/1141 with a C or better)		

Totals	Completed	Needed
Total undergraduate hours at UST (*reduced for Pre-Engineering program):		

TOTAL: 98*

*reduced hours at UST

** PHYS 3333/3133 can be substituted by either PHYS 3348/3148 (Fluid Mechanics w/ lab) or PHYS 3347/4150 (Strength of Materials and Laboratory Research Methods).

Admission to all Physics courses with prerequisites require a “C” or better in those prerequisites.