

- The following is a sample 4-year plan. Please note that student-specific plans may differ. Consult with your academic advisor for your specific plan.
- For more information on major requirements and required elective courses, go to catalog.usu.edu and select "Degree Maps."
- Plan designed for students working less than 20 hours per week.

PRE-PROFESSIONAL PROGRAM

FRESHMAN FALL			FRESHMAN SPRING			SOPHOMORE FALL			SOPHOMORE SPRING		
COURSE	CR ⁺	SEM+	COURSE	CR ⁺	SEM +	COURSE	CR+	SEM +	COURSE	CR+	SEM +
BENG 1000* Intro to Undergrad. Research	1	F	BENG 1880* Quantification Biol. Processes	3	Sp	BENG 2330* Properties of Biomaterials	3	F	BENG 2400* Thermodynamics	3	Sp
BIOL 1610* Biology 1	3	F	BENG 1200* SolidWorks	2	Sp	CHEM 2300* Principles of Organic Chem.	3	F	ENGR 2140* Mechanics of Materials	3	FSpSu
BIOL 1615* Biology 1 Lab	1	F	MATH 1220* Calculus 2	4	FSpSu	CHEM 2315* Organic Chemistry 1 Lab	1	F	ENGR 2210 Fundamental Electronics	3	FSpSu
CHEM 1210* Chemistry 1	4	FSpSu	PHYS 2210* Physics 1	4	FSpSu	ENGR 2010* Statics	3	FSpSu	CHEM 3700 Introductory Biochemistry	3	Sp
CHEM 1215* Chemistry 1 Lab	1	FSpSu	PHYS 2215* Physics 1 Lab	1	FSpSu	MATH 2250* Linear Algebra & Diff. Eq.	4	FSpSu	CHEM 3710 Introductory Biochemistry Lab	1	Sp
MATH 1210* Calculus 1	4	FSpSu	ENGL 2010* Intermediate Writing	3	FSpSu	GENERAL EDUCATION Breadth Course (BAI)	3	FSpSu	GENERAL EDUCATION Breadth Course (BSS)	3	FSpSu
GENERAL EDUCATION Breadth Course (BCA)	3	FSpSu									
TOTAL CREDITS	17		TOTAL CREDITS	17		TOTAL CREDITS	17		TOTAL CREDITS	16	

PROFESSIONAL PROGRAM

JUNIOR FALL			JUNIOR SPRING			SENIOR FALL			SENIOR SPRING		
COURSE	CR ⁺	SEM +	COURSE	CR ⁺	SEM+	COURSE	CR+	SEM+	COURSE	CR^+	SEM+
BENG 3200 Intro to Unit Operations	3	F	BENG 3000 Instrumentation for Bio. Sys.	3	Sp	BENG 4880 Biol. Engr. Design 2	3	F	BENG 4890 Biol. Engr. Design 3	3	Sp
BENG 3500 Fluid Mechanics in Biol. Engr.	3	F	BENG 3670 Transport Phenomena	3	Sp	BENG 5020 Biol. Modeling and Controls	3	F	BENG ELECTIVE See approved list	3	FSp
CS 1400 Computer Science 1	4	FSpSu	BENG 3870 Biol. Engr. Design 1	1	Sp	BENG ELECTIVE See approved list	3	FSp	TECHNICAL ELECTIVE See approved list	3	FSp
STAT 3000 Statistics for Scientists	3	FSpSu	ENGR 2450 Numerical Methods	3	Sp	BIOL 3300 General Microbiology	4	FSp	ENGR ELECTIVE See approved list	3	FSp
GENERAL EDUCATION Breadth Course (BHU)	3	FSpSu	ENGR 3080 Tech. Comm. for Engineers	3	FSp	TECHNICAL ELECTIVE See approved list	2	FSp	GENERAL EDUCATION Depth Course (DSS)	3	FSpSu
			GENERAL EDUCATION Depth Course (DHA)	2	FSpSu	FUND. OF ENGR. EXAM (FE) Graduation Requirement					
TOTAL CREDITS	16		TOTAL CREDITS	15		TOTAL CREDITS	15		TOTAL CREDITS	15	

TOTAL CREDITS REQUIRED 128

UNIVERSITY REQUIREMENTS

English 1010 is a University requirement and is a prerequisite for English 2010. An English ACT score of 29+ or an SAT verbal score of 640+ will fulfill the English 1010 requirement.

PRE-PROFESSIONAL PROGRAM (PPRU) REQUIREMENTS

- Complete courses marked with an asterisk (*)
- No more than three total repeats for PPRU courses
- Minimum 2.3 PPRU GPA
- Minimum grade of C- for PPRU courses

PROFESSIONAL PROGRAM (PP) REQUIREMENTS

- No more than three total repeats for Professional Program courses
- Minimum 2.0 Professional GPA
- Minimum grade of C- for Professional courses

⁺Abbreviations: (CR) Credits • (SEM) Semester • (F) Fall • (Sp) Spring • (Su) Summer

ACADEMIC YEAR **2023-24**

DEPT. OF BIOLOGICAL ENGINEERING : BE.USU.EDU



Any discrepency between this chart and the 2023-24 General Catalog is resolved in favor of the General Catalog.

— Year 1 — — Year 2 — Year 3 — — — — Year 4 — Fall Semester Spring Semester Fall Semester Spring Semester Fall Semester **Spring Semester** Fall Semester **Spring Semester** Total Credits: 17 Total Credits: 17 Total Credits: 17 Total Credits: 16 Total Credits: 16 Total Credits: 15 Total Credits: 15 Total Credits: 15 BENG 1000* BENG 1880* BENG 2330* BENG 2400* BENG 3500 BENG 3870 BENG 4880 BENG 4890 Intro. To Undergrad Properties of Quantification Thermodynamics Fluid Mechanics Biological Engr. Biological Engr. Biological Engr. Biomaterial for BENGs Design II Research Biological Processes for BENG Design I Design III 1 Credit 3 Credits 3 Credits 3 Credits 1 Credit 3 Credits 3 Credits 3 Credits (MATH 1210 + BIOL 1610 recom. MATH 1210 MATH 12203 MATH 2250³ ENGR 2210 STAT 3000 **BENG 3000** BENG 5020 BENG Elective Calculus I Calculus II Fundamentals of Statistics Instrumentation for BENG Elect. Linear Algebra Bio. Modeling 4 Credits 3 Credits 4 Credits and ODEs Electronics for Scientists Biol. Systems & Controls 4 Credits 3 Credits 3 Credits 3 Credits 3 Credits PHYS 2210 ENGR 2010 BIOL 1610³ ENGR 2140⁵ BENG 3200 **BENG 3670** ENGR Elective Biology I Physics I Statics Mechanics of Intro. to Unit Gen. Microbiology ENGR Elect. Transport BIOL 1615* PHYS 2215* Operations 3 Credits 4 Credits 3 Credits Materials Phenomena Physics I Lab Biology I Lab 3 Credits 3 Credits 3 Credits 3 + 1 Credits + 1 Credits (MATH 1050 is prereq.) CS 1400 CHEM 1210* BENG 1200* CHEM 3700 ENGR 3080 BENG Elective CHEM 2300* Tech. Elective Chemistry I Prin. Of Org. Chem. Intro to Biochemistry TECH Elect. SolidWorks BENG Elect. Intro. Computer Technical Comm. CHEM 1215* CHEM 2315* CHEM 3710 for BENG Science I for Engr. 3 Credits 3 Credits Chemistry I Lab Biochemistry Lab 2 Credits Org. Chem. Lab 4 Credits 3 Credits 4 + 1 Credits 3 + 1 Credits 3 + 1 Credits (MATH 1050 is a prereq.) ENGL 2010 ENGR 2450 Tech. Elective Creative Arts Intermed. Writing American Institutions Social Sciences Humanities Engr. Numerical TECH Elect. Social Sciences 3 Credits Methods 2 Credits 3 Credits 3 Credits 3 Credits 3 Credits 3 Credits 3 Credits Apply for Professional Program DHA FE Exam Huma.& Creative Arts 2 Credits Prerequisite (includes all color lines) Corequisite Fall and Spring Fall only course Spring only course

ACADEMIC YEAR **2023-24**

^{*} Required for admission to Professional Program.