



College of Engineering
UtahStateUniversity

- The following is a sample **5-year plan** with prerequisites for medical and dental school added. 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.

THE FOLLOWING PLAN IS FOR BIOLOGICAL ENGINEERS WORKING TO SATISFY PRE-HEALTH REQUIREMENTS

PRE-PROFESSIONAL PROGRAM

FRESHMAN FALL

COURSE	CR ⁺	SEM ⁺
BENG 1000* Intro to Undergrad. Research	1	F
BIOL 1610* + 1615* Biology 1 + Lab	4	F
CHEM 1210* Chemistry 1	4	FSpSu
CHEM 1215* Chemistry 1 Lab	1	FSpSu
MATH 1210* Calculus 1	4	FSpSu
ENGL 1010 Intro to Writing	3	FSpSu

TOTAL CREDITS **17**

FRESHMAN SPRING

COURSE	CR ⁺	SEM ⁺
BIOL 1620# Biology 2	3	Sp
BIOL 1625# Biology 2 Lab	1	Sp
BENG 1880* Quantification Biol. Processes	3	Sp
CHEM 1220# Chemistry 2	4	FSpSu
CHEM 1225# Chemistry 2 Lab	1	FSpSu
MATH 1220* Calculus 2	4	FSpSu

TOTAL CREDITS **16**

SOPHOMORE FALL

COURSE	CR ⁺	SEM ⁺
CHEM 2310* Organic Chemistry 1	4	F
CHEM 2315* Organic Chemistry 1 Lab	1	F
MATH 2250* Linear Algebra & Diff. Eq.	4	FSpSu
PHYS 2210* Physics 1	4	FSpSu
PHYS 2215* Physics 1 Lab	1	FSpSu
GENERAL EDUCATION Breadth Course (BAI)	3	FSpSu

TOTAL CREDITS **17**

SOPHOMORE SPRING

COURSE	CR ⁺	SEM ⁺
CHEM 2320# Organic Chemistry 2	4	Sp
CHEM 2325# Organic Chemistry 2 Lab	1	Sp
BENG 1200 SolidWorks	2	Sp
PHYS 2220# Physics 2	4	FSpSu
PHYS 2225# Physics 2 Lab	1	FSpSu
GENERAL EDUCATION PSY 1010 or SOC 1010 (BSS)	3	FSpSu

TOTAL CREDITS **15**

JUNIOR FALL

COURSE	CR ⁺	SEM ⁺
BENG 2330* Properties of Biomaterials	3	F
ENGL 2010* Intermediate Writing	3	FSpSu
ENGR 2010* Statics	3	FSpSu
ENGR 2210 Fundamental Electronics	3	FSpSu
GENERAL EDUCATION Breadth Course (BCA)	3	FSpSu

TOTAL CREDITS **15**

JUNIOR SPRING

COURSE	CR ⁺	SEM ⁺
BENG 2400* Thermodynamics	3	Sp
BIOL 2420# Human Physiology	4	FSpSu
CHEM 3700 Introductory Biochemistry	3	Sp
CHEM 3710 Introductory Biochemistry Lab	1	Sp
ENGR 2140* Mechanics of Materials	3	FSpSu

TOTAL CREDITS **14**

Plan continued on back →

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

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

ACADEMIC YEAR
2023-24



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THE FOLLOWING PLAN IS FOR BIOLOGICAL ENGINEERS WORKING TO SATISFY PRE-HEALTH REQUIREMENTS

PROFESSIONAL PROGRAM

SENIOR FALL			SENIOR SPRING			2 ND SENIOR FALL			2 ND 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 Biol Syst.	3	Sp	BENG 4880 Biol. Engr. Design 2	3	F	BENG 4890 Biol. Engr. Design 3	3	Sp
BENG 3500 Fluid Mechanics	3	F	BENG 3670 Transport Phenomena	3	Sp	BENG 5020 Biol. Modeling and Controls	3	F	BENG ELECTIVE <i>See approved list</i>	3	FSp
CS 1400 Computer Science 1	4	FSpSu	BENG 3870 Biol. Engr. Design 1	1	Sp	BENG ELECTIVE <i>See approved list</i>	3	FSp	ENGR ELECTIVE <i>See approved list</i>	3	FSp
STAT 3000 Statistics for Scientists	3	FSpSu	ENGR 2450 Numerical Methods	3	Sp	BIOL 3300 General Microbiology	4	FSp	HEALTH ELECTIVE[^] <i>Not required</i>	3	FSpSu
GENERAL EDUCATION Breadth Course (BHU)	3	FSpSu	ENGR 3080 Tech. Comm. for Engineers	3	FSp	GENERAL EDUCATION Depth Course (DSS)	3	FSpSu	HEALTH ELECTIVE[^] <i>Not required</i>	4	FSpSu
			GENERAL EDUCATION Depth Course (DHA)	2	FSpSu	FUND. OF ENGR. EXAM (FE) Graduation Requirement					
TOTAL CREDITS	16		TOTAL CREDITS	15		TOTAL CREDITS	16		TOTAL CREDITS	16	

TOTAL CREDITS REQUIRED 157

PROFESSIONAL PROGRAM (PP) REQUIREMENTS

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

PRE-HEALTH REQUIREMENTS

- ^(#) Courses marked with a pound sign (#) are required for entrance to medical/dental schools and are not required for this degree.
- ^(^) Placeholder for students to add any additional prerequisites required by specific schools the student has chosen to apply to. Common courses include BIOL 2320, 3060, 4600, 5210 600, and 5210. These are not required for graduation.
- Contact Yvonne Kobe (Pre-Health Advisor) for additional information on requirements/prerequisites for medical/dental school: 435-797-3373 or yvonne.kobe@usu.edu

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