

COLLEGE OF SCIENCE & TECHNOLOGY

Department of Biological Sciences

THE BACHELOR OF SCIENCE DEGREE IN BIOLOGY

Freshman Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 120	4		Biol 121	4	
Chem 105	4		Chem 108	4	
Math 107	3		Math 109	3	
Engl 111	3		Engl 112	3	
P. Ed 1__	2		P. Ed 1__	2	
Total	16		Total	16	

Sophomore Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 307	4		Biol 303	4	
Chem 201	4		Biol 306	4	
Phys 104	4		Phys 105	4	
Engl 2__	3		Engl 309	3	
Total	15		Total	15	

Junior Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 315	4		Biol Adv Elective	4	
Biol Adv Elective	4		HIST 202	3	
Psy 101	3		Soc & Behav Elec	3	
HIST 201	3		Visual & Perf Arts Elective	3	
COMS 101, 102 or 301	3		Math 350	4	
Total	17		Total	17	

Senior Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol Adv Elective	4		Biol Adv Elective	4	
POLS 201	3		POLS 202	3	
Adv Electives	6		Electives	9	
Electives	3				
Total	16		Total	16	

THE BACHELOR OF SCIENCE DEGREE IN BIOMEDICAL SCIENCE

Freshman Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 120	4		Biol 121	4	
Chem 105	4		Chem 108	4	
Math 107	3		Math 109	3	
Engl 111	3		Engl 112	3	
P. Ed 1__	2		P. Ed 1__	2	
Total	16		Total	16	

Sophomore Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 307	4		Biol 303	4	
Chem 201	4		Chem 202	4	
Math 120	4		Math 350	4	
Engl 220 or 250	3		Engl 309	3	
HIST 201	3		HIST 202	3	

Total	18		Total	18	
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Junior Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 460	4		Biol 461	4	
Biol 474	3		Biol 475	3	
Phys 104	4		Biol 385	4	
POLS 201	3		Phys 105	4	
Total	14		Total	15	

Senior Year					
Fall Semester	Hrs	Comp	Spring Semester	Hrs	Comp
Biol 306	4		Biol Adv Electives	8	
Biol 395	4		POLS 202	3	
Visual & Perf Arts	3		PSY 101	3	
COMS 101, 102 or 301	3		Soc & Behav Elec	3	
Biol 485	1				
Total	15		Total	17	

Department of Chemistry, Geosciences, and Environmental Science

THE BACHELOR OF SCIENCE DEGREE IN CHEMISTRY

Courses Required for BS in Chemistry – Professional Chemistry

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		Literature course in English*	3	
CHEM 1054, 1084*	8		CHEM 2014*, 2024*	8	
MATH 1184, 1204*	8		MATH 2094	4	
COMS 1013, 1023 or 3013	3		PHYS 1224*, 2424*	8	
HLTH 1013 or Activity P Ed	3-4		HIST 2013*, 2023*	6	
Arts	3		ENG 3093	3	
			CIS or C S elective	3	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
CHEM 3074*, 3234*, 3244*	12		CHEM 4084*, 4273*, 4283*, 4743*, 4861	14	
POLS 2013*, 2023*	6		Advanced CHEM elective	3	
BIOL 1204, 1214 or 2 courses from GEOL 1054, 1064, 1074	8		Advanced electives	7	
Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033,	6		Foreign Language	8	

For BS in Chemistry without certification

For BS in Chemistry with Teacher Certification, Physical Science (8-12)

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		Literature course in English*	3	
CHEM 1054, 1084*	8		CHEM 2014*, 2024*	8	
MATH 1184, 1204*	8		MATH 2094, 2104* or 3063*	7-8	
COMS 1013, 1023 or 3013	3		PHYS 1044, 1054* or PHYS 1224*, 2424*	8	
HLTH 1013 or Activity P Ed	3-4		HIST 2013*, 2023*	6	
Arts	3		PSY 2203 or 3033	3	
CIS or C S elective	3				

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
CHEM 3074*, 3234*	8		CHEM 4084*, 4861	5	
POLS 2013*, 2023*	6		Advanced CHEM electives	7	
RDG 3513	3		EDU 4303, 4353, 4906	12	
PHYS 3343*	3		1 course from BIOL 1204, 1214, GEOL 1054, or 1064	4	
EDU 3303, 3353	6		GEOL 1074	4	
ENG 3093	3				
Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033,	6				

For BS in Chemistry - Interdisciplinary Chemistry

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		Literature course in English*	3	
CHEM 1054, 1084*	8		CHEM 2014*, 2024*	8	
MATH 1163, 1204*	7		MATH 2094	4	
COMS 1013, 1023 or 3013	3		PHYS 1044, 1054* or PHYS 1224*, 2424*	8	
HLTH 1013 or Activity P Ed	3-4		HIST 2013*, 2023*	6	
Arts	3		Supporting field**	6	
CIS or C S elective	3				

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
CHEM 3074*, 3234*	8		CHEM 4084*, 4861	5	
POLS 2013*, 2023*	6		Advanced CHEM electives	7	
BIOL 1204, 1214 or 2 courses from GEOL 1054, 1064, 1074	8		Supporting field**, at least 9 advanced hrs.	12	
Supporting field**	3		Advanced elective	4	
Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033,	6		ENG 3093	3	

For BS in Chemistry – Biochemistry

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		Literature course in English*	3	
CHEM 1054, 1084*	8		CHEM 2014*, 2024*	8	
MATH 1184, 1204*	8		MATH 2094	4	
BIOL 1204, 1214	8		BIOL 2034	4	
HLTH 1013 or Activity P Ed	3-4		HIST 2013*, 2023*	6	
			PHYS 1044, 1054* or PHYS 1224*, 2424*	8	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
CHEM 3074*, 3234*	8		CHEM 4084*, 4273 or 4453, 4743, 4753, 4861	15	
ENG 3093	3		CIS or CS elective	3	
BIOL 3034, 3134	8		BIOL 4783	3	
POLS 2013*, 2023*	6		Electives, 3 hrs advanced	7	
COMS 1013, 1023 or 3013	3		Arts	3	
Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO	6				

1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033,					
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For BS in Chemistry - Pre-Medical/Pre-Dental Program

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		Literature course in English**	3	
CHEM 1054, 1084*	8		CHEM 2014*, 2024*	8	
MATH 1184, 1204*	8		MATH 2094	4	
BIOL 1204, 1214	8		BIOL 2034, 3024	8	
HLTH 1013 or Activity P Ed	3-4		PHYS 1044, 1054* or PHYS 1224*, 2424*	8	
			CIS or C S. elective	3	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
CHEM 3074*, 3234*	8		CHEM 4084*, 4743, 4861	8	
BIOL 3064, 3854	8		Advanced CHEM elective	4	
POLS 2013*, 2023*	6		BIOL 4604, 4614, 4851	9	
COMS 1013, 1023 or 3013	3		Arts	3	
Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033,	6		HIST 2013*, 2023*	6	
			ENG 3093	3	

THE BACHELOR OF SCIENCE DEGREE IN GEOSCIENCE

For Geology support area

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
			POLS 201*, 202*	6	
ENGL 111, 112*	6		ENGL soph literature	3	
GEOL 105, 106	8		BIOL 120, 121 or PHYS 104, 105	8	
MATH 107 and 109 or 118	6		HYDR 110 ¹	3	
CHEM 105, 108	8		GEOL 203 ²	4	
HLTH 1013 or Activity P Ed	3-4		ES 220 ²	3	
Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3		Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3	
			MATH 120 or 209 or 300 or 350	3-4	
Total		34-35		33-34	67-69

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
HIST 201*, 202*	6		GEOL 313(b), 411(b) ²	7	
GEOL 205 (a), 305(a), 306(a), 312(a) ²	13		From GEOL 310(a), 314(a), 320(b), 412(a) ² (need two)	3-6	
From GEOL 310(a), 314(a), 320(b), 412(a) ² (need two)	3-6		Advanced electives (need 16 hours)		
Electives (need 3-4 hours)	3-4		Arts class or Social/Behavioral Science from list	3	
GEOL Field class ³	6				
SCOM 101, 102 or 301	3				
Advanced electives (need 16 hours)					

Total	31			29	128-129
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For Environmental Science support area

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
			POLS 201*, 202*	6	
ENGL 111, 112*	6		HYDR 110 ¹	3	
GEOL 105, 107	8		BIOL 120, 121	8	
MATH 107 and 109	4-6		ES 2203 ²	3	
CHEM 105, 108	8		GEOL 203 ²	4	
HLTH 1013 or Activity P Ed	3-4		CHEM 201	4	
Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3		Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3	
			ENGL soph literature	3	
Total	32-35	32-35		34	66-69

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
HIST 2013*, 2023*	6		AGRN 310 or 420 or 427	3	
AGRN 301	4		BIOL 401 ⁴	4	
BIOL 303	4		E S 330(b), 340(a), 484 ² (need two)	3-6	
GEOL 314(b) ²	3		GEOL 205(a) ²	3	
AGRN 310 or 420 or 427	3		POLS 310 or 410 ³	3	
ES 350(b), 413(b) ²	6		Advanced elective	3	
E S 330(b), 340(a), 484 ² (need two)	3-6		GEOL 310(b), 313(b), 320(a), 412(b) ² (need three)	3	
POLS 310 or 410 ³	3		Arts class or Social/Behavioral Science from list	3	
GEOL 310(b), 313(b), 320(a), 412(b) ² (need three)	6-9				
SCOM 101, 102, 301	3				
					128-131

For Earth Science support area

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
			POLS 201*, 202*	6	
ENGL 111, 112*	6		ENGL soph literature	3	
GEOL 105, 106	8		BIOL 120, 121	8	
MATH 107, 109	6		HYDR 110 ¹	3	
CHEM 105, 108	8		GEOL 203	4	
HLTH 1013 or Activity P Ed	3-4		ES 220 ²	3	
Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3		Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3	
			CHEM 201	4	
		34-35		34	67-68

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
HIST 201*, 202*	6		GEOL 205(a) ²	4	
GEOL 310(b) ²	3		From GEOL 305(a), 306(a), 312(a), 313(b), 314(b), 320(a), 411(b), 412(b) ² (need three)	9-11	
From GEOL 305(a), 306(a), 312(a),	9-11		E S 340(a)	3	

313(b), 314(b), 320(a), 411(b), 412(b) ² (need three)					
E S 330(b), 350(b), 484 ²	9		Arts class or Social/Behavioral Science from list	3	
AGRN 301	4		AGRN 301	4	
POLS 310 or 410 ³	3		Advanced electives (need 15 hours)	15	
SCOM 101, 102, or 301	3		POLS 310 or 410 ³	3	
Advanced electives (need 15 hours)	15				
					129-132

For Teacher Certification, Science (8-12)

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
			POLS 201*, 202*	6	
ENGL 111, 112*	6		ENGL (soph literature), ENGL 2303	6	
GEOL 105, 106 or 107	8		BIOL 120, 121	8	
MATH 107, 109	6		GEOL 203	4	
CHEM 105, 108	8		HYDR 110	3	
HLTH 1013 or Activity P Ed	3-4		CHEM 201	4	
Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC 1013,2013,3033	3		SCOM 101, 102, or 301	3	
		34-35		34	69-70

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
HIST 201*, 202*	6		E S 320(a), 330(b), 340(a), 350(b) (need three) ²	3-9	
PHYS 104, 105	8		Advanced GEOL or E S	3	
E S 320(a), 330(b), 340(a), 350(b) (need three) ²	3-9		EDU 430, 435, 490	12	
PSY 2203 or 3303	3		CHEM 486	1	
EDU 330, 335, RDG 3513	9		GEOL 486	1	
Arts class or Social/Behavioral Science from list	3		PHYS elective	3	
			BIOL 410, 470	7	
			Arts class or Social/Behavioral Science from list	3	
	35	104-105		35	138-139

For Hydrogeology

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
			POLS 201*, 202*	6	
ENGL 111, 112*	6		ENGL soph literature	3	
GEOL 105, 106	8		HYDR 110 ¹	3	
MATH 107 and 109 or 118	4-6		GEOL 203	4	
CHEM 105, 108	8		ES 2203 ²	3	
HLTH 1013 or Activity P Ed	3-4		MATH 120, 121	6	
Arts class or Social/Behavioral Science from PSY 1013, PHIL 1013, 2013, 3013 ECO 1013, 2013, A EC 1053, ENGR 3033, ARCH 2013, GEOG 1103, 1203, 2013, HIST 1013, 1023, SOC	3		CHEM 201, 202	8	

1013,2013,3033					
Total	32-35	32-35		33	65-68

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
HIST 2013*, 2023*	6		GEOL 306(a), 320(a), ²	6	
GEOL 310(b), 313(b), 314(b), 412(b) ²	13		AGRN 301	4	
E S 350(b), 413(b) ²	6		Arts class or Social/Behavioral Science from list	6	
MATH 300 or 350	3-4		PHYS 104 and 105 or 122 and 242	8	
SCOM 101, 102, or 301	3		Internship, or approved field course ³	3-6	
			Advanced electives	6-9	
Total	39-40	102-106		33-39	137-145

Department of Clinical Laboratory Sciences

THE BACHELOR OF SCIENCE DEGREE IN CLINICAL LABORATORY SCIENCE

Year 1	
Semester 1	Semester 2
ENGL 111	ENGL 112
MATH 107	MATH 109
HLTH 101	COMS 101 or 102
BIOL 120	BIOL 121
CHEM 105	CHEM 108
Total Hours = 17	Total Hours = 17
Year 2	
Semester 1	Semester 2
ENGL 220	ENGL 230
HIST 201	HIST 202
BIOL 203	BIOL 385
CHEM 201	CHEM 474 or 202
Total Hours = 14	Total Hours = 14
Year 3	
Semester 1	Semester 2
POLS 201	POLS 202
PHYS 104	PHYS 105
Social & Behavioral Science Elective	Social & Behavioral Science Elective
Visual & Performing Arts Elective	BIOL 460
Total Hours = 13	Total Hours = 14
Year 4-5	
Enter CLS Program in Fort Worth (Apply by March 1 for July entry. Apply by September 1 for January entry.)The professional portion of the program (consisting of 54 total hours, of which 48 are undergraduate and 6 are graduate hours) is a 16 month continuous laboratory curriculum with 10 months in the Schaffer Teaching Center and 6 months in a clinical affiliate. *In addition to the 48 undergraduate hours of CLS courses required for the B.S. degree, certification requires an additional 6 hours including CLS 502,504,and 506.	
CLS Course Sequence with July Entry	
Summer II	
CLS 482,414,415,474,448,465 (6 hours)	
Fall	
CLS 464,434,435,424,425,476,477,444,445 (13 hours)	
Spring	
CLS 451,452,475,428,446,467,426,427,436,416 (12 hours)	
Summer (12 week session)	
CLS 478,479,437,446,447,438,491 (9 hours)	

Fall
CLS 492,493,494,495,502,504,506 (14 hours)
CLS Course Sequence with January Entry
Spring
CLS 482,414,415,474,448,444,445,476,477,434,435,464,465 (16 hours)
Summer (12 week)
CLS 424,425,451,452,475,428,467,466 (9 hours)
Fall
CLS 478,479,426,427,436,437,446,447,438,416 (14 hours)
Spring
CLS 491,492,493,494,495,502,504,506 (15 hours)

ASSOCIATE OF APPLIED SCIENCE IN HISTOTECHNOLOGY

Year 1	
Semester 1	Semester 2
ENGL 111	ENGL 112
MATH 107	Humanities & FA elective
PSYC 101	COMS 101 or 102
BIOL 219 or 120*	BIOL 220 or 121*
CHEM 101 or 105*	CHEM 108
Total Hours = 17	Total Hours = 17
Year 2(Fall Admit)	
Fall	
HLAB 282,214,215,295 (13 hours)	
Spring	
HLAB 224,225,296 (12 hours)	
Summer	
HLAB 285,234,235,297 (12 hours)	
Year 2(Spring Admit)	
Spring	
HLAB 282,224,225, 295	
Summer	
HLAB 234,235,296	
Fall	
HLAB 214,215,285,297	
Year 2(Summer Admit)	
Summer	
HLAB 282,295,234,235	
Fall	
HLAB 214,215,296	
Spring	
HLAB 224,225,285,297	

ASSOCIATE OF APPLIED SCIENCE IN MEDICAL LABORATORY TECHNOLOGY

Year 1	
Semester 1	Semester 2
ENGL 111	ENGL 112
MATH 107	Humanities & FA elective
PSYC 101	COMS 101 or 102
BIOL 219 or 120*	BIOL 220 or 121*
CHEM 101 or 105*	CHEM 108

Total Hours = 17	Total Hours = 17
Year 2-3(Fall Admit)	
Fall	
MLAB 282,264,244,274,294 (13 hours)	
Spring	
MLAB 276,224,228,295(12 hours)	
Summer	
MLAB 234,214,293 (8 hours)	
Fall	
MLAB 292,285 (4 hours)	
Year 2-3(Spring Admit)	
Spring	
MLAB 282, 276,224,228,295 (13 hours)	
Summer	
MLAB 234,214,293 (8 hours)	
Fall	
MLAB 264,244,274,294 (12 hours)	
Spring	
MLAB 292,285 (4 hours)	
Year 2-3(Summer Admit)	
Summer	
MLAB 282,234,214,293 (9 hours)	
Fall	
MLAB 264,244,274,294 (12 hours)	
Spring	
MLAB 276,224,228,295 (12 hours)	
Summer	
MLAB 292,285 (4 hours)	

Department of Engineering Technology

THE BACHELOR OF SCIENCE DEGREE IN MANUFACTURING ENGINEERING TECHNOLOGY

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		ENGL Soph. Lit.	3	
MATH 1073, 109*	6		HIST 2013*, 2023*	6	
I T 105, 117	6		I T 303, 324 or 325	6	
MET 216	3		CS 110 or CIS 110	3	
CHEM 105	4		MATH 120, 209	8	
HLTH 1013 or Activity P ED	3-4		COMS 1013, 1023 or 3013	3	
Social/Behavioral Science	3		Visual/Performing Arts	3	
Total	31		Total	32	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
MATH 300	3		I T 495*	3	
I T 318*, 350*, 361	9		MET 346*, 426, 436, 446*, 476	15	
MET 326, 336, 386*	9		ENGR 303 (S&B Requirement)	3	
Math or Science Elective	3		Approved Elective	9	
POLS 2013*, 2023*	6				
PHYS 1224	4				
Approved Elective	3				
Total	37		Total	30	

THE BACHELOR OF SCIENCE DEGREE IN INDUSTRIAL TECHNOLOGY

For General Industrial Technology

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		ENGL Soph. Lit	3	

MATH 1073, 109*	6		HIST 2013*, 2023*	6	
I T 105, 106, 117, 215*	12		I T 303, 317*, 324, MET 216	12	
HLTH 1013 or P ED	3-4		Lab Sciences	8	
Social/Behavioral Science	3		Social/Behavioral Science	3	
Total	30		Total	32	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
COMS 1013, 1023 or 3013	3		I T 495*	3	
I T 318, 320, 350, MET 336	12		Advanced I T or MET Elective	6	
Visual/Performing Arts	3		General Elective	9	
POLS 2013*, 2023*	6		Advanced Elective or Minor	12	
General Elective	3				
Elective or Minor	6				
Advanced I T or MET Elective	3				
Total	36		Total	30	

For Emphasis Area, Industrial Design

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		ENGL Soph. Lit.	3	
MATH 1073, 109*	6		HIST 2013*, 2023*	6	
I T 105, 117, 215*, 317*	12		I T 303, 324, 361	9	
HLTH or Activity P ED	3-4		Lab Sciences	8	
Social/Behavioral Science	3		Social/Behavioral Science	3	
			CIS 110*	3	
Total	30		Total	32	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
COMS 1013, 1023 or 3013	3		I T 405, 461*, 495*	9	
I T 318*, 350*, 450*, MET 336*	12		General Elective	6	
Visual/Performing Arts	3		I T or MET Elective	6	
POLS 2013*, 2023*	6		CIS 315*	3	
CIS 240*, 241*	6		Advance CIS Electives	6	
I T or MET Elective	3				
General Elective	3				
Total	36		Total	30	

For Emphasis Area, Manufacturing Operations

Freshman Year	Hrs	Comp	Sophomore Year	Hrs	Comp
ENGL 1113, 1123*	6		ENGL Soph. Lit.	3	
MATH 1073, 109*	6		HIST 2013*, 2023*	6	
I T 105, 117, 215*, 317*	12		I T 303, 324, MET 216	9	
HLTH or Activity P ED	3-4		Lab Sciences	8	
Social/Behavioral Science	3		Social/Behavioral Science	3	
			I T or MET Elective	3	
Total	30		Total	32	

Junior Year	Hrs	Comp	Senior Year	Hrs	Comp
COMS 1013, 1023 or 3013	3		I T 495*	3	
I T 318*, 320*, 350*, MET 386*	12		MET 346*, 446*	6	
Visual/Performing Arts	3		General Elective	6	
POLS 2013*, 2023*	6		I T or MET Elective	6	
MGMT 301	3		G B 432*, 444*	6	
G B 311* or MATH 300	3		MGMT 303*	3	
ACC 203	3				

General Elective	3			
Total	36		Total	30

For Emphasis Area, Secondary Teacher Certification

Freshman Year			Sophomore Year		
	Hrs	Comp		Hrs	Comp
ENGL 1113, 1123*	6		ENGL Soph. Lit	3	
MATH 1073, 109*	6		HIST 2013*, 2023*	6	
I T 105, 117, 215*, MET 216	12		I T 106, 317*, 324, 361*	12	
HLTH 1013 or P ED	3-4		Lab Sciences	8	
Social/Behavioral Science	3		Social/Behavioral Science	3	
Total	30		Total	32	

Junior Year			Senior Year		
	Hrs	Comp		Hrs	Comp
COMS 1013, 1023 or 3013	3		I T 325, 350*, 393, 405	12	
I T 303, 314, MET 336*	9		Visual/Performing Arts	3	
A EN 230	3		PSY 303	3	
COMS 214	3		EDU 430, 435, 490	12	
POLS 2013*, 2023*	6				
CIS 103	3				
ENGL 309	3				
EDU 330, 335	6				
Total	36		Total	30	

THE BACHELOR OF SCIENCE DEGREE IN AVIATION SCIENCE

Courses Required for Professional Pilot Emphasis Area

See departmental web site

Courses Required for Aviation Management Emphasis Area

See departmental web site

THE BACHELOR OF APPLIED ARTS AND SCIENCES DEGREE IN INDUSTRIAL OCCUPATIONS

For Industrial Occupations Emphasis Area

See departmental web site

For Secondary Teacher Certification – Grade 6-12 Emphasis Area

See departmental web site

**Department of Mathematics, Physics,
and Engineering**

THE BACHELOR OF SCIENCE DEGREE IN MATHEMATICS

For BS in Mathematics with Secondary Certification

Freshman Year					
Fall			Spring		
MATH 131	Introduction to Probability & Statistics	3	MATH 209	Calculus II	4
MATH 120	Calculus I	4	MATH 310	Discrete Mathematics	3
	Approved CS elective ¹	3		Approved science elective ²	3
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Communications ⁵	3

		Total	16			Total	16
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Sophomore Year							
Fall				Spring			
MATH 332	Linear Algebra		3	MATH 307	Abstract Algebra		3
MATH 301	Number Theory		3	MATH 311	Probability and Statistics		3
PHYS 122	Principles of Physics I		4		Lab science ³		4
	Sophomore Literature		3	ENGL 309	Technical Writing		3
	Advanced CS elective ²		3		Social & Behavioral Science Elective ⁷		3
	Electives		4				
		Total	20			Total	16

Junior Year							
Fall				Spring			
	Advanced MATH elective ⁴		3		Advanced MATH elective ⁴		3
RDG 351	Content Area Reading		3	MATH 402	College Geometry		3
EDU 330	Professional Development I		3	EDU 335	Professional Development II		3
HIST 201	U.S. History through 1877		3	HIST 202	US History since Reconstruction		3
PSY 220 or PSY 303	Child and Adolescent Psychology or Educational Psychology		3	POLS 201	American National Government		3
					Elective		3
		Total	15			Total	18

Senior Year							
Fall				Spring			
MATH 409	Advanced Analysis		3	EDU 435	Professional Development IV		3
MATH 404	Survey of Mathematical Ideas		3	EDU 490	Practicum in Teaching		6
EDU 430	Professional Development III		3				
POLS 202	Texas Government		3				
	Social & Behavioral Science Elective		3				
	Visual & Performing Arts Elective		3				
		Total	18			Total	9

For BS in Mathematics without certification

Freshman Year							
Fall				Spring			
MATH 131	Introduction to Probability & Statistics		3	MATH 209	Calculus II		4
MATH 120	Calculus I		4	MATH 310	Discrete Mathematics		3
	Approved CS elective ¹		3		Approved science elective ²		3
ENGL 111	Introduction to College Composition		3	ENGL 112	College Composition and Research		3
HLTH 101	Wellness for Life		3		Communications ⁶		3
		Total	16			Total	16

Sophomore Year							
Fall				Spring			
MATH 332	Linear Algebra		3	MATH 307	Abstract Algebra		3
MATH 333	Calculus III		4	MATH 311	Probability and Statistics		3
PHYS 122	Principles of Physics I		4		Lab science ³		4
	Support field ⁴		3		Support field ⁴		3

	Advanced CS elective ²	3		Social & Behavioral Science Elective ⁸	3
	Total	17		Total	16

Junior Year					
Fall			Spring		
	Advanced MATH elective ⁵	3		Advanced MATH elective ⁵	3
	Sophomore Literature	3	MATH 306	Differential Equations	3
	Support field ⁴	3		Support field ⁴	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
	Elective	3		Elective	3
	Visual & Performing Arts Elective ⁷	3			
	Total	18		Total	15

Senior Year					
Fall			Spring		
MATH 409	Advanced Analysis	3		Advanced MATH elective ⁵	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
	Advanced Support field ⁴	3		Advanced Support field ⁴	3
	Social & Behavioral Science Elective ⁸	3		Advanced Support field ⁴	3
	Advanced elective	3		Advanced elective	3
	Total	15		Total	15

For BS in Mathematics with 8-12 Mathematics/Physics Certification

Freshman Year					
Fall			Spring		
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
MATH 120	Calculus I	4	MATH 209	Calculus II	4
ENGL 111	Introduction to College Composition	3	HIST 201	U.S. History through 1877	3
	Social & Behavioral Science Elective ¹	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Visual & Performing Arts Elective ²	3
	Total	17		Total	17

Sophomore Year					
Fall			Spring		
MATH 302	Principles of Geometry	3	PHYS 334	Modern Physics I	3
MATH 333	Calculus III	4	MATH 306	Differential Equations	3
HIST 202	US History since Reconstruction	3		Sophomore Literature	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
PSY 220	Child and Adolescent Psychology	3	MATH 311	Probability and Statistics	3
	Total	16		Total	15

Junior/Senior Year					
Fall (even year)			Spring (odd year)		
PHYS 331	Mechanics I	3	PHYS 430	Math Methods for Physicists & Engineering	3
PHYS 332	Electromagnetic Field Theory	3		Advanced PHYS elective ⁴	6
	Communications ³	3	MATH 404	Survey of Mathematical Ideas	3
	Approved CS elective ⁴	3	RDG 351	Content Area Reading	3
EDU 330	Professional Development I	3	EDU 335	Professional Development II	3
	Elective ⁴	3			
	Total	18		Total	18

Junior/Senior Year					
Fall (odd year)			Spring (even year)		
PHYS 435	Quantum Physics	3	EDU 435	Professional Development IV	3
PHYS 333	Thermodynamics	3	EDU 490	Practicum in Teaching	6
	Advanced PHYS elective ⁴	3			
EDU 430	Professional Development III	3			
ENGL 309	Technical Writing	3			
	Social & Behavioral Science Elective ¹	3			
		Total	18		
				Total	9

THE BACHELOR OF SCIENCE DEGREE IN ENGINEERING PHYSICS
PreCalculus Ready

Freshman Year					
Fall			Spring		
ENGR 111	Foundations of Engineering I	3	ENGR 112	Foundations of Engineering II	3
MATH 118	Precalculus	4	MATH 120	Calculus I	4
	Advised elective ¹	3	PHYS 122	Principles of Physics I	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness ²	3		Visual & Performing Arts Elective ³	3
		Total	16		
				Total	17

Sophomore Year					
Fall			Fall		
ENGR 221	Principles of Engineering I	3	ENGR 223	Principles of Engineering III	3
ENGR 222	Principles of Engineering II	3	ENPH 248	Introduction to Digital System Design	4
ENPH 225	Electrical Circuit Theory	4	PHYS 334	Modern Physics I	3
MATH 209	Calculus II	4	MATH 306	Differential Equations	3
PHYS 242	Principles of Physics II	4		Sophomore Literature	3
			CHEM 105	College Chemistry I	4
		Total	18		
				Total	20

Junior/Senior					
Fall (even year)			Spring (odd year)		
ENPH 332	Electromagnetic Field Theory	3	ENPH 441	Microprocessor System Design	4
ENPH 314	Signals and Systems	3	ENPH 443	Linear Control Systems	4
ENPH 343	Computer Architecture	4	ENPH 430	Math Methods for Physicists & Engineers	3
	Advanced PHYS, ENGR, ENPH or CS elective ⁴	3		Social & Behavioral Science Elective ⁵	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
MATH 333	Calculus III (JR)	4	ENGR 460	Engineering Integration (SR)	3
		Total	16/ 20		
				Total	17/ 20

Junior/Senior					
Fall (odd year)			Spring (even year)		
ENPH 345	Electronics	4	ENPH 436	Solid State Physics	3
PHYS 435	Quantum Physics	3	ENGR 460	Engineering Integration (SR)	3
	Advanced PHYS, ENGR, ENPH or CS elective ⁴	3		Advanced PHYS, ENGR, ENPH or CS elective ⁴	3
POLS 201	American National Government	3		Social & Behavioral Science	3

				Elective ⁵	
CHEM 108	College Chemistry II	4		Communications ⁶	3
MATH 333	Calculus III (JR)	4	POLS 202	Texas Government	3
	Total	17/ 21		Total	15/ 18

Calculus Ready

Freshman					
Fall			Spring		
ENGR 111	Foundations of Engineering I	3	ENGR 112	Foundations of Engineering II	3
MATH 120	Calculus I	4	MATH 209	Calculus II	4
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness ¹	3		Visual & Performing Arts Elective ²	3
	Total	17		Total	17

Sophomore					
Fall			Spring		
ENGR 221	Principles of Engineering I	3	ENGR 223	Principles of Engineering III	3
ENGR 222	Principles of Engineering II	3	ENPH 248	Introduction to Digital System Design	4
ENPH 225	Electrical Circuit Theory	4	PHYS 334	Modern Physics I	3
MATH 333	Calculus III	4	MATH 306	Differential Equations	3
CHEM 105	College Chemistry I	4		Sophomore Literature	3
	Total	18		Total	16

Junior/Senior					
Fall (even year)			Spring (odd year)		
ENPH 332	Electromagnetic Field Theory	3	ENPH 441	Microprocessor System Design	4
ENPH 314	Signals and Systems	3	ENPH 443	Linear Control Systems	4
ENPH 343	Computer Architecture	4	ENPH 430	Math Methods for Physicists & Engineers	3
	Advanced PHYS, ENGR, ENPH or CS elective	3		Social & Behavioral Science Elective	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
			ENGR 460	Engineering Integration (SR)	3
	Total	16/ 20		Total	17/ 20

Junior/Senior					
Fall (odd year)			Spring (even year)		
ENPH 345	Electronics	4	ENPH 436	Solid State Physics	3
PHYS 435	Quantum Physics	3	ENGR 460	Engineering Integration (SR)	3
	Advanced PHYS, ENGR, ENPH or CS elective	3		Advanced PHYS, ENGR, ENPH or CS elective	3
POLS 201	American National Government	3		Social & Behavioral Science Elective	3
CHEM 108	College Chemistry II	4		Communications	3
			POLS 202	Texas Government	3
	Total	17		Total	15/ 18

THE BACHELOR OF SCIENCE DEGREE IN ENVIRONMENTAL ENGINEERING

PreCalculus Ready

Freshman					
Fall			Spring		
ENGR 111	Foundations of Engineering I	3	ENGR 112	Foundations of Engineering II	3

MATH 118	Precalculus	4	MATH 120	Calculus I	4
CHEM 105	College Chemistry I	4	PHYS 122	Principles of Physics I	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
	Wellness ¹	2		Wellness ¹	2
	Total	16		Total	16

Sophomore					
Fall			Spring		
ENVE 211	Soil Mechanics	4	ENVE 210	Survey of Environmental Engineering	3
ENGR 221	Principles of Engineering I	3	ENVE 300	Mechanics of Fluids	4
ENGR 222	Principles of Engineering II	3	ENGR 223	Principles of Engineering III	3
MATH 209	Calculus II	4	MATH 333	Calculus III	4
PHYS 242	Principles of Physics II	4	CHEM 108	College Chemistry II	4
			POLS 201	American National Government	3
	Total	18		Total	21

Junior/Senior					
Fall (even year)			Spring (odd year)		
ENVE 320	Groundwater Hydrology	4	ENVE 402	Atmospheric Systems and Air Pollution Control	4
ENVE 410	Water Resources Engineering	3		Social & Behavioral Science Elective ²	3
ENPH 225	Electrical Circuit Theory	4		Visual & Performing Arts Elective ³	3
MATH 306	Differential Equations	3		Sophomore Literature	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
			ENGR 460	Engineering Integration (SR)	3
	Total	17		Total	16/19

Junior/Senior					
Fall (odd year)			Spring (even year)		
ENVE 310	Basic Hydrology	4	ENVE 420	Municipal and Industrial Water Supply & Waste Water Treatment	4
ENVE 301	Environmental Systems Modeling	4	ENVE 430	Texas Water Resource Management	3
POLS 202	Texas Government	3		Communications ⁵	3
CHEM 201	Organic Chemistry I	4		Social & Behavioral Science Elective ²	3
	Advised elective ⁴	3	ENGR 460	Engineering Integration (SR)	3
	Total	18		Total	13/16

Calculus Ready

Freshman					
Fall			Spring		
ENGR 111	Foundations of Engineering I	3	ENGR 112	Foundations of Engineering II	3
MATH 120	Calculus I	4	MATH 209	Calculus II	4
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
	Wellness	2		Wellness	2
			CHEM 105	College Chemistry I	4

		Total	16			Total	20
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Sophomore							
Fall				Spring			
ENVE 211	Soil Mechanics		4	ENVE 210	Survey of Environmental Engineering		3
ENGR 221	Principles of Engineering I		3	ENVE 300	Mechanics of Fluids		4
ENGR 222	Principles of Engineering II		3	ENGR 223	Principles of Engineering III		3
MATH 333	Calculus III		4	MATH 306	Differential Equations		3
CHEM 108	College Chemistry II		4	POLS 201	American National Government		3
			Total				Total
			18				16

Junior/Senior							
Fall (even year)				Spring (odd year)			
ENVE 320	Groundwater Hydrology		4	ENVE 402	Atmospheric Systems and Air Pollution Control		4
ENVE 410	Water Resources Engineering		3		Social & Behavioral Science Elective		3
ENPH 225	Electrical Circuit Theory		4		Visual & Performing Arts Elective		3
HIST 201	U.S. History through 1877		3	HIST 202	US History since Reconstruction		3
	Sophomore Literature		3		Advised elective		3
				ENGR 460	Engineering Integration (SR)		3
			Total				Total
			17				16/ 19

Junior/Senior							
Fall (odd year)				Spring (even year)			
ENVE 310	Basic Hydrology		4	ENVE 420	Municipal and Industrial Water Supply & Waste Water Treatment		4
ENVE 301	Environmental Systems Modeling		4	ENVE 430	Texas Water Resource Management		3
POLS 202	Texas Government		3		Communications ⁵		3
CHEM 201	Organic Chemistry I		4		Social & Behavioral Science Elective		3
				ENGR 460	Engineering Integration (SR)		3
			Total				Total
			15				13/ 16

THE BACHELOR OF SCIENCE DEGREE IN PHYSICS

For BS in Physics (without certification)

PreCalculus Ready

Freshman Year							
Fall				Spring			
PHYS 104	General Physics I		4	PHYS 122	Principles of Physics I		4
MATH 118	Precalculus		4	MATH 120	Calculus I		4
	Approved CS elective ¹		3	HIST 201	U.S. History through 1877		3
ENGL 111	Introduction to College Composition		3	ENGL 112	College Composition and Research		3
HLTH 101	Wellness for Life		3		Visual & Performing Arts Elective ²		3
			Total				Total
			17				17

Sophomore Year							
Fall				Spring			
PHYS 242	Principles of Physics II		4	PHYS 334	Modern Physics I		3
MATH 209	Calculus II		4	MATH 306	Differential Equations		3

HIST 202	US History since Reconstruction	3	MATH 333	Calculus III	4
POLS 201	American National Government	3	POLS 202	Texas Government	3
	Support field ³	3*		Support field ³	4*
	Total	17		Total	16

Junior/Senior					
Fall (even year)			Spring (odd year)		
PHYS 331	Mechanics I	3	PHYS 430	Math Methods for Physicists & Engineering	3
PHYS 332	Electromagnetic Field Theory	3		Advanced PHYS elective ⁵	3
	Support field ³	3*		Support field ³	4*
	Communications ⁴	3		Social & Behavioral Science Elective ⁶	3
	Sophomore Literature	3		Elective ⁷	3*
	Total	15		Total	16

Junior/Senior					
Fall (odd year)			Spring (even year)		
PHYS 435	Quantum Physics	3		Advanced PHYS elective ⁵	6
PHYS 333	Thermodynamics	3		Social & Behavioral Science Elective ⁶	3
	Advanced Support field ³	3*		Advanced Support field ³	4*
	Advanced elective ⁷	3*		Advanced elective ⁷	3*
MATH 332	Linear Algebra	3			
	Total	15		Total	16

Calculus Ready

Freshman Year					
Fall			Spring		
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
MATH 120	Calculus I	4	MATH 209	Calculus II	4
	Approved CS elective ¹	3	HIST 201	U.S. History through 1877	3
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Visual & Performing Arts Elective ²	3
	Total	17		Total	17

Sophomore Year					
Fall			Spring		
MATH 332	Linear Algebra	3	PHYS 334	Modern Physics I	3
MATH 333	Calculus III	4	MATH 306	Differential Equations	3
HIST 202	US History since Reconstruction	3		Sophomore Literature	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
	Support field ³	3*		Support field ³	4*
	Total	16		Total	16

Junior/Senior					
Fall (even year)			Spring (odd year)		
PHYS 331	Mechanics I	3	PHYS 430	Math Methods for Physicists & Engineering	3
PHYS 332	Electromagnetic Field Theory	3		Advanced PHYS elective ⁵	3
	Support field ³	3*		Support field ³	4*
	Communications ⁴	3		Social & Behavioral Science Elective ⁶	3
				Elective ⁷	3*
	Total	12		Total	16

Junior/Senior					
Fall (odd year)			Spring (even year)		
PHYS 435	Quantum Physics	3		Advanced PHYS elective ⁵	6
PHYS 333	Thermodynamics	3		Social & Behavioral Science Elective ⁶	3
	Advanced Support field ³	3*		Advanced Support field ³	4*
	Advanced elective ⁷	3*		Advanced elective ⁷	3*
		Total	12	Total 16	

For BS in Physics with Teacher Certification, Physical Science (8-12)

Freshman Year					
Fall			Spring		
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
MATH 120	Calculus I	4	MATH 209	Calculus II	4
ENGL 111	Introduction to College Composition	3	HIST 201	U.S. History through 1877	3
	Social & Behavioral Science Elective ¹	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Visual & Performing Arts Elective ²	3
		Total	17	Total 17	

Sophomore Year					
Fall			Spring		
PSY 220	Child and Adolescent Psychology	3	PHYS 334	Modern Physics I	3
MATH 333	Calculus III	4	MATH 306	Differential Equations	3
HIST 202	US History since Reconstruction	3		Sophomore Literature	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
CHEM 105	College Chemistry I	4	CHEM 108	College Chemistry II	4
		Total	17	Total 16	

Junior/Senior					
Fall (even year)			Spring (odd year)		
PHYS 331	Mechanics I	3	PHYS 430	Math Methods for Physicists & Engineering	3
PHYS 332	Electromagnetic Field Theory	3		Advanced PHYS elective ⁴	6
	Communications ³	3	MATH 404	Survey of Mathematical Ideas	3
CHEM 201	Organic Chemistry I	4	CHEM 486	Chemistry Problems	1
EDU 330	Professional Development I	3	EDU 335	Professional Development II	3
			RDG 351	Content Area Reading	3
		Total	16	Total 19	

Junior/Senior					
Fall (odd year)			Spring (even year)		
PHYS 435	Quantum Physics	3	EDU 435	Professional Development IV	3
PHYS 333	Thermodynamics	3	EDU 490	Practicum in Teaching	6
	Advanced PHYS elective ⁴	3			
EDU 430	Professional Development III	3			
ENGL 309	Technical Writing	3			
	Social & Behavioral Science Elective ¹	3			
		Total	18	Total 9	

For BS in Physics with Teacher Certification, 8-12 Mathematics/Physics

Freshman Year					
Fall			Spring		
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4

MATH 120	Calculus I	4	MATH 209	Calculus II	4
ENGL 111	Introduction to College Composition	3	HIST 201	U.S. History through 1877	3
	Social & Behavioral Science Elective ¹	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Visual & Performing Arts Elective ²	3
		Total	17		
				Total	17

Sophomore Year					
Fall			Spring		
MATH 302	Principles of Geometry	3	PHYS 334	Modern Physics I	3
MATH 333	Calculus III	4	MATH 306	Differential Equations	3
HIST 202	US History since Reconstruction	3		Sophomore Literature	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
PSY 220	Child and Adolescent Psychology	3	MATH 311	Probability and Statistics	3
		Total	16		
				Total	15

Junior/Senior					
Fall (even year)			Spring (odd year)		
PHYS 331	Mechanics I	3	PHYS 430	Math Methods for Physicists & Engineering	3
PHYS 332	Electromagnetic Field Theory	3		Advanced PHYS elective ⁴	6
	Communications ³	3	MATH 404	Survey of Mathematical Ideas	3
	Approved CS elective ⁴	3	RDG 351	Content Area Reading	3
EDU 330	Professional Development I	3	EDU 335	Professional Development II	3
	Elective ⁴	3			
		Total	18		
				Total	18

Junior/Senior					
Fall (odd year)			Spring (even year)		
PHYS 435	Quantum Physics	3	EDU 435	Professional Development IV	3
PHYS 333	Thermodynamics	3	EDU 490	Practicum in Teaching	6
	Advanced PHYS elective ⁴	3			
EDU 430	Professional Development III	3			
ENGL 309	Technical Writing	3			
	Social & Behavioral Science Elective ¹	3			
		Total	18		
				Total	9

THE BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE

Freshman Year					
Fall			Spring		
CS 110	Introduction to Computer Science	3	CS 221	Object Oriented Programming	3
MATH 120	Calculus I	4	MATH 209	Calculus II	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
HLTH 101	Wellness for Life	3		Visual & Performing Arts Elective ²	3
	Support Field	3	HIST 201	US History through 1877	3
		Total	16		
				Total	16

Sophomore Year					
Fall			Spring		
CS 241	Data Structures	3	CS 248	Digital Systems Design	4
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4

HIST 202	US History Since Reconstruction	3		Sophomore literature	3
POLS 201	American National Government	3	POLS 202	Texas Government	3
MATH 310	Discrete Mathematics	3		Support Field	3
		Total	16		Total 17

Junior/Senior					
Fall (even year)			Spring (odd year)		
CS 389	Software Engineering	3	CS 380	Operating Systems	3
CS 343	Computer Architecture	4	CS 478	Computer Networks	4
	Science/Engineering elective ¹	3		Advanced Science/Engineering elective ¹	3
	Communications ⁴	3		Support Field	3
	Support Field	3	MATH 131	Introduction to Probability and Statistics	3
				Advanced CS elective	3
		Total	16		Total 19

Junior/Senior					
Fall (odd year)			Spring (even year)		
CS 230	GUI Development	3	CS 451	Distributed Applications	3
	Advanced Science/Engineering elective ¹	3	CS 401	Database Theory and Practice	3
	Social and Behavioral Science Elective ³	3		Advanced Science/Engineering elective ¹	3
	Advanced Support Field	3		Social and Behavioral Science Elective ³	3
	Advanced Support Field	3		Advanced Support Field	3
				Advanced CS elective	3
		Total	15		Total 18

THE BACHELOR OF SCIENCE DEGREE IN HYDROLOGY

PreCalculus Ready

Freshman Year					
Fall			Spring		
HYDR 110	Introduction to Hydrology	3	GEOL 105	Physical Geology	4
MATH 118	Precalculus	4	MATH 120	Calculus I	4
CHEM 105	College Chemistry I	4	PHYS 122	Principles of Physics I	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
	Wellness ¹	2		Wellness ¹	2
				Visual & Performing Arts Elective ⁵	3
		Total	16		Total 20

Sophomore Year					
Fall			Spring		
HYDR 211	Soil Mechanics	4	HYDR 300	Mechanics of Fluids	4
MATH 209	Calculus II	4	MATH 333	Calculus III	4
MATH 300	Principles of Statistics	3	CHEM 108	College Chemistry II	4
PHYS 242	Principles of Physics II	4	POLS 201	American National Government	3
	Advised elective ²	3		Support area ³	3
		Total	18		Total 18

Junior/Senior					
Fall (even year)			Spring (odd year)		
HYDR 320	Groundwater Hydrology	4	HYDR 450	Modeling in Hydrology	3
HYDR 410	Water Resources Engineering	3		Social & Behavioral Science Elective ⁴	3

CS 344	Computer Applications in Analysis	3		Support area ³	3
	Support area ³	4		Support area ³	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
				Sophomore Literature	3
			HYDR 440	Internship ⁶	3
		Total	17		Total 21

Junior/Senior					
Fall (odd year)			Spring (even year)		
HYDR 310	Basic Hydrology	4	HYDR 420	Municipal and Industrial Water Supply & Waste Water Treatment	4
POLS 202	Texas Government	3	HYDR 430	Texas Water Resource Management	3
	Support area ³	4		Support area ³	4
	Support area ³	3		Communications ⁷	3
CHEM 201	Organic Chemistry I	4		Social & Behavioral Science Elective ⁴	3
		Total	18		Total 17

Calculus Ready

Freshman Year					
Fall			Spring		
HYDR 110	Introduction to Hydrology	3	GEOL 105	Physical Geology	4
MATH 120	Calculus I	4	MATH 209	Calculus II	4
PHYS 122	Principles of Physics I	4	PHYS 242	Principles of Physics II	4
ENGL 111	Introduction to College Composition	3	ENGL 112	College Composition and Research	3
	Wellness ¹	2		Wellness ¹	2
		Total	16		Total 17

Sophomore Year					
Fall			Spring		
HYDR 211	Soil Mechanics	4	HYDR 300	Mechanics of Fluids	4
MATH 333	Calculus III	4	CHEM 108	College Chemistry II	4
MATH 300	Principles of Statistics	3	POLS 201	American National Government	3
	Support area ²	3		Support area ²	3
	Advised elective ³	3		Visual & Performing Arts Elective ⁴	3
		Total	17		Total 17

Junior/Senior					
Fall (even year)			Spring (odd year)		
HYDR 320	Groundwater Hydrology	4	HYDR 450	Modeling in Hydrology	3
HYDR 410	Water Resources Engineering	3		Social & Behavioral Science Elective ⁵	3
CS 344	Computer Applications in Analysis	3		Sophomore Literature	3
	Support area ²	4		Support area ²	3
HIST 201	U.S. History through 1877	3	HIST 202	US History since Reconstruction	3
			HYDR 440	Internship ⁶	3
		Total	17		Total 18

Junior/Senior					
Fall (odd year)			Spring (even year)		
HYDR 310	Basic Hydrology	4	HYDR 420	Municipal and Industrial Water	4

				Supply & Waste Water Treatment	
POLS 202	Texas Government	3	HYDR 430	Texas Water Resource Management	3
	Support area ²	3		Support area ²	4
	Support area ²	4		Communications ⁷	3
CHEM 201	Organic Chemistry I	4		Social & Behavioral Science Elective ⁵	3
		Total	18		Total
					17

Department of Nursing

THE BACHELOR OF SCIENCE DEGREE IN NURSING

	Semester / Course	Credit Hours	Semester / Course	Credit Hours		Credit Hours
Year 1	Freshman I		Freshman II		Summer I	
	*MATH 107 College Algebra or Higher	3	COMS 101, 102, or 307 Speech	3	*CHEM 103 or 105 Chemistry	4
	*ENGL 111 Rhetoric and Composition	3	*ENGL 112 Rhetoric and Composition	3	HIST 201 American History I	3
	*BIOL 219 Human Anatomy & Physiology	4	*BIOL 220 Human Anatomy & Physiology	4	HIST 202 American History II	3
	*PSY 101 Introduction to Psychology	3	*SOC 201 Introduction to Sociology	3	ENGL (Sophomore Literature)	<u>3</u>
	HLTH 101 Wellness	<u>3</u>	Visual & Performing Arts Elective	<u>3</u>		
	Semester Credit Hours	16	Semester Credit Hours	16	Semester Credit Hours	13
Year 2	Sophomore I – Pre-Admission Course		Sophomore II – Program Admission Required		Summer II	
	**NUR 120 Survey of Nursing Science	4	NUR 201 Foundations of Nursing Practice	5	POLS 201 U. S. Government	3
	*BIOL 307 Microbiology	4	NUR 205 Clinical Pharm & Patho	4	POLS 202 Texas Government	3
	*H S 210 Nutrition	3	NUR 215 Physical Assess & Documentation	3	MATH 300 or 350 Statistics	<u>3-4</u>
	*PSY 307 Psychology of Human Development	<u>3</u>				
	Semester Credit Hours	14	Semester Credit Hours	12	Semester Credit Hours	9-10
Year 3	Junior I		Junior II		Summer III Externship	
	NUR 301 Family Health Nursing	3	NUR 302 Maternal-Newborn Nursing	4	(Offered by Area Hospitals;	
	NUR 309 Nursing Care Children & Adolescents	4	NUR 303 Behavioral Health Nursing	4	Application Required)	
	NUR 330 Nursing Care Older Adult	5	NUR 332 Nursing Care Young & Middle Adult	4		
	Semester Credit Hours	12	Semester Credit Hours	12		
Year 4	Senior I		Senior II			
	NUR 409 Advanced Technology & Nursing	5	NUR 425 Population Health Nursing	4		
	NUR 410 Nursing Management & Leadership	5	***NUR 430 Rural Health Care	5		
	NUR 411 Nursing Research	<u>2</u>	*** NUR 435 Issues & Trends in Prof Nursing	<u>3</u>		
	Semester Credit Hours	12	Semester Credit Hours	12		

* Program prerequisites may be completed prior to or with Survey

** Must be accepted into Survey: Point System Used & Require ≥ 2.75 GPA on Program Prerequisites*

***All degree requirements must be completed with the exception of NUR 425