



University of Science and Technology of Southern Philippines

Alubijid | Cagayan de Oro | Claveria | Jasaan | Oroquieta | Panaon

BACHELOR OF SCIENCE IN CHEMISTRY

Effective S.Y. 2020-2021

FIRST YEAR - First Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
UTS		Understanding the Self	3	0	3	3	None	None
PurCom		Purposive Communication	3	0	3	3	None	None
ArtApp		Art Appreciation	3	0	3	3	None	None
MMW		Mathematics in the Modern World	3	0	3	3	None	None
Math	111	Calculus 1	3	0	3	3	None	None
Chem	100	Principles of Chemistry (Lec)	3	0	3	3	None	None
Chem	100.2	Principles of Chemistry (Lab)	0	6	6	2	None	None
PATH	FIT 1	Movement Enhancement	2	0	2	2	None	None
NSTP	101	ROTC/CWTS/LTS	3	0	3	3	None	None
Total			29			25		

FIRST YEAR - Second Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
RPH		Readings in Philippine History	3	0	3	3	None	None
GnS		Gender and Society	3	0	3	3	None	None
Ethc		Ethics	3	0	3	3	None	None
Math	121	Calculus 2	3	0	3	3	Math 111	None
Phys	112	Mechanics and Heat (Lec)	3	0	3	3	None	None
Phys	112.1	Mechanics and Heat (Lab)	0	3	3	1	None	None
Chem	121	Inorganic Chemistry 1 (Lec)	3	0	3	3	Chem 100 Chem 100.2	Chem 121.1
Chem	121.1	Inorganic Chemistry 1 (Lab)	0	3	3	1	Chem 100 Chem 100.2	Chem 121
PATH	FIT 2	Fitness Activity and Exercise	2	0	2	2	None	None
NSTP	102	ROTC/CWTS/LTS	3	0	3	3	None	None
Total			29			25		

SECOND YEAR - First Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
STS		Science, Technology, and Society	3	0	3	3	None	None
TEM		The Entrepreneurial Mind	3	0	3	3	None	None
Phys	212	Electricity, Magnetism, and Optics (Lec)	3	0	3	3	Phys 121 Phys 121.1	None
Phys	212.1	Electricity, Magnetism, and Optics (Lab)	0	3	3	1	Phys 121 Phys 121.1	None
Chem	212	Organic Chemistry 1 (Lec)	3	0	3	3	Chem 100 Chem 100.2	Chem 212.2
Chem	212.2	Organic Chemistry 1 (Lab)	0	6	6	2	Chem 100 Chem 100.2	Chem 212
Chem	213	Analytical Chemistry 1 (Lec)	3	0	3	3	Chem 100 Chem 100.2	Chem 213.2
Chem	213.2	Analytical Chemistry 1 (Lab)	0	6	6	2	Chem 100 Chem 100.2	Chem 213
PATH	FIT 3	Physical Activity Towards Health and Fitness 1	2	0	2	2	None	None
Total			32			22		

SECOND YEAR - Second Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
TCW		The Contemporary World	3	0	3	3	None	None
Chem	222	Organic Chemistry 2 (Lec)	3	0	3	3	Chem 212 Chem 212.2	Chem 222.2
Chem	222.2	Organic Chemistry 2 (Lab)	0	6	6	2	Chem 212 Chem 212.2	Chem 222
Chem	223	Analytical Chemistry 2 (Lec)	3	0	3	3	Chem 212,212.2 Chem 213,213.2	Chem 223.2
Chem	223.2	Analytical Chemistry 2 (Lab)	0	6	6	2	Chem 212,212.2 Chem 213,213.2	Chem 223
Chem	224	Physical Chemistry 1 (Lec)	3	0	3	3	Math 121 Chem 212,212.2 Chem 213,213.2	Chem 224.2
Chem	224.2	Physical Chemistry 1 (Lab)	0	6	6	2	Math 121 Chem 212,212.2 Chem 213,213.2	Chem 224
PATH	FIT 4	Physical Activity Towards Health and Fitness 2	2	0	2	2	None	None
Total					32	20		

THIRD YEAR - First Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
Rizal		Life and Works of Rizal	3	0	3	3	None	None
Chem	311	Inorganic Chemistry 2 (Lec)	3	0	3	3	Chem 121 Chem 224	Chem 224.2
Chem	313	Analytical Chemistry 3 (Lec)	2	0	2	2	Chem 223 Chem 223.2	NONE
Chem	314	Physical Chemistry 2 (Lec)	3	0	3	3	Chem 224 Chem 224.2	Chem 314.2
Chem	314.2	Physical Chemistry 2 (Lab)	0	6	6	2	Chem 224 Chem 224.2	Chem 314
Chem	315	Biochemistry 1 (Lec)	3	0	3	3	Chem 222 Chem 222.2	Chem 315.2
Chem	315.2	Biochemistry 1 (Lab)	0	6	6	2	Chem 222 Chem 222.2	Chem 315
Chem	316	Industrial Quality Management	3	0	3	3	Chem 213	None
Chem	318	Chemical Entrepreneurship	3	0	3	3	TEM	None
Total					32	24		

THIRD YEAR - Second Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
PICPE		Philippine Indigenous Communities and Peace Education	3	0	3	3	None	None
Chem	323	Analytical Chemistry 4 (Lec)	3	0	3	3	Chem 313	Chem 323.1
Chem	323.1	Analytical Chemistry 4 (Lab)	0	3	3	1	Chem 313	Chem 323
Chem	324	Physical Chemistry 3	3	0	3	3	Chem 314 Chem 314.2	NONE
Chem	325	Biochemistry 2 (Lec)	3	0	3	3	Chem 315 Chem 315.2	NONE
Chem	326	Industrial Microbiology (Lec)	1	0	1	1	Chem 315 Chem 315.2	Chem 326.2
Chem	326.1	Industrial Microbiology (Lab)	0	3	3	1	Chem 315 Chem 315.2	Chem 326
Chem	327	Environmental Chemistry	2	0	2	2	Chem 222 Chem 223	None
Chem	320	Research Methods in Chemistry	1	0	1	1	Chem 313 Chem 314 Chem 315	None
Total					22	18		

THIRD YEAR - Midyear

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
Chem	330	Professional Engagement				4	100 units completed Core Courses	None
Total						4		

FOURTH YEAR - First Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
Chem	412 414	Chemistry Elective*	-	-	-	2	Chem 222 Chem 324	None None
Chem	418	Chemical Jurisprudence and Intellectual Property	1	0	1	1	None	None
Chem	401	Chemistry Seminar 1	0	3	3	1	Chem 222 Chem 311 Chem 325	None
Chem	410	Undergraduate Thesis 1	1	6	7	3	Chem 400	None
Total						7		

***Chemistry Electives**

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
Chem	412	Advanced Organic Chemistry	2	0	2	2	Chem 222	None
Chem	414	Computational Chemistry	1	3	4	2	Chem 324	None

FOURTH YEAR - Second Semester

Course Code		Description	No. of Hours			Units	Prerequisites	Co-requisites
			Lec	Lab	Total			
Chem	402	Chemistry Seminar 2	0	3	3	1	Chem 323 Chem 324	None
Chem	426	Industrial Chemistry	2	0	2	2	Chem 213 Chem 222 Chem 311	None
Chem	420	Undergraduate Thesis 2	1	6	7	3	Chem 410	None
Total						6		