

## Bachelor of Science in Mathematics with specialization in Computer Applications (BSMTH-CAP)

### COURSE CHECKLIST AND CURRICULAR MAP

#### Code Description

##### I-Introductory

The skill or outcome is presented for the first time, often in lower-level courses with basic formative assessment.

##### E-Enabling

The skill or outcome is developed further or at a deeper level, potentially using formative assessment.

##### D-Demonstrative

The skill or outcome is evaluated at a mastery level, typically with summative assessment or collected artifacts for final evaluation.

First Trimester, Year 1					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
MTH101A	Foundation Course in Mathematics	5		PLO1-PLO4, PLO6	Introductory
STT101A	Foundation Course in Statistics	3		PLO1-PLO6	Introductory
LCC 01	LCC Generic Code 01	3		PLO1	Introductory
FUNDBIO	Fundamentals of Biology	3		PLO1-PLO6	Introductory
LCSONE	Lasallian Studies 1	(1)		PLO1	Introductory
LASARE1	Lasallian Recollection 1	0		PLO1	Introductory
NSTP101	National Service Training Program- General Orientation	0		PLO1	Introductory
	Total Units	14(1)			

Second Trimester, Year 1					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 02	LCC Generic Code 02	3		PLO1	Introductory
STT201A	Exploratory Data Analysis	3		PLO1-PLO6	Introductory
MTH201A	Mathematical Analysis 1	5	MTH101A	PLO1-PLO3	Introductory
MTH210A	Introduction to Set Theory	3		PLO1	Introductory
MTRPOG1	Computational Thinking in Python	3		PLO1-PLO3	Introductory
SAS1000	Student Affairs Services 1000	0		PLO1	Introductory
NSTPCW1/ LT1/R01	CWTS Formation Phase/ Military Science 1/ ROTC Common Module	(3)		PLO1	Introductory
	Total Units	17(3)			

Third Trimester, Year 1					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 03	LCC Generic Code 03	3		PLO1	Introductory
MTH202A	Mathematical Analysis 2	5	MTH201A	PLO1-PLO3	Enabling
MTH220A	Number Theory	3	MTH210A	PLO1-PLO3	Introductory
MTPROG2	Advanced Programming in Python	3	MTPROG1	PLO2, PLO3, PLO6	Enabling
NSTPCW2/ LT2/R02	CWTS Community Service Phase/ ROTC Military Science 2/ Service Oriented Module	(3)		PLO1	Introductory
	Total Units	14(3)			

First Trimester, Year 2					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
MTH221A	Linear Algebra	3	MTH202A	PLO1-PLO4, PLO6	Enabling
PE1CRDO	Cardio Fitness	2		PLO1	Introductory
CCPROG3	Object Oriented Programming	3	MTPROG2	PLO2, PLO3, PLO6	Demonstrative
CCINFOM	Information Management	3	MTPROG2	PLO2, PLO3, PLO6	Demonstrative
MTH203A	Mathematical Analysis 3	5	MTH202A	PLO1-PLO3	Enabling
LCLSTWO	Lasallian Studies 2	(1)	LCLSONE	PLO1	Introductory
LASARE2	Lasallian Recollection 2	0	LASARE1	PLO1	Introductory
	Total Units	16 (1)			

Second Trimester, Year 2					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 04	LCC Generic Code 04	3		PLO1	Introductory
LCC 05	LCC Generic Code 05	3		PLO1	Introductory
PE2FTEX	Functional Exercise	2	PE1CRDO	PLO1	Introductory
CCDSALG	Data Structure and Algorithms	3	MTPROG2	PLO2, PLO3, PLO6	Demonstrative
MTH223A	Abstract Algebra 1	3	MTH210A	PLO1, PLO2, PLO4, PLO6	Enabling
MTH257A	Statistical Theory 1	3	MTH210A, MTH202A	PLO1-PLO3, PLO6	Demonstrative
SAS2000	Student Affairs Services 2000	0	SAS1000	PLO1	Introductory
	Total Units	17			

Third Trimester, Year 2					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 06	LCC Generic Code 06	3		PLO1	Introductory
MTH224A	Abstract Algebra 2	3	MTH223A	PLO1, PLO2, PLO4, PLO6	Enabling
PETHREE	Individual and Dual Sports and/or Social Dance	2	PE2FTEX	PLO1	Introductory
CSINTSY	Introduction to Intelligent Systems	3	CCDSALG	PLO2, PLO3, PLO6	Demonstrative
MTH258A	Statistical Theory 2	3	MTH257A	PLO1-PLO3, PLO6	Demonstrative
PHYMT01	Physics Fundamentals (lec)	3	MTH101A, LBYPH01(c)	PLO1-PLO4, PLO6	Introductory
LBYPH01	Physics Fundamentals (lab)	1	PHYMT01(c)	PLO1-PLO6	Introductory
	Total Units	18			

First Trimester, Year 3					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
MTH225A	Graph Theory	3	MTH221A	PLO1-PLO3, PLO6	Demonstrative
PEDFOUR	Team Games or Dance	2	PE2FTEX	PLO1	Introductory
LCC 07	LCC Generic Code 07	3		PLO1	Introductory
MTH243A	Complex Analysis	3	MTH203A	PLO1-PLO6	Demonstrative
MTH241A	Differential Equations	3	MTH203A	PLO1-PLO3	Demonstrative
LCLSTRI	Lasallian Studies 3	(1)	LCLSTWO	PLO1	Introductory
LASARE3	Lasallian Reflection 3	0	LASARE2	PLO1	Introductory
	Total Units	14(1)			

<b>Second Trimester, Year 3</b>					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 08	LCC Generic Code 08	3		PLO1	Introductory
LCC 09	LCC Generic Code 09	3		PLO1	Introductory
MTH242A	Numerical Analysis	3	MTH221A	PLO1-PLO3, PLO6	Demonstrative
DATA PRE	Data Integration and Preparation	3	CCINFOM, CCNTSYS	PLO2, PLO3, PLO6	Demonstrative
CSALGCM	Algorithms and Complexity	3	CCDSALG	PLO2, PLO3, PLO6	Demonstrative
MTH253A	Operations Research 1	3	MTH221A	PLO1-PLO3, PLO6	Demonstrative
SAS3000	Student Affairs Services 3000	0	SAS2000	PLO1	Introductory
	Total Units	18			

<b>Third Trimester, Year 3</b>					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 10	LCC Generic Code 10	3		PLO1	Introductory
LCC 11	LCC Generic Code 11	3		PLO1	Introductory
MTH245A	Advanced Calculus	3	MTH203A	PLO1-PLO6	Demonstrative
DATANVI	Data Analysis and Visualization	3	DATA PRE	PLO2, PLO3, PLO6	Demonstrative
STT141A	Linear Models	3	MTH258A, MTH221A	PLO1-PLO6	Enabling
	Total Units	15			

<b>First Trimester, Year 4</b>					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 12	LCC Generic Code 12	3		PLO1	Introductory
CCAPDEV	Web Application Development	3	CCPROG3	PLO2, PLO3, PLO6	Demonstrative
MTH230A	Modern Geometry	3	MTH221A, MTH223A	PLO4-PLO6	Enabling
CSMODEL	Statistical Modeling and Simulation	3	MTH221A, STT141A	PLO2, PLO3, PLO6	Demonstrative
THSMAT1	Thesis Writing 1	3		PLO1-PLO6	Demonstrative
	Total Units	15			

<b>Second Trimester, Year 4</b>					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
PRCMAT1	Practicum	3		PLO1-PLO6	Demonstrative
THSMAT2	Thesis Writing 2	3	THSMAT1	PLO1-PLO6	Demonstrative
	Total Units	6			

<b>Third Trimester, Year 4</b>					
Course Code	Course Title	Units	Prerequisite	Program Learning Outcome	
LCC 13	LCC Generic Code 13	3		PLO1	Introductory
LCC 14	LCC Generic Code 14	3		PLO1	Introductory
LCC 15	LCC Generic Code 15	3		PLO1	Introductory
	Total Units	9			