MALAYAN COLLEGES MINDANAO (A MAPUA SCHOOL)
General Douglas MacArthur Highway, Matina, Davao City

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Curriculum applicable to students who entered as freshmen beginning school year 2020-2021

FIRST YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CHM031	CHEMISTRY FOR ENGINEERS	3.0	-	3.0	None	None
ENG023	RECEPTIVE COMMUNICATION SKILLS	3.0	-	3.0	None	None
HUM021	LOGIC AND CRITICAL THINKING	3.0	-	3.0	None	None
HUM039	ETHICS	3.0	-	3.0	None	None
MATH053	ENGINEERING CALCULUS 1	5.0	-	5.0	None	None
MATH035	MATHEMATICS IN THE MODERN WORLD	3.0	-	3.0	None	None
SS021	UNDERSTANDING THE SELF	3.0	-	3.0	None	None
VE021	LIFE COACHING SERIES 1	1.0	-	(1.0)	None	None
	TOTAL	**24.0**	**0.0**	**23.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CHM031L	CHEMISTRY FOR ENGINEERS (LABORATORY)	-	3.0	1.0	None	CHM031
CPE001L	COMPUTER FUNDAMENTALS AND PROGRAMMING 1 (LAB)	-	3.0	1.0	None	None
DRAW021W	ENGINEERING DRAWING 1	-	3.0	1.0	None	None
CPE141L	PROGRAMMING LOGIC AND DESIGN (LAB)	-	6.0	2.0	None	CPE001L
ENG024	WRITING FOR ACADEMIC STUDIES	3.0	-	3.0	None	None
MATH054	ENGINEERING CALCULUS 2	5.0	-	5.0	MATH053	None
IE101-1	ENGINEERING DATA ANALYSIS	3.0	-	3.0	MATH053	None
PHY033	PHYSICS FOR ENGINEERS	4.0	-	4.0	MATH053	None
PHY033L	PHYSICS FOR ENGINEERS (LABORATORY)	-	3.0	1.0	MATH053	PHY033
SS036	SCIENCE, TECHNOLOGY, AND SOCIETY	3.0	-	3.0	None	None
NSTP010	NATIONAL SERVICE TRAINING PROGRAM 1	3.0	-	(3.0)	None	None
VE022	LIFE COACHING SERIES 2	1.0	-	(1.0)	VE021	None
	TOTAL	**22.0**	**18.0**	**24.0**		

SECOND YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE100	COMPUTER ENGINEERING AS A DISCIPLINE	1.0	-	1.0	None	None
CPE105-1	DISCRETE MATHEMATICS	3.0	-	3.0	MATH053	None
CPE142L	OBJECT ORIENTED PROGRAMING (LAB)	-	6.0	2.0	CPE001L	None
DRAW023L-1	COMPUTER-AIDED DRAFTING (LABORATORY)	-	3.0	1.0	DRAW021W	None
EE101-3	FUNDAMENTALS OF ELECTRICAL CIRCUITS	3.0	-	3.0	MATH054, PHY033	None
EE101L-3	FUNDAMENTALS OF ELECTRICAL CIRCUITS (LABORATORY)	-	3.0	1.0	PHY033L	EE101-3
EECO102	ENGINEERING ECONOMY	3.0	-	3.0	IE101-1	None
ENG041	PURPOSIVE COMMUNICATION	3.0	-	3.0	None	None
MATH056	DIFFERENTIAL EQUATIONS	3.0	-	3.0	MATH054	None
SS023	THE CONTEMPORARY WORLD	3.0	-	3.0	None	None
PE021	MOVEMENT ENHANCEMENT	-	2.0	(2.0)	None	None
NSTP011P	NATIONAL SERVICE TRAINING PROGRAM 2 (PAIRED)	2.0	3.0	(3.0)	NSTP010	None
VE023	LIFE COACHING SERIES 3	1.0	-	(1.0)	VE022	None
	TOTAL	**22.0**	**17.0**	**23.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE143L	WEB DESIGN AND DEVELOPMENT (LABORATORY)	-	6.0	2.0	CPE142L	None
CS105L	DATA STRUCTURES AND ALGORITHMS (LABORATORY)	-	6.0	2.0	CPE141L, CPE142L	None
ECE101-3	FUNDAMENTAL OF ELECTRONIC CIRCUITS	3.0	-	3.0	EE101-3	None
ECE101L-3	FUNDAMENTAL OF ELECTRONIC CIRCUITS (LABORATORY)	-	3.0	1.0	EE101L-3	ECE101-3
ECE121L	COMPUTER-AIDED CALCULATIONS (LABORATORY)	-	3.0	1.0	None	None
EMGT100	ENGINEERING MANAGEMENT	2.0	-	2.0	EECO102	None
SS085	PHILIPPINE INDIGENOUS COMMUNITIES	3.0	-	3.0	None	None
HUM034	ART APPRECIATION	3.0	-	3.0	None	None
MATH116	ADVANCED ENGINEERING MATHEMATICS	3.0	-	3.0	MATH056	None
MATH116E	ENGINEERING MATHEMATICS EXIT EXAM	-	-	0.0	IE101-1, MATH056	MATH116
SS022	READINGS IN PHILIPPINE HISTORY	3.0	-	3.0	None	None
PE022	FITNESS EXERCISES	-	2.0	(2.0)	PE021	None
	TOTAL	**17.0**	**20.0**	**23.0**		

SUMMER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
EENV102	ENVIRONMENTAL SCIENCE AND ENGINEERING	3.0	-	3.0	CHM031	None
GEELEC01	GE ELECTIVE 1	3.0	-	3.0	None	None
SAF102	BASIC OCCUPATIONAL SAFETY AND HEALTH	3.0	-	3.0	CHM031	None
	TOTAL	**9.0**	**0.0**	**9.0**		

THIRD YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE101-1	DIGITAL ELECTRONICS: LOGIC CIRCUITS AND DESIGN	3.0	-	3.0	ECE101-3	None
CPE101L-1	DIGITAL ELECTRONICS: LOGIC CIRCUITS AND DESIGN (LAB)	-	3.0	1.0	ECE101L-3	CPE101-1
CPE104L-1	INTRODUCTION TO HARDWARE DESCRIPTION LANGUAGE (LAB)	-	3.0	1.0	CPE141L, ECE101-3	None
CPE106-1	DATA AND DIGITAL COMMUNICATIONS	3.0	-	3.0	ECE101-3	None
CPE107-1	SOFTWARE DESIGN	3.0	-	3.0	CS105L	None
CPE107L-1	SOFTWARE DESIGN (LABORATORY)	-	3.0	1.0	CS105L	CPE107-1
CPE108-1	FUNDAMENTALS OF MIXED SIGNALS AND SENSORS	2.0	3.0	3.0	ECE101-3	None
CPE108-1E	GENERAL ENGINEERING AND APPLIED SCIENCES EXIT EXAM	-	-	0.0	CHM031, PHY033, EECO102, EENV102, EMGT100	CPE108-1
CPE121L-1	COMPUTER ENGINEERING DRAFTING AND DESIGN (LAB)	-	3.0	1.0	ECE101-3	None
MATH161	NUMERICAL METHODS	3.0	-	3.0	MATH116	None
MATH161L	NUMERICAL METHODS (LABORATORY)	-	3.0	1.0	MATH116, ECE121L	MATH161
RES101	METHODS OF RESEARCH	3.0	-	3.0	IE101-1, ENG024	None
PE023	PHYSICAL ACTIVITY TOWARDS HEALTH AND FITNESS 1	-	2.0	(2.0)	PE022	None
	TOTAL	**17.0**	**20.0**	**23.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CAP200D	CAPSTONE DESIGN / THESIS 1 (LABORATORY)	-	3.0	1.0	RES101	None
CPE103-1	MICROPROCESSORS	3.0	-	3.0	CPE101-1	None
CPE103L-1	MICROPROCESSORS (LABORATORY)	-	3.0	1.0	CPE101L-1	CPE103-1
CPE109-1	COMPUTER NETWORKS AND SECURITY	3.0	-	3.0	CPE106-1	None
CPE109L-1	COMPUTER NETWORKS AND SECURITY (LABORATORY)	-	3.0	1.0	CPE106-1	CPE109-1
CPE144L	MOBILE APPLICATION DEVELOPMENT (LABORATORY)	-	6.0	2.0	CPE142L	None
CPE144E	COMPUTER ENGINEERING 1 EXIT EXAM	-	-	0.0	CPE142L, CPE143L, CS105L, CPE107-1	CPE144L
ECE130	FEEDBACK AND CONTROL SYSTEMS	3.0	-	3.0	MATH116	None
NETA172P-1	CCNA ROUTING AND SWITCHING 1(PAIRED)	2.0	3.0	3.0	PHY033	None
SS038	THE LIFE AND WORKS OF JOSE RIZAL	3.0	-	3.0	None	None
TEC100	TECHNOPRENEURSHIP	3.0	-	3.0	EMGT100	None
PE024	PHYSICAL ACTIVITY TOWARDS HEALTH AND FITNESS 2	-	2.0	(2.0)	PE023	None
	TOTAL	**17.0**	**20.0**	**23.0**		

SUMMER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE199R-1	CPE PRACTICUM	-	20.0	3.0	CPE143L, CS105L, ECE101-3, HUM039	None
	TOTAL	**0.0**	**20.0**	**3.0**		

FOURTH YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CAP200D-1	CAPSTONE DESIGN / THESIS 2 (LABORATORY)	-	3.0	1.0	CAP200D	None
CAP200D-2	CAPSTONE DESIGN / THESIS 3 (LABORATORY)	-	3.0	1.0	CAP200D	CAP200D-1
CPE110-1	EMERGING TECHNOLOGIES IN CPE	3.0	-	3.0	CPE103-1	None
CPE112-1	EMBEDDED SYSTEMS	3.0	-	3.0	CPE103-1	None
CPE112L-1	EMBEDDED SYSTEMS (LABORATORY)	-	3.0	1.0	CPE103L-1	CPE112-1
CPE112-1E	COMPUTER ENGINEERING 2 EXIT EXAM	-	-	0.0	CPE103-1, CPE104L-1, CPE108-1, EE101-3	CPE112-1
CPE113-1	DIGITAL SIGNAL PROCESSING	3.0	-	3.0	ECE130	None
CPE113L-1	DIGITAL SIGNAL PROCESSING (LABORATORY)	-	3.0	1.0	ECE130, ECE121L	CPE113-1
CPE151	OPERATING SYSTEMS	3.0	-	3.0	CS105L	None
CPE151L	OPERATING SYSTEMS (LABORATORY)	-	3.0	1.0	CS105L	CPE151
CPEELEC01	CPE ELECTIVE 1 (PAIRED)	2.0	3.0	3.0	None	None
COR198	CORRELATION 1	6.0	-	(1.0)	CHM031, MATH116, MATH116E, PHY033, EECO102	None
	TOTAL	**20.0**	**18.0**	**20.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE131-1	COMPUTER ARCHITECTURE AND ORGANIZATION	3.0	-	3.0	CPE103-1	None
CPE131L-1	COMPUTER ARCHITECTURE AND ORGANIZATION (LAB)	-	3.0	1.0	CPE103L-1	CPE131-1
CPE181	CPE LAWS AND PROFESSIONAL PRACTICE	2.0	-	2.0	HUM039	None
CPE181E	COMPUTER ENGINEERING 3 EXIT EXAM	-	-	0.0	CPE109-1, CPE110-1, CPE113-1, CPE151	CPE131-1, CPE181
CPE191F-1	CPE SEMINARS AND FIELD TRIPS (FIELD)	-	3.0	1.0	CPE109-1, CPE144L	None
CPEELEC02	CPE ELECTIVE 2 (PAIRED)	2.0	3.0	3.0	None	None
CPEELEC03	CPE ELECTIVE 3 (PAIRED)	2.0	3.0	3.0	None	None
GEELEC02	GE ELECTIVE 2	3.0	-	3.0	None	None
CPE198-2	CPE CORRELATION 2	6.0	-	(1.0)	CPE112-1, CPE113-1, CPE151, CPE108-1E, CPE144E, CPE112-1E	CPE181E
	TOTAL	**18.0**	**12.0**	**16.0**		

Required Units of Electives : 9 units

ELECTIVE TITLE 2019

Elective Code: NETA172P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
NETA171P-2	CCNA ROUTING AND SWITCHING 2 (PAIRED)	3.0	4.5	3.0	NETA171P-1	NONE
NETA171P-3	CCNA ROUTING AND SWITCHING 3 (PAIRED)	3.0	4.5	3.0	NETA171P-2	NONE
NETA171P-4	CCNA ROUTING AND SWITCHING 4 (PAIRED)	3.0	4.5	3.0	NETA171P-2	NONE

MICROELECTRONICS

Elective Code: MICR172P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
MICR172P-1	MICROELECTRONICS 1 (PAIRED)	3.0	4.5	3.0	CPE103-1, CPE104L-1	NONE
MICR172P-2	MICROELECTRONICS 2 (PAIRED)	3.0	4.5	3.0	MICR172P-1	NONE
MICR172P-3	MICROELECTRONICS 3 (PAIRED)	3.0	4.5	3.0	MICR172P-2	NONE

MACHINE LEARNING

Elective Code: MACH171P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
MACH171P-1	MACHINE LEARNING 1 (PAIRED)	2.0	3.0	3.0	MATH116, CS105L	NONE
MACH171P-2	MACHINE LEARNING 2 (PAIRED)	2.0	3.0	3.0	MACH171P-1	NONE
MACH171P-3	MACHINE LEARNING 3 (PAIRED)	2.0	3.0	3.0	MACH171P-2	NONE

EMBEDDED SYSTEMS

Elective Code: EMSY171P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
EMSY171P-1	EMBEDDED SYSTEMS 1 (PAIRED)	2.0	3.0	3.0	CPE103-1, CPE104L-1	None
EMSY171P-2	EMBEDDED SYSTEMS 2 (PAIRED)	2.0	3.0	3.0	EMSY171P-1	None
EMSY171P-3	EMBEDDED SYSTEMS 3 (PAIRED)	2.0	3.0	3.0	EMSY171P-2	None

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CPE194	SPECIAL TOPICS IN COMPUTER ENGINEERING (PAIRED)	2.0	3.0	3.0	None	None
NETA173P	HCIA STORAGE (PAIRED)	2.0	3.0	3.0	None	None

SOFTWARE DEVELOPMENT

Elective Code: SDEV173P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
SDEV173P-1	SOFTWARE DEVELOPMENT 1 (PAIRED)	3.0	4.5	3.0	CPE107-1	NONE
SDEV173P-2	SOFTWARE DEVELOPMENT 2 (PAIRED)	3.0	4.5	3.0	SDEV173P-1	NONE
SDEV173P-3	SOFTWARE DEVELOPMENT 3 (PAIRED)	3.0	4.5	3.0	SDEV173P-2	NONE

SYSTEM AND NETWORK ADMINISTRATION

Elective Code: SNAD174P

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
SNAD174P-1	SYSTEM AND NETWORK ADMINISTRATION 1 (PAIRED)	3.0	4.5	3.0	CPE109-1	NONE
SNAD174P-2	SYSTEM AND NETWORK ADMINISTRATION 2 (PAIRED)	3.0	4.5	3.0	SNAD174P-1	NONE
SNAD174P-3	SYSTEM AND NETWORK ADMINISTRATION 3 (PAIRED)	3.0	4.5	3.0	SNAD174P-2	NONE

GENERAL EDUCATION ELECTIVE TITLE 2020

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
ENV075	ENVIRONMENTAL SCIENCE	3.0	-	3.0	None	None
ENV076	PEOPLE AND THE EARTH'S ECOSYSTEM	3.0	-	3.0	None	None
ENV078	THE ENTREPRENEURIAL MIND	3.0	-	3.0	None	None
HUM080	PHILIPPINE POPULAR CULTURE	3.0	-	3.0	None	None
HUM081	INDIGENOUS CREATIVE CRAFTS	3.0	-	3.0	None	None
HUM082	READING VISUAL ART	3.0	-	3.0	None	None
HUM083	GREAT BOOKS	3.0	-	3.0	None	None
SS084	RELIGIONS, RELIGIOUS EXPERIENCES AND SPIRITUALITY	3.0	-	3.0	None	None
SS086	GENDER AND SOCIETY	3.0	-	3.0	None	None

NOTE: Elective courses offering per semester will depend on the availability of instructor and compliance of prerequisite courses for specific elective course.