MALAYAN COLLEGES MINDANAO (A MAPUA SCHOOL)

General Douglas MacArthur Highway, Matina, Davao City

BACHELOR OF SCIENCE IN CIVIL 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
MATH035	MATHEMATICS IN THE MODERN WORLD	3.0	-	3.0	None	None
MATH053	ENGINEERING CALCULUS 1	5.0	-	5.0	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
CE100	CIVIL ENGINEERING ORIENTATION	2.0	-	2.0	None	None
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
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
SS085	PHILIPPINE INDIGENOUS COMMUNITIES	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	**24.0**	**12.0**	**24.0**		

SECOND YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE011	GEOLOGY FOR CIVIL ENGINEERS	2.0	-	2.0	CHM031	None
CE101-2	SURVEYING 1	2.0	-	2.0	DRAW021W, MATH053	None
CE101F-2	SURVEYING 1 (FIELD)	-	3.0	1.0	DRAW021W, MATH053	CE101-2
DRAW023L-1	COMPUTER-AIDED DRAFTING (LABORATORY)	-	3.0	1.0	DRAW021W	None
ECE121L	COMPUTER-AIDED CALCULATIONS (LABORATORY)	-	3.0	1.0	None	None
EE104P-3	ENGINEERING UTILITIES 1 (PAIRED)	3.0	3.0	4.0	PHY033	None
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
MEC101-2	STATICS OF RIGID BODIES	3.0	-	3.0	MATH054, PHY033	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
CE101-3	SURVEYING 2	2.0	-	2.0	CE101-2	None
CE101F-3	SURVEYING 2 (FIELD)	-	3.0	1.0	CE101F-2	CE101-3
CE102P-1	BUILDING SYSTEMS DESIGN (PAIRED)	2.0	3.0	3.0	DRAW023L-1	None
CE104	MECHANICS OF DEFORMABLE BODIES FOR CE	4.0	-	4.0	MEC101-2	None
CE122-1	HYDROLOGY	2.0	-	2.0	CHM031	None
CPE002L	COMPUTER FUNDAMENTALS AND PROGRAMMING 2 (LAB)	-	3.0	1.0	CPE001L	None
EENV102	ENVIRONMENTAL SCIENCE AND ENGINEERING	3.0	-	3.0	CHM031	None
MATH116	ADVANCED ENGINEERING MATHEMATICS	3.0	-	3.0	MATH056	None
MATH116E	ENGINEERING MATHEMATICS EXIT EXAM	-	-	0.0	IE101-1, MATH056	MATH116
MEC102-1	DYNAMICS OF RIGID BODIES	2.0	-	2.0	MEC101-2	None
SS036	SCIENCE, TECHNOLOGY, AND SOCIETY	3.0	-	3.0	None	None
PE022	FITNESS EXERCISES	-	2.0	(2.0)	PE021	None
	TOTAL	**21.0**	**11.0**	**24.0**		

SUMMER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
EMGT100	ENGINEERING MANAGEMENT	2.0	-	2.0	EECO102	None
SAF103	CONSTRUCTION OCCUPATIONAL SAFETY AND HEALTH	3.0	-	3.0	CHM031	None
SS023	THE CONTEMPORARY WORLD	3.0	-	3.0	None	None
	TOTAL	**8.0**	**0.0**	**8.0**		

THIRD YEAR

FIRST SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE103-1	HIGHWAY AND RAILROAD ENGINEERING	3.0	-	3.0	CE101-3	None
CE123-1	HYDRAULICS	4.0	-	4.0	MEC102-1	None
CE123L-1	HYDRAULICS (LABORATORY)	-	3.0	1.0	MEC102-1	CE123-1
CE123-1E	GENERAL ENGINEERING AND APPLIED SCIENCES EXIT EXAM	-	-	0.0	CHM031, PHY033, EECO102, ENGV102, EMGT100, MEC101-2, MEC102-1	CE123-1
CE131P-1	STRUCTURAL THEORY (PAIRED)	3.0	3.0	4.0	CE104	None
CE141-1	CONSTRUCTION MATERIALS AND TESTING	2.0	-	2.0	CE104	None
CE141L-1	CONSTRUCTION MATERIALS AND TESTING (LABORATORY)	-	3.0	1.0	CE104	CE141-1
GEELEC01	GE ELECTIVE 1	3.0	-	3.0	None	None
RES101	METHODS OF RESEARCH	3.0	-	3.0	IE101-1, ENG024	None
SS022	READINGS IN PHILIPPINE HISTORY	3.0	-	3.0	None	None
PE023	PHYSICAL ACTIVITY TOWARDS HEALTH AND FITNESS 1	-	2.0	(2.0)	PE022	None
	TOTAL	**21.0**	**11.0**	**24.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CAP200	CAPSTONE DESIGN / THESIS 1 (LECTURE)	1.0	-	1.0	RES101	None
CAP200D	CAPSTONE DESIGN / THESIS 1 (LABORATORY)	-	3.0	1.0	RES101	None
CE133-1	STRUCTURAL DESIGN 1 : RCD AND PRE-STRESSED CONCRETE	3.0	-	3.0	CE131P-1	None
CE133L-1	STRUCTURAL DESIGN 1 : RCD AND PRE-STRESSED CONCRETE (LABORATORY)	-	3.0	1.0	CE131P-1	CE133-1
CE105-1	PRINCIPLES OF TRANSPORTATION ENGINEERING	3.0	-	3.0	CE103-1	None
CE105-1E	SURVEYING, HIGHWAY, & TRANSPORTATION EXIT EXAM	-	-	0.0	CE103-1	CE105-1
CE181	CE LAWS, ETHICS AND CONTRACTS	2.0	-	2.0	HUM039	None
CEELEC01	CE ELECTIVE 1	3.0	-	3.0	None	None
MATH161	NUMERICAL METHODS	3.0	-	3.0	MATH116	None
MATH161L	NUMERICAL METHODS (LABORATORY)	-	3.0	1.0	MATH116, ECE121L	MATH161
ME123-1	ENGINEERING UTILITIES 2	3.0	-	3.0	PHY033	None
TEC100	TECHNOPRENEURSHIP	3.0	-	3.0	EMGT100	None
PE024	PHYSICAL ACTIVITY TOWARDS HEALTH AND FITNESS 2	-	2.0	(2.0)	PE023	None
	TOTAL	**21.0**	**11.0**	**24.0**		

SUMMER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE199R-1	CE PRACTICUM	-	**20.0**	**3.0**	CE104, CE102P-1, 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
CE134-1	STRUCTURAL DESIGN 2: STEEL DESIGN	3.0	-	3.0	CE131P-1	None
CE134L-1	STRUCTURAL DESIGN 2: STEEL DESIGN (LABORATORY)	-	3.0	1.0	CE131P-1	CE134-1
CE151-1	GEOTECHNICAL ENGINEERING: SOIL MECHANICS	3.0	-	3.0	CE011, CE104	None
CE151L-1	GEOTECHNICAL ENGINEERING: SOIL MECHANICS (LAB)	-	3.0	1.0	CE011, CE104	CE151-1
CE151-1E	MATERIALS, GEOTECHNICAL AND HYDRAULICS EXIT EXAM	-	-	0.0	CE123-1, CE141-1	CE151-1
CEELEC02	CE ELECTIVE 2	3.0	-	3.0	None	None
CEELEC03	CE ELECTIVE 3	3.0	-	3.0	None	None
GEELEC02	GE ELECTIVE 2	3.0	-	3.0	None	None
HUM034	ART APPRECIATION	3.0	-	3.0	None	None
COR198	CORRELATION 1	6.0	-	(1.0)	CHM031, MATH116, MATH116E, PHY033, EECO102	None
	TOTAL	**24.0**	**12.0**	**22.0**		

SECOND SEMESTER

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE140P-1	QUANTITY SURVEYING (PAIRED)	1.0	3.0	2.0	CE102P-1	None
CE142-1	CONSTRUCTION METHODS AND PROJECT MANAGEMENT	3.0	-	3.0	EMGT100	CE140P-1
CE142L-1	CONSTRUCTION METHODS AND PROJECT MANAGEMENT (LA	-	3.0	1.0	EMGT100	CE142-1
CE142-1E	DESIGN COURSES EXIT EXAM	-	-	0.0	CE133-1, CE134-1	CE142-1
CE191F	CE SEMINARS AND FIELD TRIPS (FIELD)	-	3.0	1.0	CE133-1	None
CEELEC04	CE ELECTIVE 4	3.0	-	3.0	None	None
CEELEC05	CE ELECTIVE 5	3.0	-	3.0	None	None
SS038	THE LIFE AND WORKS OF JOSE RIZAL	3.0	-	3.0	None	None
CE198-2	CE CORRELATION 2	6.0	-	(1.0)	CE123-1E, CE105-1E, CE151-1E, CE122-1	CE142-1E
	TOTAL	**19.0**	**9.0**	**16.0**		

Required Units of Electives : 15 units

ELECTIVE TITLE 2020

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE431	WATER RESOURCES ENGINEERING	3.0	-	3.0	CE123-1, CE123L-1	None
CE432-1	WATER SUPPLY PLANNING AND DEVELOPMENT	3.0	-	3.0	CE122-1, CE123-1	None
CE433	COASTAL ENGINEERING	3.0	-	3.0	MATH161, CE123-1	None
CE440	EARTHQUAKE ENGINEERING	3.0	-	3.0	CE133-1, CE151-1	None
CE441	FOUNDATION AND RETAINING WALL DESIGN	3.0	-	3.0	CE133-1, CE151-1	None
CE442P	COMPUTER SOFTWARE IN STRUCTURAL ANALYSIS	2.0	3.0	3.0	CE133-1, DRAW023L-1	None
CE444	STRUCTURAL DESIGN OF TOWERS AND OTHER VERTICAL STRUCTURES	3.0	-	3.0	CE133-1, CE134-1	None
CE445	BRIDGE ENGINEERING	3.0	-	3.0	CE131P-1, CE103-1	None
CE451	EARTH SYSTEMS ENGINEERING AND MANAGEMENT	3.0	-	3.0	CE011	None
CE452	SUSTAINABLE CIVIL AND ENVIRONMENTAL SYSTEMS ENGINEERING	3.0	-	3.0	EENV102	None
CE453	SUSTAINABLE ENERGY AND MATERIAL USE	3.0	-	3.0	CE141-1	None
CE461	TRANSPORTATION SYSTEMS PLANNING AND DESIGN	3.0	-	3.0	CE105-1	None
CE462	AIRPORT DESIGN	3.0	-	3.0	CE105-1	None
CE463	PORTS AND HARBORS	3.0	-	3.0	CE105-1, CE123-1	None
CE510	RIVER ENGINEERING	3.0	-	3.0	CE122-1, CE123-1	None
CE513	CONSTRUCTION METHODS AND EQUIPMENT	3.0	-	3.0	CE102P-1, EECO102	None
CE514	CONSTRUCTION COST ENGINEERING	3.0	-	3.0	CE102P-1, EECO102	None
CE520	GROUNDWATER FLOOD AND CONTROL	3.0	-	3.0	CE122-1, CE123-1	None
CE523	ENTREPRENEURSHIP FOR CIVIL ENGINEERS	3.0	-	3.0	EECO102	None
CE531	DESIGN OF ENVIRONMENTAL AND WATER RESOURCES SYSTEM	3.0	-	3.0	CE123-1, CE123L-1	None

ELECTIVE TITLE 2020

CODE	TITLE	LEC HRS	LAB HRS	UNITS	PREREQUISITES	CO-REQUISITES
CE532	DATABASE MANAGEMENT IN CONSTRUCTION	3.0	-	3.0	CPE002L	None
CE194	SPECIAL TOPICS IN CIVIL ENGINEERING	3.0	-	3.0	None	None
AENG001	LAND & WATER CONSERVATION ENGINEERING	3.0	-	3.0	CE122-1	None
AENG002	IRRIGATION & DRAINAGE ENGINEERING	3.0	-	3.0	CE122-1, CE123-1	None
AENG003	HYDROMETEOROLOGY	3.0	-	3.0	CE122-1, CE123-1	None
AENG004	AQUACULTURE ENGINEERING	3.0	-	3.0	None	None
AENG006	AB STRUCTURES ENGINEERING	3.0	-	3.0	None	None
AENG007	AB WASTE MANAGEMENT ENGINEERING	3.0	-	3.0	None	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.