Republic of the Philippines
MARINDUQUE STATE UNIVERSITY
College of Information and Computing Sciences
Tanza, Boac, Marinduque

PROGRAM OF STUDY

Bachelor of Science in Entertainment and Multimedia Computing
per CHED Memorandum Order No. 2 series 2014
Approved per MarSU Board of Regent Resolution No. ___ series 2025
Effective First Semester Academic Year 20__-20__

FIRST YEAR

First Semester

Course Code	Course Title	No. of Units		No. of		Total No. of Hrs		Prerequisite/s
		Lec	Lab	Lec	Lab	Lec	Lab	
CC111	Introduction to Computing	3	0	3	0	54	0	None
CC112	Computer Programming 1	2	1	2	3	36	54	None
EMC111	Freehand and Digital Drawing	2	1	2	3	36	54	None
GE-PurCom	Purposive Communication	3	0	3	0	54	0	None
GEM-Rizal	Life and Works of Rizal	3	0	3	0	54	0	None
GE-STS	Science, Technology and Society	3	0	3	0	54	0	None
GE-UTS	Understanding the Self	3	0	3	0	54	0	None
PATHFit1	Movement Competency Training	2	0	2	0	36	0	None
GEM111	National Service Training Program 1	3	0	3	0	0	0	None
	Total	24	2	24	6	378	108	

Second Semester

Course Code	Course Title	No. of Units		No. of		Total No. of Hrs per		Prerequisite/s
		Lec	Lab	Lec	Lab	Lec	Lab	
CC123	Computer Programming 2	2	1	2	3	36	54	CC112
EMCE121	Multimedia Arts Solutions	3	0	3	0	54	0	None
EMCE122	Systems Analysis and Design	2	1	2	3	36	54	None
EMCE123	Professional Issues in Computing	3	0	3	0	54	0	None
GEE121	Modern Communication and Technical Writing	3	0	3	0	54	0	None
GE-Ethics	Ethics	3	0	3	0	54	0	None
GE-TCW	The Contemporary World	3	0	3	0	54	0	None
PATHFit2	Exercise-based Fitness Activities	2	0	3	0	0	0	PATHFit1
GEM112	National Service Training Program 2	3	0	3	0	0	0	GEM111
	Total	24	2	25	6	342	108	

SECOND YEAR

First Semester

Course Code	Course Title	No. of Units		No. of		Total No. of Hrs per		Prerequisite/s
		Lec	Lab	Lec	Lab	Lec	Lab	
CC214	Data Structures and Algorithms	2	1	2	3	36	54	CC123
EMC212	Usability, HCI, and User Interaction Design	2	1	2	3	36	54	CC123
EMC213	Introduction to Game Design and Development	2	1	2	3	36	54	CC123
EMC214	Principles of 2D Animation	2	1	2	3	36	54	EMC111
EMC215	Script Writing and Storyboard Design	3	0	3	0	54	0	GEE121, GE-PurCom, GE-Ethics
GEE212	Physics (Mechanics)	3	0	3	0	54	0	None
GE-MMW	Mathematics in the Modern World	3	0	3	0	54	0	None
GE-ArtApp	Art Appreciation	3	0	3	0	54	0	None
PATHFit3	Sports	2	0	2	0	36	0	PATHFit2
	Total	22	4	22	12	396	432	

Second Semester

Course Code	Course Title	No. of Units		No. of		Total No. of Hrs per		Prerequisite/s
		Lec	Lab	Lec	Lab	Lec	Lab	
CC225	Information Management	2	1	2	3	36	54	CC214
EMC226	Computer Graphics Programming	2	1	2	3	36	54	CC214
EMC227	Audio Design and Sound Engineering	2	1	2	3	36	54	EMC213
EMC228	Principles of 3D Animation	2	1	2	3	36	54	EMC214
EMC229	Design and Production Process	2	1	2	3	36	54	EMC213
GEE223	Living in the IT Era	3	0	3	0	54	0	None
PATHFit4	Sports	2	0	2	0	36	0	PATHFit3
Specialized in GAME DEVELOPMENT								
GD221	Linear Algebra in 2D and 3D	3	0	3	0	54	0	GE-MMW
GD222	Analytic Geometry in Games	3	0	3	0	54	0	GE-MMW
Specialized in DIGITAL ANIMATION-TECHNOLOGY								
DA221	Photography	3	0	3	0	54	0	EMCE121
DA222	Film Directing	3	0	3	0	54	0	None
	Total	21	5	21	15	378	270	

THIRD YEAR

First Semester

Course Code	Course Title	No. of Units Lec	No. of Units Lab	No. of Hrs per Lec	No. of Hrs per Lab	Total No. of Hrs per Lec	Total No. of Hrs per Lab	Prerequisite/s
CC316	Applications Development & Emerging Technologies	2	1	2	3	36	54	CC123
EMCE313	Methods of Research in Entertainment and Multimedia Computing	3	0	3	0	36	54	All Courses Passed in All Previous Semesters
EMCE314	Seminar in Special IT Topics	2	1	2	3	36	54	None
EMCE315	Presentation Skills in Information Technology	2	1	2	3	36	54	None
Specialized in GAME DEVELOPMENT								
GD313	Game Programming I	2	1	2	3	36	54	CC123
GD314	Artificial Intelligence (AI) in Games	2	1	2	3	36	54	CC204, GE-MMW, GD221, GD222
GD315	Applied Mathematics for Games	2	1	2	3	36	54	GE-MMW, GD221,GD222
GD316	Applied Game Physics	2	1	2	3	36	54	GEE212
Specialized in DIGITAL ANIMATION-TECHNOLOGY								
DA313	Image and Video Processing	2	1	2	3	36	54	CC214
DA314	Modelling and Rigging	2	1	2	3	36	54	EMC228
DA315	Lighting and Effects	2	1	2	3	36	54	EMC228
DA316	Advanced Sound Production	2	1	2	3	36	54	EMC227
	Total	17	7	17	21	288	432	

Second Semester

Course Code	Course Title	No. of Units Lec	No. of Units Lab	No. of Hrs per Lec	No. of Hrs per Lab	Total No. of Hrs per Lec	Total No. of Hrs per Lab	Prerequisite/s
GE-RPH	Readings in Philippine History	3	0	3	0	54	0	None
EMCCAP321	Capstone Project 1	3	0	3	0	54	0	All Courses Passed in all Previous Semesters
Specialized in GAME DEVELOPMENT								
GD327	Project Management	3	0	3	0	54	0	All Courses Passed in all Previous Semesters
GD328	Game Programming II	2	1	2	3	36	54	GD313
GD329	Advanced Game Design	2	1	2	3	36	54	EMC213
GD3210	Game Networking	2	1	2	3	36	54	CC214, GD313
Specialized in DIGITAL ANIMATION-TECHNOLOGY								
DA327	Project Management	3	0	3	0	54	0	All Courses Passed in all Previous Semesters
DA328	Advanced 2D Animation	2	1	2	3	36	54	EMC214
DA329	Advanced 3D Animation and Scripting	2	1	2	3	36	54	EMC228
DA3210	Texture and Mapping	2	1	2	3	36	54	EMC228
	Total	15	3	15	9	270	162	

FOURTH YEAR

First Semester

Course Code	Course Title	No. of Units Lec	No. of Units Lab	No. of Hrs per Lec	No. of Hrs per Lab	Total No. of Hrs per Lec	Total No. of Hrs per Lab	Prerequisite/s
EMCCAP412	Capstone Project 2	3	0	3	0	54	0	EMCCAP321
EMCE416	Technopreneurship	2	1	2	3	36	54	None
Specialized in GAME DEVELOPMENT								
GD4111	Game Programming III (game engines, 2D games, and 3D games programming)	2	1	2	3	36	54	GD328
GD4112	Game Production	3	0	3	0	54	0	4th Year Standing
Specialized in DIGITAL ANIMATION-TECHNOLOGY								
DA4111	Compositing and Rendering	2	1	2	3	36	54	EMC228
DA4112	Animation Design and Production	3	0	3	0	54	0	4th Year Standing
	Total	10	2	10	6	180	108	

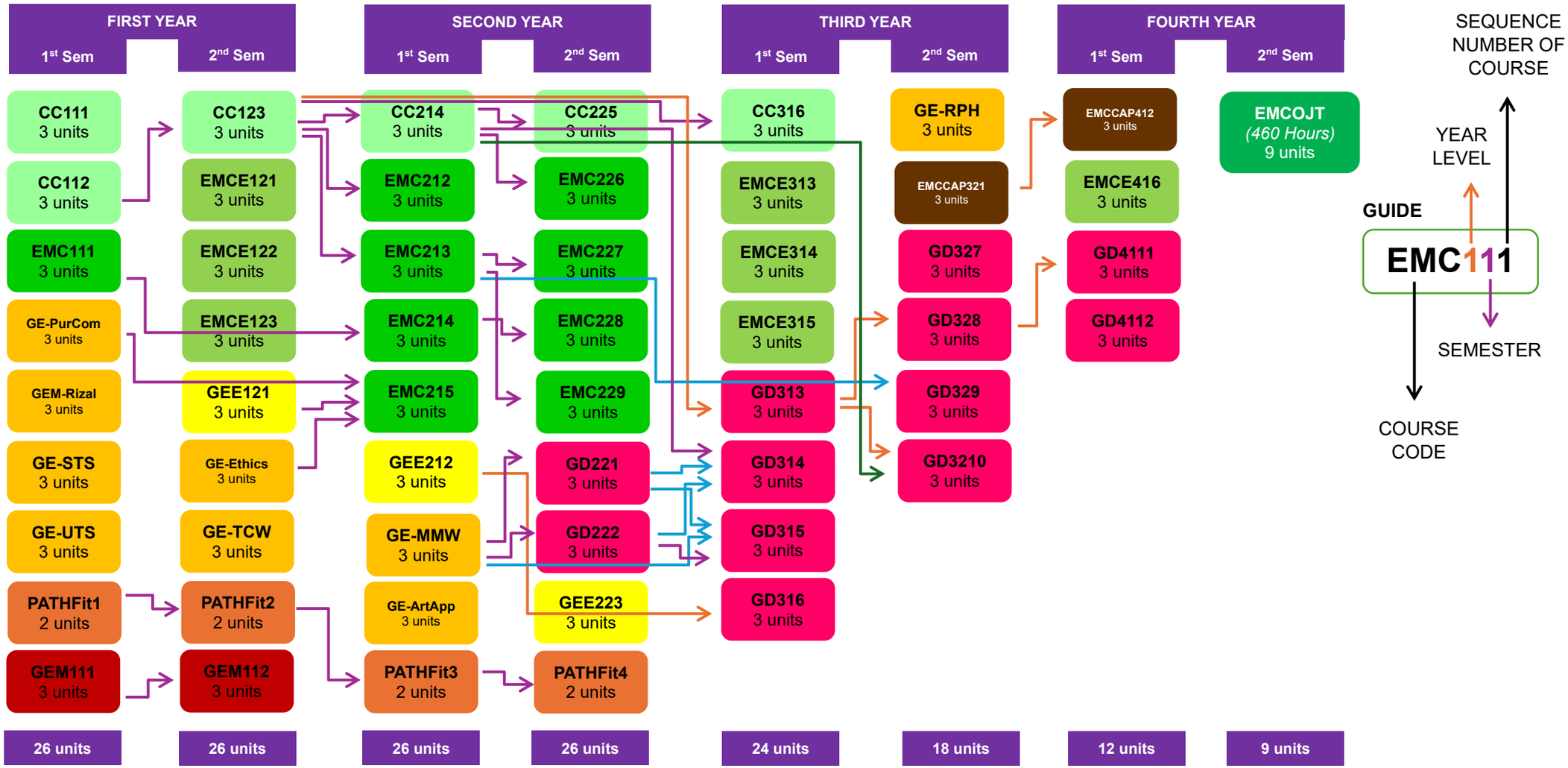
Second Semester

Course Code	Course Title	No. of Units Lec	No. of Units Lab	No. of Hrs per	Total No. of Hrs per	Prerequisite/s
EMCOJT	On the Job Training		9	460 hours		Completed Academic Requirements
	Total		9	460 hours		

	Required units in the CMO	Indicated in the Program
General Education	57	24
General Education Elective		9
Mandated Courses	14	17
Common Courses	18	18
Professional Courses	54	27
Specialization Courses		36
Professional Elective Courses	9	21
Capstone Project	6	6
OJT	9	9
TOTAL	**167**	**167**

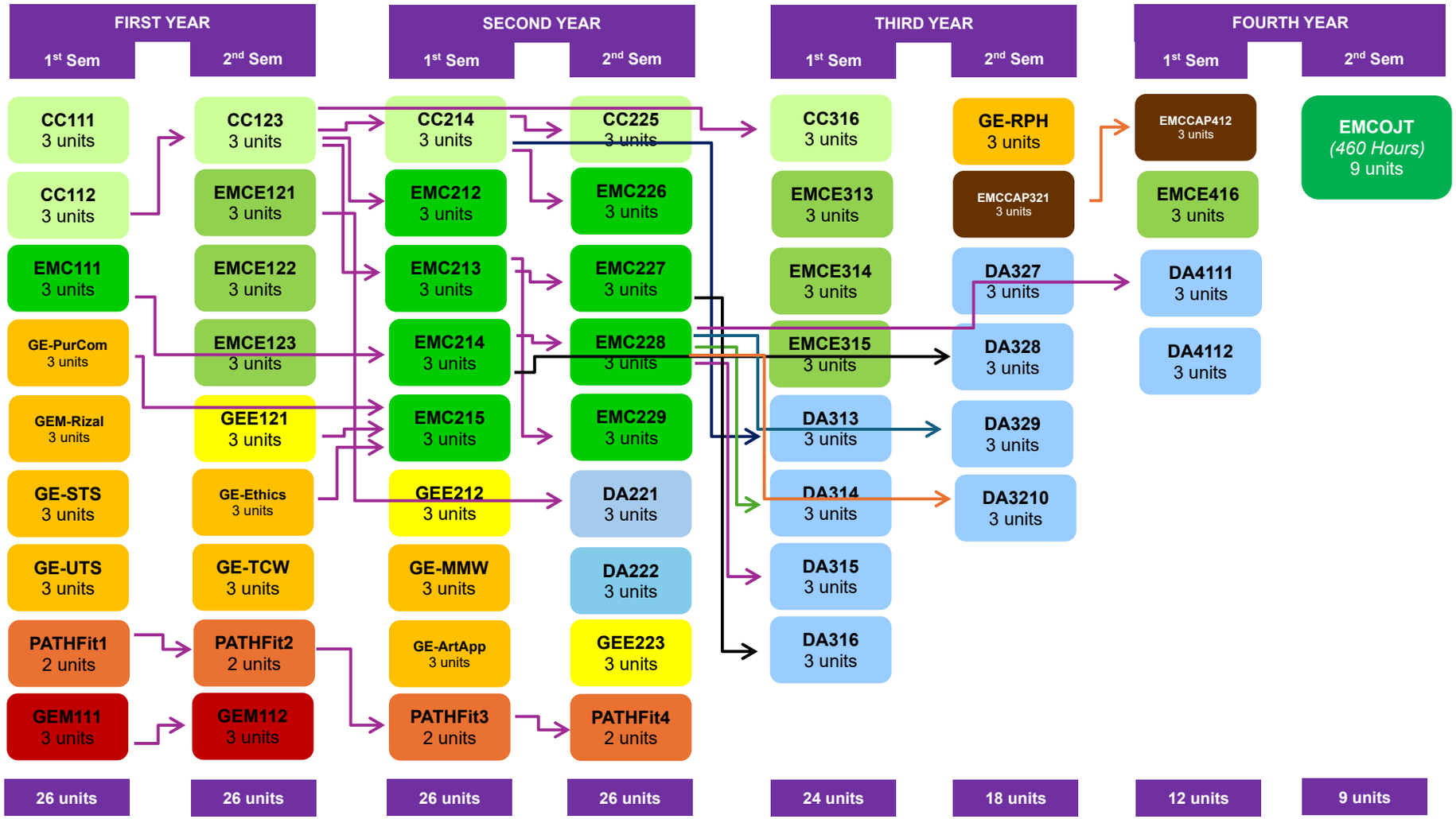
PROSPECTUS

Bachelor of Science in Entertainment and Multimedia Computing (BS EMC) *with Specialization in Game Development*



PROSPECTUS

Bachelor of Science in Entertainment and Multimedia Computing (BS EMC) *with Specialization in Digital Animation-Technology*



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