CCIS

COLLEGE OF COMPUTER AND INFORMATION SCIENCE
MAPÚA MALAYAN COLLEGES MINDANAO

COLLEGE OF COMPUTER AND INFORMATION SCIENCE

PROGRAM CATALOGUE

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MAPÚA MALAYAN COLLEGES MINDANAO

REVISION NO.	
REVISION DATE	

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THE MISSION OF MAPÚA MALAYAN COLLEGES MINDANAO

1. The institute shall provide a learning environment in order for its students to acquire the attributes that will make them globally competitive & locally in-demand.
2. The institute shall engage in cutting edge and economically viable research, development and innovation that is relevant locally and beyond.
3. The institute shall provide state-of-the-art solutions to problems of industries and communities locally and beyond.

THE VISION OF MAPÚA MALAYAN COLLEGES MINDANAO

MMCM in being true to its nature has to compete with other schools even as it collaborates with them in the advancement of common interests. Its stance shall be differentiation in the level of its service. Logically, it should go for the attainment of the highest quality standards.

In today's world, it makes sense to reach for global standards. The market for graduates is global. The market of students is global. There is no reason why the market for research and consultancy cannot be global.

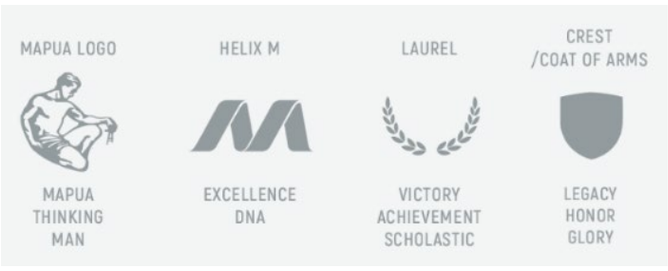
Thus, the vision statement:

Mapúa Malayan Colleges Mindanao shall be a school of global standards and of great significance locally and beyond.

OUR LOGO

Mapúa Malayan Colleges Mindanao's logomark was redesigned to represent the level of excellence that MMCM is striving to make itself known for. The goal was to make it scholastic, iconic, and modern.

- The coat of arms or crest is a symbol of legacy, honour, and glory.
- The Mapúa Thinking Man represents the iconic logo of Mapúa University.
- The single helix "M" is a symbol of excellence embedded in our DNA.
- The red laurel is a symbol of victory, achievement, and scholasticism.



HISTORY OF MAPÚA MALAYAN COLLEGES MINDANAO

When the ownership of the Mapúa Institute of Technology was transferred in the year 1999 to the Yuchengco Group of Companies (YGC) under the stewardship of the honourable Ambassador Alfonso T. Yuchengco,

great amount of face lifting was undertaken to make the face of Mapúa at par with international standards and great amount of effort was cultivated to further strengthen the academic program of the institution.

In fulfilment of the long-term development plan of Mapúa, land was acquired for its expansion and presence in Davao City, which stands as one of Mindanao's industrial and commercial hubs.

Formerly referred to as Malayan Colleges Mindanao, a Mapúa School (MCM), the groundwork of its campus started in July 2016, formally topped off in 2017, and was ready to start operations the following year in 2018.

In July 2018, then-President of the Philippines Rodrigo Roa Duterte attended the inauguration of MCM to establish its commitment to nurture students and reach their full potential. In the same month, MCM open its gates to its first batch of students (informally referred to as the Alpha Batch), which consisted of one thousand two-hundred eighty (1,280) Senior High School (SHS) and College students.

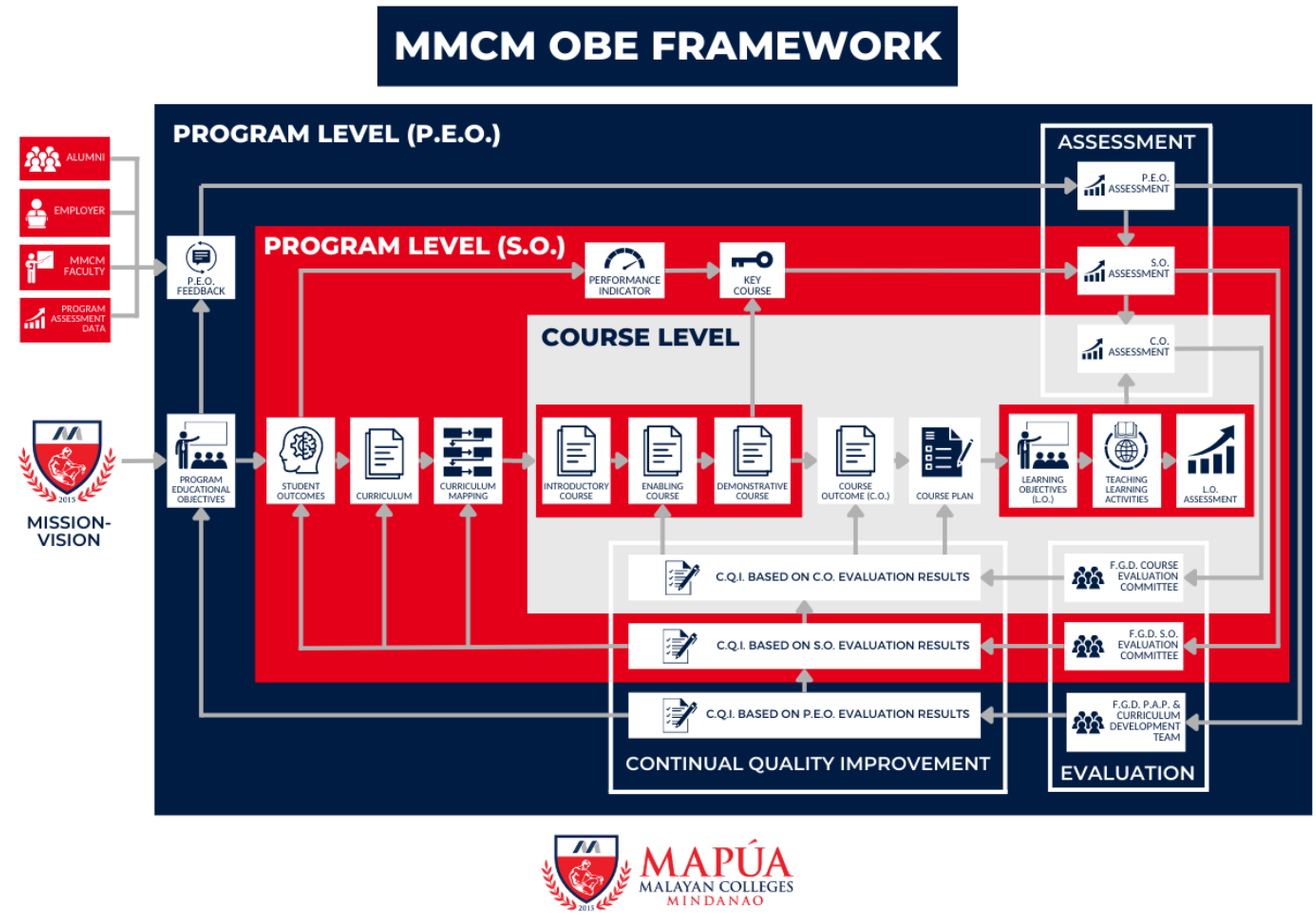
In August 2020, MCM held its first graduation ceremony for the Alpha Batch of SHS students. However, due to the circumstances surrounding that period, the graduation was fully online.

In May 2021, MCM began offering BS Biology and BS Psychology as new programs under the College of Arts and Sciences (CAS). At the same time, MCM launched its Junior High School (JHS) program, offering young students from Grades 7 to 10 with quality Mapúa education.

In April 2022, a major rebranding of MCM was undertaken to further establish the institution's brand of academic and technological education, and to emphasize its Mapúa name. From then onwards, MCM is now referred to as Mapúa Malayan Colleges Mindanao (MMCM).

Today, MMCM offers a total of twenty-one (21) college programs catering to the fields of engineering, architecture, business, information technology, communications, multimedia arts, health sciences, and tourism management, six (6) strands under the Academic, Arts & Design, and Technical-Vocational-Livelihood tracks of MMCM Senior High School, and the Junior High School Curriculum of MMCM Junior High School.

MMCM'S OBE FRAMEWORK



Mapúa Malayan Colleges Mindanao's (MMCM) Outcomes-Based Education (OBE) framework was developed in relation to the MMCM Value Chain to further give details to the processes relevant to the attainment of the outcomes by the individual programs of MMCM.

The framework exhibits different activities/processes/academic delivery services that were identified to be of primary importance in the attainment of the course outcomes (COs), student outcomes (SOs), and program educational objectives (PEOs) for each of MMCM's program offerings. Thus, the said framework can be viewed as a system of continuous quality improvement (CQI) and evaluation (under different committees) of the different levels of outcomes to be achieved in the different programs of the institution. Consequently, the inherent system of CQI and evaluation of MMCM's OBE framework further reflects a tacit recognition of the institution's relentless pursuit of the improvement and effectiveness of its academic delivery.

ABOUT – COLLEGE OF COMPUTER AND INFORMATION SCIENCE

The College of Computer and Information Science (CCIS) offers the following programs:

- **Bachelor of Science in Computer Science**
- **Bachelor of Science in Entertainment and Multimedia Computing**
- **Bachelor of Science in Information Systems**

PROGRAM EDUCATIONAL OBJECTIVES AND OUTCOMES

CONTINUOUS QUALITY IMPROVEMENT (CQI) ON THE DELIVERY OF INSTRUCTION

Mapúa Malayan Colleges Mindanao envisions service excellence as meeting and further exceeding, local and international standards on the delivery of quality education. We have continuously established assurance parameters to guard the process of delivering quality instructions to students, our prime stakeholder. In order to meet the standards of the global community, MMCM ensures that the professional programs are rightfully administered and governed by objectives that holistically mould each student to his intended specialization.

Hence, we align our programs to international standards for global competitiveness; and in this regard, we accordingly align our terminologies as well. The following are the internationally patterned terms that MMCM has adopted and shall be commonly used in our shared understanding of the programs.

PROGRAM EDUCATIONAL OBJECTIVES

Program Educational Objectives or PEOs are statements that describe the career and professional accomplishments that the graduates are expected to achieve after completing the program. These objectives serve as guidelines in designing the curriculum, courses and learning activities of the program in order to prepare the students for the demands of the industry after graduation.

STUDENT OUTCOMES

These are specific statements that describe what students are expected to know and be able to do after the completion of a specific program. These outcomes are program outputs of students that distinguish their amount of learning and their ability to apply such knowledge through milestone projects, research, and other comprehensive assessments.

COURSE OBJECTIVES

Course Objectives are statements that describe the knowledge and skills that the graduates are expected to achieve after completing a specific course. These objectives serve as guidelines in designing activities for the course in order to achieve the desired learning. The attained learning is then needed for the integration of previous and future courses that the student is about to undertake within a specific program.

LEARNING OUTCOMES

A learning outcome is the specification of what a student should learn as the result of a period of specified and supported study. Learning outcomes are concerned with the achievements of the learner, how he understands the topics included in the course, and how he will be able to apply it practically. The output of each activity is used to assess the amount of learning a student has achieved.

PROGRAM DESCRIPTIONS

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

BS-CS

The BS Computer Science program includes the study of computing concepts and theories algorithmic foundations and new developments in computing the program prepares students to design and create algorithmically complex software and develop new and effective algorithms for solving computing problems.

The program also includes the study of the standards and practices in Software Engineering. It prepares students to acquire skills and disciplines required for designing writing and modifying software components. modules and applications that comprise software solutions.

PROGRAM EDUCATIONAL OBJECTIVES

	MISSION		
Three years after graduation, graduates of the Computer Science Program shall:	**A**	**B**	**C**
1. Articulate expertise in formulating and solving problems of interest, through the application of technology, and by using mathematical foundations, algorithmic principles, and computer science theory in the design and development of computer-based systems and processes.	/	/	/
2. Perform tasks effectively as individuals and team members in the workplace growing into highly technical or project management and leadership roles.	/		/
3. Pursue life-long learning enabling them to adapt and grow as organizational responsibilities change.		/	

PROGRAM OUTCOMES

At the end of the program, graduates of the Computer Science Program are expected to:	**1**	**2**	**3**
CS01 - Apply knowledge of computing fundamentals, knowledge of computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.	/		
CS02 - Identify, analyze, formulate, research literature, and solve complex computing problems and requirements reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.	/		
CS03 - Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.	/		
CS04 - Implement information security in the design, development, and use of information systems.	/		/
CS05 - Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.	/		
CS06 - Create, select, adapt, and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations to accomplish common goals.	/	/	
CS07 - Function effectively as an individual or a member or leader in diverse teams and in multidisciplinary settings.		/	
CS08 - Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentation, and give and understand clear instructions.	/	/	
CS09 - Recognize the legal, social, ethical, and professional issues involved in the utilization of computer technology and be guided by the adoption of appropriate professional, ethical, and legal practices both in local and global community.	/		
CS10 - Recognize the need for and engage in an independent and learning for continual development as a computing professional.			/

BACHELOR OF SCIENCE IN ENTERTAINMENT AND MULTIMEDIA COMPUTING

BS-EMC

Entertainment and Multimedia Computing is the study and use of concepts, principles, and techniques of computing in the design and development of multimedia products and solutions. It includes various applications such as in science, entertainment, education, simulations, and advertising.

The program enables the students to be knowledgeable of the whole pipeline of Game Development and Digital Animation projects. The students will acquire the independence and creative competencies to articulate project design and requirements of new projects, not necessarily based on standard templates.

PROGRAM EDUCATIONAL OBJECTIVES

	MISSION		
Three years after graduation, graduates of the Entertainment and Multimedia Computing Program shall:	**A**	**B**	**C**
1. articulate expertise in understanding, analyzing, and applying current and emerging technologies in the design and development of IT-based solutions for entertainment and multimedia computing profession;	√	√	√
2. perform tasks effectively as individuals and team members in the workplace growing into highly technical or project management and leadership roles; and	√		√
3. pursue life-long learning enabling them to adapt and grow as organizational responsibilities change.		√	

PROGRAM OUTCOMES

At the end of the program, graduates of the Entertainment and Multimedia Computing Program are expected to:	**1**	**2**	**3**
EMC01 - Apply knowledge of mathematics, physical sciences, contemporary issues, and computer sciences to the practice of being an entertainment and multimedia computing professional.	√		
EMC02 - Specialized computing knowledge in each applicable field, and the ability to apply such knowledge to provide solutions to actual problems.	√		
EMC03 - Recognize, formulate, and solve computing problems.	√		
EMC04 - Analyze project requirements, design, and implement project prototypes.	√		√
EMC05 - Design, build, improve, and deploy products that meet client needs within realistic constraints.	√		
EMC06 - Use the appropriate techniques, skills, and modern computing tools necessary for the practice of being a professional game developer or animator.	√		
EMC07 - Function effectively as an individual or a member or leader in diverse teams and in multidisciplinary settings.		√	
EMC08 - Communicate effectively with the computing community and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.	√	√	
EMC09 - Assess the local and global impacts of computing on society relevant to professional computing practice and subscription to accepted industry standards.	√		
EMC10 - Recognize the legal, social, ethical, and professional issues involved in the utilization of entertainment and multimedia computing projects and be guided by the adoption of appropriate professional, ethical, and legal practices both in local and global community.	√		
EMC11 - Create or use modified artifacts in consideration of intellectual property rights of the author.	√		
EMC12 - Recognize the need for and engage in an independent and learning for continual development as an entertainment and multimedia computing professional.			√
EMC13 - Demonstrate innovativeness in creating an original creative output.	√		
EMC14 - Demonstrate client-centric service.	√		

BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

BS-IS

The BS Information Systems Program includes the study of application and effect of information technology to organizations. Graduates of the program should be able to implement an information system, which considers complex technological and organizational factors affecting it These include components tools. techniques strategies methodologies. Graduates can help an organization determine how information and technology-enabled business processes can be used as strategic tool to achieve a competitive advantage as a result. IS professionals requiring a sound understanding of organizational principles and practices so that they can serve as an effective bridge between the technical and management/users communities within an organization. This enables them to ensure that the organization has the information and the systems it needs to support its operations.

PROGRAM EDUCATIONAL OBJECTIVES

	MISSION		
Three years after graduation, graduates of the Information Systems Program shall:	**A**	**B**	**C**
1. articulate expertise in understanding, analyzing, and applying current and emerging technologies in the design and development of IT-based solutions for business processes;	√	√	√
2. perform tasks effectively as individuals and team members in the workplace growing into highly technical or project management and leadership roles; and	√		√
3. pursue life-long learning enabling them to adapt and grow as organizational responsibilities change.		√	

PROGRAM OUTCOMES

At the end of the program, graduates of the Information Systems are expected to:	**1**	**2**	**3**
IS01 - Apply knowledge of business processes, computing, mathematics, and social sciences appropriate to Information Systems.	√		
IS02 - Analyze a problem, identify and define the computing requirements with respect to organizational factors to its solution and plan strategies for their solution.	√		
IS03 - Evaluate information systems in terms of general quality attributes and possible trade-offs presented within the given requirements.	√		
IS04 - Design, implement, and evaluate information systems, processes, components, or programs and to source cost-benefit efficient alternatives to meet desire needs, goals, and constraints.	√		√
IS05 - Use knowledge and understanding of enterprises in modelling and design of information systems.	√		
IS06 - Deploy and use effectively skills, tools, and techniques necessary for information systems practices.	√	√	
IS07 - Function effectively on teams (recognizing the different roles within a team and different ways of organizing teams) to accomplish a common goal.		√	
IS08 - Communicate effectively with a range of audiences. Communication skill includes technical writing, presentation and negotiation, and numeracy.	√	√	
IS09 - Recognize the legal, social, ethical, and professional issues involved in the exploitation of computer technology and be guided by the adoption of appropriate professional, ethical, and legal practices both in local and global community.	√		
IS10 - Recognize the need for and engage in an independent and life-long learning, planning self learning, and improving performance as the foundation for on-going professional development.			√

PROGRAM CURRICULA

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Curriculum based on CMO 25 s.2015 applicable to freshmen beginning school year 2023-2024

FIRST YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	1	CS101	INTRODUCTION TO COMPUTER SYSTEMS	2	0	2		
1	1	CS101L	INTRODUCTION TO COMPUTER SYSTEMS (LAB)	0	1	1		CS101
1	1	MATH021	COLLEGE MATHEMATICS	3	0	3		
1	1	ENG023	RECEPTIVE COMMUNICATION SKILLS	3	0	3		
1	1	SS021	UNDERSTANDING THE SELF	3	0	3		
1	1	HUM034	ART APPRECIATION	3	0	3		
1	1	PE001	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 1	0	2	2		
1	1	NSTP010	NATIONAL SERVICE TRAINING PROGRAM 1	(3)	0	(3)		
1	1	VE021	LIFE COACHING SERIES 1	(1)	0	(1)		
		TOTAL				**21**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	2	CS110-1	DISCRETE STRUCTURES 1	3	0	3		
1	2	IT101-1	COMPUTER PROGRAMMING CONCEPTS 1	2	0	2		
1	2	IT101-1L	COMPUTER PROGRAMMING CONCEPTS 1 (Lab)	0	1	1		IT101-1
1	2	MATH022	LINEAR ALGEBRA	3	0	3	MATH021	
1	2	ENG024	WRITING FOR ACADEMIC STUDIES	3	0	3		
1	2	SS022	READINGS IN PHILIPPINE HISTORY	3	0	3		
1	2	PE002	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 2	0	2	2		
1	2	NSTP011P	NATIONAL SERVICE TRAINING PROGRAM 2 (PAIRED)	(3)	0	(3)	NSTP010	
1	2	VE022	LIFE COACHING SERIES 2	(1)	0	(1)	VE021	
		TOTAL				**21**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	3	CS110-2	DISCRETE STRUCTURES 2	3	0	3	CS110-1	
1	3	IT101-2	COMPUTER PROGRAMMING CONCEPTS 2	2	0	2	IT101-1	
1	3	IT101-2L	COMPUTER PROGRAMMING CONCEPTS 2 (Lab)	0	1	1	IT101-1 L	IT101-2
1	3	MATH027	DIFFERENTIAL AND INTEGRAL CALCULUS	3	0	3	MATH022	
1	3	ENG041	PURPOSIVE COMMUNICATION	3	0	3		
1	3	SS023	THE CONTEMPORARY WORLD	3	0	3		
1	3	PE003	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 3	0	2	2	PE001, PE002	
1	3	VE023	LIFE COACHING SERIES 3	(1)	0	(1)	VE022	
		TOTAL				**18**		

SECOND YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	1	CS106	DATA STRUCTURES AND ALGORITHMS	2	0	2	IT101-2	
2	1	CS106L	DATA STRUCTURES AND ALGORITHMS (LAB)	0	1	1	IT101-2 L	CS106
2	1	CS121	PROGRAMMING LANGUAGES	3	0	3		CS106
2	1	IT102	OBJECT ORIENTED PROGRAMMING	2	0	2	IT101-2	
2	1	IT102L	OBJECT ORIENTED PROGRAMMING (LAB)	0	1	1	IT101-2 L	IT102
2	1	MATH035	MATHEMATICS IN THE MODERN WORLD	3	0	3		
2	1	HUM021	LOGIC AND CRITICAL THINKING	3	0	3		
2	1	GEELEC01	GE ELECTIVE 1	3	0	3		
2	1	PE004	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 4	0	2	2	PE001, PE002	
		TOTAL				**20**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	2	CS107	INFORMATION MANAGEMENT	2	0	2	CS106	
2	2	CS107L	INFORMATION MANAGEMENT (LAB)	0	1	1	CS106L	CS107
2	2	CS122	AUTOMATA AND LANGUAGE THEORY	3	0	3	IT101-2P	
2	2	CS124	ALGORITHMS AND COMPLEXITY	3	0	3	CS110-2, CS106	
2	2	IT103	WEB PROGRAMMING	2	0	2	IT102	
2	2	IT103L	WEB PROGRAMMING (LAB)	0	1	1	IT102L	IT103
2	2	GEELEC02	GE ELECTIVE 2	3	0	3		
2	2	HUM039	ETHICS	3	0	3		
		TOTAL				**18**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	3	CS125	ARCHITECTURE AND ORGANIZATION	2	0	2	CS110-2, CS106	
2	3	CS125L	ARCHITECTURE AND ORGANIZATION (LAB)	0	1	1	CS110-2, CS106L	CS125
2	3	CS152	HUMAN COMPUTER INTERACTION	3	0	3		
2	3	CS158	INTRODUCTION TO DATA SCIENCE	2	0	2		
2	3	CS158L	INTRODUCTION TO DATA SCIENCE (LAB)	0	1	1		CS158
2	3	IT104	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES	2	0	2	IT102	
2	3	IT104L	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES (LAB)	0	1	1	IT102L	IT104
2	3	MATH120	QUANTITATIVE METHODS	3	0	3	MATH021	
2	3	SS036	SCIENCE, TECHNOLOGY, AND SOCIETY	3	0	3		
		TOTAL				**18**		

THIRD YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	1	CS140-1	SOFTWARE ENGINEERING 1	2	0	2	IT102, CS107	
3	1	CS140-1L	SOFTWARE ENGINEERING 1 (LAB)	0	1	1	IT102L, CS107L	CS140
3	1	CS134	MACHINE LEARNING	2	0	2		
3	1	CS134L	MACHINE LEARNING (LAB)	0	1	1		
3	1	IS130	DATA MINING	2	0	2		
3	1	IS130L	DATA MINING (LAB)	0	1	1		
3	1	IT128	IT INFRASTUCTURE AND NETWORK TECHNOLOGIES	2	0	2	CS100	
3	1	IT128L	IT INFRASTUCTURE AND NETWORK TECHNOLOGIES (LAB)	0	1	1	CS100L	
3	1	RES200	METHODS OF RESEARCH	3	0	3		
3	1	CSELEC01	PROFESSIONAL ELECTIVE 1	3	0	3	MATH120 ENG024	
		TOTAL				**18**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	2	CS200D-1	THESIS 1	3	0	3	RES200	
3	2	CS140-2	SOFTWARE ENGINEERING 2	2	0	2	CS140-1	
3	2	CS140-2L	SOFTWARE ENGINEERING 2 (LAB)	0	1	1	CS140-1L	CS140-2
3	2	CS151	OPERATING SYSTEMS	3	0	3	CS106	
3	2	CS173	INTELLIGENT SYSTEMS	2	0	2		
3	2	CS173L	INTELLIGENT SYSTEMS (LAB)	0	1	1		CS173
3	2	IT129	INFORMATION ASSURANCE AND SECURITY	3	0	3	CS100P	
3	2	CSELEC02	PROFESSIONAL ELECTIVE 2	3	0	3		
		TOTAL				**18**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	3	CS200D-2	THESIS 2	3	0	3		CS200D-1
3	3	IS181	SOCIAL ISSUES AND PROFESSIONAL PRACTICES	3	0	3		

3	3	CSELEC03	PROFESSIONAL ELECTIVE 3	3	0	3		
3	3	SS038	THE LIFE AND WORKS OF JOSE RIZAL	3	0	3		
3	3	SS085	PHILIPPINE INDIGENOUS COMMUNITIES	3	0	3		
		TOTAL				**18**		

FOURTH YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
4	1	CS199R	PRACTICUM	3	0	3		
4	1	SGE101	STUDENT GLOBAL EXPERIENCE	0	0	0		
		TOTAL				**3**		

BACHELOR OF SCIENCE IN ENTERTAINMENT AND MULTIMEDIA COMPUTING

Curriculum based on CMO 02 s.2014, applicable to freshmen beginning school year 2023-2024

FIRST YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	1	CS101	INTRODUCTION TO COMPUTER SYSTEMS	2	0	2		
1	1	CS101L	INTRODUCTION TO COMPUTER SYSTEMS (LAB)	0	1	1		CS101
1	1	MATH021	COLLEGE MATHEMATICS	3	0	3		
1	1	SS021	UNDERSTANDING THE SELF	3	0	3		
1	1	ENG023	RECEPTIVE COMMUNICATION SKILLS	3	0	3		
1	1	HUM034	ART APPRECIATION	3	0	3		
1	1	PE001	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 1	0	2	2		
1	1	NSTP010	NATIONAL SERVICE TRAINING PROGRAM 1	(3)	0	(3)		
1	1	VE021	LIFE COACHING SERIES 1	(1)	0	(1)		
		TOTAL				**21**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	2	IS100	FUNDAMENTALS OF INFORMATION SYSTEMS	3	0	3		
1	2	IT101-1	COMPUTER PROGRAMMING CONCEPTS 1)	2	0	2		
1	2	IT101-1L	COMPUTER PROGRAMMING CONCEPTS 1 (LAB)	0	1	1		IT101-1
1	2	SS022	READINGS IN PHILIPPINE HISTORY	3	0	3		
1	2	ENG024	WRITING FOR ACADEMIC STUDIES	3	0	3		
1	2	PE002	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 2	0	2	2		
1	2	NSTP011P	NATIONAL SERVICE TRAINING PROGRAM 2 (PAIRED)	(3)	0	(3)		NSTP010
1	2	VE022	LIFE COACHING SERIES 2	(1)	0	(1)		VE021
		TOTAL				**18**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	3	CS152	HUMAN COMPUTER INTERACTION	3	0	3		
1	3	IT101-2	COMPUTER PROGRAMMING CONCEPTS 2	2	0	2	IT101-1	
1	3	IT101-2L	COMPUTER PROGRAMMING CONCEPTS 2 (LAB)	0	1	1	IT101-1	IT101-2
1	3	MATH035	MATHEMATICS IN THE MODERN WORLD	3	0	3		
1	3	ENG041	PURPOSIVE COMMUNICATION	3	0	3		
1	3	SS023	THE CONTEMPORARY WORLD	3	0	3		
1	3	PE003	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 3	0	2	2	PE001, PE002	
1	3	VE023	LIFE COACHING SERIES 3	(1)	0	(1)	VE022	
		TOTAL				**18**		

SECOND YEAR

1st Term								
Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	1	CS106	DATA STRUCTURES AND ALGORITHMS	2	0	2	IT101-2	
2	1	CS106L	DATA STRUCTURES AND ALGORITHMS (LAB)	0	1	1	IT101-2L	CS106
2	1	IT102	OBJECT ORIENTED PROGRAMMING	2	0	2	IT101-2	
2	1	IT102L	OBJECT ORIENTED PROGRAMMING (LAB)	0	1	1	IT101-2L	IT102
2	1	IS102	PROFESSIONAL ISSUES IN INFORMATION SYSTEM	3	0	3		
2	1	MGT101	ORGANIZATION AND MANAGEMENT CONCEPT	3	0	3		
2	1	HUM021	LOGIC AND CRITICAL THINKING	3	0	3		
2	1	GEELEC01	GE ELECTIVE 1	3	0	3		
2	1	PE004	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 4	0	2	2	PE001, PE002	
		TOTAL				20		

2nd Term								
Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	2	CS107	INFORMATION MANAGEMENT	2	0	2	CS106	
2	2	CS107L	INFORMATION MANAGEMENT (LAB)	0	1	1	CS106L	CS107
2	2	IS105	ENTERPRISE ARCHITECTURE	3	0	3		
2	2	IS107	IS STRATEGY, MANAGEMENT, AND ACQUISITION	3	0	3		
2	2	IT103	WEB PROGRAMMING	2	0	2	IT102	
2	2	IT103L	WEB PROGRAMMING (LAB)	0	1	1	IT102L	IT103
2	2	GEELEC02	GE ELECTIVE 2	3	0	3		
2	2	HUM039	ETHICS	3	0	3		
		TOTAL				18		

3rd Term								
Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	3	CS103	SYSTEMS ANALYSIS AND DESIGN	2	0	2	CS107	
2	3	CS103L	SYSTEMS ANALYSIS AND DESIGN (LAB)	0	1	1	CS107L	
2	3	IT104	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES	2	0	2	IT102	
2	3	IT104L	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES (LAB)	0	1	1	IT102L	IT104
2	3	FIN101	FINANCIAL MANAGEMENT	3	0	3		
2	3	ISELEC01	PROFESSIONAL ELECTIVE 1	3	0	3		
2	3	MATH120	QUANTITATIVE METHODS	3	0	3	MATH021	
2	3	SS036	SCIENCE, TECHNOLOGY, AND SOCIETY	3	0	3		
		TOTAL				18		

THIRD YEAR

1st Term								
Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	1	IS111	BUSINESS PROCESSES	3	0	3		
3	1	IS113	IS INNOVATION AND NEW TECHNOLOGIES	3	0	3		
3	1	IS132-1	IS PROJECT MANAGEMENT 1	2	0	2		
3	1	IS132-1L	IS PROJECT MANAGEMENT 1 (LAB)	0	1	1		
3	1	ISELEC02	PROFESSIONAL ELECTIVE 2	2	1	3		
3	1	IT128	IT INFRASTUCTURE AND NETWORK TECHNOLOGIES	2	0	2	CS100	
3	1	IT128L	IT INFRASTUCTURE AND NETWORK TECHNOLOGIES (LAB)	0	1	1	CS100L	
3	1	RES200	METHODS OF RESEARCH	3	0	3	MATH120, ENG024	
		TOTAL				18		

2nd Term								
Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	2	IS200D-1	CAPSTONE PROJECT 1	3	0	3	RES200	
3	2	IS114	BUSINESS INTELLIGENCE	3	0	3		
3	2	IS134	EVALUATION OF BUSINESS PERFORMANCE	3	0	3		
3	2	IS135	IT AUDIT AND CONTROLS	3	0	3		
3	2	ISELEC03	PROFESSIONAL ELECTIVE 3	2	1	3		
3	2	IT129	INFORMATION ASSURANCE AND SECURITY	3	0	3	CS100	
		TOTAL				18		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	3	IS200D-2	CAPSTONE PROJECT 2	3	0	3	IS200D-1	
3	3	ISELEC04	PROFESSIONAL ELECTIVE 4	3	0	3		
3	3	IS136	ENTERPRISE RESOURCE PLANNING	2	0	2		
3	3	IS136L	ENTERPRISE RESOURCE PLANNING (LAB)	0	1	1		
3	3	DS100L	APPLIED DATA SCIENCE LABORATORY	0	1	1		
3	3	SS038	THE LIFE AND WORKS OF JOSE RIZAL	3	0	3		
3	3	SS085	PHILIPPINE INDIGENOUS COMMUNITIES	3	0	3		
		TOTAL				**16**		

FOURTH YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
4	1	IS199R	PRACTICUM	6	0	6		
4	1	SGE101	STUDENT GLOBAL EXPERIENCE	0	0	0		
		TOTAL				**6**		

BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

Curriculum based on CMO 25 s.2015 applicable to freshmen beginning school year 2023-2024

FIRST YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	1	CS101	INTRODUCTION TO COMPUTER SYSTEMS	2	0	2		
1	1	CS101L	INTRODUCTION TO COMPUTER SYSTEMS (LAB)	0	1	1		CS101
1	1	MATH021	COLLEGE MATHEMATICS	3	0	3		
1	1	SS021	UNDERSTANDING THE SELF	3	0	3		
1	1	ENG023	RECEPTIVE COMMUNICATION SKILLS	3	0	3		
1	1	HUM034	ART APPRECIATION	3	0	3		
1	1	PE001	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 1	0	2	2		
1	1	NSTP010	NATIONAL SERVICE TRAINING PROGRAM 1	(3)	0	(3)		
1	1	VE021	LIFE COACHING SERIES 1	(1)	0	(1)		
		TOTAL				**21**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	2	EMC100	FREEHAND AND DIGITAL DRAWING	2	0	2		
1	2	EMC100L	FREEHAND AND DIGITAL DRAWING (LAB)	0	1	1		
1	2	IT101-1	COMPUTER PROGRAMMING CONCEPTS 1)	2	0	2		
1	2	IT101-1L	COMPUTER PROGRAMMING CONCEPTS 1 (LAB)	0	1	1		IT101-1
1	2	SS022	READINGS IN PHILIPPINE HISTORY	3	0	3		
1	2	ENG024	WRITING FOR ACADEMIC STUDIES	3	0	3		
1	2	PE002	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 2	0	2	2		
1	2	NSTP011P	NATIONAL SERVICE TRAINING PROGRAM 2 (PAIRED)	(3)	0	(3)	NSTP010	
1	2	VE022	LIFE COACHING SERIES 2	(1)	0	(1)	VE021	
		TOTAL				**18**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
1	3	CS152	HUMAN COMPUTER INTERACTION	3	0	3		
1	3	IT101-2	COMPUTER PROGRAMMING CONCEPTS 2	2	0	2	IT101-1	
1	3	IT101-2L	COMPUTER PROGRAMMING CONCEPTS 2 (LAB)	0	1	1	IT101-1L	IT101-2
1	3	MATH035	MATHEMATICS IN THE MODERN WORLD	3	0	3		
1	3	ENG041	PURPOSIVE COMMUNICATION	3	0	3		
1	3	SS023	THE CONTEMPORARY WORLD	3	0	3		
1	3	PE003	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 3	0	2	2	PE001, PE002	
1	3	VE023	LIFE COACHING SERIES 3	(1)	0	(1)	VE022	
		TOTAL				**18**		

SECOND YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	1	CS106	DATA STRUCTURES AND ALGORITHMS	2	0	2	IT101-2	
2	1	CS106L	DATA STRUCTURES AND ALGORITHMS (LAB)	0	1	1	IT101-2L	CS106
2	1	IT102	OBJECT ORIENTED PROGRAMMING	2	0	2	IT101-2	
2	1	IT102L	OBJECT ORIENTED PROGRAMMING (LAB)	0	1	1	IT101-2L	IT102
2	1	EMC110	INTRODUCTION TO GAME DESIGN AND DEVELOPMENT	2	0	2	IT101-2	EMC110
2	1	EMC110L	INTRODUCTION TO GAME DESIGN AND DEVELOPMENT (LAB)	0	1	1	IT101-2L	
2	1	EMC111	COMPUTER GRAPHICS PROGRAMMING	2	0	2	IT101-2	
2	1	EMC111L	COMPUTER GRAPHICS PROGRAMMING (LAB)	0	1	1	IT101-2	EMC111
2	1	HUM021	LOGIC AND CRITICAL THINKING	3	0	3		
2	1	GEELEC01	GE ELECTIVE 1	3	0	3		
2	1	PE004	PHYSICAL ACTIVITIES TOWARD HEALTH AND FITNESS 4	0	2	2		PE001, PE002
		TOTAL				**20**		

2nd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	2	CS107	INFORMATION MANAGEMENT	2	0	2	CS106	
2	2	CS107L	INFORMATION MANAGEMENT (LAB)	0	1	1	CS106L	CS107
2	2	EMC112	PRINCIPLES OF 2D ANIMATION	2	0	2	EMC100	
2	2	EMC112L	PRINCIPLES OF 2D ANIMATION (LAB)	0	1	1	EMC100L	
2	2	EMC113	AUDIO DESIGN AND SOUND ENGINEERING	2	0	2	EMC110	
2	2	EMC113L	AUDIO DESIGN AND SOUND ENGINEERING (LAB)	0	1	1	EMC110L	
2	2	IT103	WEB PROGRAMMING	2	0	2	IT102	
2	2	IT103L	WEB PROGRAMMING (LAB)	0	1	1	IT102L	IT103
2	2	GEELEC02	GE ELECTIVE 2	3	0	3		
2	2	HUM039	ETHICS	3	0	3		
		TOTAL				**18**		

3rd Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
2	3	EMC114	SCRIPTWRITING AND STORYBOARD DESIGN	2	0	2		
2	3	EMC114L	SCRIPTWRITING AND STORYBOARD DESIGN (LAB)	0	1	1		
2	3	EMC116	DESIGN AND PRODUCTION PROCESS	2	0	2	EMC110	
2	3	EMC116L	DESIGN AND PRODUCTION PROCESS (LAB)	0	1	1	EMC110	EMC116
2	3	EMCELEC 01	PROFESSIONAL ELECTIVE 1	3	0	3		
2	3	EMC131	GAME PROGRAMMING 1	2	0	2	EMC111, IT102	
2	3	EMC131L	GAME PROGRAMMING 1 (LAB)	0	1	1	EMC111L, IT102L	EMC131
2	3	MATH120	QUANTITATIVE METHODS	3	0	3		MATH021
2	3	SS036	SCIENCE, TECHNOLOGY, AND SOCIETY	3	0	3		
		TOTAL						

THIRD YEAR

1st Term

Year	Term	Code	Title	Lec. Hrs.	Lab. Hrs.	Credit Units	Prerequisites	Co-requisites
3	1	EMC115	PRINCIPLES OF 3D ANIMATION	2	0	2	EMC112	
3	1	EMC115L	PRINCIPLES OF 3D ANIMATION LAB)	0	1	1	EMC112L	EMC115
3	1	EMC132	GAME PROGRAMMING 2	2	0	2	EMC131	
3	1	EMC132L	GAME PROGRAMMING 2 (LAB)	0	1	1	EMC131L	EMC132
3	1	EMC133	APPLIED MATHEMATICS FOR GAMES	2	0	2		
3	1	EMC133L	APPLIED MATHEMATICS FOR GAMES (LAB)	0	1	1		EMC133
3	1	IT104	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES	2	0	2	IT102	
3	1	IT104L	APPLICATION DEVELOPMENT AND EMERGING TECHNOLOGIES (LAB)	0	1	1	IT102L	IT104
3	1	RES200	METHODS OF RESEARCH	3	0	3	MATH120 ENG024	

3	1	SS085	PHILIPPINE INDIGENOUS COMMUNITIES	3	0	3		
		TOTAL				**18**		

2nd Term								
Year	**Term**	**Code**	**Title**	**Lec. Hrs.**	**Lab. Hrs.**	**Credit Units**	**Prerequisites**	**Co-requisites**
3	2	EMC200D-1	CAPSTONE PROJECT 1	3	0	3	RES200	
3	2	EMC134	APPLIED GAME PHYSICS	2	0	2		
3	2	EMC134L	APPLIED GAME PHYSICS (LAB)	0	1	1		EMC134
3	2	EMC135	GAME PROGRAMMING 3	2	0	2	EMC132	
3	2	EMC135L	GAME PROGRAMMING 3 (LAB)	0	1	1	EMC132L	EMC135
3	2	EMC136	ARTIFICIAL INTELLIGENCE IN GAMES	2	0	2		
3	2	EMC136L	ARTIFICIAL INTELLIGENCE IN GAMES (LAB)	0	1	1		
3	2	EMCELEC 02	PROFESSIONAL ELECTIVE 2	3	0	3		
3	2	SS038	THE LIFE AND WORKS OF JOSE RIZAL	3	0	3		
		TOTAL				**18**		

3rd Term								
Year	**Term**	**Code**	**Title**	**Lec. Hrs.**	**Lab. Hrs.**	**Credit Units**	**Prerequisites**	**Co-requisites**
3	3	EMC200D-2	CAPSTONE PROJECT 2	3	0	3	EMC200D-1	
3	3	EMC137	ADVANCED GAME DESIGN	2	0	2	EMC110	
3	3	EMC137L	ADVANCED GAME DESIGN (LAB)	0	1	1	EMC110L	EMC137
3	3	EMC138	GAME NETWORKING	2	0	2	EMC131	
3	3	EMC138L	GAME NETWORKING (LAB)	0	1	1	EMC131L	EMC138
3	3	EMCELEC 03	PROFESSIONAL ELECTIVE 3	3	0	3		
3	3	EMC139	GAME PRODUCTION	2	0	2	EMC135	
3	3	EMC139L	GAME PRODUCTION (LAB)	0	1	1	EMC135L	EMC139
3	3	DS100L	APPLIED DATA SCIENCE LABORATORY	0	1	**1**		
		TOTAL				**16**		

FOURTH YEAR

1st Term								
Year	**Term**	**Code**	**Title**	**Lec. Hrs.**	**Lab. Hrs.**	**Credit Units**	**Prerequisites**	**Co-requisites**
4	1	EMC199R	PRACTICUM	9	0	9		
4	1	SGE101	STUDENT GLOBAL EXPERIENCE	0	0	0		
		TOTAL						

DESCRIPTION OF COURSES

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

CORE COURSES

Course Code	CS101/CS101L
Course Title	INTRODUCTION TO COMPUTER SYSTEMS
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	4.5 hours (lec)
Course Description: This course will introduce students to fundamentals of computer systems, its theories and concepts in an everchanging discipline and understanding its essential impact in any aspects of the society. The student will focus in the history of computers and computer-based systems, number systems, hardware and software, operating systems, network systems, database management systems, and information systems development.	

Course Code	IT101-1/IT101-1L
Course Title	COMPUTER PROGRAMMING CONCEPTS 1
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course is an introduction to programming which will provide the students the skill in programming using conventional techniques of flowcharting and pseudo coding. Topics include program structure and syntax, constants and variables, calculations, logic structures, control structures and lists.	

Course Code	IT101P-2
Course Title	COMPUTER PROGRAMMING CONCEPTS 2
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course builds on IT101-1P and continues the study on computer programming using Python specifically on advanced topics such as regular expressions, list generators, exception handling, sets, serialization and code introspection.	

Course Code	CS106P
Course Title	DATA STRUCTURES AND ALGORITHMS
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course will study data abstractions, and core set of data structures and algorithms that provide a foundation for writing efficient programs. This course is about showing the correctness of algorithms and studying their computational complexities, a mixture of theoretical knowledge and practical experience.	

Course Code	CS107P
Course Title	INFORMATION MANAGEMENT
Pre-Requisite	CS106P

Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (Lab)

Course Description:

This course covers information management, database design, data modelling, SQL and implementation using a relational database system.

Course Code	IT104P
Course Title	APPLICATIONS DEVELOPMENT AND EMERGING TECHNOLOGIES
Pre-Requisite	CS107P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)

Course Description:

The course contains the entire analysis and design process of software to be developed from creating functional. requirement specification, documenting, coding, licensing, testing, application, maintenance, and other project management techniques, considering the latest trends and use of emerging technologies.

GENERAL EDUCATION COURSES

Course Code	SS021
Course Title	UNDERSTANDING THE SELF

Course Description:

This course deals with the nature of identity, as well as the factors and forces that affect the development and maintenance of personal identity. The course intends to facilitate the exploration of the issues and concerns regarding self and identity to arrive at a better understanding of one's self. It strives to meet this goal by stressing the integration of the personal with the academic – contextualizing matters discussed in the classroom and in the everyday
experiences of students.

Course Code	SS022
Course Title	READINGS IN PHILIPPINE HISTORY

Course Description:

The course aims to expose students to different facets of Philippine history through the lens of eyewitnesses rather than rely on secondary materials such as textbooks, which is the usual approach in teaching Philippine history. Different types of primary sources will be used – written, oral visual, audio-visual, digital—covering various aspects of Philippine life (political, economic, social, cultural). Students are expected to analyse the selected readings contextually and in terms of content (stated and implied). The end goal is to enable students understand and appreciate our rich past by deriving insights from those who were present at the time of the event.

Course Code	MATH035
Course Title	MATHEMATICS IN THE MODERN WORLD

Course Description:

The course begins with an introduction to the nature of mathematics as an exploration of patterns (in nature and the environment) and as an application of inductive and deductive reasoning. By exploring these topics, students are encouraged to go beyond the typical understanding of mathematics as merely a bunch of formulas but as a source of aesthetics in patterns of nature, for example, and a rich language (and of science) governed by logic and reasoning. The course then proceeds to survey ways in which mathematics provides a tool for understanding and dealing with various aspects of present day living, such as managing personal finances, making social choices, appreciating geometric designs, understanding codes used in data transmission and security, and dividing limited resources fairly. These aspects will provide opportunities for doing mathematics in a broad range of exercises that bring out the various dimensions of mathematics as a way of knowing, and test the students' understanding and
capacity.

Course Code	SS023
Course Title	THE CONTEMPORARY WORLD

Course Description:

This course introduces students to the contemporary world by examining the multifaceted phenomenon of globalization. Using the various disciplines of the social sciences. It examines the economic, social, political, technological, and other transformations that have created an increasing awareness of the interconnectedness of peoples and places around the globe. To this end, the course provides an overview of the

Course Code	HUM039
Course Title	ETHICS

Course Description:

This course is an introduction to the philosophical study of morality. It presents different philosophical perspectives to basic moral issues. This will help students to think critically as they are introduced to different philosophies on ethics. Through this course, students should be able to take a stand and be firm on their convictions on the moral and ethical issues raised.

Course Code	SS036
Course Title	SCIENCE, TECHNOLOGY, AND SOCIETY

Course Description:

The interdisciplinary course engages students to confront the realities brought about by science and technology in society. Such realities persuade the personal, the public and the global aspects of our living and are integral to the human development. Scientific knowledge and technological development happen in the context of society with all its socio-political, cultural, economic, and philosophical underpinnings at play.

Course Code	ENG040
Course Title	PURPOSIVE COMMUNICATION

Course Description:

Purposive Communication is about writing, speaking, and presenting to different audiences and for various purposes. Purposive Communication is a three-unit course that develops students' communicative competence and enhances their cultural and intellectual awareness through multimedia tasks that provide them opportunities for communicating effectively and appropriately to a multicultural audience in a local and global context.

Course Code	HUM034
Course Title	ART APPRECIATION

Course Description:

This course provides a comprehensive study of the development of the arts from prehistoric to contemporary movements with emphasis on innovations, trends, aesthetic values, political and historical developments, contributions of artists and architects, and symbolic significance.

Course Code	ENT078
Course Title	THE ENTREPRENEURIAL MIND

Course Description:

This course will introduce the students with the entrepreneurial traits, behaviours and competencies. The students will be able to perform self-assessment to determine their level of predisposition to entrepreneurship. This course will also include personal entrepreneurial competencies, management styles, business ethics, responsibilities and duties of an entrepreneur.

Course Code	ENV071
Course Title	ENVIRONMENTAL SCIENCE

Course Description:

The course provides an integrated coverage of the basic concepts and principles of Ecology and the major human implications of these concepts. This involves a holistic approach in dealing with man's relationship in his environment. Included are topics on the nature of ecosystems, relations of individuals and populations, the major communities and man's impact on environment. This course also discusses a familiarization and orientation on the basic environmental management system, principles of environmental assessment and monitoring systems, and the Impact of Human Environment.

Course Code	SS038
Course Title	THE LIFE AND WORKS OF JOSE RIZAL
Course Description:	
Thorough and critical study of the life and works of Jose Rizal and their significance in understanding events of Philippine History, the life of the Filipino people, the emergence of Filipino Identity, and the development of Filipino Nationalism.	

Course Code	HUM017
Course Title	PHILIPPINE LITERATURE
Course Description:	
This course aims to acquaint the students with different works of Filipino authors writing in English in the different literary forms such as poetry, drama, short story, novel, and essay. Students are expected to gain insights from their readings that will make them tolerant and understanding of cultural and regional differences in the Philippines.	

Professional

BACHELOR OF SCIENCE IN ENTERTAINMENT AND MULTIMEDIA COMPUTING

CORE COURSES

Course Code	CS100
Course Title	INTRODUCTION TO COMPUTER SYSTEMS
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	4.5 hours (lec)
Course Description: This course will introduce students to fundamentals of computer systems, its theories and concepts in an everchanging discipline and understanding its essential impact in any aspects of the society. The student will focus in the history of computers and computer-based systems, number systems, hardware and software, operating systems, network systems, database management systems, and information systems development.	

Course Code	IT101P-1
Course Title	COMPUTER PROGRAMMING CONCEPTS 1
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course is an introduction to programming which will provide the students the skill in programming using conventional techniques of flowcharting and pseudo coding. Topics include program structure and syntax, constants and variables, calculations, logic structures, control structures and lists.	

Course Code	IT101P-2
Course Title	COMPUTER PROGRAMMING CONCEPTS 2
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course builds on IT101-1P and continues the study on computer programming using Python specifically on advanced topics such as regular expressions, list generators, exception handling, sets, serialization and code introspection.	

Course Code	CS106P
Course Title	DATA STRUCTURES AND ALGORITHMS
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course will study data abstractions, and core set of data structures and algorithms that provide a foundation for writing efficient programs. This course is about showing the correctness of algorithms and studying their computational complexities, a mixture of theoretical knowledge and practical experience.	

Course Code	CS107P
Course Title	INFORMATION MANAGEMENT
Pre-Requisite	CS106P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (Lab)

Course Description:
This course covers information management, database design, data modelling, SQL and implementation using a relational database system.

Course Code	IT104P
Course Title	APPLICATIONS DEVELOPMENT AND EMERGING TECHNOLOGIES
Pre-Requisite	CS107P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description:	
The course contains the entire analysis and design process of software to be developed from creating functional. requirement specification, documenting, coding, licensing, testing, application, maintenance, and other project management techniques, considering the latest trends and use of emerging technologies.	

GENERAL EDUCATION COURSES

Course Code	SS021
Course Title	UNDERSTANDING THE SELF
Course Description:	
This course deals with the nature of identity, as well as the factors and forces that affect the development and maintenance of personal identity. The course intends to facilitate the exploration of the issues and concerns regarding self and identity to arrive at a better understanding of oneself. It strives to meet this goal by stressing the integration of the personal with the academic – contextualizing matters discussed in the classroom and in the everyday experiences of students.	

Course Code	SS022
Course Title	READINGS IN PHILIPPINE HISTORY
Course Description:	
The course aims to expose students to different facets of Philippine history through the lens of eyewitnesses rather than rely on secondary materials such as textbooks, which is the usual approach in teaching Philippine history. Different types of primary sources will be used – written, oral visual, audio-visual, digital—covering various aspects of Philippine life (political, economic, social, cultural). Students are expected to analyse the selected readings contextually and in terms of content (stated and implied). The end goal is to enable students understand and appreciate our rich past by deriving insights from those who were present at the time of the event.	

Course Code	MATH035
Course Title	MATHEMATICS IN THE MODERN WORLD
Course Description:	
The course begins with an introduction to the nature of mathematics as an exploration of patterns (in nature and the environment) and as an application of inductive and deductive reasoning. By exploring these topics, students are encouraged to go beyond the typical understanding of mathematics as merely a bunch of formulas but as a source of aesthetics in patterns of nature, for example, and a rich language (and of science) governed by logic and reasoning. The course then proceeds to survey ways in which mathematics provides a tool for understanding and dealing with various aspects of present day living, such as managing personal finances, making social choices, appreciating geometric designs, understanding codes used in data transmission and security, and dividing limited resources fairly. These aspects will provide opportunities for doing mathematics in a broad range of exercises that bring out the various dimensions of mathematics as a way of knowing, and test the students' understanding and capacity.	

Course Code	SS023
Course Title	THE CONTEMPORARY WORLD

Course Description:
This course introduces students to the contemporary world by examining the multifaceted phenomenon of globalization. Using the various disciplines of the social sciences. It examines the economic, social, political, technological, and other transformations that have created an increasing awareness of the interconnectedness of peoples and places around the globe. To this end, the course provides an overview of the

Course Code	HUM039
Course Title	ETHICS
Course Description:	
This course is an introduction to the philosophical study of morality. It presents different philosophical perspectives to basic moral issues. This will help students to think critically as they are introduced to different philosophies on ethics. Through this course, students should be able to take a stand and be firm on their convictions on the moral and ethical issues raised.	

Course Code	SS036
Course Title	SCIENCE, TECHNOLOGY, AND SOCIETY
Course Description:	
The interdisciplinary course engages students to confront the realities brought about by science and technology in society. Such realities persuade the personal, the public and the global aspects of our living and are integral to the human development. Scientific knowledge and technological development happen in the context of society with all its socio-political, cultural, economic, and philosophical underpinnings at play.	

Course Code	ENG040
Course Title	PURPOSIVE COMMUNICATION
Course Description:	
Purposive Communication is about writing, speaking, and presenting to different audiences and for various purposes. Purposive Communication is a three-unit course that develops students' communicative competence and enhances their cultural and intellectual awareness through multimedia tasks that provide them opportunities for communicating effectively and appropriately to a multicultural audience in a local and global context.	

Course Code	HUM034
Course Title	ART APPRECIATION
Course Description:	
This course provides a comprehensive study of the development of the arts from prehistoric to contemporary movements with emphasis on innovations, trends, aesthetic values, political and historical developments, contributions of artists and architects, and symbolic significance.	

Course Code	ENT078
Course Title	THE ENTREPRENEURIAL MIND
Course Description:	
This course will introduce the students with the entrepreneurial traits, behaviours and competencies. The students will be able to perform self-assessment to determine their level of predisposition to entrepreneurship. This course will also include personal entrepreneurial competencies, management styles, business ethics, responsibilities and duties of an entrepreneur.	

Course Code	ENV071
Course Title	ENVIRONMENTAL SCIENCE
Course Description:	
The course provides an integrated coverage of the basic concepts and principles of Ecology and the major human implications of these concepts. This involves a holistic approach in dealing with man's relationship in his environment. Included are topics on the nature of ecosystems, relations of individuals and	

populations, the major communities and man's impact on environment. This course also discusses a familiarization and orientation on the basic environmental management system, principles of environmental assessment and monitoring systems, and the Impact of Human Environment.

Course Code	SS038
Course Title	THE LIFE AND WORKS OF JOSE RIZAL
Course Description:	
Thorough and critical study of the life and works of Jose Rizal and their significance in understanding events of Philippine History, the life of the Filipino people, the emergence of Filipino Identity, and the development of Filipino Nationalism.	

Course Code	HUM017
Course Title	PHILIPPINE LITERATURE
Course Description:	
This course aims to acquaint the students with different works of Filipino authors writing in English in the different literary forms such as poetry, drama, short story, novel, and essay. Students are expected to gain insights from their readings that will make them tolerant and understanding of cultural and regional differences in the Philippines.	

CORE COURSES

Course Code	CS100
Course Title	INTRODUCTION TO COMPUTER SYSTEMS
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	4.5 hours (lec)
Course Description: This course will introduce students to fundamentals of computer systems, its theories and concepts in an everchanging discipline and understanding its essential impact in any aspects of the society. The student will focus in the history of computers and computer-based systems, number systems, hardware and software, operating systems, network systems, database management systems, and information systems development.	

Course Code	IT101P-1
Course Title	COMPUTER PROGRAMMING CONCEPTS 1
Pre-Requisite	None
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course is an introduction to programming which will provide the students the skill in programming using conventional techniques of flowcharting and pseudo coding. Topics include program structure and syntax, constants and variables, calculations, logic structures, control structures and lists.	

Course Code	IT101P-2
Course Title	COMPUTER PROGRAMMING CONCEPTS 2
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course builds on IT101-1P and continues the study on computer programming using Python specifically on advanced topics such as regular expressions, list generators, exception handling, sets, serialization and code introspection.	

Course Code	CS106P
Course Title	DATA STRUCTURES AND ALGORITHMS
Pre-Requisite	IT101-2P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)
Course Description: This course will study data abstractions, and core set of data structures and algorithms that provide a foundation for writing efficient programs. This course is about showing the correctness of algorithms and studying their computational complexities, a mixture of theoretical knowledge and practical experience.	

Course Code	CS107P
Course Title	INFORMATION MANAGEMENT
Pre-Requisite	CS106P
Co-Requisite	None
Credit units	3

Class Schedule	3 hours (lec), 4.5 hours (Lab)

Course Description:

This course covers information management, database design, data modelling, SQL and implementation using a relational database system.

Course Code	IT104P
Course Title	APPLICATIONS DEVELOPMENT AND EMERGING TECHNOLOGIES
Pre-Requisite	CS107P
Co-Requisite	None
Credit units	3
Class Schedule	3 hours (lec), 4.5 hours (lab)

Course Description:

The course contains the entire analysis and design process of software to be developed from creating functional. requirement specification, documenting, coding, licensing, testing, application, maintenance, and other project management techniques, considering the latest trends and use of emerging technologies.

GENERAL EDUCATION COURSES

Course Code	SS021
Course Title	UNDERSTANDING THE SELF

Course Description:

This course deals with the nature of identity, as well as the factors and forces that affect the development and maintenance of personal identity. The course intends to facilitate the exploration of the issues and concerns regarding self and identity to arrive at a better understanding of oneself. It strives to meet this goal by stressing the integration of the personal with the academic – contextualizing matters discussed in the classroom and in the everyday
experiences of students.

Course Code	SS022
Course Title	READINGS IN PHILIPPINE HISTORY

Course Description:

The course aims to expose students to different facets of Philippine history through the lens of eyewitnesses rather than rely on secondary materials such as textbooks, which is the usual approach in teaching Philippine history. Different types of primary sources will be used – written, oral visual, audio-visual, digital—covering various aspects of Philippine life (political, economic, social, cultural). Students are expected to analyse the selected readings contextually and in terms of content (stated and implied). The end goal is to enable students understand and appreciate our rich past by deriving insights from those who were present at the time of the event.

Course Code	MATH035
Course Title	MATHEMATICS IN THE MODERN WORLD

Course Description:

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