

# Courses that address sustainability and the SDGs

MMSU has dedicated courses (undergraduate, graduate, and professional) that address sustainability and the SDGS.

SDG 2: Zero Hunger

## **Undergraduate Programs**

Bachelor of Science in Food Technology. The BSFT is a four-year degree program based on applying science and related fields of study to convert raw materials into safe, stable, palatable, and nutritious foods. It includes the post-harvesting handling, preparation, processing, packaging, storage, and distribution of food to ensure food and nutrition security and the safety and well-being of individuals, families, and communities. It includes the social, cultural, economic, managerial, entrepreneurial, and environmental aspects of food systems and the art of food preparation. The Policies and Standards (PS) for BSFT incorporate the advances in biotechnology, increasing customers' demand for quality and safe foods and policy environments. These aim to develop and nurture competent, virtuous, productive, and well-rounded professional food technologists whose standards of practice and service shall be excellent, world-class, and globally competitive (https://cafsd.mmsu.edu.ph/department/food-technology/offering).

Bachelor of Science in Industrial Technology (Food Processing and Service Management or FPSM). The Program aims to train learners to become competent industrial technologists or technicians and industrial workers who promote proper work ethics, nationally certified trainers, and innovative supervisors, managers, and entrepreneurs who are imbued with the concepts and theories in the specific field of specialization. Specifically, the FPSM aims to: ) provide knowledge and skills and develop competencies in the basic food preparation, processing, service management, and allied courses; 2) sustain and enhance networking with colleges and universities, research agencies, food companies, GO's and other NGO's; 3) generate new knowledge through the conduct of research in the field of food processing and service management; 4) enhance research competencies of faculty and students for effective production of training materials and published researches in the field of food processing and service management; and 5) prepare food processing and service management students to become entrepreneurs, supervisors/managers, and quality control specialists (https://cit.mmsu.edu.ph/department/industrial-technology/offering).

## SDG 3: Good Health and Well-Being

### <u>Undergraduate Programs</u>

**Bachelor of Science in Nursing.** The BSN program provides an intensive nursing practicum that will refine further the nursing competencies to ensure achievement of the BSN program required of an entry level nurse (https://chs.mmsu.edu.ph/department/nursing).

Bachelor of Science in Pharmacy. It aims to provide quality education and training in pharmacy in order to produce pharmacists who are competent to deliver the full spectrum of pharmacy services required in the present health care system (https://chs.mmsu.edu.ph/department/pharmacy).

Bachelor of Science in Physical Therapy. It aims to provide quality education and training in physical therapy to produce physical therapists who are competent in delivering the full spectrum of physical therapy services, clinical or non-clinical, required in the present health care system along multiple settings towards various clienteles (https://chs.mmsu.edu.ph/department/physical-therapy).

### **Professional Course**

Doctor of Medicine. The viability of a Doctor of Medicine Program was revisited in 2011 when the Mariano Marcos Memorial Hospital and Medical Center submitted an unsolicited and independently-accomplished manifesto of support to its establishment. A feasibility study was consequently done confirming the up-to-date relevance and significance of the program's establishment. This move to open the MMSU-COM would hopefully fill the gap in the delivery of health services in various communities in Northern Luzon as well as strengthen the University's commitment in excellence, integrity and service to God and nation (<a href="https://com.mmsu.edu.ph/pdf/72/MD\_Curriculum.pdf/view">https://com.mmsu.edu.ph/pdf/72/MD\_Curriculum.pdf/view</a> and <a href="https://com.mmsu.edu.ph/article/about-the-college-of-medicine">https://com.mmsu.edu.ph/article/about-the-college-of-medicine</a>).

## SDG 4: Quality Education

#### <u>Undergraduate Programs</u>

**Bachelor of Elementary Education.** The Elementary Education Department prepares individuals intending to teach in the elementary level. With this, the department aims to develop highly motivated and competent teachers specializing in the content and pedagogy for elementary education (https://cte.mmsu.edu.ph/department/elementary-education).

Bachelor of Secondary Education. The Secondary Education Department offers the Bachelor of Secondary Education program and being manned by 37 highly-qualified, able and dedicated faculty members specializing in various fields of specialization like English, Filipino, Mathematics, Sciences, Social Studies and Values Education (https://cte.mmsu.edu.ph/department/secondary-education).

Bachelor of Special Needs Education. The department utilizes the MMSU-Laboratory Elementary School as an observation and practicum site for students taking Bachelor of Early Childhood Education (BECED) and Bachelor of Special Needs Education (BSNED) (https://cte.mmsu.edu.ph/department/early-childhood-and-special-needs-education).

Bachelor of Early Childhood Education. As such, the department offers a spectrum of learning and teaching practices involving physical education, sports education, health education, music education, visual arts education and performing arts education specifically dance and theater arts. Teaching and learning methods emphasize experiential learning, collaborative and inclusive practice, and innovative use of digital technology and blended learning (<a href="https://cte.mmsu.edu.ph/department/early-childhood-and-special-needs-education">https://cte.mmsu.edu.ph/department/early-childhood-and-special-needs-education</a>).

Bachelor of Technical-Vocational Teacher Education. Technical-Vocational Teacher Education aspect of the department focuses on equipping students or pre-service teachers with adequate and relevant competencies in teaching specific area in Industrial Arts, Home Economics, ICT or Agri-Fishery. On the other hand, the Technology and Livelihood Education aspect give emphasis on equipping learners or pre-service teachers with adequate and relevant competencies in the area of Technology and Livelihood Education, particularly for the TLE exploratory courses (<a href="https://cte.mmsu.edu.ph/department/technical-vocational-and-livelihood-education">https://cte.mmsu.edu.ph/department/technical-vocational-and-livelihood-education</a>).

Bachelor of Technology, Livelihood Education. As such, the department offers a spectrum of learning, teaching theories and practices which enable learners to achieve the desired values, skills and competencies expected of them as educators. Teaching and learning methods emphasize experiential learning, collaborative and inclusive practice, and innovative use of digital technology and blended learning (https://cte.mmsu.edu.ph/department/technical-vocational-and-livelihood-education).

Bachelor of Culture and Arts Education. Arts Education refers to education in the disciplines of music, visual arts, dance, and theatre arts (https://cte.mmsu.edu.ph/department/human-movement-and-arts-education).

Bachelor of Physical Education. Human movement is the scientific study of how the human body works, with a particular focus on improving the workings of the human body for sport, fitness and wellbeing. It covers the physiological, biomechanical and psychological systems of the body. On the other hand, Arts Education refers to education in the disciplines of music, visual arts, dance, and theatre arts (<a href="https://cte.mmsu.edu.ph/department/human-movement-and-arts-education">https://cte.mmsu.edu.ph/department/human-movement-and-arts-education</a>).

# SDG 7: Affordable and Clean Energy

#### **Professional Course**

**Professional Science Masters - Renewable Energy Engineering.** The curriculum provides for the development of field-specific expertise (solar, geothermal, hydro, wind, biomass) hand

in hand with leadership capability (<a href="https://gs.mmsu.edu.ph/department/professional-science-masters">https://gs.mmsu.edu.ph/pdf/48/02</a> PSM-REE Curriculum.pdf/view).

#### SDG 14: Life below Water

## <u>Undergraduate Programs</u>

Bachelor of Science in Marine Biology. The Bachelor of Science in Marine Biology program is a discipline in higher education that deals with the development of human resource that will steward the sustainable utilization and conservation of the vast aquatic and marine resources of the country through research, extension, and resource management (https://casat.mmsu.edu.ph/department/marine-biology).

Bachelor of Science in Fisheries. The Bachelor of Science in Fisheries program is designed to prepare well-rounded and highly competent fisheries professionals with competencies in the science and practice of fisheries science. The curriculum is more of general fisheries education which provides students with a strong scientific background on aquatic resources and ecology, aquaculture, marine fisheries, and post-harvest fisheries. However, the students may select any topic in the field of aquatic resources and ecology, aquaculture, capture fisheries, or post-harvest fisheries for their research and On-the-Job Training (https://casat.mmsu.edu.ph/department/fisheries).

#### SDG 15: Life on Land

### <u>Undergraduate Program</u>

Bachelor of Science in Forestry. The BSF is a four-year degree program that promotes the scientific conversion of forests for judicious and sustainable use of forest products and services. It covers four fields of study namely: forest biological sciences, forest resources management, social forestry and forest governance, and forest products utilization. It requires a BS Forestry graduate to pass the Foresters Licensure Examination given by the Professional Regulation Commission. A BS Forestry graduate can work on the following areas: forest management; watershed/river basin management; biodiversity conservation; forest resource inventory; tree and agroforestry farming; upland development; range and pasture development and management; protected area and ecotourism management; land-use planning; research, development and extension; administration, policy and governance; educational management; livelihood and enterprise development; business management; environmental impact assessment; environmental protection; climate change adaptation and disaster risk reduction management; forest products production and utilization; plant systematics; consultancy; urban landscaping; and teaching (https://cafsd.mmsu.edu.ph/department/forestry/offering).

#### **Professional Course**

**Doctor of Veterinary Medicine.** The Doctor of Veterinary Medicine Program is a professional course involved in the prevention, diagnosis, treatment and control of diseases of

animals, including terrestrial and aquatic animals. The program includes courses on general education, basic science, zootechnics (animal science) and veterinary medical science, as well as on professional skills that the graduates need to be able to carry out the duties of safeguarding animal health, public health, the environment, and to be capable of utilizing effectively the tools of communication in the pursuit of further knowledge and in information dissemination of such in both local and international settings

## SDG 16: Peace, Justice and Strong Institutions

## **Professional Course**

**Juris Doctor.** The program is a four-year post-graduate, professional degree using interdisciplinary approach prescribed by the Legal Education Board Memorandum No. 19, series of 2018. The first, second-, and third-year levels cover legal perspective courses, both substantive and procedural, including core, major and elective courses. Fourth level is devoted to review classes and practicum (<a href="https://col.mmsu.edu.ph/department/laws">https://col.mmsu.edu.ph/pdf/53/COLCurriculum.pdf/view</a>).