VISION OF CENTRAL MINDANAO UNIVERSITY

An academic paradise of higher learning actively committed to the total development of people for a globally sustainable environment and a humane society.

MISSION

To advance the frontiers of knowledge for economic prosperity, moral integrity, social and cultural sensitivity, and environmental consciousness through equitable access to quality instruction, research, extension and production.

VISION OF THE COLLEGE OF ENGINEERING

In consonance with the mission of the University, it is envisioned that the College shall serve as the Center of Excellence in Agro-Industrial Technology in Mindanao.

MISSION

The CMU-College of Engineering shall provide excellent baccalaureate and post-baccalaureate engineering degree and non-degree programs. It shall generate new knowledge and technologies by conducting basic and applied agro-industrialist researches; develop, evaluate, package and disseminate engineering technologies to accelerate the agro-industrial development in Mindanao in particular and the Philippines in general.

INTRODUCTION:

The province of Bukidnon is fast developing into a major business center in the heartland of Mindanao over the last ten years. This increasing industrialization in the province of Bukidnon demands higher level of safety of the built environment and engineering professionals to cope with the increasing sophistication of processes and systems in industries. Thus, engineering professionals must adapt to these rapid changes by acquiring higher level of scientific and technical know-how.

In this context, the departments of Civil, Electrical and Mechanical Engineering of the College of Engineering is offering the Master of Engineering Program with major specialization in the field of Civil, Electrical and Mechanical Engineering. This program is primarily designed to provide engineering practitioners with advanced technical knowledge to cope with the increasing sophistication of processes and systems in industries and built environment. It provides broad knowledge in advanced civil, electrical and mechanical engineering subjects with emphasis on recent developments in their applications in solving various engineering problems. It also provides broad background in advanced engineering mathematics, recent energy and environment issues and management engineering.

OBJECTIVES:

The objectives of the MOE program are as follows:

1. Provide competent and high level engineering professionals needed by industries and agencies in both the private and public sectors,

2. Develop engineering professionals to be grounded in appropriate advanced engineering concepts and principles in order to solve various complex technical problems and

3. Upgrade the faculty members of engineering schools in Mindanao in order to teach higher level of undergraduate and graduate engineering courses.

The Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>24</td>
</tr>
<tr>
<td>Major Courses/Related</td>
<td>18</td>
</tr>
<tr>
<td>Research Courses</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

Core Courses

- ES 200: Advanced Engineering Mathematics
- ES 204: Probability and Statistical Concepts in Engineering and Design
- ES 207: Research Techniques in Engineering
- ES 210: Numerical Methods for Engineers
- ES 219: Engineering Operations Management
- ES 220: Research Techniques in Engineering

Civil Engineering Courses

- CE 220: Advanced Reinforced Concrete Design
- CE 221: Load and Resistance Factor Design of Steel
- CE 222: Computer Methods of Structural Analysis
- CE 230: Value Engineering in Construction
- CE 240: Transportation Systems
- CE 241: Intelligent Transportation Systems
- CE 242: Geometric Design of Highways
- CE 250: Fundamentals of Engineering Geology
- CE 251: Advanced Soil Mechanics
- CE 252: Advanced Foundation Engineering
- CE 260: Fundamentals of Geo-environmental Engineering
- CE 261: Solid Waste Engineering and Management
- CE 270: Advanced Fluid Mechanics
- CE 271: Hydraulic Structure Design
- CE 272: Advanced Engineering Hydrology
- CE 273: Free Surface Flow
- CE 280: Water Supply Quality Management
- CE 281: Wastewater Disposal and Treatment
- CE 282: Environmental Pollution and Control

Electrical Engineering Courses

- EE 210: Rural Electrification and Distributed Generation
- EE 220: Energy Resources and Technologies
- EE 230: Development and Evaluation of Energy Projects
- EE 240: Energy Audit and Conservation
- EE 250: Fault Studies
- EE 270: Power Systems Economics
- EE 260: Computer-aided Power System Analysis

Mechanical Engineering Courses

- ME 200: Advanced Thermodynamics
- ME 202: Advanced Heat Transfer
- ME 204: Advanced Refrigeration Engineering
- ME 205: Experimental stress analysis
- ME 208: Machine Vision
- ME 211: Thermal Engineering
- ME 209: Advanced Computer-aided Solid Modeling and Design
Research Courses
CE 299A/ME 299A/EE 299A: Graduate Seminar
CE 299B/ME 299B/EE 299B: Special Project

ADMISSION REQUIREMENTS:
In addition to the requirements of the University for admission into the CMU Graduate School which include the Graduate School Admission Test (GSAT), the applicant must be a holder of a bachelor’s degree in engineering or its equivalent from any CHED-recognized institution.

Degree Requirements
1. The MOE program require a total number of 46 credit units of course work which include 24 units of core courses, 18 units of major courses, 3 units of special project and 1 unit of graduate seminar.

2. Every candidate must complete the following core courses ES 200, ES 204, ES 207, ES 213 and ES 219 plus three major courses and maintain a Cumulative Weighted Average Grade (CWAG) of “2.0” or better in all his/her graduate courses.

3. Students admitted to the programs who have not taken the undergraduate Advance Engineering Mathematics for CE, EE and ME (CE 42, EE 42 and ME 42) subjects must enroll and pass in these subjects in the respective BSCE, BSEE and BSME program at Central Mindanao University. These subjects are prerequisites to the required core courses. Additional undergraduate subject maybe required by the program adviser as prerequisites in the major courses.

Note: Units earned in the background courses will not be credited towards the Master of Engineering Program

4. The students will be required to demonstrate his or her grasp of the program fundamentals by taking a comprehensive examination after he or she has successfully completed all the required course works prior to his/her enrollment of Special Project during his/her last semester. In case of failure, the comprehensive examination must be repeated within one year. Failure to pass the second attempt will mean disqualification from the program.

FACULTY PROFILE

CIVIL ENGINEERING DEPARTMENT
Einstine M. Opiso* PhD, Hokkaido University
Gladys G. Silabay M.Eng, XU-CDO
Leoncio Mariano C. Acma MSCE, MSU-IIT,
Paulino R. Reomero MSCE, UP-Diliman
Reinerio P. Supremo MSCE, MSU-IIT, Doctor of Eng’g (Cand.), MSU-IIT
Reynaldo G. Juan M.Eng, AIT-Bangkok, Thailand
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Richard J. Aquino MSCE, UP-Diliman

ELECTRICAL ENGINEERING DEPARTMENT
Alnar L. Detalla**** D.Sci, Ibaraki University, 2005
Ariel S. Abay MOE (Cand.) at MSU-IIT
Earl M. Opiso** M.Eng, AIT-Bangkok
Roger C. Flores MM, LDCU

MECHANICAL ENGINEERING DEPARTMENT
Arman Gascon MSME, UP-Diliman
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Diomedes Gabule, Jr. MSME, MSU-IIT
Ronaldo C. Balandra*** MSME, MSU-IIT
Rey F. Polom MSME, MSU-IIT

Note:
* Program Coordinator for CE
** Program Coordinator for EE
*** Program Coordinator for ME
**** Affiliate Faculty Member

For more details, please contact / write

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MASTER OF ENGINEERING PROGRAM
(2013)

INFORMATION BULLETIN
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