BEE Curriculum Document

A. Bachelor of Electrical Engineering

The Bachelor's program in Electrical Engineering University of Mataram (EEUM) offers scientific methods and skills in accordance with new technological advancements for solving actual problems and community needs. Important objectives of EEUM study program are lecturing of methodological and social competence, working with large portions of practical laboratory exercises, and carrying out independent as well as group projects that are intensively supervised by lecturers. The EEUM study program leads to a Bachelor of Engineering degree, with majoring in Electric Power System, Electronics, Telecommunication System, and Computer System.

The EEUM curriculum is intensively developed to support four areas of research excellences, i.e. (i) Geo-electromagnetics, (ii) Internet of Thing and Sensor Technology, (iii) New and renewable Energy, and (iv) Smart Electric Vehicle. The Bachelor's program of EEUM prepares students in order to be ready and able to be involved in engineering activities. The graduates of EEUM should be not only excellent in knowledge, technical competencies and methodological skills; but also faithful, having good attitude, care for humanity and responsible for the environment.

No	PLO	Scope of PLO (according to SN Dikti and Fortei)
1	**Religious and ethical** Able to demonstrate a religious attitude, apply ethical principles and be committed to professional responsibilities and ethics as well as engineering practice norms and care for the community and the environment.	S 1, 2, 3, 4, 5, 6, 7, 8, 9; P 12, 14; KU 1, 3, 7, 10, 12; KK 2, 9,
	Knowledge Able to apply knowledge of science and mathematics, electrical technology, information technology and/or materials technology to gain a thorough understanding of the principles in the field of electrical engineering.	S 9; P 1, 2, 3, 4, 6, 8; KU 1, 2, 7, 8; KK 1, 7, 10, 12
	Engineering Analysis Able to choose methods, make literature reviews, design experiments with simulations, and analyze results to reach the	S 5, 8, 9; P 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13; KU 1, 2, 3, 4, 5, 9, 12;

	right conclusions, as well as develop guidelines for using tools.	KK 1, 4, 5, 10, 11, 12
	Engineering Design Able to design and develop components, systems and/or processes to support engineering activities and create technological innovations by optimally utilizing potential resources.	S 5, 6, 7, 9, 11, 12; P 2, 3, 4, 5, 6, 7, 8, 9, 10; KU 1, 2, 3, 4, 9, 12; KK 2, 3, 11, 12
	Experiment Able to design and carry out experiments using basic and modern technical tools and analyze and interpret data based on the correct methodology to strengthen engineering assessments.	S 7, 8, 9, 11; P 7, 8, 10, 11, 13; KU 2, 4, 7, 8, 9, 10, 12; K 3, 5, 6, 7, 8, 11
	Communication Able to interact and express ideas effectively both orally and in writing within the engineering environment and the general public in the national and international scope.	S 4, 5, 6, 7, 8, 12; P 5, 6, 7, 12, 13, 14; KU 1, 3, 4, 6, 9, 10; KK 3, 4, 6, 8, 9, 10, 12
	Individual and Teamwork Able to plan, implement, complete, and evaluate tasks both individually and in collaboration in interdisciplinary, multidisciplinary, multinational, and multicultural teams.	S 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12; P 3, 5, 6, 7, 12, 13, 14; KU 1, 2, 4, 5, 6, 7, 8, 10, 13; KK 6, 7, 8, 9
	Entrepreneurship Able to apply entrepreneurial principles and methods in starting a business independently and building technology-based business networks	S 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12; P 1, 2, 3, 5, 6, 7, 10, 11, 12, 13, 14; KU 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13; KK 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

	Lifelong learning	S 1, 3, 8, 10, 11; P 5, 6, 7, 12;
	Able to understand the need for lifelong learning with data literacy, technology	KU 1, 2, 3, 4, 5, 6, 8, 9, 10, 11;
	literacy, information literacy and human literacy.	KK 1, 6, 8, 10, 12