

## STUDY PROGRAM INFORMATION

<b>A.</b>	<b>Name of Study Program</b>	:	Civil Engineering	
	<b>Level of Study</b>	:	Bachelor's Degree	
	<b>Faculty</b>	:	Engineering	
<b>B.</b>	<b>Vision</b>	:	Becoming an excellent Civil Engineering program in infrastructure design and development, and in the provision of Islamic-based human resources	
<b>C.</b>	<b>Graduate Learning Outcomes</b>	:	Generating professional graduates with strong Islamic values who can understand planning and supervision concepts in civil engineering; executing civil construction works; managing and operating civil infrastructure; developing an entrepreneurial mindset in the civil engineering field; and who are able to become academics and researchers in the development and dissemination of science and technology with due consideration of environmental aspects	
<b>D.</b>	<b>Learning Outcomes</b>	:	<ol style="list-style-type: none"> <li>1. Being able to demonstrate faith and devotion to God, and to exhibit progressive character in national and civic life, with a sustainable global perspective based on the values of Progressive Islam and Pancasila</li> <li>2. Working professionally and responsibly in the field of civil engineering practice</li> <li>3. Being able to understand, analyze, apply and communicate fundamental civil engineering concepts through scientific reports and verbal communication</li> <li>4. Being able to design and conduct laboratory and field experiments and analyze and interpret data to solve civil engineering problems accurately</li> <li>5. Being able to understand fundamental principles and knowledge of civil engineering structures in accordance with applicable standards and codes and recognize the importance of lifelong learning</li> <li>6. Being able to apply knowledge of mathematics, physics, chemistry, statistics and information technology to comprehensively understand civil engineering principles</li> <li>7. Being able to master the concepts of civil engineering, demonstrate an entrepreneurial mindset, optimize the use of natural resources, and apply environmental awareness</li> <li>8. Being able to design components, systems, and processes in civil engineering construction works by considering economic aspects, professional ethics, occupational safety, sustainability, and environmental principles</li> <li>9. Being able to perform analysis and calculations using modern tools to solve civil engineering problems accurately, based on investigation, problem formulation, and data analysis, both independently and in teamwork</li> <li>10. Being able to work in multidisciplinary and multicultural teams in applying fundamental civil engineering knowledge and adapt to advancements in science and technology in the civil engineering field</li> </ol>	
<b>E.</b>	<b>Courses</b>	:	<b>Semester I</b>	
		:	1. Faith and Humanity (AIK I)	1 credit
		:	2. Productive Foreign Language Skills for Specific Purposes	2 credits

		3. Mathematics I	4 credits
		4. Basic Chemistry	2 credits
		5. Physics I	4 credits
		6. Environmental Science	3 credits
		7. Engineering Drawing	2 credits
		8. Statistics and Probability	3 credits
		<b>Semester II</b>	
		1. Worship and Human Relations (AIK II)	1 credit
		2. English Proficiency Test Preparation	2 credits
		3. Mathematics II	4 credits
		4. Engineering Mechanics	3 credits
		5. Physics II	3 credits
		6. Building Structures	2 credits
		7. Surveying and Mapping	3 credits
		8. Hydraulics I	2 credits
		<b>Semester III</b>	
		1. Muhammadiyah Studies (AIK III)	1 credit
		2. Mechanics of Materials	2 credits
		3. Mathematics III	4 credits
		4. Technology of Construction Materials	2 credits
		5. Soil Mechanics I	3 credits
		6. Hydrology	2 credits
		7. Hydraulics II	3 credits
		8. Transportation Systems	2 credits
		9. Matrix Methods of Structural Analysis	3 credits
		<b>Semester IV</b>	
		1. Islam and Science, Technology, and Arts (AIK IV)	1 credit
		2. Pancasila Studies	2 credits
		3. Indonesian Language	2 credits
		4. Reinforced Concrete Structures	4 credits
		5. Soil Mechanics II	3 credits
		6. Irrigation Engineering	2 credits
		7. Urban Drainage Planning	2 credits
		8. Mass Transportation Systems	2 credits
		9. Geometric Design of Roads	3 credits
		<b>Semester V</b>	
		1. Civics and Citizenship Education	2 credits
		2. Steel Structures	3 credits
		3. Prestressed and Precast Concrete Structures	2 credits
		4. Construction Methods and Occupational Safety	3 credits
		5. Foundation Engineering	3 credits
		6. Hydraulic Structures Design	3 credits
		7. Introduction to Geology	2 credits
		8. Traffic Engineering	2 credits
		<b>Semester VI</b>	
		1. Information Technology and Computing	2 credits
		2. Community Service Program (KKN)	4 credits
		3. Earthquake-Resistant Structures	3 credits
		4. Project Management	3 credits
		5. Water Resources Development	3 credits
		6. Pavement Design	3 credits

			<p><b>Semester VII</b></p> <p>1. Industrial Internship 3 credits</p> <p>2. Research Methods, Engineering Design, Technical Writing, and Presentation 2 credits</p> <p>3. Entrepreneurship in Civil Engineering 3 credits</p> <p>4. Elective Course I 2 credits</p> <p>5. Elective Course II 2 credits</p> <p>6. Elective Course III 2 credits</p> <p>7. Elective Course IV 2 credits</p> <p><b>Semester VIII</b></p> <p>Final Project / Thesis 6 credits</p> <p style="text-align: right;"><b>Total</b> <b>144 credits</b></p> <p><b>Elective Courses</b></p> <p>1. Advanced Ground Improvement and Foundation Engineering 2 credits</p> <p>2. Timber and Bamboo Structures 2 credits</p> <p>3. Bridge Engineering 2 credits</p> <p>4. Port and Harbor Engineering 2 credits</p> <p>5. Airport Engineering 2 credits</p> <p>6. Railway Engineering 2 credits</p> <p>7. Transportation Management 2 credits</p> <p>8. River Engineering 2 credits</p> <p>9. Hydropower Engineering 2 credits</p> <p>10. Dam Engineering 2 credits</p> <p>11. Groundwater Management and Conservation 2 credits</p> <p>12. Water Supply and Wastewater Treatment 2 credits</p> <p>13. Environmental Impact Assessment 2 credits</p> <p>14. Solid Waste Management 2 credits</p>
<b>F.</b>	<b>Value Propositions</b>	:	<ol style="list-style-type: none"> <li>1. Embedding AutoCAD competency from the first semester to strengthen students' early technical proficiency</li> <li>2. Implementing intensive foreign language programs in the first academic year to enhance students' global communication readiness</li> <li>3. Developing a pilot international class to foster international exposure and global competitiveness</li> <li>4. Establishing the Center of Excellence (CoE) program in the field of Housing Development to develop entrepreneurial competencies and generate graduates capable of engaging in housing and real estate development</li> <li>5. Focusing academic and research development on three core areas of civil engineering expertise: Structures, Water Resources, and Transportation</li> <li>6. Strengthening strategic collaborations with industry, government, and professional partners in civil engineering to support learning, research, and graduate employability</li> <li>7. Providing well-equipped laboratories that strongly support practical, experimental, and research-based learning</li> </ol>