

Courses

This table aims to give detailed information related to the subjects the students need to take every semester

Semester 1

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Islamic Education</i>	2	Compulsory	-
2	<i>English for Civil Engineering</i>	2	Compulsory	-
3	<i>Statistics and Probability</i>	2	Compulsory	-
4	<i>Basic Physics</i>	2	Compulsory	-
5	<i>Disaster Science</i>	2	Compulsory	-
6	<i>Mathematics I</i>	3	Compulsory	-
7	<i>Materials Science (+Pr)</i>	3	Compulsory	-
8	<i>Statics I</i>	2	Compulsory	-
9	<i>Environmental Science</i>	2	Compulsory	-

Semester 2

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Islami Ulil Albab</i>	3	Compulsory	
2	<i>Fluid Mechanics (+Pr)</i>	3	Compulsory	
3	<i>Mathematics II</i>	2	Compulsory	<i>Mathematics I</i>
4	<i>Statics II</i>	2	Compulsory	<i>Statics I</i>
5	<i>Computer Programming Logic (+Pr)</i>	2	Compulsory	<i>Mathematics I</i> <i>English for Civil Engineering</i>
6	<i>Engineering Drawing and 3D Modelling</i>	3	Compulsory	
7	<i>Soil Mechanics I (+Lab)</i>	3	Compulsory	
8	<i>Hydrology</i>	2	Compulsory	<i>Statistics and Probability</i>

Semester 3

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Mathematics III</i>	3	Compulsory	<i>Mathematics II</i>
2	<i>Mechanics of Materials</i>	3	Compulsory	<i>Statics I, Statics II</i>
3	<i>Hydraulics</i>	2	Compulsory	<i>Fluid Mechanics (+Pr)</i>
4	<i>Statically Indeterminate Structure Analysis</i>	3	Compulsory	<i>Statics I, Statics II</i>
5	<i>Soil Mechanics II (+Lab)</i>	3	Compulsory	<i>Soil Mechanics I (+Lab)</i>
6	<i>Highway Geometry</i>	3	Compulsory	<i>Engineering Drawing and 3D Modelling</i>
7	<i>Pavement Materials (+Lab)</i>	3	Compulsory	<i>Soil Mechanics I (+Lab)</i>

Semester 4

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>State Ideology</i>	2	Compulsory	-
2	<i>Indonesian Language for Writing</i>	2	Compulsory	-
3	<i>Traffic Engineering (+Lab)</i>	3	Compulsory	<i>Statistics and Probability</i>
4	<i>Beam and Slab Concrete Design</i>	2	Compulsory	<i>Mechanics of Materials</i>
5	<i>Project Management</i>	4	Compulsory	-
6	<i>Foundations I</i>	2	Compulsory	-
7	<i>Pavement Structure</i>	2	Compulsory	<i>Pavement Materials (+Lab)</i>
8	<i>Irrigation Engineering</i>	3	Compulsory	<i>Fluid Mechanics (+Pr)</i>

			<i>Engineering Drawing and 3D Modelling</i>
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Semester 5

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Islam Rahmatan Lil alamin</i>	3	Compulsory	-
2	<i>Citizenship Education</i>	2	Compulsory	-
3	<i>Numeric Methods</i>	2	Compulsory	<i>Computer Programming Logic (+Pr)</i>
4	<i>Concrete Frame Earthquake Resistant Design</i>	3	Compulsory	<i>Beam and Slab Concrete Design</i>
5	<i>Water Structures Design (Mini Project #1)</i>	3	Compulsory	<i>Irrigation Engineering, Hydraulics, Hydrology</i>
6	<i>Highway Design (Mini Project #2)</i>			<i>Highway Geometry, Pavement Structure</i>
7	<i>Foundations II</i>	2	Compulsory	<i>Soil Mechanics I (+Lab)</i>
8	<i>Matrix Method of Structural Analysis</i>	3	Compulsory	<i>Statically Indeterminate Structure Analysis</i>
9	<i>Drainage Engineering</i>	2	Compulsory	<i>Hydraulics, Hydrology</i>

Semester 6 (Regular Program-Practical Works)

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Syariah Entrepreneurship</i>	2	Compulsory	-
2	<i>Practical Works (Reguler)</i>	3	Compulsory	Cumulative Credit: min 95

3	<i>Final Project Proposal</i>	1	Compulsory	Cumulative Credit: min 100
	<i>Elective Course</i>	12	Elective	-
	<i>Earthquake Engineering</i>	2	Compulsory	-

Semester 6 (Internship-Program)

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Syariah Entrepreneurship</i>	2	Compulsory	-
2	<i>Practical Works (Internship)</i>	13	Compulsory	Cumulative Credit: min 95
3	<i>Final Project Proposal</i>	1	Compulsory	Cumulative Credit: min 100
	<i>Elective Course</i>	2	Elective	-
	<i>Earthquake Engineering</i>	2	Compulsory	-

Semester 6 (Emancipated Learning-Program)

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Syariah Entrepreneurship</i>	2	Compulsory	-
2	<i>Practical Works (Reguler)</i>	3	Compulsory	Cumulative Credit: min 95
3	<i>Final Project Proposal</i>	1	Compulsory	Cumulative Credit: min 100
4	<i>Elective Course</i>	2	Elective	-
5	<i>Earthquake Engineering</i>	2	Compulsory	-
6	<i>Research Project/ Independent Study/ Independent Entrepreneurship/ Humanitarian Project/ Community Development/ Independent Teaching</i>	10	-	-

Semester 7

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Society Services</i>	2	Compulsory	Cumulative Credit: min 100
2	<i>Investment Analysis and Project Risks</i>	2	Compulsory	-
3	<i>Steel Structures</i>	3	Compulsory	<i>Mechanics of Materials</i>
4	<i>Construction Equipment Management</i>	2	Compulsory	-
5	<i>Building Construction Methods</i>	3	Compulsory	<i>Project Management</i>
6	<i>Building Structures Design (Mini Project #2)</i>	4	Compulsory	<i>Concrete Frame Earthquake Resistant Design, Earthquake Engineering</i>
7	<i>Pavement Construction Techniques</i>	2	Compulsory	<i>Pavement Materials (+Lab), Pavement Structure</i>
8	<i>Elective Course</i>	2	Compulsory	-

Semester 8

No	Subject	Credit	Status (Compulsory/Elective)	Prerequisite
1	<i>Final Project</i>	4	Compulsory	Cumulative Credit: min 120

Elective Course based on Expertise Group**Group-Construction Management-**

No	Subject	Credit	Prerequisite
1	<i>Construction Law</i>	2	<i>Project Management</i>
2	<i>Safety and Construction Risk</i>	2	-

3	<i>Quality and Engineering Value of Construction</i>	2	-
4	<i>BIM for Construction Management</i>	2	-

Group-Transportation

No	Subject	Credit	Prerequisite
1	<i>Public Transport</i>	2	<i>Traffic Engineering (+Lab)</i>
2	<i>Railway</i>	2	<i>Highway Geometry, Pavement Structure</i>
3	<i>Airport Engineering</i>	2	<i>Pavement Materials (+Lab), Pavement Structure</i>
4	<i>Traffic Management</i>	2	<i>Traffic Engineering (+Lab)</i>
5	<i>Transportation Planning</i>	2	<i>Traffic Engineering (+Lab)</i>

Group-Structure

No	Subject	Credit	Prerequisite
1	<i>Bridge Structural Design</i>	2	<i>Statically Indeterminate Structure Analysis, Beam and Slab Concrete Design</i>
2	<i>Prestressed Concrete Structures</i>	2	<i>Beam and Slab Concrete Design, Concrete Frame Earthquake Resistant Design,</i>
3	<i>Structural Dynamics Analysis</i>	2	<i>Mathematics III, Numeric Methods, Computer Programming Logic (+Pr)</i>
4	<i>Composite Structures</i>	2	-
5	<i>Finite Elements Method</i>	2	-
6	<i>Timber Structure</i>	2	<i>Mechanics of Materials</i>

Group-Water Resource

No	Subject	Credit	Prerequisite
1	<i>Seaport Design</i>	2	
2	<i>Advance Hydraulics</i>	2	<i>Hydraulics</i>

3	<i>River Engineering</i>	2	
4	<i>Water Resource Management</i>	2	-
5	<i>Dam</i>	2	-

Group-Geotechnic

No	Subject	Credit	Prerequisite
1	<i>Soil Reinforcement</i>	2	<i>Soil Mechanics I (+Lab)</i>
2	<i>Soil Stabilization</i>	2	<i>Soil Mechanics I (+Lab)</i>

Group-General

No	Subject	Credit	Prerequisite
1	<i>Post Disaster Evaluation of Infrastructure</i>	2	-
2	<i>Special Theme</i>	2	-
3	<i>Geography Information System</i>	2	-