

Department of **Civil Engineering**
Undergraduate - Civil Engineering
FACULTY OF CIVIL ENGINEERING AND PLANNING
INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)

Smt	Code	Courses	Credits
1	IG1101	Islam Education*	2
1	IG1102	Protestant Education*	2
1	IG1103	Catholic Education*	2
1	IG1104	Hindu Education*	2
1	IG1105	Buddha Education*	2
1	IG1106	Concept of Nationalism	3
1	IG1110	Khonghucu Education*	2
1	RC1311	Statically Determinate Structures	3
1	RC1312	Land Surveying	2
1	RC1313	Computer Programming and Application	2
1	SF1201	Physics I	3
1	SM1201	Calculus I	3
2	IG1108	English	3
2	RC1321	Civil Engineering Drawing (+assignment)	3
2	RC1322	Mechanics of Materials	3
2	RC1323	Concrete and Material Technology (+practice)	4
2	RC1324	Construction Project Management	2
2	SM1202	Calculus II	3
3	RC1331	Engineering Mathematics	2
3	RC1332	Statistics for Civil Engineering	2
3	RC1333	Statically Indeterminate Structures	3
3	RC1334	Concrete Structure 1	3
3	RC1335	Traffic Engineering	3
3	RC1336	Project Financial Feasibility Study (+assignment)	3
3	RC1337	Fluid Mechanics and Hydraulics (+practice)	4
4	RC1341	Applied Engineering Mechanics	3

Smt	Code	Courses	Credits
4	RC1342	Elements of Steel Structure	3
4	RC1343	Concrete Structure 2	2
4	RC1344	Soil Mechanics and Foundation	4
4	RC1345	Time and Construction Project Cost Design	3
4	RC1346	Highway and Railway Geometry	2
4	RC1347	Hydrology	3
5	RC1351	Aided Program for Civil Engineering (CAD + Plaxis)	2
5	RC1352	Concrete Building Structures + assignment	4
5	RC1353	Steel Building Structures (+assignment)	4
5	RC1354	Embankment and Earth-Retaining Structures	4
5	RC1355	Transportation Planning and Modeling	2
5	RC1356	Drainage System and Structures	4
6	IG1107	Concept of Scientific Technology and Communication	3
6	RC1361	Modeling of System for Civil Engineering	2
6	RC1362	Bridge Engineering (+assignment)	4
6	RC1363	Road Pavement Design (+ practicum)	3
6	RC1364	Water Construction Design (+ Assignment)	3
6	RC1365	River and Coastal Technique	3
7	IG1109	Technopreneurship	3
7	RC1371	Practical Work	2
7	RC1372	Construction Equipment and Methods	3
7	RC1373	Airport Planning	2
7	RC1374	Harbor Design	2

Smt	Code	Courses	Credits
7	RC1375	Methods of Scientific Writing	2
8	RC1401	Timber Structures**	2
8	RC1402	Prestressed Concrete Structures**	2
8	RC1403	Finite Element Method**	3
8	RC1404	Ductile Steel Structures**	3
8	RC1405	Long Span Bridge Structures**	2
8	RC1406	Dynamic Structural Analysis**	3
8	RC1407	Small Dam and Hydro Power**	2
8	RC1408	Water Resource Management**	2
8	RC1409	Piping Network Design**	2
8	RC1410	Shore and River Building Design**	2
8	RC1411	Water Building Maintenance and Operation**	2
8	RC1412	Special Topics**	2
8	RC1413	Time and Cost Optimization**	2
8	RC1414	Construction Project Contract and Procurement**	2
8	RC1415	Building Utility**	2
8	RC1416	Maintenance of Civil Engineering Structures**	2
8	RC1417	Engineering Geology**	2
8	RC1418	Ground Improvement Method**	2
8	RC1419	Rock Foundation**	2
8	RC1420	Advanced Foundation Techniques**	2
8	RC1421	Foundation with Dynamical Burden**	2
8	RC1422	Highway Economics**	2
8	RC1423	Mass Transportation and Transportation Facility**	2
8	RC1424	Railway Engineering**	2
8	RC1501	Final Project	6

* Select one of those with stars

** Elective courses



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