## **Kelas Internasional / Double Degree**

 $1^{\text{st}}$  and  $2^{\text{nd}}$  semester International Class/Double Degree

No	Code	Subjects	Credits	Total Credits	Field
1	CE81101	Structural Engineering Mathematic	3		
2	CE81102	Advanced Finite Element Method	3		
3	CE81103	Advanced Material Engineering	3		
4	CE81104	Structural Experimental Method	2	21	Structural Engineering
5	CE82105	Advanced Steel Structure	2	21	
6	CE82106	Advanced Concrete Structure	3		
7	CE82107	Structural Realibility	2		
8	CE82108	Dynamics and Earthquake Engineering	3		
1	CE81121	Analytical Engineering System	3		
2	CE81122	Pavement Material Technology	3		
3	CE81123	Pavement Management System	3		
4	CE81124	Transportation Modelling	3	21	Transportation
5	CE82125	Management and Safety Transportation	3	1	Engineering
6	CE82126	Transportation Engineering Studio	3		
7	CE82127	Sustainable Urban Transportation	3	1	
1	CE81141	Analytical System and Decision Making	3		Construction Management
2	CE81142	Advanced Project Management	3		
3	CE81143	Human Resources Management	3		
4	CE81144	Quality Management	3	21	
5	CE82145	Risk Management	3		
6	CE82146	Construction Safety Management System	3		
7	CE82147	Legal Issue and Contract Management	3		
1	CE81161	Engineering Mathematic	3		Geotechnical Engineering
2	CE81162	Geotechnical Investigation	3		
3	CE81163	Advanced Foundation Engineering	3		
4	CE81164	Soil Dynamics and Earthquake Engineering	3	21	
5	CE82165	Numerical Method Analysis	3		
6	CE82166	Advanced Soil Improvement	3		
7	CE82167	Soil Behaviors	3		
1	CE81181	Engineering Hydrology	3	21	Water Infrastructure Engineering and Disaster Mitigation
2	CE81182	Hydrodynamic	3		
3	CE81183	Water and Sanitation Infrastructure for Disaster Area	3		
4	CE81184	Dam Infrastructure	3		
5	CE82185	Numerical Method and Finite Element			

No	Code	Subjects	Credits	Total Credits	Field
6	CE82186	Erosion and Sediment Infrastructure	3		
7	CE82187	Hydraulic Design of Safe Bridge	3		

## 3<sup>rd</sup> Semester (Elective with Minimum 9 credits)

No	Code	Subjects	Credits	Total Credits	Field
1	CE80109	Advanced Numerical Method	3		Structural Engineering
2	CE80110	Continuum Mechanics	3		
3	CE80111	Advanced Concrete Rheology	3		
4	CE80112	Structural Stability	3	21	
5	CE80113	Bridges Structure	3		
6	CE80114	Plasticity and Cracking Mechanism Theory	3		
7	CE80115	Plate and Shell Theory	3		
1	CE80128	GIS & Remote Sensing For Transportation Engineering	3		
2	CE80129	Transportation Special Topics	3		
3	CE80130	Traffic Impact Assessment	3		
4	CE80131	Terminal Engineering	3	21	Transportation Engineering
5	CE80132	Railway Engineering	3		2
6	CE80133	Port Engineering	3		
7	CE80134	Airport Engineering	3		
1	CE80148	Sustainable Construction	3		Construction Management
2	CE80149	Disaster Mitigation in Construction	3		
3	CE80150	Asset Infrastructure Management	3	15	
4	CE80151	Strategic Management	3		
5	CE80152	Management Information System	3		
1	CE80168	Rocks Engineering	3		Geotechnical Engineering
2	CE80169	Tunnels Engineering	3		
3	CE80170	Stability in Geotechnique	3	15	
4	CE80171	Reliability Analysis	3		
5	CE80172	Environmental Geotechnique	3		
1	CE80188	Geographic Information System (GIS) and Remote Sensing for Water Resource Engineering	3	18	Water Infrastructure Engineering and Disaster Mitigation
2	CE80189	Controlled Flood Infrastructure	3		
3	CE80190	Port Infrastructure	3		
4	CE80191	Coastal Infrastructure	3		
5	CE80192	Coastal Disaster Management	3		
6	CE80193	Hydroclimatology Disaster	3		

## 2<sup>nd</sup> semester International Class/Double Degree (University Compulsary)

No	Code	Subjects	Credits	Field
1	CE80001	Research Method and Academic Writing	3	All Fields

## Thesis

No	Kode	Mata Kuliah	Credits	Fields
1	CE80004	Thesis	10	All Fields