

Study Plans

Major : ٨٠١٠١ Science in Civil Engineering

Edition : ١

Total Hours : ١٦٢

| Level : First | | | |
|---------------|-------------------------------------|--------------|-------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| 981501-3 | English language (١) | | |
| CHEM102-3 | General Chemistry | | |
| CIT101-2 | Computer and Information Technology | | |
| ISCU101-2 | Islamic culture (١) | | |
| MATH110-3 | Mathematics (١) | | |
| PSYC101-2 | Thinking and learning skills | | |

| Level : Second | | | |
|----------------|----------------------|--------------|----------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| 981502-3 | English Language (٢) | 981501-3 | English language (١) |
| ARAB101-3 | Arabic Language I | | |
| job130-2 | Communication Skills | | |
| MATH120-3 | Mathematics (٢) | MATH110-3 | Mathematics (١) |
| PHYS102-3 | General Physics | MATH110-3 | Mathematics (١) |

| Level : Third | | | |
|---------------|--------------------------------------|--------------|-------------------------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| 981210-2 | English language for Engineering | 981502-3 | English Language (٢) |
| CE213-2 | Statics | MATH120-3 | Mathematics (٢) |
| CE214-1 | Technical reports | 981502-3 | English Language (٢) |
| CE219-2 | Engineering Economics | | |
| EE213-3 | Introduction to Computer Programming | CIT101-2 | Computer and Information Technology |
| EE223-1 | Engineering professionalism | ISCU101-2 | Islamic culture (١) |
| MATH206-4 | Mathematics ٣ | MATH120-3 | Mathematics (٢) |
| ME217-2 | Engineering Drawing | | |

| Level : Forth | | | |
|---------------|------------------------------------|--------------|----------------------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| EE224-3 | Basics of electrical circuits | | |
| MATH201-3 | Multi variable calculus | MATH206-4 | Mathematics ٣ |
| ME222-3 | Production Technology | | |
| ME224-2 | Dynamics | CE213-2 | Statics |
| ME226-3 | Introduction to engineering design | 981210-2 | English language for Engineering |
| PHYS223-4 | Engineering physics | MATH206-4 | Mathematics ٣ |
| | | PHYS102-3 | General Physics |

| Level : Fifth | | | |
|---------------|---------------------------|--------------|-------------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| CE311-3 | Hydraulics | PHYS223-4 | Engineering physics |
| CE312-2 | Civil engineering drawing | ME217-2 | Engineering Drawing |
| CE313-3 | Structural analysis (١) | CE213-2 | Statics |
| CE314-2 | Surveying (١) | MATH120-3 | Mathematics (٢) |
| CE315-2 | Engineering Geology | PHYS102-3 | General Physics |
| ISCU202-2 | Islamic culture (٢) | ISCU101-2 | Islamic culture (١) |
| MATH057-4 | Differential Equations | MATH201-3 | Multi variable calculus |

| Level : Sixth | | | |
|---------------|---|--------------|-------------------------|
| Course No. | Course Name | prerequisite | prerequisite Name |
| CE321-3 | Geotechnical engineering | CE315-2 | Engineering Geology |
| CE322-3 | Properties and strength of construction materials | CE313-3 | Structural analysis (١) |
| CE323-2 | Surveying (٢) | CE314-2 | Surveying (١) |
| CE324-2 | Structural analysis (٢) | CE313-3 | Structural analysis (١) |
| MATH055-3 | Statistics and Probability Theory | MATH120-3 | Mathematics (٢) |
| MATH421-3 | Numerical Analysis | MATH057-4 | Differential Equations |

| Level : Seventh | | | |
|-----------------|--|--------------|---|
| Course No. | Course Name | prerequisite | prerequisite Name |
| CE412-3 | Design of steel structures | CE324-2 | Structural analysis (٢) |
| CE413-3 | Water resources engineering | CE311-3 | Hydraulics |
| CE414-3 | Design of reinforced concrete structures (١) | CE324-2 | Structural analysis (٢) |
| CE415-2 | Transportation and traffic engineering | MATH055-3 | Statistics and Probability Theory |
| CE416-3 | Concrete Technology | CE322-3 | Properties and strength of construction materials |
| ISCU303-2 | Islamic culture (٣) | ISCU202-2 | Islamic culture (٢) |
| MATH243-2 | Linear Algebra | MATH120-3 | Mathematics (٢) |

| Level : Eighth | | | |
|----------------|--|--------------|--|
| Course No. | Course Name | prerequisite | prerequisite Name |
| CE423-3 | Design of reinforced concrete structures (٢) | CE414-3 | Design of reinforced concrete structures (١) |
| CE424-3 | Highways engineering | CE415-2 | Transportation and traffic engineering |
| CE425-3 | Sanitary and environmental engineering | CE311-3 | Hydraulics |
| CE426-2 | Building Constructions | CE312-2 | Civil engineering drawing |
| CE427-2 | Construction methods and equipments | CE416-3 | Concrete Technology |
| CE428-2 | Summer Training | | |
| CE429-3 | Foundation engineering | CE321-3 | Geotechnical engineering |

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| Level : Ninth | | | | Level : Tenth | | | |
|---------------|--|--------------|--|---------------|---|--------------|--|
| Course No. | Course Name | prerequisite | prerequisite Name | Course No. | Course Name | prerequisite | prerequisite Name |
| CE510-2 | Project ١ | | | CE520-3 | Project (٢) | CE510-2 | Project ١ |
| CE511-3 | Contracts, specifications and quantity Surveying | CE426-2 | Building Constructions | CE522-2 | Computer analysis of structures | CE423-3 | Design of reinforced concrete structures (٢) |
| CE512-2 | Railway engineering | CE415-2 | Transportation and traffic engineering | | | MATH421-3 | Numerical Analysis |
| CE513-3 | Projects management | CE427-2 | Construction methods and equipments | CE523-3 | Design of water structures | CE311-3 | Hydraulics |
| CE531-2 | Advanced Highways Engineering | CE424-3 | Highways engineering | CE532-2 | Airports Engineering | CE424-3 | Highways engineering |
| CE533-2 | Advanced Transportation Engineering | CE415-2 | Transportation and traffic engineering | CE534-2 | Advanced Traffic Engineering | CE415-2 | Transportation and traffic engineering |
| CE540-2 | Special Topics in Public works engineering | | | CE535-2 | Advanced Railways Engineering | CE512-2 | Railway engineering |
| CE541-2 | Special Topics in Construction Engineering | | | CE536-2 | Finite Element Method | CE324-2 | Structural analysis (٢) |
| CE542-2 | Design of Advanced Steel Structures | CE412-3 | Design of steel structures | | | MATH421-3 | Numerical Analysis |
| CE545-2 | Structural Analysis (٢) | CE324-2 | Structural analysis (٢) | CE537-2 | Sustainable Infrastructure Engineering | CE513-3 | Projects management |
| CE548-2 | Deep and Special Foundations | CE429-3 | Foundation engineering | CE538-2 | Geographic information System | CE323-2 | Surveying (٢) |
| CE550-2 | Hydraulic Modelling | CE311-3 | Hydraulics | CE539-2 | Special Topics in Water Resources Engineering | | |
| CE551-2 | Harbor Engineering and Coastal Protection | MATH421-3 | Numerical Analysis | CE543-2 | Dynamics of Structures and Earthquake Engineering | CE324-2 | Structural analysis (٢) |
| CE552-2 | Hydrology of Groundwater | CE311-3 | Hydraulics | CE544-2 | Advanced Hydraulics | CE311-3 | Hydraulics |
| CE553-2 | Design of modern Irrigation Systems | CE413-3 | Water resources engineering | CE546-2 | Dams Engineering | CE311-3 | Hydraulics |
| CE557-2 | Reinforced Concrete (٣) | CE413-3 | Water resources engineering | CE547-2 | Concrete Bridges | CE423-3 | Design of reinforced concrete structures (٢) |
| CE558-2 | Photogrammetric surveying | CE423-3 | Design of reinforced concrete structures (٢) | CE549-2 | Foundation on Problematic Soils | CE321-3 | Geotechnical engineering |
| CE559-2 | Engineering applications of surveying | CE323-2 | Surveying (٢) | CE554-2 | Buildings Sanitary Installation | CE425-3 | Sanitary and environmental engineering |
| ISCU404-2 | Islamic culture (٤) | MATH421-3 | Numerical Analysis | CE560-2 | Inspection, Maintenance and strengthening of Structures | CE416-3 | Concrete Technology |
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| | | ISCU303-2 | Islamic culture (٣) | | | | |