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| Date: | Examination No.: 1114 | Version:1/9/2020 | Start: 1/9/2020 |
| Module Name - Code | Construction Engineering | | |
| Module Language: | English | | |
| Responsible: | Assistant Prof.Dr. Sinan Abdulkhaleq Yaseen | | |
| Lecture (s): | | | |
| College: | College of Engineering – Salahaddin University | | |
| Duration: | 15 week – 1 semester | | |
| Course outcomes: | After completing this subject, the student will be able to: Describe the nature and scope of the structures construction industry using lecture notes and references. Understand individual building components and the details necessitate understanding the guiding performance requirements, the process of manufacture and assembly, formwork systems, and systematic organization of various building assemblies. Follow the broad range of "good" solutions and "invention" during the construction process. Learn the behavior of some structural elements under loads. Learn the mechanical properties of some structural materials. Learn general safety rules, tools, and equipment safety rules. Write a project report for the construction phases of a project while visiting the site works. at the end of the semester. | | |
| Course Content: | <p>Objectives, General introduction, Types of Constructions Building Construction Phases Site evaluation, Earthworks Machines used for site preparation, excavation, and backfilling. Quiz 1, H.W.1</p> <p>Elements of a building Foundation System Types of foundation</p> <p>Pile foundation.</p> <p>The action of building under loads</p> <p>Site work Machines and equipment; Quiz 1, H.W.2</p> <p>Walls System, Masonry brick walls Concrete block walls Stone</p> <p>walls Openings and arches.</p> <p>Formwork system Types of forms, Foundation formworks, Beam formworks Column formworks, slab formworks Formwork design; Quiz 3, H.W.3</p> <p>Doors and windows Holiday Types and materials</p> <p>Finishing works Plastering and paintings Wall cladding and tiling Roofing system.</p> <p>Finishing works Plastering and paintings Wall cladding and tiling Roofing system.</p> <p>Roofs (Slabs) Types of the slab, One-way slab Two-way slab, Ribbed slabs Flat plate, Flat slab</p> | | |
| Literature: | <p>M. Mehta, W. Scarborough "BUILDING CONSTRUCTION, Principles, Materials, and Systems", 2009.</p> <p>R. Chudy, R. Greeno " Building Construction Hand Book", 2006.</p> <p>R. Barry "The Construction of Buildings "7th edition, 1999.</p> <p>Francis D. K. Ching, "Building Construction Illustrated " fourth edition 2008.</p> <p>Jonathan T. Ricketts, Frederick S. Merritt "Building Design and Construction Handbook" Sixth edition, 2000.</p> <p>Sidney M. Levy" Construction Building Envelope and Interior Finishes Databook", 2000.</p> | | |
| Type of Teaching: | 3 hrs in lectures | | |
| Pre-requisites: | | | |
| Frequency: | Yearly in the fall semester | | |
| Requirements for credit points: | <p>For the award of credit points, it is necessary to pass the module exam.</p> <p>The module exam (practical and theoretical) contains:</p> <p>[Written 120 min for theoretical]</p> <p>Student's attendance is required in all classes.</p> | | |
| Credit point: | 5 | | |
| Grade Distribution: | <p>The Grade is generated from the examination result(s) with the following</p> <p>10% activity</p> <p>30% mid-term exam</p> <p>60% final theoretical Exam</p> | | |
| Workload: | The workload is 150h. It is the result of 60h attendance and 90h self-studies. | | |