



A'Sharqiyah University

College of Engineering

Department of Civil and Construction Engineering

Diploma in Quantity Surveying

Course Descriptions

University Requirements (12 CH)

ISLM101 Islamic Civilization (3 CH)

This course aims to introduce students to the concept of civilization, the composition and evolution factors, introduce them to the most important political and administrative systems and economic and social development in the Islamic civilization, and aims to the statement of contributions to Islamic civilization in other civilizations, especially the European civilization, also aims to publicize the importance of the site Oman and how to interact with other previous civilizations in different eras, and the factors that allowed it to be a centre of cultural divisions history.

ENGL101 English Communication Skills I (3 CH)

This course develops students' proficiency through grammar instruction and fluency exercises. While the emphasis of the class is on speaking and listening, there are also reading and writing exercises which reinforce the grammar and vocabulary students learn. Finally, students are required to participate in discussions regularly basis and give several presentations.

ENGL102 English Communication Skills II (3 CH)

This course further develops reading sub-skills, comprehension, and vocabulary. The texts are more demanding lexically and structurally than ENGL101 and are mainly literary. Written and oral activities require students to respond to these texts critically.

MNGT313 Entrepreneurship (3 CH)

This course is an introductory course in Entrepreneurship and Innovation. The course aims to expose students to business venturing and entrepreneurial activity. The students would apply knowledge and skills acquired during the course by developing and evaluating their business ideas. This course is an introductory entrepreneurship course that focuses on the vital role played by entrepreneurs and entrepreneurship in the 21st-century global economy. The process of successfully launching and growing an entrepreneurial venture by applying the entrepreneurial process is examined. The course integrates several different disciplines, ranging from sociology and psychology to economics, finance, marketing, and human resource management. It is a course that mixes theory with practice by applying principles, concepts, and frameworks to real-world situations

College Requirements (18 CH)

PHYS1001 Physics I (4 CH)

This course covers the basic concepts of Physics is fundamental for developing students' understanding of the more applied scientific disciplines such as Chemistry, Biology and other Applied Sciences. Physics 101 is an introductory Physics module focusing on basic principles and concepts in Physics. It is designed for students who will continue their undergraduate degree programs in Engineering and Applied Sciences.

ENGR201 Engineering Drawing (3 CH)

This course provides basic knowledge and skills of engineering drawing so that students can efficiently develop engineering plans and details. Main topics include freehand sketching, principles of orthographic projection, dimensioning, section, isometric and working drawings, 2D and 3D drawings using AutoCAD.

ENGR1001 Mechanics of Materials (4 CH)

This course is one in a sequence of mechanics (engineering science) courses that form a foundational component of the engineering curriculum. it covers two-dimensional stresses and strains and deflections of statically determinate members subjected to axial, torsional and transverse loads, buckling of columns, Mohr circle, and stress transformation.

MATH2001 Mathematics (4 CH)

This course focuses on some essential goals, which are: apply differentiation and integration techniques, solve ordinary simple ordinary differential equations, perform operations on matrices, define the hyperbolic functions, evaluate the probability and the normal distribution, and use series to approximate functions.

ENGR202 Technical Writing and Presentation (3 CH)

The objectives of this course are to develop engineering students' abilities to improve the communication skills and specialist language knowledge of engineers; to listen to and speak about engineering-related situations; to ask and answer important engineering-related questions; and to present engineering projects in an engaging and convincing format.

Program Requirements (41 CH)

CVEN2001 Construction Surveying (4 CH)

This course covers the basic measurement procedures and the use of surveying instruments. It introduces students to the principles and practices in measuring distance, elevation, and angles. Also, it includes the determination of areas and volumes, setting out of construction works, and introduction to GPS and GIS. The course has intensive fieldwork.

CVEN2002 Civil Engineering Materials (4 CH)

This course introduces students to geology and its impact on the design and construction of civil engineering constructed facilities. Students will learn about the engineering elements of rocks and geologic processes from an engineering perspective.

SURV201 Design Economics and Cost Planning (3 CH)

This course introduces students to knowledge and understanding of various aspects of economics and cost planning. It further encourages students in application of knowledge and understanding to the cost management of design development on a project through an individual assignment.

CNMN3007 Construction Technology I (4 CH)

This course prepares students with the knowledge and skills of construction technology so that they can be applied efficiently to construction of domestic buildings. This course is focused on students learning the key principles of construction technology including a description of the site, determination and description of the foundations and substructure, design and description of the structure of a domestic building of specific design, determination and description of the envelope of domestic buildings and other structures and a description of the methods used to construct domestic buildings and other structures.

CNMN3008 Construction Technology II (4 CH)

This course prepares students with the knowledge and skills of construction technology so that they can be applied efficiently to construction of industrial and commercial buildings. This course is focused on students learning the key principles of construction technology including a description of the site, determination and description of the foundations and substructure, design and description of the structure of industrial and commercial buildings, determination and description of the envelope of industrial and commercial buildings and other structures and a description of the methods used to construct industrial and commercial buildings and other structures.

SURV202 Standard Method of Measurement (3 CH)

This course shall contribute to the fundamental understanding of quantification and costing of building projects. It develops various skills in standard procedures for the preparation of bills of quantities for civil engineering works, the pricing, measurement of quantities of work and expression of quantities of work. It further contributes in understanding how the bill of quantities enables efficient tender preparation, interim valuations, valuing change and Final accounting to evaluate the value of work completed once the contract has been completed. This course hence develops a sound knowledge of theory and application of knowledge by applying principles, concepts and frameworks to real world situations.

CNMN3005 Contract Administration (4 CH)

The objective of this course is to improve construction contract administration by providing education related to the administration and enforcement of contract requirements during the construction phase of the project. It covers contractual process from pre-tender stage to taking over, an overview of various general conditions of contract as well as the pre-award issues, checklists of documents required, time charts and other tools of contracting, the role of the client's project manager/ Engineer in administering a construction contract, understanding of contract law, legislation and the specific forms that they have used.

CNMN3009 Construction Site Planning and Control (4 CH)

This course aims to equip the student to be able to: identify processes to implement a construction plan; to identify concepts and principles of site control, describe management decisions for a given

site and conditions; and identify processes to manage the activities of subcontractors; identify potential construction hazards and risks; implement processes to deliver time, cost and quality objectives for a construction site; identify and review site procedures.

CNMN3002 Construction Safety (4 CH)

This course covers legislation, theory and practice relating to management of occupational safety and health in the construction industry. It examines basic elements of a safety and health program for design professionals and construction contractors including both national and international regulatory requirements.

CNMN3003 Construction Equipment (4 CH)

This course provides basic knowledge of construction equipment to students so that they can efficiently identify types and uses of construction equipment, select proper equipment for a given job, estimate its cost, schedule and plan its usage, and manage an equipment fleet.

SURV301 Quantification and Costing I (3 CH)

This course is an introductory course helps to develop a standard procedure for the preparation of bills of quantities for civil engineering works. The pricing, measurement of quantities of work and expression of quantities of work is set out in this course. It further demonstrates how the bill of quantities enables tenders to be prepared efficiently and to evaluate the value of work completed once the contract has been completed. It also introduces students to schedule of works, schedule of rates, provisional sums and Interim Valuations.