

Bachelor of Science in Construction Project Management

2020 – 2021

Awarding Institution	A'Sharqiyah University		
College / Centre	College of Engineering		
Program Title	Construction Project Management		
Final Award	Bachelor of Science in Construction Project Management		
Credit hours	136		
Mode of Study	Full time - Part Time - Special Part Time		
Language of Study	English		
Benchmarks			
Entry requirements	<p>A student</p> <ul style="list-style-type: none"> - should have successfully completed the courses of all subjects of the general education diploma or equivalent; - should achieve the standards set for the subjects of the General Foundation Program; - should have studied subjects which qualify him/her to be enrolled in programs in the College of engineering, - Must be medically fit. 		
Minimum period of registration	FULL-TIME: 9 semesters	PART-TIME: Semesters	13
Maximum period of registration	FULL-TIME: 18 Semesters	PART-TIME: Semesters	22
Date specification produced	April 2015 (first version)		
Date specification last reviewed	(July 2018)		

1 THE COLLEGE OF Engineering

The College of Engineering at A'Sharqiyah University (ASU) opened in 2011 and has grown quickly to a current enrollment of over 300 students. The College will continue to grow at this rapid pace in order to accommodate over 1000 students in new classrooms and laboratories located in the new College of Engineering building that was completed in September 2017. With a first-rate building and state-of-the-art laboratories, the ASU Engineering College will continue to draw community members and prospective students to the growing campus. The College of Engineering at present offers undergraduate academic programs at Diploma/Degree levels in Civil Engineering, Environmental Engineering, Electronics and Communications Engineering and Construction Project Management.

The mission of the College is to educate creative professional engineers, technologists and technicians and to equip them to serve society in a globalized knowledge economy. Working in partnership with its stakeholders, the College is committed to the creation and transfer of new knowledge and technologies through the efforts of faculty, staff and students. The College vision is to achieve national and international stature as a College of Engineering through excellence in engineering education, research and innovation, outreach and external community engagement whilst contributing to the competitiveness, social and economic development and prosperity of the Sultanate of Oman.

2 PROGRAM OUTLINE

The Construction Project Management program teaches students about the technology tools and management processes required to design and construct buildings, hospitals, bridges, roads, pipelines, wastewater treatment plants, desalination plants, solid-waste disposal facilities, shopping malls, airports, and many other major facilities.

The program is designed to fulfill the construction industry's need for licensed professional project managers.

The curriculum concentrates on the application of principles to overall planning, coordination, and control of a construction project from beginning to completion.

3 PROGRAM AIM/S

The overall aim of the program is to deliver a high quality vocationally relevant undergraduate course in Construction Project Management to prepare students for professional roles in the overall evaluation, planning, coordination and control of construction projects from beginning to completion. More specifically, the course aims to:

- Provide students with knowledge and understanding of the context and concepts, theories relevant to construction project management in the design, creation and maintenance of a sustainable built environment;
- Develop general competence which students will be able to apply both within an academic context and in their professional careers;

- Develop cognitive skills which students will be able to apply in reaching professional judgments, solving problems and making decisions;
- Develop practical and technical skills relevant to construction project management which students will be able to apply in their professional careers;
- Encourage self-motivation and independent thought, such that graduates will be confident in challenging established working practices and responding to the future needs of the construction industry and its associated professions;
- Promote a culture of intellectual enquiry such that graduates will recognize the importance of lifelong learning for both personal and professional development.

4 LEARNING OUTCOMES (Definitive)

Upon successful completion of the program, students will be able to:

A. KNOWLEDGE AND UNDERSTANDING	<ol style="list-style-type: none"> 1. Apply knowledge of science, technology and management; 2. Design and conduct experiments, as well as to analyze and interpret data; 3. Manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability; and 4. Function on multidisciplinary teams.
B. SUBJECT-SPECIFIC INTELLECTUAL SKILLS	<ol style="list-style-type: none"> 5. Apply knowledge of science, construction technology and management; 6. Proficiency in construction technology, equipment and safety; 7. Proficiency in construction cost estimating, tendering, and construction finance; 8. Proficiency in construction law and contract administration; 9. Proficiency in mechanical and electrical building services; and 10. Proficiency in environmental sustainability.
C. PROFESSIONAL / PRACTICAL SKILLS	<ol style="list-style-type: none"> 11. Conduct construction materials experiments and analyze and interpret the resulting data; 12. Manage the design and development of a system, component, or process in construction contexts; 13. Explain concepts in management, business, public policy, and leadership; and 14. Explain the importance of professional registration.
D. GENERAL COMPETENCE	Communication <ul style="list-style-type: none"> • Communicate effectively.

	Teamwork and interpersonal skills <ul style="list-style-type: none"> Function on multidisciplinary teams. Leadership and entrepreneurship <ul style="list-style-type: none"> Lead group of employees Establish companies in the field of interest
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5 PROGRAM STRUCTURE

Students must achieve the required credit hours for the program by completing University Required and Elective courses listed in sections 5.1 to 5.5 below:

5.1 University Requirements: Total Credit hours 12

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
ISLM101	Islamic Civilization		3
ENGL101	English Communication Skills I		3
ENGL102	English Communication Skills II	ENGL101	3
MNGT313	Entrepreneurship		3
TOTAL			12

5.2 University Electives: Total Credit hours xx

5.3 College Requirements: Total Credit hours 28

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
PHYS1001	Physics I		4
ENGR1001	Mechanics of Materials	PHYS1001	4
ENGR2002	Engineering Drawing	FPIT002	4
ENGR2003	Technical Writing and Presentation	ENGL101	4
PHIL2001	Professional Ethics		4
MATH2001	Mathematics		4
ENGR4001	Engineering Economics		4
TOTAL			28

5.4 Program Requirements: Total Credit hours 96

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
ENGR2001	Engineering Mechanics		4
CVEN2001	Construction Surveying		4
CVEN2002	Civil Engineering Materials		4
CVEN2003	Engineering Geology		4

CNMN3001	Construction Methodology	CVEN2002	4
CNMN3002	Construction Safety		4
CNMN3003	Construction Equipment		4
CNMN3004	Construction Law		4
CNMN3005	Contract Administration		4
CNMN3006	Cost Estimating and Tendering		4
CNMN4007	Sustainable Construction	CVEN2002	4
CVEN4004	Hydraulics and Hydrology		4
CNMN4003	Mechanical and Electrical Systems	CVEN 2002	4
CNMN4004	Construction Accounting and Finance	MATH2001	4
ENGR4002	Engineering Project Management		4
CVEN3003	Transportation Engineering	ENGR 2001, CVEN2003	4
CVEN3002	Soil Mechanics	ENGR2001	4
CVEN3001	Structural Analysis and Design	ENGR2001, Math2001	4
CNMN4001	Research Project		4
ENEN4001	Renewable Energy		4
CNMN4005	Building Information Modelling	ENGR2002	4
Sub-total			84
	Construction Project Management Elective (3 Courses)		12
TOTAL			96

5.5 Program Electives: Total Credit hours 12

Choose from the following:

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
CVEN4007	Environmental Engineering		4
CVEN4005	Ground Improvement	CVEN3002	4
CNMN4006	GIS Application in Civil Engineering	CVEN2001	4
CVEN4006	Design and Rehabilitation of Pavements	CVEN3003	4
ENEN4002	Solid Waste Management		4
ENEN4041	Air Pollution		4
ENEN5072	Environmental Impact Assessment		4

6 PROGRAM REFERENCE POINTS

The Construction Project Management Program described herein, has been developed based on the UK's QAA benchmark statements for Construction,

Property and Surveying. It has also been structured for CIOB/RICS accreditation which is a form of quality assurance that declares a program meets the quality standards set by the technical profession.

The courses and their content have been designed to mimic Construction Project Management Programs offered in UK and Australia. The Construction Project Management Program was constructed by a team of faculty who have benched it against other university programs and are confident that the ASU program that can achieve CIOB/RICS accreditation.

The ASU Construction Project Management program was benchmarked against CIOB/RICS accredited undergraduate programs in Construction Project Management/ Construction Management, at institutions in the UK and Australia.

Further, the content of courses in the ASU Program was benchmarked against technical courses offered in CIOB/RICS-accredited Construction Project Management/Construction Management programs offered at universities in Canada, Ireland, Singapore and Malaysia.

7 TEACHING AND LEARNING METHODS (indicative)

Lecturers, seminars, laboratory experiments, site visits, self-study, projects.

8 ASSESSMENT METHODS (Indicative)

Quizzes, midterm exams, final exams, practical assessment in labs, project evaluation, viva questions.

9 CAREER and STUDY OPPORTUNITIES

The program facilitates entries to job and work opportunities in a number of market and industrial settings such as:

1. Consulting firms
2. Municipalities and government organizations
3. Oil Companies
4. Industry
5. Building construction
6. Civil and heavy construction
7. Environmental construction, etc

The graduate from this course can also pursue further study and can improve their academic qualification by doing a Master's degree.

10 STUDENT SUPPORT

Students attend an orientation program at the start of their studies. They are supported by a Course Coordinator and the Head of Department is also available to advice on program-related queries.

Academic advising is an essential element of the educational process. Students are assigned academic advisors who help them in selecting their course of study and in planning their schedules. Academic advisors also approve students' schedules each semester. The academic advisor assists students in obtaining a well-balanced education and in interpreting university policies and procedures, it is ultimately the students' individual responsible for selecting their courses, meeting course prerequisites, and adhering to university policies and procedures. Students may also consult faculty, department or program chairs, program coordinators, and deans.

Students have access to the University's library with a range of reading materials, online resources and study support.

The University's Student Affairs Office supports students in adjusting to university life and advises on issues such as finance, regulations, legal matters, accommodation, transportation, disabilities and career guidance. Opportunities are also provided for students to participate in various extra-curricular activities.

The Student Council is also an important source of support and guidance.

The University has a Student Fund, which considers applications on a case-by-case basis.

11 PROGRAM STRUCTURE DIAGRAM (Indicative)

Year 1		Year 2		Year 3		Year 4		Year 5
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL
MATH2001 Mathematics	CVEN2003 Engineering Geology	CNMN3002 Construction Safety	CNMN3005 Contract Administration	CVEN4004 Hydraulics and Hydrology	ENGR4002 Engineering Project Management	CNMN4004 Construction Accounting and Finance Pre-R: MATH2001	CNMN4001 Research Project	CNMN4001 Research Project
ENGL101 English Communication Skills I	ENGL102 English Communication Skills II Pre-R: ENGL101	ENGR2003 Technical Writing and Presentation Pre-R: ENGL101	CVEN2001 Construction Surveying	CNMN3003 Construction Equipment	CVEN3003 Transportation Engineering Pre-R: ENGR 2001, CVEN2003	ENGR4001 Engineering Economics	CNMN4003 Mechanical and Electrical Systems Pre-R: CVEN 2002	ENEN4002 Renewable Energy
PHYS1001 Physic I	ENGR2002 Engineering Drawing Pre-R: FPIT002	PHIL2001 Professional Ethics	ENGR2001 Engineering Mechanics	CVEN3001 Structural Analysis and Design Pre-R: ENGR2001, MATH2001	CVEN3002 Soil Mechanics Pre-R: ENGR2001	CNMN3006 Cost Estimating and Tendering	CNMN4007 Sustainable Construction Pre-R: CVEN2002	CNMN4005 Building Information Modelling ENGR2002
ISLM101 Islamic Civilization	ENGR1001 Mechanics of Materials Pre-R: PHYS1001	CVEN2002 Civil Engineering Materials	CNMN3001 Construction Methodology Pre-R: CVEN2002	MNGT313 Entrepreneurship	CNMN3004 Construction Low	Construction Project Management Elective01	Construction Project Management Elective02	Construction Project Management Elective03

12 MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 1

KEY: **F** = Formative assessment **S** = Summative assessment **FS** = Formative AND Summative assessment

Upon completion of the program, students will be able to:

		REQUIRED COURSES:							
		MATH2001	ENGL101	ENGL102	PHYS1001	ISLM101	CVEN2003	ENGR2002	ENGR1001
KNOWLEDGE AND UNDERSTANDING									
1	An ability to apply knowledge of science, technology and management	F			S		F	FS	F
2	An ability to design and conduct experiments, as well as to analyze and interpret data	F			S		F		FS
3	An ability to manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	F	F	F	FS	F	FS	FS	FS
4	An ability to function on multidisciplinary teams				FS		F	FS	F
SUBJECT-SPECIFIC INTELLECTUAL SKILLS									
5	Apply knowledge of science, construction technology and management	F			S		F	FS	FS
6	Proficiency in construction technology, equipment and safety							FS	

7	Proficiency in construction cost estimating, tendering, and construction finance	F						FS	
8	Proficiency in construction law and contract administration								
9	Proficiency in mechanical and electrical building services				FS		F	FS	
10	Proficiency in environmental sustainability				FS		F		FS
PROFESSIONAL / PRACTICAL SKILLS									
11	Conduct construction materials experiments and analyze and interpret the resulting data	F			F		F		FS
12	Manage the design and development of a system, component, or process in construction contexts	F			S			FS	FS
13	Explain concepts in management, business, public policy, and leadership							F	
14	Explain the importance of professional registration		F	F					
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)									
	Communication Skills		FS	FS		FS	FS	FS	
	Teamwork and interpersonal skills					FS	F	FS	
	Leadership and entrepreneurship					FS	F		

12 MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 2

		REQUIRED COURSES:							
		MATH2001	ENGR2003	PHIL2001	CVEN2002	CNMN3005	CVEN2001	ENGR2001	CNMN3001
KNOWLEDGE AND UNDERSTANDING									
1	An ability to apply knowledge of science, technology and management	FS			F	S	S	F	FS
2	An ability to design and conduct experiments, as well as to analyze and interpret data	FS	F		FS		F	FS	FS
3	An ability to manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	FS		F	FS	FS	FS	FS	FS
4	An ability to function on multidisciplinary teams	F	F	F	F	S		F	FS
SUBJECT-SPECIFIC INTELLECTUAL SKILLS									
5	Apply knowledge of science, construction technology and management	FS			FS	S	FS	FS	FS
6	Proficiency in construction technology, equipment and safety				FS			FS	FS
7	Proficiency in construction cost estimating, tendering, and construction finance	FS			FS	F	FS	FS	FS
8	Proficiency in construction law and contract administration			S		FS	FS		F

9	Proficiency in mechanical and electrical building services								FS
10	Proficiency in environmental sustainability			F	FS			FS	FS
PROFESSIONAL / PRACTICAL SKILLS									
11	Conduct construction materials experiments and analyze and interpret the resulting data	FS			FS		F	FS	FS
12	Manage the design and development of a system, component, or process in construction contexts	FS			FS		FS	FS	FS
13	Explain concepts in management, business, public policy, and leadership		FS	FS		FS	FS		F
14	Explain the importance of professional registration			FS		F			F
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)									
	Communication Skills		FS	FS		FS	FS		FS
	Teamwork and interpersonal skills		FS	FS		FS			FS
	Leadership and entrepreneurship		FS	FS		FS			FS

12 MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 3

		REQUIRED COURSES:							
		CNMN3002	CNMN3003	CVEN3001	MNGT313	ENGR4002	CVEN3003	CVEN3002	CNMN3004
KNOWLEDGE AND UNDERSTANDING									
1	An ability to apply knowledge of science, technology and management	F	S	F	S	FS	S	F	S
2	An ability to design and conduct experiments, as well as to analyze and interpret data			FS		FS	FS	FS	
3	An ability to manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	FS	FS	FS	F	FS	FS	FS	FS
4	An ability to function on multidisciplinary teams	F		F	FS	FS		F	S
SUBJECT-SPECIFIC INTELLECTUAL SKILLS									
5	Apply knowledge of science, construction technology and management	FS	FS	FS	FS	FS	FS	FS	
6	Proficiency in construction technology, equipment and safety	FS	FS	F		FS	FS	F	
7	Proficiency in construction cost estimating, tendering, and construction finance		FS			FS	FS		
8	Proficiency in construction law and contract administration	FS			S	FS			FS

9	Proficiency in mechanical and electrical building services	FS				F			
10	Proficiency in environmental sustainability	FS		FS	F	FS		FS	F
PROFESSIONAL / PRACTICAL SKILLS									
11	Conduct construction materials experiments and analyze and interpret the resulting data			FS		FS	S	FS	
12	Manage the design and development of a system, component, or process in construction contexts		FS	FS		F	FS	FS	
13	Explain concepts in management, business, public policy, and leadership	FS			FS	FS			F
14	Explain the importance of professional registration				FS	FS			FS
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)									
	Communication Skills				FS	FS			FS
	Teamwork and interpersonal skills	FS		F	FS	FS		F	FS
	Leadership and entrepreneurship	FS			FS	FS			FS

12 MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 4

		REQUIRED COURSES:							
		CVEN4004	ENGR4001	CNMN3006	ELECTIVE01	CNMN4001	CNMN4003	CNMN4007	ELECTIVE02
KNOWLEDGE AND UNDERSTANDING									
1	An ability to apply knowledge of science, technology and management	F	S	S	S	FS	S	F	S
2	An ability to design and conduct experiments, as well as to analyze and interpret data					FS	F		
3	An ability to manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	FS	FS	FS	FS	FS	F	F	FS
4	An ability to function on multidisciplinary teams	F	S	S	S	FS	F		S
SUBJECT-SPECIFIC INTELLECTUAL SKILLS									
5	Apply knowledge of science, construction technology and management	FS	S	F	F	FS	FS	FS	F
6	Proficiency in construction technology, equipment and safety	F				FS	FS	FS	
7	Proficiency in construction cost estimating, tendering, and construction finance	FS	FS	FS	FS	FS		F	FS
8	Proficiency in construction law and contract administration	F	F	F	F	FS		F	F

9	Proficiency in mechanical and electrical building services					FS	FS	F	
10	Proficiency in environmental sustainability	FS				FS		FS	
PROFESSIONAL / PRACTICAL SKILLS									
11	Conduct construction materials experiments and analyze and interpret the resulting data	FS				FS	FS	F	
12	Manage the design and development of a system, component, or process in construction contexts					FS	FS		
13	Explain concepts in management, business, public policy, and leadership	F	FS	FS	FS	FS		F	FS
14	Explain the importance of professional registration	F	F			FS		F	
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)									
	Communication Skills		FS	FS	FS	FS			FS
	Teamwork and interpersonal skills	F	FS	FS	FS	FS			FS
	Leadership and entrepreneurship		FS		FS	FS			FS


12 MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 5

		REQUIRED COURSES:			
		CNMN4001	ENEN4002	CNMN4005	ELECTIVE03
KNOWLEDGE AND UNDERSTANDING					
1	An ability to apply knowledge of science, technology and management	FS	F	FS	S
2	An ability to design and conduct experiments, as well as to analyze and interpret data	FS	FS		FS
3	An ability to manage the design and development of a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	FS	FS	FS	FS
4	An ability to function on multidisciplinary teams	FS	F	FS	S
SUBJECT-SPECIFIC INTELLECTUAL SKILLS					
5	Apply knowledge of science, construction technology and management	FS	FS	FS	F
6	Proficiency in construction technology, equipment and safety	FS	FS	FS	FS
7	Proficiency in construction cost estimating, tendering, and construction finance	FS	F	FS	FS
8	Proficiency in construction law and contract administration	FS		F	F
9	Proficiency in mechanical and electrical building services	FS	F	FS	FS



10	Proficiency in environmental sustainability	FS	FS	F	FS
PROFESSIONAL / PRACTICAL SKILLS					
11	Conduct construction materials experiments and analyze and interpret the resulting data	FS			FS
12	Manage the design and development of a system, component, or process in construction contexts	FS	FS	FS	FS
13	Explain concepts in management, business, public policy, and leadership	FS		F	FS
14	Explain the importance of professional registration	FS			FS
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)					
	Communication Skills	FS		FS	FS
	Teamwork and interpersonal skills	FS	F	FS	FS
	Leadership and entrepreneurship	FS		F	FS