1	**Course title**	Specifications & Quantities
2	**Course number**	0902482
3	**Credit hours**	3 Credit hours
	Contact hours (theory, practical)	3 theory hours per week
4	**Prerequisites/co-requisites**	None
5	**Program title**	Bachelor of Architecture Engineering
6	**Program code**	0902
7	**Awarding institution**	The University of Jordan
8	**School**	School of Engineering
9	**Department**	Department of Architecture Engineering
10	**Course level**	Undergraduate, 4th-year Students
11	**Year of study and semester (s)**	2022/2023 Spring semester
12	**Other departments involved in teaching the course**	None
13	**Main teaching language**	English & Arabic
14	**Delivery method**	Face to face learning
15	**Electronic Platforms**	Microsoft Teams, and Moodle (E-learning)
16	**Date of production/revision**	2021/2023

16. Course Coordinator:

Hibatullah Stetieh,
Office number -
Office hours: Sun. & Tue. 12:30-13:30 Please send your questions on Microsoft Teams chat.
Phone number: 06 5355000 Ext 27171
Email addresses: h.stetieh@ju.edu.jo

17. Other instructors:

-

18. Course Description:

A detailed description of all architectural works and specifications, preparing a bill of quantities according to general specifications and conditions.

19. Course aims and outcomes:

A- Aims:

1. Explain general and specific technical terms of references applied in Jordan.
2. Provide an overview of the construction contracts and bidding process and introduce various construction contracts
3. Explain the bidding process, including the documents included in the bidding requirements
4. Explain the distinct roles of drawings and specifications
5. Explain examples of documents and contracts related to project implementation.
6. Describe the conditions of the contract, their purpose, content, and relationship to other parts of the project manual.
7. Introduction of technical specifications for construction stages
8. Introduction to quantity surveying, preparation of specifications, and bill of quantities of a small-scale project.

B- Intended Learning Outcomes (ILOs):

C3. Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C7. Legal Responsibilities: Understanding of the architect's responsibility to the public and the client as determined by professional service contracts.

C8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political, and cultural issues in architectural design and practice.

20. Topic Outline and Schedule:

Week		Topic	Evaluation Methods	Semester work	Reference
1	Mon 26 Feb	Course Overview	Midterm exam		R1 Ch. 1
	Wed 1 Mar	Course Overview			R1 Ch. 1
2	Mon 6 Mar	Contract agreements Legal systems in Jordan			R1 Ch. 2&3
	Wed 8 Mar	Simplified form of Contract for construction			R1 Ch. 1&3
3	Mon 13 Mar	Agreement for engineering services			R1 Ch. 1&3
	Wed 15 Mar	The nature of contracts Joint venture+ classification of contractors	Home works, and midterm exam.	**HW:** comparison **HW**: Invitation to Bid	R1 Ch. 4
4	Mon 20 Mar	Bidding for contracts (Tenders)			R1 Ch. 5

	Wed 22 Mar	Tendering procedure	Home works, and midterm exam.		R1 Ch. 5
5	Mon 27 Mar	Construction contracts1		**HW:** As built &Shop drawings	R1 Ch.6
	Wed 29 Mar	Construction contracts2			R1 Ch.6
6	Mon 3 Apr	Engineering Consulting Work			R1 Ch.7
	Wed 5 Apr	Claims, Disputes, and Arbitration			R1 Ch.8
7	Mon 10 Apr	Specifications	Home works, midterm and final exams.		R1 Ch.9 R2 Ch1
	Wed 12 Apr	Cut & Fill Specifications+ **Using Excel**		**HW**: Cut &Fill Quantities.	R1 Ch.9.1 R2 Ch2
8	Mon 17 Apr	Concrete Specifications: Cement & Aggregates			R1 Ch.9.2 R2 Ch.3
	Wed 19 Apr	Water, Fresh Concrete, & Reinforcing Steel			R1 Ch.9.2 R2 Ch.3
9	Mon 24 Apr	Concrete Lab Concrete Mixtures Hardened Concrete Tests		**Lab visit**	R1 Ch.9.2 R2 Ch.3
	Wed 26 Apr	Midterm Exam 26-4-2023		Exam	
10	Mon 1 May	Labor day			
	Wed 3 May	Concrete quantities Pre-stressed concrete	Group report, quantity surveying project, quizzes, and final exam.	**Group report** submission 3-5-2023 **Quiz**: Concrete quantities.	R1 Ch.9.2 R2 Ch.3
11	Mon 8 May	Masonry Works Specifications		Group presentation	R1 Ch.9.3 R2 Ch.5
	Wed 10 May	Masonry Quantities		**Quiz**: Masonry quantities.	R1 Ch.9.3 R2 Ch.5
12	Mon 15 May	Block Works Specifications & Quantities (S&Q)+ Introduction to **Quantity Surveying Project**.		Group presentation **Quiz**: Sketch	R1 Ch.9.4 R2 Ch.6
	Wed 17 May	Plaster S&Q Tiling &Marble Works S&Q		Group presentation	R1 Ch.9.5+6 R2 Ch.7+ 8
13	Mon 22 May	Joinery Works S&Q Metallic Works and Glazing S&Q		Group presentation	R1 Ch.9.7+8 R2 Ch.11+ 10+12
	Wed 24 May	Painting S&Q Roof Water Proofing S&Q		Group presentation	R1 Ch.9.9+13 R2 Ch.13+ 9
14	Mon 29 May	**Guest speaker**	Final	**Quantity Surveying**	

			exam	**Project** Submission **29-5-2023**	
	Wed 31 May	Writing Specifications Cost Estimation			R2 Ch.3+ Ch.7 R1 Ch.11
15	Mon 5 Jun	Review (Final lecture 6 Jun)			
		Final Exams 8 to 20-6-2023			
16				Exam	

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

- Lectures
- Home works.
- Quizzes.
- Group report presentation.
- Project (quantity surveying).

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

There are some assignments or term papers to be completed and submitted either individually or as a team member. Professional presentation, good organization, and proper documentation are very important components of the assignment grade.

- Home works.
- Quizzes.
- A group report: The group select one of the construction materials, then discuss its specifications according to visiting a factory or a construction site, the presentation should include pictures, plans, videos, specifications, bill of quantities, and samples or catalogues. **Important**: all group members should discuss the report as scheduled, absent or not discussing are not accepted.
- Project- Quantity Surveying (individual or partners).
- Midterm Exam.
- Final Exam.

23. Course Policies:

A- Attendance policies:

An absence of more than 15% of all the number of classes, which is equivalent to (4) classes, requires that the student provides an official excuse to the instructor and the dean.

Students should attend class sessions and they are responsible for all materials and announcements discussed in the class. The university rules and regulations regarding attendance will be strictly adhered to.

B- Absences from exams and handing in assignments on time:
Students should hand assignments on time, and attend exams on time, absence from exams or late submissions required that student provides an official excuse.

C- Health and safety procedures:
When visiting a construction site, a factory, or the concrete lab, students should pay attention to construction rubble or other materials on the ground, and obey safety instructions.

D- Honesty policy regarding cheating, plagiarism, misbehaviour:
- Collaboration among the students is encouraged, (i.e., copying and plagiarism will be severely penalized).
- There are strict university rules concerning the cheating, plagiarism and misbehaviour and all the students are introduced to these rules. Any forms of academic misconduct will be handled according to the University of Jordan guidelines.

E- Grading policy:
- Midterm exam 30%
- Semester work 20%
- Final Exam 50%

F- Available university services that support achievement in the course:
- University Library
- Concrete lab
- E-learning platform
- Building workshop (samples)

24. Required equipment: (Facilities, Tools, Labs, Training….)

Required Facilities: Building workshop (samples)

25. References:

Required book (s), assigned reading, and audio-visuals:

(R1) – خلف، داود. (2016) العقود والمواصفات وحساب الكميات، الطبعة الخامسة، عمان

(R2) – جبجي، داود، وآخرون. (1996) المواصفات الفنية العامة للأبنية، المجلد الأول، الأعمال المدنية والمعمارية، وزارة الأشغال العامة والإسكان، الطبعة الثانية، عمان.

https://drive.google.com/drive/folders/0B6XfWypUaMhnQ29jRkJONGpJU00

Recommended books, materials, and media:

- The FIDIC contracts guide, 2000, FIDIC, Lausanne.
- وزارة الأشغال العامة والإسكان. (2013) عقد المقاولة الموحد للمشاريع الإنشائية، الطبعة الثانية المعدلة، عمان.
- أبو دية، أيوب. (1986) عيوب الأبنية، الطبعة الأولى، عمان.

- عبد الهادي، عدلي والدرايسة، محمد. (2011) حساب الكميات والمواصفات للتصميم الداخلي، مكتبة المجتمع العربي للنشر والتوزيع، عمان.

26. Additional information:

Name of Course Coordinator: Hibatullah Stetieh Signature: ---------- Date: 27/9/2021

Head of the curriculum committee/Department: ---------- Signature: ----------

Head of Department: ---------- Signature: ----------

Head of the curriculum committee/Faculty: ---------- Signature: ----------

Dean: ---------- -Signature: ----------