# **University of AlShaab**

جامعة الشعب



First Cycle – Bachelor of Science Degree (B.Sc.) in Civil Engineering بكالوريوس علوم في الهندسة المدنية



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#### 1. Mission & Vision Statement

The mission of the Department of Civil Engineering is to prepare graduates to work in various fields of civil engineering, and to be able to engage in graduate programs in civil engineering, by equipping them with the basic concepts, relevant knowledge, relevant laboratory and field skills and techniques, in addition to professional ethics and safe behavior, in addition to strengthening their belief in the necessity of continuous, lifelong learning.

The vision of the Department of Civil Engineering is to implement its program and activities in a manner that promotes excellence in education, research, and community service, and fosters an environment that is safe, sustainable, highly productive, collaborative, collegial, and dedicated to continuous improvement.

The Department of Civil Engineering was established in (2023) to receive its first batch of students in the academic year (2023-2024). As part of the admission plan, the department receives graduates of preparatory studies in its branches: scientific, applied, and industrial, in accordance with the Ministry's directives. After successfully passing four stages of study (eight semesters), the student is awarded a Bachelor of Science degree in civil engineering. The department aims to graduate engineers qualified to practice the civil engineering profession in the fields of design, implementation and supervision in various relevant work sectors, to contribute to advancing urban development in our dear country.

The Department aims to create graduate students having the following abilities:

- **1-** Do engineering design and engineering work on the sites.
- **2-** Build upon the graduate spirit of teamwork and communication.
- 3- Build upon the graduate engineering personal leadership and the highest standard possible.
- **4-** To be eligible for the function to its competence.
- 5- Agree to expand knowledge of what the graduate knows so as to complete his academic studies. And to accommodate development that is happening in the field of civil engineering.
- **6-** Capable of serving his community locally and abroad.

### 2. Program Specification

<b>Programme code:</b>	BSc-CIVE	ECTS	240
<b>Duration:</b>	4 levels, 8 Semesters	<b>Method of Attendance:</b>	Full Time

This Program Specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

### 3. Program Goals

Based on the missions of AlShaab University and the college of Engineering and Information Technology, the graduate of the program will be able to:

- use science mathematics, computational thinking and civil engineering ideas such as design Theory experimental techniques and production to solve practical problems associated with design improvements manufacture and maintenance of construction systems
- practice strong critical thinking innovation and problem solving skills in order to pursue as successful career while demonstrating adherence to the professional codes of conducts and professional accountability
- use effective communication skills and participate in multi-disciplinary partnership to demonstrate professional progress and leadership and demonstrate an appreciation and use of modern technological capabilities and to Foster collaboration efforts among coworkers and other institutions.
- 4. work independently and in multi-disciplinary teams to efficiently attain personal and organizational objectives, produce a product or construction that meets a social need and contribute in teaching Persons in the field while maintaining ethical and environmental context of their work.

- engage in lifelong learning and career growth while maintaining professional standards and pursue further educational in the form of graduate and professional studies
- identify opportunities to contribute to the development of society life from a variety
  of positions ranging form design and produce modern devices and introducing the
  cost effective methods in production

### 4. Student Learning Outcomes

- i) An ability to distinguish, identify, define, formulate, and solve engineering problems by applying principles of engineering, science and mathematics.
- ii) An ability to produce engineering designs that meet desired needs within certain constraints by applying both analysis and synthesis in the design process.
- iii) An ability to create and carry out proper measurement and tests with quality assurance, analyze and interpret results, and utilize engineering judgment to make inferences.
- iv) An ability to skillfully communicate orally with a gathering of people and in writing with various managerial levels.
- v) An ability to perceive ethical and professional responsibilities in engineering cases and make brilliant judgments taking into account the consequences in worldwide financial, ecological and societal considerations.
- vi) An ability to perceive the continual necessity for professional knowledge growth and how to find, assess, assemble and apply it properly.
- vii) An ability to work adequately on teams and to set up objectives, plan activities, meet due dates, and manage risk and uncertainty.

### 5. Academic Staff

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### 6. Credits, Grading and GPA

#### **Credits**

AlShaab University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

#### **Grading**

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

Grading Scheme نظام الارجات								
Group	Grade	التقدير	Marks %	Definition				
	A - Excellent	امتياز	90 – 100	Outstanding Performance				
Sugges Group	B - Very Good	جيد جدا	80 – 89	Above average with some errors				
Success Group (50 - 100)	C - Good	ختز	70 – 79	Sound work with notable errors				
(23 233)	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings				
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria				
Fail Group	FX – Fail	ر اسب (قيد المعالجة)	(45-49)	More work required but credit awarded				
(0-49)	F – Fail	راسب	(0-44)	Considerable amount of work required				

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

#### Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

CGPA = [ (1st module score x ECTS) + (2nd module score x ECTS) + ......] / 240

## 7. Curriculum/Modules

Semester  $1 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$ 

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
UREQ101	Democracy and Human Rights	33	17	2.00	В	
UREQ102	Arabic Language	33	17	2.00	В	
CIVE110	Mathematics I	63	62	5.00	s	
CIVE111	Engineering Mechanics I	63	62	5.00	C	
CIVE112	Engineering Drawing	78	47	5.00	C	
CIVE113	Physics	63	62	5.00	s	
CIVE 114	Computer Fundamentals and Programming I	63	12	3.00	s	
CIVE115	Workshop Technology	48	27	3.00	s	

### **Semester 2 | 30 ECTS | 1 ECTS = 25 hrs**

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
UREQ100	English Language I	33	17	2.00	В	
CIVE120	Mathematics II	63	62	5.00	s	CIVE 110
CIVE121	Engineering Mechanics II	63	62	5.00	C	CIVE 111
CIVE122	Computer-Aided Drawing	63	62	5.00	C	CIVE 112
CIVE123	Material Technology	63	37	4.00	C	
CIVE124	Geology	63	62	5.00	s	
CIVE125	Chemistry	63	37	4.00	S	-

### Semester $3 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
UREQ201	Crimes of the Defunct Baath Party	33	17	2.00	В	
CIVE210	Mathematics III	63	62	5.00	s	CIVE 120
CIVE211	Mechanics of Materials I	63	62	5.00	С	CIVE 121
CIVE212	Fluid Mechanics I	63	62	5.00	C	
CIVE213	Concrete Technology	78	47	5.00	C	
CIVE214	Computer Fundamentals and Programming II	63	12	3.00	S	CIVE 114
CIVE215	Geomatics I	63	62	5.00	C	

## Semester $4 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
UREQ200	English Language II	33	17	2.00	В	UREQ 100
CIVE220	Mathematics IV	63	62	5.00	s	<b>CIVE 210</b>
CIVE221	Mechanics of Materials II	63	62	5.00	С	<b>CIVE 211</b>
CIVE222	Fluid Mechanics II	78	22	4.00	С	<b>CIVE 212</b>
CIVE223	Building Construction	78	47	5.00	С	
CIVE224	Engineering Statistics	48	77	5.00	s	
CIVE225	Geomatics II	63	37	4.00	С	CIVE 215

## Semester $5 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$

Code	Module	SSWL	USSWL	ECTS	Туре	Pre-request
CIVE310	Engineering and Numerical Analysis	93	57	6.00	C	<b>CIVE 220</b>
CIVE311	Theory of Structures I	63	37	4.00	С	<b>CIVE 221</b>
CIVE312	Reinforced Concrete Design I	63	37	4.00	С	CIVE 221
CIVE313	Soil Mechanics I	78	22	4.00	С	
CIVE314	Sanitary Engineering I	63	37	4.00	С	
CIVE315	Traffic Engineering I	48	52	4.00	С	
CIVE316	Engineering Management & Economics	33	67	4.00	C	

## Semester $6 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
CIVE320	Hydrology	63	62	5.00	C	
CIVE321	Theory of Structures II	63	62	5.00	C	CIVE 311
CIVE322	Reinforced Concrete Design II	63	62	5.00	С	CIVE 312
CIVE323	Soil Mechanics II	78	47	5.00	С	CIVE 313
CIVE324	Sanitary Engineering II	78	22	4.00	С	CIVE 314
CIVE325	Environmental Engineering	63	37	4.00	С	
CIVE326	Professional Ethics	33	17	2.00	С	

#### **Semester 7 | 30 ECTS | 1 ECTS = 25 hrs**

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
CREQ410	Project I	33	17	2.00	C	
CIVE410	Hydraulics	63	37	4.00	C	
CIVE411	Steel Design I	63	62	5.00	C	<b>CIVE 321</b>
CIVE412	Reinforced Concrete Design III	63	62	5.00	С	CIVE 322
CIVE413	Foundation Engineering I	63	62	5.00	С	CIVE 323
CIVE414	Elective I	63	37	4.00	E	
CIVE415	Geometric Design of Highways	63	62	5.00	C	CIVE 315

### Semester $8 \mid 30 \text{ ECTS} \mid 1 \text{ ECTS} = 25 \text{ hrs}$

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
CREQ420	Project II	33	17	2.00	C	
CIVE420	Construction Methods & Estimation	63	37	4.00	C	
CIVE421	Steel Design II	63	62	5.00	C	CIVE 411
CIVE422	Reinforced Concrete Design IV	63	62	5.00	C	CIVE 412
CIVE423	Foundation Engineering II	63	62	5.00	C	CIVE 413
CIVE424	Elective II	63	62	5.00	E	
CIVE425	Pavement Engineering	63	37	4.00	C	CIVE 415

#### 8. Contact

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