

Program of BSc (Honour) in Architecture

Introduction

The importance of engineering specialties is steadily increasing worldwide day after day with special regard to Architecture. Since Sudan is still considered a developing country which lacks the fundamental infrastructure to achieve rapid and sustained Economic and social development thus it aims to obtain the requirements for development by improving and excelling in Engineering Sciences. With this in consideration sprung the importance of sufficiently prepare and equip the workforce in Architectural fields in which enables them to excel in their profession taking into consideration the Technical and Technological as well as the environmental aspects of their countries in their practice. Additionally keep up with the constant global advancements in this field and its impact on the local urbanization.

Here in Sudan we live on the cusp of an Economical renaissance so it is of great vitality to produce human capital with the ability to drive and manage this resurgence, from this notion crystallized the idea of creating this program.

This program is the fruit of constant research and contrasting between local and international universities pioneering in this field and was made especially to adapt to the constant changes in Sudan in order to graduate students possessing the knowledge needed to advance our beloved country as well as other places that lies outside of our borders.

Message and program Vision:

1. Prepare students, encourage and employ their creativity in Architecture in order to reflect Pristine Architectural Standards onto their communities.
2. Provide students with exceptional education in Architecture.
3. Pioneer the Academic and professional services in Architecture.
4. Advance the profession of Architecture by producing students with great administrative skills as well as polished and fostered creativity.

Program Educational and professional aims:

The program educational aims are to graduate students able to:

1. Apply the fundamental principles of Architecture in Architectural design.
2. Pursue Higher Education in Architecture.
3. Comprehension of the contemporary International Architectural topics and the awareness of the importance of constant self-learning.
4. Foster creative thinking and the ability of problem solving.
5. Creating a sense of team work between students by exchanging opinions, means and ways to achieve a certain project.

Program professional aims are to graduate students able to:

1. Work in local as well as international Architectural projects and sites.
2. Communicate effectively and demonstrate leadership skills when working within teams.
3. Engage in productive and creative work by employing some of the most useful and fundamental societal values.

Program outcomes:

1. Ability to apply gained knowledge of Engineering Science in Architecture.
2. Ability to design Architectural systems or parts of it or even design Architectural operations to cater to the needs of our society.
3. Ability to detect Architectural faults and find solutions.
4. Awareness of the ethics and responsibilities of this profession.
5. Possess excellent communication skills.
6. Acquire holistic knowledge about general subjects which are necessary to understand the impact of Architectural solutions from a local and international perspective.
7. Awareness of the importance of self-learning and advancement in the sphere of Architecture.
8. Knowledge of the contemporary topics in Architecture.
9. Ability to employ new technologies and skills in the advancement of their careers.

Study duration and framework:

- Study frame is by Semesters and the duration is 5 Years divided into 10 semesters and the semester's duration is 15 weeks.
- This program is governed by ACMST's Academic Regulations.

Study Plan

1. Course Components

FIRST YEAR; First Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| ثاس 111 ISC 111 | الثقافة الإسلامية 1 / مجتمع سوداني 1 Islamic culture 1\Sudanese Society 1 | 3 | - | 3 | (0+3) | 3 |
| عرب 112 ARB 112 | اللغة العربية 1 Arabic Language 1 | 3 | - | 3 | (0+3) | 3 |
| نجل 113 ENG 113 | اللغة الانجليزية 1 English Language 1 | 3 | - | 3 | (0+3) | 3 |
| رياض 114 MAT114 | رياضيات Mathematics | 2 | 2 | 3 | (1+2) | 3 |
| فيز 115 PYS 115 | فيزياء عامة General Physics | 2 | 2 | 3 | (1+2) | 3 |
| عمر 116 ARC 116 | رسم معماري Architectural Drawing | 2 | 8 | 6 | (4+2) | - |
| حسب 117 Com 117 | مدخل علم الحاسوب Introduction to Computer Sciences | 1 | 2 | 3 | (1+1) | 2 |
| Total | | 30 | | 23 | - | 17 |

FIRST YEAR; Second Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| ثاس 121 ISC 121 | الثقافة الإسلامية 2 / مجتمع سودانى 2 Islamic Culture 2\Sudanese Society 2 | 3 | - | 3 | (0+3) | 3 |
| عرب 122 ARB 122 | اللغة العربية 2 Arabic Language 2 | 3 | - | 3 | (0+3) | 3 |
| نجل 123 ENG 123 | اللغة الانجليزية 2 English Language 2 | 3 | - | 3 | (0+3) | 3 |
| عمر 124 ARC 124 | مبادئ التصميم المعماري Principle of Architectural Design | 2 | 8 | 6 | (4+2) | - |
| عمر 125 ARC 125 | تقانة المبانى 1 Building Construction 1 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 126 ARC 126 | تاريخ ونظرية العمارة 1 Architectural History and Theory 1 | 2 | - | 2 | (0+2) | 2 |
| Total | | 25 | | 20 | - | 14 |

SECOND YEAR; First Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| درس 211 SDS 211 | دراسات سودانية Sudanese Studies | 2 | - | 2 | (0+2) | 2 |
| عمر 212 ARC 212 | تصميم معمارى Architectural Design | 1 | 12 | 7 | (6+1) | - |
| عمر 213 ARC 213 | الرسم بمساعدة الحاسوب Computer Aided Drawing | 2 | 3 | 3 | (1+2) | 3 |
| عمر 214 ARC 214 | نظم انشاءات 1 Structural Systems 1 | 2 | 2 | 3 | (1+1) | 3 |
| عمر 215 ARC 215 | خدمات المبانى 1 Building Services 1 | 2 | - | 2 | (0+2) | 2 |
| عمر 216 ARC 216 | تقانة مبانى 2 Building Construction 2 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 217 ARC 217 | تاريخ ونظرية العمارة 2 Architectural History and Theory 2 | 2 | - | 2 | (0+2) | 2 |
| Total | | 32 | | 22 | - | 15 |

SECOND YEAR; Second Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|---|-----------|-----------|--------------|------------------------|------------|
| عمر 221 ARC 221 | تصميم معمارى 4 Architectural Design 4 | 1 | 12 | 7 | (6+1) | - |
| عمر 222 ARC 222 | الرسم ثلاثي الأبعاد بالحاسوب 3D Computer Drawing | 2 | 3 | 3 | (1+2) | 3 |
| عمر 223 ARC 223 | خدمات المباني 2 Building Services 2 | 2 | - | 2 | (0+2) | 2 |
| عمر 224 ARC 224 | تقانة مباني 3 Building Construction 3 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 225 ARC 225 | نظم انشاءات 2 Structural Systems 2 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 226 ARC 226 | دراسات الإسكان 1 Housing Studies 1 | 2 | - | 2 | (0+2) | 2 |
| Total | | 30 | | 20 | - | 13 |

THIRD YEAR; First Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|---|-----------|-----------|--------------|------------------------|------------|
| عمر 311 ARC 311 | تصميم معمارى 5 Architectural Design 5 | 1 | 14 | 8 | (7+1) | - |
| عمر 312 ARC 312 | الإظهار المعماري بالحاسوب Architectural Presentation by Computer | 2 | 3 | 3 | (1+2) | 3 |
| عمر 313 ARC 313 | خدمات المباني 3 Building Services 3 | 2 | - | 2 | (0+2) | 2 |
| عمر 314 ARC 314 | تقانة مباني 4 Building Construction 4 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 315 ARC 315 | نظم إنشاءات 3 Structural Systems 3 | 2 | 2 | 3 | (1+2) | 3 |
| عمر 316 ARC 316 | تنسيق مواقع Landscaping Design | 2 | - | 2 | (0+2) | 2 |
| Total | | 32 | | 21 | - | 13 |

THIRD YEAR; Second Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|---|-----------|-----------|--------------|------------------------|------------|
| 321 عمر ARC 321 | تصميم معمارى 6 Architectural Design 6 | 1 | 14 | 8 | (7+1) | - |
| 322 عمر ARC 322 | تقانة مبانى 5 Building Construction 5 | 2 | 2 | 3 | (1+2) | 3 |
| 323 عمر ARC 323 | خدمات المباني 4 Building Services 4 | 2 | - | 2 | (0+2) | 2 |
| 324 عمر ARC 324 | القياسات والمواصفات Measurements & Specifications | 2 | - | 2 | (0+2) | 2 |
| 325 عمر ARC 325 | تاريخ العمارة الإسلامية Islamic Architecture History | 2 | - | 2 | (0+2) | 2 |
| 326 عمر ARC 326 | التصميم الحضري Urban Design | 2 | - | 2 | (0+2) | 2 |
| Total | | 27 | | 19 | - | 11 |

FOURTH YEAR; First Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| 411 عمر ARC 411 | تصميم معمارى 7 Architectural Design 7 | 1 | 16 | 9 | (8+1) | - |
| 412 عمر ARC412 | طرائق البحث العلمى Research Methodology | 2 | - | 2 | (0+2) | - |
| 413 عمر ARC 413 | اقتصاديات و ادارة مشاريع Project Economics & Management | 2 | - | 2 | (0+2) | 2 |
| 414 عمر ARC414 | دراسات الإسكان 2 Housing Studies 2 | 2 | - | 2 | (0+2) | 2 |
| Total | | 23 | | 15 | - | 4 |

FOURTH YEAR; Second Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| 421 عمر ARC 421 | تصميم معمارى 8 Architectural Design 8 | 1 | 16 | 9 | (8+1) | - |
| 422 عمر ARC422 | التشريعات و الممارسة المهنية Legislation & Professional Practice | 2 | - | 2 | (0+2) | 2 |
| 423 عمر ARC 423 | العمارة التقليدية Traditional Architecture | 2 | - | 2 | (0+2) | 2 |
| 424 عمر ARC 424 | برمجة المشاريع باستخدام الحاسوب Project Scheduling Using Computer | 2 | 2 | 3 | (1+2) | 2 |
| 425 عمر ARC 425 | التخطيط الحضري Urban Planning | 2 | - | 2 | (0+2) | 2 |
| Total | | 27 | | 18 | - | 8 |

FIFTH YEAR; First Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| 511 عمر ARC 511 | تصميم معمارى 9 Architectural Design 9 | - | 28 | 14 | (12+0) | - |
| Total | | 28 | | 14 | - | - |

FIFTH YEAR; Second Semester

| Code | Course Title | Lecture | Practical | Credit Hours | Division of credit hrs | Exam Hours |
|--------------------|--|-----------|-----------|--------------|------------------------|------------|
| 521 عمر ARC 521 | تصميم معمارى 10 Architectural Design 10 | - | 28 | 14 | (12+0) | - |
| Total | | 28 | | 14 | - | - |