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| **Date:** | Examination No.: | Version:2022-2023 | Start:12/2/2023 |
| **Module Name - Code** | **Detailed Design Drawings** |
| **Module Language:** | English |
| **Responsible:** | **Assist. L. Sakar Yousif** |
| **Lecture (s):** | **Assist. L. Zenab Kassim****Assist. L. Chra Hunar** |
| **College:** | College of Engineering – Salahaddin University-Erbil |
| **Duration:** | 14 week – 1 semester (spring semester) |
| **Course outcomes:** | Design is the basic requirement in architectural department, thus, students should learn how to design various types of buildings. On the other hand, they should be qualified in order to illustrate their design through drawing details of the projects on sheets which would be used in the site for executing the project.The students would be able to supervise over the projects as they should learn how to connect between various fields in engineering.* They would also learn how to design the projects and select each detail for the building which could be executed in the site not just which is present in their imagination as an impossible thing to be realized. The students would understand the requirements of detailed design drawings.
* They would have comprehensive abilities to analyse and make strategy for modular system and dimensions in steel structure building besides of details of Electricity distribution, water supply, and sanitary system details.
* They will have better imagination about the building structure and details.
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| **Course Content:** | Site Plan, Foundation Plan1- Two Plans (Ground +First) 1:100, 2- Detail of Foundations  3- Table Of Materials (Qualities + Quantities), Dimensions Plan 1- Three Plans: (Full Dimensions + Levels + Room Numbering+ Axes+ Fixed Furniture +Area + Text)2- Table of Rooms Numbering & Areas,Roof design by steel structure and sandwich panels 1:50 Elevations (Four) 1:50 1- Part Of Elevation With Scale 1:25 clarifying sandwich panel details and its connection to building structure, Openings Plan(s) 1:50 1- Table Of Doors 2- Table Of Windows 3- Details (All Type Of Openings), (electrical, water supply and sewer system) Plans(s) 1:50 1- Table of fixtures 2- Details of All electrical, sewer, and water supply fixtures, Sections (Two) 1:50 |
| **Literature:** | * Time saver standard for building construction.
* Architectural working drawings.
* Graphic standard
* Construction technology book.
* Metal building systems: design and specifications
* Construction of buildings (volume 1-5)
* Structure as architecture
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| **Type of Teaching:** | 4 hrs. in lectures (1 theory + 3 practical) – Sunday 11:00 -15:30  |
| **Pre-requisites:** | None |
| **Preparation Modules:** |  |
| **Frequency:** | Spring Semester  |
| **Requirements for credit points:** | For the award of credit points, it is necessary to pass the module set presentations and exams. It contains:The module has weekly works, assignments, pre final and final presentations for the required project set.**Student's attendance is required in all classes**. |
| **Credit point:** | 4 |
| **Grade Distribution:** | The following grade system is used for the evaluation of the module exam: The module exam is based on the summation of two categories of evaluations:First: (70%) of the mark is based on the academic semester effort which includes * Midterm Exam. - 10 %
* Weekly Presentation - 20 %
* First Presentation - 15 %
* Final Presentation - 25 %

Second: (30%)  of the mark is based on final examination that is comprehensive for the whole of the study materials reviewed during the academic semester. |
| **Work load:** | The workload is 110 hrs. It is the result of 60 hrs. attendance and 50 hrs. self-studies (Assignments, preparation for project set and applications). |
| **Topics of given lectures** |  |
| **Lect. No. and date** | Theoretical part | Practical part |
| 1. 12/2
 | Course description + project description and projects requirements | Drawing foundation and ground floor plan |
| 1. 19/2
 | Structural steel members (columns, beams, roofs)  | Checking previous works + drawing first floor plan |
| 1. 26/2
 | Roofing system types in steel structure (truss, portal frame and space frame) | Checking previous work + selecting and drawing roof type within its details |
| 1. 5/3 (holiday)
 | mid-floor connections and stair design | Checking previous work |
| 1. 12/3
 | Wall and roof covering materials and methods within their details + openings in wall and roof | Checking previous work + studio work |
| 19/3(holiday) | Holiday  |  |
| 1. 26/3
 | mid-floor connections and stair design + Elevations and Section | Checking previous work |
| 1. 2/4
 | Plumbing system (sanitary and water supply) | Checking previous work + studio work |
| 1. 9/4 (holiday)
 | Checking overall project |  |
| 1. 16/4
 | **Prelim submission (** First Presentation**)** |  |
| 23/4 | Holiday ( Ramadhan ‘Eid) |  |
| 1. 30/4
 | Electricity distribution system | Checking previous work + studio work |
| 1. 7/5
 | Mid-term exam  | Checking previous work |
| 1. 14/5
 | Drawing tables, Symbols and Details | Checking previous work |
| 1. 21/5
 | Checking overall project |  |
| 1. 28/5
 | **Final submission (final presentation)** |
| 1. 4-22/6
 | Final Examination |
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