No.	Code	Primary Supervisor's Name	Tentative title of the Project	Description (Summary)	Requirements
1	**Project A**	Dr. Ahrar Botan	Design of multistorey Building	N/A	None
2	**Project B**	Mr. Ghanim Hussein Qoja	Performance of concrete using limestone as partial replacement of fine aggregate	The project involves a laboratory work. Experiments are carried on to investigate the suitability of using limestone as partial replacement of sand in concrete mixtures.	None
3	**Project C**	Mrs. Amal Mohammed Tahir	Impact of road humps on the pavement surface condition	N/A	None
4	**Project D**	Mrs. Amal Mohammed Tahir	Evaluation of road humps measurements on road safety (Duhok city road case study)	N/A	None
5	**Project E**	Dr. Nahla Hussein Aswad and Dr. Bayar Najeeb Abdulrazaq	Evaluating the condition of flexible pavements for Duhok rural roads	The condition of Duhok rural road sections will be evaluated by collecting distress data (cracking, rutting, bleeding, potholes, patching, ...) for flexible pavement surfaces. These distresses are combined into one overall pavement distress index which is Pavement Condition Index (PCI), using PAVER software. The output of this project study will help road authorities in Duhok to implement appropriate maintenance activities.	Instrument: GPS , Software: PAVER
6	**Project F**	Mr. Youkhanna Zayia	Analysis and Design of Prestressed Concrete Bridge	The project methodology involves designing and analyzing a prestressed concrete bridge. The various steps involved in this process are 1. Designing a 27m concrete bridge with a clear roadway of 12 m in compliance with AASHTOO guidelines.. 2. Calculate the maximum bending moments and shear forces in the bridge and check for safety against these failures. 3. Analyze the bridge using CSiBRIDGE v20.0 software for bending moment distributions, shear force distributions, and deflections. Also, check for deflections against moving loads. 4. Compare the results from manual calculation and software results.	Students must be familiar with MS Office Word, Excel, and Autocad. New software is intended to be learned by the students, such as Civil 3D, Revit, and CSI Bridge.
7	**Project G**	Dr. Nasreen Hussein	Safety Analysis of Signalized Intersections by Crash Type and Identification of Countermeasures to Reduce Crashes using Highway Safety Manual	This study addresses the different factors that affect crashes, by type of collision, at signalized intersections using suitable statistical analysis such as logistic regression. It also includes application of crash modification factors for safety improvements and selecting countermeasures at most dangerous signalized intersections in Duhok city using Highway Safety Manual.	None
8	**Project H**	Prof. Dr. Ali Flayeh Hassan	Derivation of simplified formulas for ultimate strength and working stress methods of beams	The students will be able to derive the simplified formulas to find the effective depth and reinforcement for different compressive strength of concrete and yield strength of steel by working and Ultimate design methods. Make a comparison between the two methods of design of reinforced concrete elements.	Microsoft office word, and excel, Design of concrete elements , Principles of Structure analysis
9	**Project I**	Dr. Abduljabbar Ismael Abdy	Structural Analysis and Design of a Steel Multi-Story Frame Building	N/A	N/A
10	**Project J**	Dr. Abdulhameed A. Yaseen	Rammed earth and its feasibility of using in rural villages of Duhok	Rammed earth is an ancient method that has been revived recently as a sustainable building method.Making rammed earth involves compacting a damp mixture of subsoil that has suitable proportions of sand, gravel, clay and stabilizer, if any, into a formwork.It is the aim of this study to test the feasibility of using such technique in our villages in Duhok city.	Infield construction and work, Soil and concrete lab tests
11	**Project K**	Dr. Gehan Abdullah Al-Sofi	Evaluation of using local limestone from different locations in concrete compressive strength	The purpose of this work is to evaluate the use of local limestone from kashe (کاشێ) and Chmanke (جمانکێ) instead of river aggregate on the compressive strength of concrete.	limestone will be collected from two quarries (Kashe and Chmanke).
12	**Project L**	Dr. Abduljalil Sulaiman Ahmed	Design of multi-story commercial building manually and checking with engineering software	design of a multi-story commercial building composed of parking floors, a basement, shopping center, taking into consideration the effect of wind force and earthquake, checking the results by using Etab and Safe Software	None

No.	Code	Primary Supervisor's Name	Tentative title of the Project	Description (Summary)	Requirements
13	**Project M**	Mrs. Jwan Noori Hassan	Design of a Recirculating Aquaculture System	In the recent years, fish farming ponds increased in Kurdistan region which causes increasing water consumption. The objective of this project is to design a recirculating aquaculture system that meets the efficiency and effectiveness of the little resources. Recirculation systems are designed to minimize or reduce dependence on water exchange and flushing in fish culture units. The systems have practical applications in commercial aquaculture hatcheries, holding tanks and aquaria systems as well as small scale aquaculture projects. Water is specifically recirculated when there is a specific need to minimize water replacement, to maintain the quality condition which differ from the supply water or to compensate for an insufficient water supply.	None
14	**Project N**	Mr. Jeger Khairy Ismael	Structural Design of High-rise Building using ETABS and SAFE software	The aim of this study is to investigate the structural design of high-rise building with ETABS and Safe software and compare the influences of the structural analysis results. Case studies are considered to analyze the structure with the gravitational loads and lateral loads due to wind load and earthquakes. The case studies include a twenty-stories reinforced concrete building.	None
15	**Project O**	Mr. Jeegir Zeki Ahmed	Analysis and Design of Arch Bridge	N/A	None
16	**Project P**	Yassamin Khalid Faiud	Factors affecting The Seismic Performance of RC Buildings	N/A	None
17	**Project Q**	Mr. Anas Wajeeh Abdulrahman	Design of Water Distribution Network	N/A	Software skills, good knowledge of fluid mechanics and water supply. Ability to conduct field visits within Duhok city.
18	**Project R**	Mr. Havraz Khedhir Younis	Speed radars' effect on the number of accidents within Duhok city	N/A	None
19	**Project S**	Mr. Havraz Khedhir Younis	Studying level of service of signalized intersections in Duhok city	N/A	None