

Kurdistan Region Government Ministry of Higher Education and Scientific Research Erbil Polytechnic University



Module (Course Syllabus) Catalogue

2022-2023

| College/ Institute | Erbil Technical En | gineering College | | | |
|--------------------------|--------------------------------|-------------------------|--|--|--|
| Department | Highway Engineering Techniques | | | | |
| Module Name | Highway Inspection and Safety | | | | |
| Module Code | HIS805 | | | | |
| Degree | Technical Diploma | a Bachelor x | | | |
| Ū | High Diploma | Master PhD | | | |
| Semester | Seventh | | | | |
| Qualification | MSc. Geotechnical Engineering | | | | |
| Scientific Title | Assistant Lecturer | | | | |
| ECTS (Credits) | 3 | | | | |
| Module type | Prerequisite | Core × Assist. | | | |
| Weekly hours | 2 | | | | |
| Weekly hours (Theory) | (2)hr Class | (81) Total hrs Workload | | | |
| Weekly hours (Practical) | ()hr Class | ()Total hrs Workload | | | |
| Number of Weeks | 12, | | | | |
| Lecturer (Theory) | Ahmed Suad Ali | | | | |
| E-Mail & Mobile NO. | Ahmed.ali@epu.edu.iq | | | | |
| Lecturer (Practical) | | | | | |
| E-Mail & Mobile NO. | | | | | |
| Websites | | | | | |

Course Book

| Course Description | Increase student knowledge and learn more about safety elements and the way of inspection, regarding crash elements how to predict the crashes, elements of crash, elements of roads and highway, bridges, pavements, road marking and signs, defects of pavement, as well as maintenance | | |
|--------------------------------|---|--|--|
| Course objectives | Understand the basics of highway safety and inspection Main elements of roads, pavement and bridges Highway audit and safety inspection Road marks and signs. Bridge inspection and audit. Pavement defects and inspection Safety elements. Investigation, survey and planning for such projects The risk that encloses such field | | |
| Student's obligation | To attend the classes regularly with minimum absence. To participate actively in the class discussion and Q&A session Study on daily basis to digest the class material To write note off-handouts Prepared for sudden Quizzes Vet through the references provided by the lecturer and to solve as much as possible of homework and exercises for the subjective materials. Prepare the assignment and the seminar as instructed by the lecturer. | | |
| Required Learning Materials | Basically, a handout shall be given to the students at the beginning of the academic year as well as soft copy will appear at Moodle. The page-by-page read shall be performed by the lecturer and to illustrate the points with aide of white board whenever necessary. The video clips that illustrate further the subject material shall be illustrated with the aid of overhead projector. Some seminars will be held and a case study will be a case of discuss during the study year If applicable some site visits will be arranged according to the situations. | | |

| | Task | | Weig (Mar | 0 | Due Week | Relevant Learning Outcome |
|--|---|--------------|---|--|--|------------------------------|
| | | aper Review | | | | |
| - | | Homework | x 10% | 6 | | |
| | Assignments | Class Activi | ity 2% |) | | |
| | | Report | | | | |
| | | Seminar | | 4 | | |
| Evaluation | | Essay | 10/ | 1070 | | |
| | | Project | | | | |
| | Qui | İZ | 8% |) | | |
| | Lab. | | | | | |
| | Midterm Exam | | 24% | 6 | | |
| | Final Exam | | 40% | 6 | | |
| | Total | | 100 | % | | |
| Specific learning outcome: Course References: | the major activities related to the basics and standardized highway safety and inspection engineering. The student will be capable to identify safety elements for transportation and bridge projects, have a clue about the defects of pavements. Learn maintenance and highway audit as well. • Highway Safety Manual 2010 • Highway Safety Design and Operations Guide, 1997 • Handbook of Highway Safety Design and Operating Practices, 1978 •Bridge Inspection and Rehabilitation: A Practical Guide,1993 The hand book of highway engineering, 2005 | | | | | |
| Course topics (Theory) | | Week | | Lea | rning Outcome | |
| INTRODUCTION TO HIGHWAY SAFETY ENGINEERING AND CRASH INVESTIGATION | | 2 | high | basic terms, general description of highway safety and crash investigation | | |
| HIGHWAY AUDIT & SAFETY INSPECTIONS | | 2 | safe | | eral idea about audit and ection of roads and | |
| HIGHWAY/ ROAD MARKINGS & SIGNS INSPECTIONS | | 2 | Main elements and standards of road marking and signs | | | |

| Pavement defects and inspection | 2 | including general description about the main defects of pavement and inspection | | | |
|---|------|---|--|--|--|
| Bridge AUDIT & SAFETY INSPECTIONS | 2 | including general idea about audit and safety inspection of bridges | | | |
| Safety elements of transportation engineering | 1 | General standardizing of safety elements | | | |
| maintenance of highway and bridges elements | 1 | types of scheduled maintains and monitoring | | | |
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| | | | | | |
| Practical Topics | Week | Learning Outcome | | | |
| NON | | | | | |
| | | | | | |
| | | | | | |
| Questions Example Design: first year subject | | | | | |

Extra notes: In spite of the fact that, the topics applied previously sounds rich but the subject it self has a link of the previous study years subjects such as traffic engineering, geometric design, construction methods, bridge engineering and pavement engineering, so the student should get a full info through these subjects in order to maintain a good link to the subject regarding the safety, as for the subject itself a chapter might be added based on the need of students. A site vist might be establish to measure marking and safety elements of roads.

External Evaluator

The syllabus listed earlier are scientifically and logically demonstrates the highway safety and inspection subject based on subject matter and are satisfactory.

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Assistant Professor Dr. Rizgar Ali Hummadi