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| Date: | Examination No.:  | Version:2/2/2020 | Start: 2/2/2020 |
| **Module Name - Code** | Construction Materials- 1110 |
| **Module Language:** | English |
| **Responsible:** | Sherzad Qadir |
| **Lecture (s):** | Mr. Sherzad Qadir / MSc |
| **College:** | College of Engineering – Salahaddin University |
| **Duration:** | 15 week – 2nd (Spring) semester |
| **Course outcomes:** | After completing this subject, the student will be able to1. Describe the nature and scope of many construction materials and their related lab testing using lecture notes and references.
2. Identify the opportunities for "invention".
3. Learn behavior of some samples for different type of building materials under loads.
4. Learn mechanical properties of some structural materials.
5. Learn how to work and communicate together with a partner.
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| **Course Content:** | Materials that used in construction of building, roads, high way, bridges, hydraulic structures… The data covering the more important mechanical properties (Compressive strength, tensile strength, modulus of elasticity, creep, fatigue…) and physical properties (Density, porosity, thermal conductivity…), and influence of varies factors on these properties. Also give up-to date new materials bring to the markets of construction |
| **Literature:** | 1. Peter Domone and John Illston " Construction material, their nature and behavior"-2010
2. Michael S. Mamlouk and John P. Zaniewski " Materials for Civil and Construction Engineers" 2016
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| **Type of Teaching:** | **2 hrs.** theory per week, in lectures **2 hrs.** in concrete and material Laboratory. |
| **Pre-requisites:** | A Strong background in construction materials and required to study about ten to fifth hours a week outside the class. |
| **Frequency:** | Yearly in Spring semester |
| **Requirements for credit points:** | For the award of credit points, it is necessary to pass the module exam.The module exam contains:A mid-term exam, class room activities, quizzes, home works and final exam on June. So, the final grade will be based upon the following criteria:

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| Semester exam | 25% |
| Reports | 15% |
| Activities and Quizzes | 10% |
| Final exam | 50% |
| Total | 100% |

**Student's attendance is required in all classes**.1. If any student be **absent** in attending of **5 lectures**, then he/she has no right to enter the final exam and he/she will fail in that semester.
2. If any student be **absent** in attending of **5 tests in lab**, then he/she has no right to enter the final exam and he/she will fail in that semester
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| **Credit point:** | 5 |
| **Grade Distribution:** | The Grade is generated from the examination result(s) with the followingAnnual Effort (w): 50%Final Exam (w): 50% |
| **Work load:** | The workload is 120h. It is the result of 60h attendance and 60h self-studies. |