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| *Course report of* |
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| Machine Construction (MDP 252) Spring 2020  |

 |
| University: Ain Shams | Faculty: Engineering |

## Basic Information

1. Title and code:

|  |
| --- |
| Machine Construction MDP 252 (2-2-0) |

1. Programs on which the course is given:

|  |  |
| --- | --- |
|

|  |
| --- |
| All Mechanical Engineering Programs/ Continues Course |

 |

1. Year/Level of programs:

|  |
| --- |
| Second Year |

1. Units

|  |  |
| --- | --- |
| ( i ) Lecture : | 2 |

|  |  |
| --- | --- |
| ( ii ) Tutorial/Practical : | 2/0 |

|  |  |
| --- | --- |
| ( iii ) Total : | 4 |

1. Names of lecturers contributing to delivery of the course:

|  |  |
| --- | --- |
| i - | Associate Prof. Ayman Aly Abd El-Wahab |

|  |  |
| --- | --- |
| ii - | Prof. Tamer Elnady |

|  |  |
| --- | --- |
| iii - |  |

|  |  |
| --- | --- |
| Course coordinator: | Prof. Tamer Elnady  |

|  |  |
| --- | --- |
| External evaluator: |  |

## Statistical Information

## Research Project

 All registered students are passed the course

## Professional Information

1. **Course Teaching:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Course Content** | **Lect.** | **Tut.** | **Total** |
| **1** | Basic considerations of different processes. | 6 | 5 | 16 |
| **2** | Introduction of engineering materials. | 2 | 5 | 2 |
| **3** | Fits and tolerance, surface roughness and geometrical tolerance | 4 | 8 | 12 |
| **4** | Margin and safety factors | 4 | 4 | 8 |
| **5** | Pre-stressed bolted joints under static and dynamic loading | 6 | 8 | 14 |
| **6** | Sealing  | 2 | 2 | 10 |
| **7** | Riveted and welded joints | 4 | 4 | 6 |
| **8** | Power transmissions | 4 | 4 | 4 |
| **9** | Design of shafts and keys  | 5 | 6 | 8 |
| **10** | Construction of couplings (flexible and rigid)  | 4 | 6 | 10 |
| **11** | Project  | 3 | 5 | 6 |
| **12** | Project  | 4 | 1 | 6 |
| **13** | Project  | 6 | 1 | 4 |
| **14** | Design for manufacturing / Project  | 6 | - | 4 |
|  | Total | 60 | 60 | 120 |

**Topics taught as a percentage of the content specified:**

**>90 % X 70-90 % <70%**

**Reasons in detail for not teaching any topic**

All topics were taught ……………………………………….

………………………………………………………………………………………………

………………………………………………………………………………………………

**If any topics were taught which are not specified, give reasons in detail**

N/A………………………………………………………………………………………….

**Teaching and learning methods:**

 Lectures: **X**

Practical training/ laboratory:

Seminar/Workshop:

Class Activity: **(Tutorials)**  **X**

**Case Study:**

Other assignments/homework:

 If teaching and learning methods were used other than those specified, list and give reasons:

………………………………………………………………………………………………

1. **Student assessment:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment method** | **No** | **Description** | **Week** **No** | **Weight (%)** |
| Assessment | 1 | Assessment 1: Ex1 - Hoist Block  | 3 | 1 |
| Assessment | 2 | Assessment 2: Sheet2-Concept to Design | 4 & 5 | 2 |
| Exam | 3 | Midterm Examination | 6 | 2.5 |
| Exam | 4 | Quiz 1: Basic Considerations  | 8 | 2.5 |
| Assessment | 5 | Assessment 3: Force Analysis | 9-11 | 5 |
| Assessment | 6 | Project choice and evaluation  | 20 | - |
| Assessment | 7 | Report 1: net search on the product chosen standards | 22 | 2 |
| Exam |  | Quiz 2: Force Analysis | 23 | 5 |
| Exam | 8 | 2nd Midterm exam | 25 | 5 |
| Assessment | 9 | Assessment 4: Project submissions  | 27 | 7.5 |
| Assessment | 10 | Assessment 5: Project manufactured  | 28 | 7.5 |
| Exam | 11 | Final exam | 30 | 60 |
| Total | 100 % |

**Members of examination committee**

* Associate Prof. Ayman Aly Abd El-Wahab
* Prof. Tamer Elnady

**Role of external evaluator**

N/A…………………………………………………………………………………………

**NOTE:**

Due to the impact of COVOD 19, all study activities in all schools were suspended starting from the fifth week in spring 20. So, the student assessment methods were changed as follows:

* All course work marks were cancelled but the students were asked to deliver and upload some of course work items like assignments to Moodle.
* Quizzes were cancelled and mid-term exam as well.
* All lectures and tutorials were continued online (starting from the fifth week) using zoom or Microsoft teams’ platforms.
* Research project for all students, except the final year students, was the only assessment and graded by (Pass/Fail). Final exam for the final year students was the only assessment and graded as usual.
1. **Facilities and teaching materials:**

Totally adequate

**X**

Adequate to some extent

Inadequate

List any inadequacies

1. **Administrative constraints:**

List any difficulties encountered

 No difficulties

1. **Student evaluation of the course:**

Due to the lockdown circumstance, there were no chance to have a paper-based survey. But generally, and as a feedback from advising sessions with the academic advisers, the main issue was because of the sudden and drastic changes from teaching mode to a totally different one.

**Response of Course Team**

1. **Comments from external evaluator(s): Response of course team**

………**N/A** ………………. …………………………….

……….……………..……. …………………………….