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| *Course report of* | |
| |  | | --- | | **Materials Engineering and Testing, (MDP 131), 2018**-**2019** | | |
| University: Ain Shams | Faculty: Engineering |

## Basic Information

1. Title and code :

|  |
| --- |
| Materials Engineering and Testing MDP 131 |

1. Program on which the course is given :

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| --- | --- |
| |  | | --- | | B.Sc. All Mechanical Eng. | |

1. Year/Level of programs :

|  |
| --- |
| First Year Mechanical Eng. |

1. Units/Credit Hours

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

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

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

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

|  |  |
| --- | --- |
| i - | Prof. Adel M. Badawy El-Shabasy |

|  |  |
| --- | --- |
| ii - | Prof. Ahmed Moneeb El-Sabbagh |

|  |  |
| --- | --- |
| iii - | Prof. Hala Abdel Hakim Hassan |

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| --- | --- |
| Course coordinator: | Prof. Adel M. Badawy El-Shabasy |

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

## Statistical Information

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| --- | --- |
| No. of students attending the course: | 442 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Grading of successful students | | | | | | Results | |  |
|  | Excellent | Very good | Good | Pass | Weak | Very weak | Failed | Pass | SUM |
| Students No. |  |  |  |  |  |  |  |  | 442 |
| Percentage (%) |  |  |  |  |  |  |  |  |  |

## Professional Information

1. **Course Teaching:**

|  |  |  |
| --- | --- | --- |
| Course Content | No. of Hours | Lecturer |
| Introduction, Classification of materials | **2** | Prof. Adel B. El-Shabasy |
| Atomic structure & atomic bonding | **2** | Prof. Adel B. El-Shabasy |
| Crystal Structure & crystal parameters | **2** | Prof. Adel B. El-Shabasy |
| Crystal Defects | **2** | Prof. Adel B. El-Shabasy |
| Binary Alloys Phase diagrams | **6** | Prof. Adel B. El-Shabasy |
| Fe-C Phase diagrams | **2** | Prof. Adel B. El-Shabasy |
| Heat treatments of ferrous alloys | **4** | Prof. Ahmed Moneeb |
| Polymers & Ceramics | **2** | Prof. Hala Abdel Hakim |
| New materials | **4** | Prof. Adel B. El-Shabasy |
| Mechanical behavior under static loads | **8** | Prof. Adel B. El-Shabasy |
| Mechanical behavior under dynamic loads (Impact) | **6** | Prof. Hala Abdel Hakim |
| Failure mechanics (Fracture types, Principles of fracture mechanics…..) | **12** | Prof. Adel B. El-Shabasy |
| Non Destructive testing of metals | **2** | Prof. Ahmed Moneeb |

**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: X

Seminar/Workshop:

Class Activity: **(Tutorials)**  X

**Case Study:**

Cooperative learning

1. **Student assessment:**

|  |  |
| --- | --- |
| **Method of assessment** | **Percentage of total** |
| Written examination | 60 % |
| Oral examination | 20 % |
| Other assignments/class work activities | 20 % |

**Members of examination committee**

i – Prof. Adel M. Badawy El-Shabasy

ii– Prof. Hala Abd El-Hakim Hassan

iii- Prof. Ahmed Moneeb El-Sabbagh

**Role of external evaluator**

N/A

**Facilities and teaching materials:**

Totally adequate

Adequate to some extent **X**

Inadequate

List any inadequacies

1. **Administrative constraints:**

List any difficulties encountered

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

Is there anything else you would like to add?

An overview of how the course will go during the semester, would be appreciated. like an introduction for the course content, and why its important and special at the first lecture

**Response of Course Team**

The course specification is presented in the first lecture of the semester. This includes an overview for the course content. Next year, this can be turned to power point presentation to make the students follow it easily. May be the participant did not attend the first lecture.

List any criticisms

…N/A

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

………**N/A** ……………….