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**Department of Chemical Engineering**

**Cairo University**

**Faculty of Engineering**

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| **Annual Course Report** | | | | | | | | | | | | | | | | | | | | |
| |  |  | | --- | --- | | **Program(s) on which this course is given** | Chemical Engineering | | **Department offering the program** | Chemical Engineering | | **Department offering the course** | Chemical Engineering | | **Academic Level** | 2nd year | | **Date** | 2013-2014 | | **Semester(based on final exam timing)** | Fall √ Spring | | | | | | | | | | | | | | | | | | | | | |
| **A - Basic Information** | | | | | | | | | | | | | | | | | | | | |
| **1. Title:** | Momentum Transfer | | | | | | | | **Code:** | | | | CHE203A | | | | | | | |
| **2. Units/Credit hours:** | | | | | | Lectures | | 2 | | | Tutorial | | | 2 | Practical | | | 0 | Total | 4 |
| **3. Names of lecturers /TAs contributing to the delivery of the course:** | | | | | | * Prof. Salwa Raafat * Ass. Prof. Shakinaz El-Sherbeni * Ass. Prof. Ahmed Fayez * Eng. Fatma Ibrahim * Eng. Mohamed Ismail | | | | | | | | | | | | | | |
| **4. Course coordinator:** | | | | | | Prof. Salwa Raafat | | | | | | | | **External evaluator:** | | | |  | | |
| **B- Professional Information** | | | | | | | | | | | | | | | | | | | | |
| **1. Course Teaching:** | | | | | | | | | | | | | | | | | | | | |
| * **Topics actually taught** | | | | | **No. of hours** | | | | | **Lecture** | | **Tutorial/ Practical** | | | | | **Lecturer** | | | |
| Basic Definitions & Fluid Properties | | | | | 8 | | | | | 2 | | 2 | | | | | Dr. Shakinaz El-Sherbeni | | | |
| Pressure Variation | | | | | 8 | | | | | 4 | | 4 | | | | | Dr. Shakinaz El-Sherbeni | | | |
| Forces on Submerged bodies | | | | | 8 | | | | | 4 | | 4 | | | | | Dr. Shakinaz El-Sherbeni | | | |
| Fluids in Relative Motion | | | | | 8 | | | | | 4 | | 4 | | | | | Dr. Shakinaz El-Sherbeni | | | |
| Introduction to fluid kinematics | | | | | 4 | | | | | 2 | | 2 | | | | | Dr. Ahmed Fayez | | | |
| Governing equations to fluid kinematics | | | | | 20 | | | | | 10 | | 10 | | | | | Dr. Ahmed Fayez | | | |
| Flow Measurements | | | | | 4 | | | | | 2 | | 2 | | | | | Dr. Ahmed Fayez | | | |
| * **Topics taught as a percentage of the content specified:** | | | | | √□>90% □70-90% □<70% | | | | | | | | | | | | | | | |
| * **Reasons in detail for not teaching any topic: ------------** | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | |
| * **If any topics were taught which are not specified, give reasons in detail:**No extra topics were tough other than specified topics | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | |
| **2.Teaching and Learning Methods:** | | Lectures (√ ) | | Practical Training/ Laboratory() | | | | | | | | | | | | Seminar/Workshop ( ) | | | | |
| Class Activity (√ ) | | Case Study () | | | | | | | | | | | | Projects ( √ ) | | | | |
| E-learning ( ) | | Assignments /Homework () | | | | | | | | | | | | Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
| **If teaching and learning methods were used other than those specified, list and give reasons:**No other learning methods | | | | | | | | | | | | | | | | | | | | |
| **3. Student Assessment:** | | | | | | | | | | | | | | | | | | | | |
| * **Method of Assessment** | | | | | | | **Percentage of total** | | | | | | | | | | | | | |
| - Written examination | | | | | | | 70% | | | | | | | | | | | | | |
| - Midterm examination (written) | | | | | | | 15% | | | | | | | | | | | | | |
| - Class activity | | | | | | | 15% | | | | | | | | | | | | | |
| -Total | | | | | | | 100% | | | | | | | | | | | | | |
| * **Members of Examination Committee:** | | | * Prof. Salwa Raafat * Ass. Prof. Ahmed Fayez | | | | | | | | | | | | | | | | | |
| * **Role of external evaluator:** | | | Review program ILOs | | | | | | | | | | | | | | | | | |
| **4. Facilities and Teaching Materials**: | | | √□ Totally adequate □Adequate to some extent □ Inadequate | | | | | | | | | | | | | | | | | |
| List any inadequacies: | | | | | | | | | | | | | | | | | | | | |

**5. Exams/ILOs Matrix**

* **ILOs/Evaluation Source Matrix**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Source of Evaluation** | | | | | | | | | |
| **ILOs** | **Assignments** | **Quizzes** | **Experiments** | **Lab Exam** | **Midterm Exam** | **Projects** | **Term Papers/Reports** | **Final Exam** | **Others 1** | **Others 2** |
| 1. Methodologies of solving engineering problems, data collection and interpretation |  | **√** |  |  |  |  |  |  |  |  |
| 1. Concepts and theories of mathematics and sciences, appropriate to the discipline. |  | **√** |  |  |  |  |  |  |  |  |
| 1. Select appropriate solutions for engineering problems based on analytical thinking. |  | **√** |  |  |  |  |  |  |  |  |
| 1. Combine, exchange, and assess different ideas, views, and knowledge from a range of sources. | **√** |  |  |  |  |  |  |  |  |  |
| 1. Apply knowledge of mathematics, science, information technology, design, business context and engineering practice integrally to solve engineering problems. |  | **√** |  |  |  |  |  |  |  |  |
| 1. Determine the characteristics and performance of measurement and control systems. |  |  |  |  |  |  |  |  |  |  |
| 1. Search for information and engage in life-long self learning discipline. | **√** |  |  |  |  |  |  |  |  |  |
| 1. Refer to relevant literatures. | **√** |  |  |  |  |  |  |  |  |  |

* **Midterm Exam**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question** | **ILOs** | | | | | | | |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **1. (problem 1)** |  |  |  |  |  |  |  |  |
| **2. (problem 2)** |  |  |  |  |  |  |  |  |

* **Final Exam**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question** | **ILOs** | | | | | |  |  |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **1. (problem 1)** |  |  |  |  |  |  |  |  |
| **2. (problem 2)** |  |  |  |  |  |  |  |  |
| **3. (problem 3)** |  |  |  |  |  |  |  |  |
| **4. (problem 4)** |  |  |  |  |  |  |  |  |
| **5. (problem 5)** |  |  |  |  |  |  |  |  |
| **6. (problem 6)** |  |  |  |  |  |  |  |  |

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| **6. Administrative Constraints:** |
| List any difficulties encountered: the class hall were not equipped with a sound system |

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| **C-Course Assessment** | | | | | | |
| **1- Statistical Information** | | | | | | |
| **a. No. of students attending the course:** | | | | | | |
| **b. No. of students completing the course:** |  |  | |  | | |
| **c. Results:** | 3.a. Passed |  | % | 3.b. Failed |  | % |
| **d. Grading of successful students:** | 4.a. Excellent |  | % | 4.b. Very Good |  | % |
| 4.c. Good |  | % | 4.d. Pass |  | % |
| **Response of Course Team**  **( if needed)** |  | | | | | |
| **2. Student Evaluation of the Course:** |  | | | | | |
| **ILO’s Exit survey report as attached** |  | | | | | |
| **List any criticisms** |  | | | | | |
| 1. The feedback from the students is…... 2. The survey conducted by the faculty quality assurance unit scored …%. 3. The results of the survey offered by the   department:  ILO’s (…./5)  Comment: ……………………. |

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| --- | --- | --- | --- |
| **3. Comments from external evaluator(s):** | | **Response ofCourse Team** | |
|  | |  | |
| **4. Course Enhancement:** | |  | |
| Progress on actions identified in the previous year’s action plan: | | | |
| **Action:**  Equip class halls with sound system and data show | | Completed | |
|  | |  | |
| 1. **Action Plan for Academic Year 2014-2015** | |  | |
| **Actions Required** | **Completion Date** | | **Person Responsible** |
| Improvement of class halls |  | |  |
| **Course Coordinator:** | Prof. Salwa Raafat | | |
| **Signature:** |  | | |