# Course Description Form

| 1. Course Name: |
|---|
| Control Theory IV II |

| 2. Course Code: |
|---|
| COTH1338 |

| 3. Semester / Year: |
|---|
| 2st Semester |

| 4. Description Preparation Date: |
|---|
| 16/2/2024 |

| 5. Available Attendance Forms: |
|---|
| Personal |

| 6. Number of Credit Hours (Total) / Number of Units (Total) |
|---|
| 30/6 |

| 7. Course administrator's name (mention all, if more than one name) |
|---|
| Name: Assit.prof. Dr Mohammed Jasim <br> Email: mohamed.j.mohamed@uotechnology.edu.iq <br> Name: Assit Lecturer Mustafa Kareem Khashan <br> Email: Mustafa.k.khashan@uotechnology.edu.iq |

## 8. Course Objectives

| Course Objectives | **Assess the student's skill in understanding the subject of control theory based on frequency response analysis during the course by means of sudden exams, documented exams and participation in the scientific discussion in the classroom** |
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## 9. Teaching and Learning Strategies

| Strategy | **- Develop the student's ability to use modern equipment and information technology and their relationship to engineering applications.** <br><br> **- Develop the student's ability to choose an appropriate compensator for the purpose of obtaining the required performance for a particular system.** <br><br> **- Develop the student's ability to understand nonlinear systems and how to deal with them in the frequency domain** |
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## 10. Course Structure

| Week | Hours | Required Learning Outcomes | Unit or subject name | Learning method | Evaluation method |
|---|---|---|---|---|---|
| 1-2 | 6 | | **Pipeline and vector processing** | **Live presentation and homework** | **Written exam** |
| 3-4 | 6 | | **Overview of Assembly Language** | **Live presentation and reports** | **Discussing and evaluating reports** |

| 5-6 | 6 | | **Procedures and the Stack** | **Live presentation and homework** | **Written exam** |
|---|---|---|---|---|---|
| 7-8 | 6 | | **Addressing Modes** | **Live presentation and reports** | **Discussing and evaluating reports** |
| 9-12 | 12 | | **RISC Processors** | **Live presentation and homework** | **Written exam** |
| 13-15 | 6 | | **Cache and virtual memory** | **Live presentation and reports** | **Discussing and evaluating reports** |

## 11. Course Evaluation

20% documented exam
5% Quizes
5% reports and homework

## 12. Learning and Teaching Resources

| **Required readings:**<br>**- Core Texts**<br>**- Course Materials**<br>**- Other** | - **Modern Control Systems** (Book) BY Katsuhiko Ogata<br>**Automatic Control System** (Book) by Farid Golnarag and Benjamin C. Kuo<br>- **Lecture notes**<br>   -**Tutorial sheet** |
|---|---|
| Main references (sources) | - **Modern Control Systems** (Book) BY Katsuhiko Ogata<br>**Automatic Control System** (Book) by Farid Golnarag and Benjamin C. Kuo |
| Recommended books and references (scientific journals, reports…) | **Other sources and requirements are given within ot lessons in the same stage or in the previous stages addition to laboratories and projects for this stage wl are related to the subject of control** |
| Electronic References, Websites | **http://ctms.engin.umich.edu/CTMS** |