



College: College of Engineering
Programme Electrical Engineering

**Course:** 373

Muharram 1437 H





# **Course Report**

Institution: Majmaah University Date of CR 24 / 3/ 1437 H.
College/ Department Engineering College/ Electrical Engineering

## **A Course Identification and General Information**

| 1. Course ti     | ui.  | RIC POWER AN<br>NES LAB-2 | ND Code               | 373                       | Section         | 551     |  |
|------------------|--|---------------------------|-----------------------|---------------------------|-----------------|---------|--|
| 2. Name of       | 2. Name of course instructor Dr. Youcef & Location: College of |                           |                       |                           |                 |         |  |
|                  |  | M.A.                      | Baseer                |                           | Engi            | neering |  |
| 3. Year and      | semester to  | which this re             | port applie           | es: 3 <sup>rd</sup> Year/ | II-Sem          |         |  |
| 4. Number of     | students startir   | ng the course?            | 13 S                  | tudents complet           | ing the course? | 13      |  |
| 5. Course c      | omponents:   |                           |                       |                           |                 |         |  |
|                  | Lecture  | Tutorial                  | Laboratory,<br>Studio | / Practical               | Other           | Total   |  |
| Contact<br>Hours |  |                           | 15                    |                           |                 | 30      |  |
| Credit           |  |                           | 1                     |                           |                 | 1       |  |

## **B- Course Delivery:**

### 1. Coverage of Planned Program

| Topics Covered                             | Planned<br>Contact<br>Hours | Actual<br>Contact<br>Hours | Reason for Variations (*) |
|--|-----------------------------|----------------------------|---------------------------|
| Symmetrical and unsymmetrical fault        | 2                           | 2                          | N/A                       |
| analysis; Load-flow simulation.            |                             |                            |                           |
| Transient stability simulation; Active and | 2                           | 2                          | N/A                       |
| reactive power generator control;          |                             |                            |                           |
| Characteristics of isolated and            |                             |                            |                           |
| interconnected systems.                    |                             |                            |                           |
| Equivalent circuit of transformers.        | 2                           | 2                          | N/A                       |
| Three-phase connections and harmonic       | 2                           | 2                          | N/A                       |
| problems.                                  |                             |                            |                           |
| Equivalent circuit of three-phase and      | 2                           | 2                          | N/A                       |
| single-phase induction motors.             |                             |                            |                           |
| Starting of single-phase induction         | 2                           | 2                          | N/A                       |
| motors.                                    |                             |                            |                           |
| Load testing of induction motors.          | 2                           | 2                          | N/A                       |
| Terminal characteristics of dc machines.   | 2                           | 2                          | N/A                       |

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(\*) if there is a difference of more than 25% of the hours planned

## 2. Consequences of Non-Coverage of Topics

| Topics not Fully Covered (if any) | Effected Learning Outcomes | Possible Compensating Action |
|-----------------------------------|----------------------------|------------------------------|
| N/A                               | N/A                        | N/A                          |

### 3. Course learning outcome assessment.

|     | List course learning outcomes   | List methods of<br>assessment for<br>each LO  | Summary<br>analysis of<br>assessment results<br>for each LO   |
|-----|---|---|---|
| 1.0 | Knowledge   |   |   |
| 1.1 |   |   |   |
| 1.2 |   |   |   |
| 1.3 |   |   |   |
| 1.4 |   |   |   |
| 1.5 |   |   |   |
| 1.6 |   |   |   |
| 2.0 | Cognitive Skills  |   | 1   |
| 2.1 | An ability to design and conduct experiments, as well as to analyze and interpret data                  | Standardized<br>Exams                         | I selected Q. No 2<br>from Mid-Exam-II<br>15.38%- Unsatisfactory<br>23.07%-Developing<br>61.53%- Satisfactory<br>Overall result 82% |
| 2.2 | An ability to identify, formulate, and solve engineering problems                                       | Standardized<br>exams                         | I selected Q. No 3<br>from Final Exam<br>0%- Unsatisfactory<br>0%-Developing<br>100%- Satisfactory<br>Overall result 100%           |
| 2.3 | An ability to design a system, component or process to meet desired needs within realistic constraints. | Reports and Presentation                      | I selected Q. No 1<br>from Lab report-I<br>0%- Unsatisfactory<br>30.76%-Developing<br>69.23%- Satisfactory<br>Overall result 90%    |
| 2.4 |   |   |   |
| 2.5 |   |   |   |
| 2.6 |   |   |   |
| 3.0 | Interpersonal Skills & Responsibility   | D 1 '   | T. J. J. J. O. N. C.  |
| 3.1 | An ability to function on multidisciplinary teams   | Behavior<br>Observations and<br>presentations | I selected Q. No 2<br>from Final Exam<br>0%- Unsatisfactory<br>0%-Developing<br>100%- Satisfactory                                  |



|  | List course learning outcomes  | List methods of<br>assessment for<br>each LO | Summary<br>analysis of<br>assessment results<br>for each LO  |
|--|--|--|--|
|  |  |  | Overall result 100%  |
| 3.2                                    |  |  |  |
| 3.3                                    |  |  |  |
| 3.4                                    |  |  |  |
| 3.5<br>3.6                             |  |  |  |
| 4.0                                    | Communication, Information Technology, Numerical                       |  |  |
| 4.1<br>4.2<br>4.3<br>4.4<br>4.5<br>4.6 | An ability to apply knowledge of mathematics, science and engineering. | Standardized<br>Exams                        | I selected Q. No 1<br>from Mid-Exam-I<br>46.15%- Unsatisfactory<br>15.38%-Developing<br>38.46%- Satisfactory<br>Overall result 64% |
| 5.0                                    | Psychomotor  |  |  |
| 5.1                                    |  |  |  |
| 5.2                                    |  |  |  |
| 5.3                                    |  |  |  |
| 5.4                                    |  |  |  |
| 5.5                                    |  |  |  |
| 5.6                                    |  |  |  |

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

| Learning outcome (i) is recommended in this course. |  |
|---|--|
|   |  |
|   |  |
|   |  |

**4.** Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification

| List Teaching Methods set out in Course Specification | Were They Effective? |     | Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal |  |
|---|----------------------|-----|--|--|
|   | No                   | Yes | with Those Difficulties.   |  |



| Symmetrical and unsymmetrical fault analysis; Load-flow simulation.  | Yes |  |
|--|-----|--|
| Transient stability simulation; Active and reactive power generator control; Characteristics of isolated and interconnected systems. | Yes |  |
| Equivalent circuit of transformers.  | Yes |  |
| Three-phase connections and harmonic problems.   | Yes |  |
| Equivalent circuit of three-phase and single-phase induction motors.   | Yes |  |
| Starting of single-phase induction motors.   | Yes |  |
| Load testing of induction motors.  | Yes |  |
| Terminal characteristics of dc machines.   | Yes |  |

## C. Results

#### 1. Distribution of Grades

| Letter<br>Grade | Number of Students | Student<br>Percentage | Analysis of Distribution of Grades |
|-----------------|--------------------|-----------------------|------------------------------------|
| <b>A</b> +      | 0                  | 0 %                   | First exam 20%                     |
| A               | 0                  | 0 %                   | Second exam 20%                    |
| <b>B</b> +      | 0                  | 0 %                   | Lab Report 1 10%                   |
| В               | 3                  | 23.07 %               | Lab Report 2 10%                   |
| C+              | 2                  | 15.38 %               | Final Exam 40%                     |
| С               | 4                  | 30.76 %               | Total 100%                         |
| D+              | 3                  | 23.07 %               |                                    |
| D               | 1                  | 7.69 %                |                                    |
| F               | 0                  | 0 %                   |                                    |
| Denied<br>Entry | 0                  | 0 %                   |                                    |
| In Progress     | 0                  | 0 %                   |                                    |



| Incomplete | 0  | 0 %   |  |
|------------|----|-------|--|
| Pass       | 13 | 100 % |  |
| Fail       | 0  | 0 %   |  |
| Withdrawn  | 0  | 0 %   |  |

| 2. | Anal | vze si | pecial | factors ( | (if anv | y) <mark>affecti</mark> | ng the | results |
|----|------|--------|--------|-----------|---------|-------------------------|--------|---------|
|    |      |        |        |           |         | ,                       | 9 -    |         |

| • |  |
|---|--|
| • |  |
| • |  |
| • |  |
| • |  |

### 3. Variations from planned student assessment processes (if any).

#### a. Variations (if any) from planned assessment schedule (see Course Specifications)

| Variation | Reason |
|-----------|--------|
| N/A       | N/A    |
| N/A       | N/A    |
| N/A       | N/A    |

#### b. Variations (if any) from planned assessment processes in Domains of Learning

| Variation | Reason |
|-----------|--------|
| N/A       | N/A    |
| N/A       | N/A    |
| N/A       | N/A    |

#### 4. Student Grade Achievement Verification:

| Method(s) of Verification | Conclusion |
|---------------------------|------------|
|                           |            |
|                           |            |
|                           |            |

### **D.** Resources and Facilities

| Difficulties in access to resources or facilities (if any) | Consequences of any difficulties experienced for student learning in the course |
|--|---|
| No   |   |
|  |   |
|  |   |

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# **E.** Administrative Issues

| Organizational or administrative difficulties encountered (if any) | Consequences of any difficulties experienced for student learning in the course |
|--|---|
|  |   |
|  |   |
|  |   |

## **F** Course Evaluation

| 1 Student evaluation of the course (Attach | summary of survey | y results) |
|--|-------------------|------------|
|--|-------------------|------------|

| a. List the most important recommendations for improvement and strengths |  |  |  |  |
|--|--|--|--|--|
| •  |  |  |  |  |
|  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| b. Response of instructor or course team to this evaluation              |  |  |  |  |
| •  |  |  |  |  |
|  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |

#### 2. Other Evaluation:

| a. List the most important recommendations for improvement and strengths |  |  |  |  |
|--|--|--|--|--|
| •  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| b. Response of instructor or course team to this evaluation:             |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |
| •  |  |  |  |  |

# **G Planning for Improvement**



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1. Progress on actions proposed for improving the course in previous course reports (if any).

| Actions recommended from the most recent course report(s) | Actions Taken | Action Results | Action Analysis |
|---|---------------|----------------|-----------------|
| a)  |               |                |                 |
| b)  |               |                |                 |
| c)  |               |                |                 |
| d)  |               |                |                 |

| 2. List what other actions have been taken to improve the co | course |
|--|--------|
|--|--------|

| • B | ook title "Modern Power system Analysis" by I J Nagrath, D P Kothari, Tata McGraw Hill. |
|-----|---|
| •   |   |
| •   |   |
| •   |   |

#### 3. Action Plan for Next Semester/Year

| Actions Recommended for Further Improvement | Intended Action Points (should be measurable) | Start<br>Date | Completion<br>Date | Person<br>Responsible |
|---|---|---------------|--------------------|-----------------------|
| a)  |   | //1437 H      | //1437 H           |                       |
| b)  |   | //1437 H      | //1437 H           |                       |
| c)  |   | //1437 H      | //1437 H           |                       |
| d)  |   | /1437 H       | //1437 H           |                       |
| e)  |   | //1437 H      | //1437 H           |                       |

#### **Course Instructor:**

Name: Dr. Youcef and Mohammad Abdul Baseer

Signature: Date Report Completed: 24/3/1437 H

**Program Coordinator:** 

Name: Dr. Abdullah Almuhaisen

Signature: Date Received: ...../1437 H

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# **Important Notes:**

- A separate Course Report (CR) should be submitted for every course and for each ( section " Male & Female" or Academic Programme or campus location where the course is taught ) even if the course is taught by the same person
- Each CR is to be completed by the course instructor (Separate reports attached ) and given to the program coordinator At the end of each course
- Course Reports are to discuss by the academic ( Programme ) Department Council

