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|  | Ministry of Higher Education and<br>Scientific Research.<br>University of Anbar.<br>Department of Information<br>System. |  |
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## MODULE DESCRIPTOR FORM

| Module Information                 |                       |                                      |               |                                       |        |
|------------------------------------|-----------------------|--------------------------------------|---------------|---------------------------------------|--------|
| <b>Module Title</b>                | <b>Mathematic I</b>   |                                      |               | <b>Module Type</b>                    | TYPE B |
| <b>Module Code</b>                 | <b>CCIT060</b>        | <b>ECTS Credits</b>                  |               | 6                                     |        |
| <b>Module Level</b>                | <b>UGI</b>            | <b>Semester of Delivery</b>          |               | One                                   |        |
| <b>Administering Department</b>    | <b>IS</b>             | <b>Faculty</b>                       | CSIT          |                                       |        |
| <b>Module Leader</b>               | <b>Muhammad Rabie</b> |                                      | <b>e-mail</b> | <b>mohammed.rabeea@uoanbar.edu.iq</b> |        |
| <b>Module Leader's Acad. Title</b> | <b>Lecturer</b>       | <b>Module Leader's Qualification</b> |               | PhD.                                  |        |
| <b>Module Tutor</b>                |                       |                                      | <b>e-mail</b> |                                       |        |
| <b>Peer Reviewer Name</b>          | /                     |                                      | <b>e-mail</b> | /                                     |        |
| <b>Review Committee Approval</b>   | DD/MM/YY              | <b>Version Number</b>                | 2.0           |                                       |        |

| Relation With Other Modules                            |  |
|--|--|
| <b>Pre-requisites</b>                                  | /  |
| <b>Co-requisites</b>                                   | /  |
| Module Aims, Learning Outcomes and Indicative Contents |  |
| <b>Module Aims</b>                                     | A - Understand the concept of mathematics, its methods and applications.<br>B - Explain the concept of derivatives and integration and their applications.<br>C - Understand the relationship between extracts and integration and the real problems and how to deal with them |
| <b>Module Learning Outcomes</b>                        | A-Knowledge and Understanding<br>A 1. Acquiring the ability and skill to distinguish the bases of derivatives methods and dealing with them<br>A 2. Acquire the capabilities and skills of applications of derivatives   |

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|---|---|
|   | A3. Dealing with different methods of finite and indefinite derivatives<br>B. Subject-specific skills<br>B1. Summer Training<br>B2. Fourth year projects<br>B3. Scientific projects   |
| <b>Indicative Contents</b>              |   |
| <b>Learning and Teaching Strategies</b> |   |
| <b>Strategies</b>                       | The main strategy that will be adopted in delivering this module are:<br>1. Power point presentation (Data show).<br>2. Explanation on the white board using different color markers.<br>3. Discussions with the student during teaching.<br>4. Interaction with students through daily problems practice through lecture.<br>5. Solve different problems with more exercises.<br>6. Submit assignment that develop student learning. |

|                                    |     |
|------------------------------------|-----|
| <b>Module Delivery</b>             |     |
| <b>Structured workload (h/w)</b>   | 3.3 |
| <b>Unstructured workload (h/w)</b> | 6.7 |
| <b>Total workload (h/w)</b>        | 10  |

|                          |                    |                       |                 |                                  |
|--------------------------|--------------------|-----------------------|-----------------|----------------------------------|
| <b>Module Evaluation</b> |                    |                       |                 |                                  |
|                          | <b>Time/Number</b> | <b>Weight (Marks)</b> | <b>Week Due</b> | <b>Relevant Learning Outcome</b> |
| <b>Quizzes</b>           | 2                  | 6% (6)                | 5 and 10        |                                  |
| <b>Assignments</b>       | 2                  | 6% (6)                | 2 and 12        |                                  |
| <b>Projects / Lab.</b>   | 1                  | 5% (5)                | Continuous      |                                  |
| <b>Report</b>            | 1                  | 5% (5)                | 13              |                                  |
| <b>Midterm Exam</b>      | 2 hr               | 18% (18)              | 7               |                                  |
| <b>Final Exam</b>        | 3 hr               | 60% (60)              | 16              |                                  |
| <b>Total</b>             |                    | 100% (100 Marks)      |                 |                                  |

| Learning and Teaching Resources |      |                           |
|---------------------------------|------|---------------------------|
|                                 | Text | Available in the Library? |
| Required Texts                  |      | Yes/No                    |
| Recommended Texts               |      | Yes/No                    |
| Websites                        |      |                           |

| Delivery Plan (Weekly Syllabus) |  |
|---------------------------------|--|
|                                 | Material Covered   |
| Week 1                          | The Definition of the Derivative<br>Interpretation of the Derivative     |
| Week 2                          | Properties of Derivative , Some laws of derivatives                      |
| Week 3                          | Properties of Derivative , Some laws of derivatives                      |
| Week 4                          | <b>Derivatives of the six trig functions</b>                             |
| Week 5                          | <b>Exponential Functions, Logarithm Functions</b>                        |
| Week 6                          | <b>Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation</b> |
| Week 7                          | <b>Mid-Term Exam</b>   |
| Week 8                          | <b>Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation</b> |
| Week 9                          | These are the six hyperbolic trig Functions .and They are defined as     |
| Week 10                         | There are two forms of the chain rule                                    |
| Week 11                         | Defined , formula, and used the chain rule                               |
| Week 12                         | first derivative, second derivative, third derivative.                   |
| Week 13                         | the properties of logarithms   |

|                |  |
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| <b>Week 14</b> | Introduction, Critical Points and Minimum and Maximum Values |
| <b>Week 15</b> | Preparatory Week   |
| <b>Week 16</b> | Final Exam   |

**APPENDIX:**

| <b>UNIVERSITY of Anbar</b>          |                         |                            |                                       |            |
|-------------------------------------|-------------------------|----------------------------|---------------------------------------|------------|
| <b>GRADING SCHEME</b>               |                         |                            |                                       |            |
| <b>Group</b>                        | <b>ECTS Grade</b>       | <b>% of Students/Marks</b> | <b>Definition</b>                     | <b>GPA</b> |
| <b>Success Group<br/>(50 - 100)</b> | <b>A - Excellent</b>    | Best 10%                   | Outstanding Performance               | <b>5</b>   |
|                                     | <b>B - Very Good</b>    | Next 25%                   | Above average with some errors        | <b>4</b>   |
|                                     | <b>C - Good</b>         | Next 30%                   | Sound work with notable errors        | <b>3</b>   |
|                                     | <b>D - Satisfactory</b> | Next 25%                   | Fair but with major shortcomings      | <b>2</b>   |
|                                     | <b>E - Sufficient</b>   | Next 10%                   | Work meets minimum criteria           | <b>1</b>   |
| <b>Fail Group<br/>(0 - 49)</b>      | <b>FX – Fail</b>        | (45-49)                    | More work required but credit awarded |            |
|                                     | <b>F – Fail</b>         | (0-44)                     | Considerable amount of work required  |            |
|                                     |                         |                            |                                       |            |

**Note:**

NB Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54). The university has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.