Date: 21st of April 2021

**Final Notification of Course Results (Comprehensive Report)**

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| **Department:** Mechanical Eng Technology | **Academic Year/Semester:** 20212 |
| **Course Name:** Applied Mechanics | **Course Code/Level:** 115MMET/3 |
| **Instructor:** Dr Essam Shaban | **Course Coordinator:** Dr Essam Shaban |

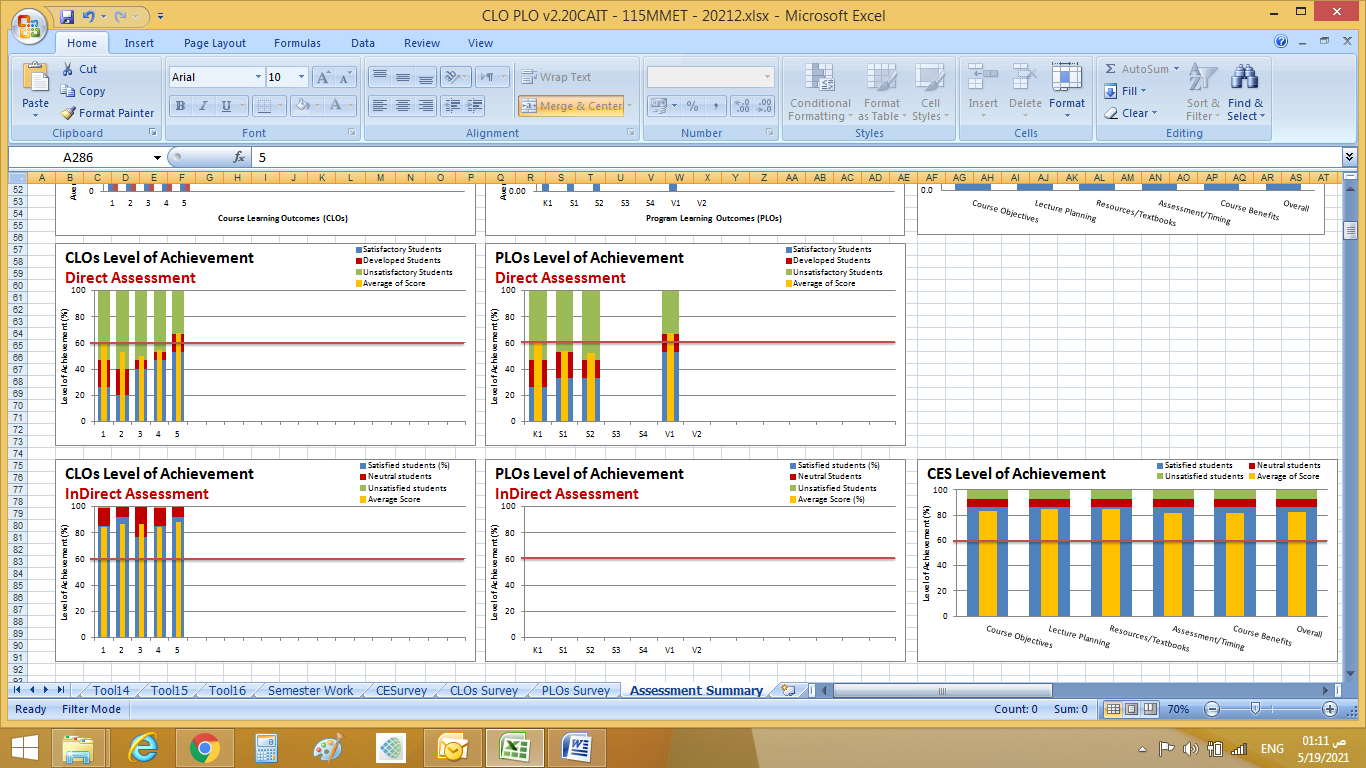
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| **Total No. of students** | **Withdrawn or Excused** | **Denied** | **Absent** | **Present** |
| **22** | 6 | 1 | 0 | 15 |
| **100%** | Attrition Rate: 31.8% | | | Retention Rate: 68.2% |

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| **Passes** | Number | 8 | **Failed** | Number | 7 |
| % with respect to total | 36.36% | % with respect to total | 31.82% |
| % with respect to attendees | 53.33% | % with respect to attendees | 46.67% |

**Mapping of CLOs into PLOs**

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|  | | **PLOs *(SOs)*** | | | | | | | | | | | | | | | | | | | | | |
| **K1** | | | **S1** | | | **S2** | | | **S3** | | | **S4** | | | **V1** | | | **V2** | | |  |
| **1** | **2** | **3** | **1** | **2** | **3** | **1** | **2** | **3** | **1** | **2** | **3** | **1** | **2** | **3** | **1** | **2** | **3** | **1** | **2** | **3** | **PLO**  **Attributes** |
| **2** | | | **2** | | | **2** | | | **NA** | | | **NA** | | | **2** | | | **NA** | | | **(LOL)** |
| **CLOs** | **1** |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **2** |
| **2** |  |  |  | 2 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | **2** |
| **3** |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | **2** |
| **4** |  |  |  | 2 |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **2** |
| **5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  | **2** |
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| **Course Learning Outcome**  **(CLO)**  **60% Unsatisfactory**  **60 – 69% needs Development**  **70% Satisfactory** | | **PLOs Addressed** | **PLOs Attributes Addressed** | **Assessment Strategy for CLOs** | | |
| **Assessment Tools Used (KPIs for CLOs)** | **Weight** | **Evaluation**  **(% of Sat Stud)**  **(%Average)** |
| 1 | Differentiate among the basic elements of mechanics (Newton’s three laws of motion, and different types of forces). | K1 | K1.2 | Class Activities  Mid Term  Final Exam | 11 | 26.7%  (60.9%) |
| 2 | Calculate forces, moments, and their resultant of rigid body in equilibrium together with representation of NFD, SFD, BMD, and TD for beams | S1  S2 | S1.1  S2.2 | Class Activities  Take Home Exercise  Online Activity  Mid Term  Final Exam | 34 | 20.0%  (53.4%) |
| 3 | Analyze moving bodies kinematicaly and dynamicaly (distance, velocity, acceleration, work, and power) | S2 | S2.2 | Class Activities  Mid Term  Final Exam | 17 | 40.0%  (50.4%) |
| 4 | Determine the properties of cross sections of rigid bodies, eg. cross-section area, center of mass, and area moment of inertia. | S1  S2 | S1.1  S2.1 | Class Activities  Mid Term  Final Exam | 27 | 46.7%  (54.4%) |
| 5 | Show independent timeliness work in classroom with effective contribution with classmates | V1 | V1.3 | Take Home Exercise  Class Activities through participation in the classroom | 11 | 53.3%  (67.4%) |



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| **PLO** | **K1** | **ability to demonstrate a broad and coherent body of knowledge, with depth in the underlying principles and concepts in the discipline** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **K1.1** | interpret engineering codes, specifications, and standards |  |
| **K1.2** | use knowledge of English language to recognize different engineering systems/components with definition and function |  |
| **K1.3** | identify legislative requirements, industry standards, and best practices in a variety of workplaces |  |
| **Assessment Method** | | Class Activities  Mid Term  Final Exam | |
| **Results** | |  | |
| **Analysis and description of weakness** | | K1.2 is unsatisfactory | |
| **Proposed Action** | | Explain terms in more clear English language  Increase the self explanatory figures to explain the topics more | |
| **Implementation Plan** | | Weekly Class Activities. | |

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| **PLO** | **S1** | **an ability to apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **S1.1** | use knowledge of English language and engineering technology to interpret engineering systems and processes |  |
| **S1.2** | utilize modern instruments and tools in engineering technology applications |  |
| **S1.3** | apply principles of engineering technology for troubleshooting, and functioning |  |
| **Assessment Method** | | Class Activities  Take Home Exercise  Online Activity  Mid Term  Final Exam | |
| **Results** | |  | |
| **Analysis and description of weakness** | | S1.1 is unsatisfactory | |
| **Proposed Action** | | Explain terms in more clear English language  Increase the self explanatory figures to explain the topics more | |
| **Implementation Plan** | | Weekly Class Activities. | |

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| **PLO** | **S2** | **an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **S2.1** | calculate and analyze missing parameters of engineering systems and processes |  |
| **S2.2** | apply rules and principles to define the performance of engineering systems and processes |  |
| **S2.3** | apply common sense judgments to evaluate answers |  |
| **Assessment Method** | | Class Activities  Mid Term  Final Exam | |
| **Results** | |  | |
| **Analysis and description of weakness** | | S1.2 and S2.2 are unsatisfactory | |
| **Proposed Action** | | Explain terms in more clear English language  Increase the self explanatory figures to explain the topics more  More numerical examples will be given to the students.  Use simple and more clear English language to describe the problem | |
| **Implementation Plan** | | More numerical examples in every class with students participation in the solution | |

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| **PLO** | **S3** | **an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **S3.1** | communicate effectively، both orally, graphically, and editorially, within engineering community and society at large |  |
| **S3.2** | perform an efficient oral presentation, with effective use of visual aids, using allotted time and demonstrate self-confident in answering questions |  |
| **S3.3** | prepare well-organized written document, using appropriate media, with introduction, body, and conclusions |  |
| **Assessment Method** | |  | |
| **Results** | |  | |
| **Analysis and description of weakness** | | --------------------- | |
| **Proposed Action** | | --------------------- | |
| **Implementation Plan** | | --------------------- | |

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| **PLO** | **S4** | **an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **S4.1** | perform standard tests and apply measuring tools to collect data |  |
| **S4.2** | analyze, interpret, and represent collected data in meaningful way |  |
| **S4.3** | identify appropriate available sensors, instrumentation and/or software tools for measurements |  |
| **Assessment Method** | |  | |
| **Results** | |  | |
| **Analysis and description of weakness** | | --------------------- | |
| **Proposed Action** | | --------------------- | |
| **Implementation Plan** | | --------------------- | |

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| **PLO** | **V1** | **an ability to function effectively as a member of a technical team, a commitment to quality, timeliness, and continuous improvement** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **V1.1** | function effectively in a multidisciplinary and diverse team |  |
| **V1.2** | manage teamwork effectively by integrating different skills and abilities of team members |  |
| **V1.3** | outline a work plan with execution in timeliness and quality |  |
| **Assessment Method** | | Take Home Exercise  Class Activities through participation in the classroom | |
| **Results** | |  | |
| **Analysis and description of weakness** | | V1.3 needs development | |
| **Proposed Action** | | The tutorial classes will be held inside the classroom  Increase the awareness of working as a team among the students | |
| **Implementation Plan** | | Increase the class activities which needs team work with participation of the instructor among the students groups to increase their awareness about working as a team | |

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| **PLO** | **V2** | **an ability to engage in self-directed continuing professional development** | Addressed  Not Addressed |
| **PLO KPIs (Attributes)** | **V2.1** | identify contemporary issues related to engineering technology in the discipline |  |
| **V2.2** | access multiple sources of information, capture essential information, and distinguish it from extraneous data |  |
| **V2.3** | integrate prior knowledge of engineering technology along with new knowledge in the profession for the sake of self-continuing professional development |  |
| **Assessment Method** | |  | |
| **Results** | |  | |
| **Analysis and description of weakness** | | --------------------- | |
| **Proposed Action** | | --------------------- | |
| **Implementation Plan** | | --------------------- | |