|   |  |  | SYLLABUS   |                               |  |   |                          |                                       |
|---|--|--|--|-------------------------------|--|---|--------------------------|---------------------------------------|
|   |  | Mech   | nanical Enginee  | ering                         |  |   |                          |                                       |
|   |  | 2020   | 0-2021 Summer S  | choo                          | I  |   |                          |                                       |
|   |  |  |  |                               | dy Course                                  |   |                          | Weekly Tim                            |
| Course Code   |  | Course Name  | Course Type  | Т                             | A L  | Credits                                   | ECTS                     | Classroon<br>Schedule                 |
| MATH 1001   |  | Calculus I   | Compulsory   | 4                             | 0 0  | 6   | 6                        | Thursyday: 13<br>17-00 & Frid         |
| Prerequisite  |  |  | Prereq   | uisite                        | to   |   |                          | 14.00-18:0                            |
| Course Lecturer   | Asst. Prof. Dr. Me   | hmed Rafet ÖZDEMİR   |  |                               |  |   |                          |                                       |
| Teaching<br>Assistant(s)  | N/A  |  |  |                               |  | e Hours                                   | N/A                      |                                       |
| E-mail  | mehmet.ozdemir@  | marmara.edu.tr   |  |                               | Sche                                       | uule                                      |                          |                                       |
| Phone   | N/A  |  |  |                               | Offic                                      | e / Room No                               | N/A                      |                                       |
| Course<br>Objectives  | Objective of the c<br>engineering  | ourse is that students gain  | the necessary mat  | hemat                         | tical con                                  | cpets and                                 | skills for mathematical  | analysis and                          |
| Textbooks   | "Thomas' Calculus  | " Ross L. Finney, Maurice D  | D. Weir, and Frank I   | R. Gia                        | rdono, 1                                   | .4th Editio                               | n, Pearson.              |                                       |
| and/or<br>References  | Calculus, J. Stewa   | rt, Cengage Learning.  |  |                               |  |   |                          |                                       |
|   | "Calculus" Stanley   | Grossman, Saunder Colleg   | e Publishing.  |                               |  |   |                          |                                       |
|   | calculas stancy  | Grossman, saander coneg  |  |                               |  |   |                          |                                       |
| Teaching<br>methods   | In online platform online tools. Stude   | with white board, Power F<br>ents who will enroll this cou<br>per of the system, which wi  | Point Presentations<br>urse in the summer  | r scho                        | ol 2021                                    | semester                                  |                          | -                                     |
|   | In online platform online tools. Stude   | with white board, Power F<br>ents who will enroll this cou   | Point Presentations<br>urse in the summer  | r scho<br>/ the f             | ol 2021                                    | semester<br>nember.                       |                          | -                                     |
| methods   | In online platform<br>online tools. Stude<br>becoming a memb<br><b>Date</b><br>5.08.2021   | with white board, Power F<br>ents who will enroll this cou<br>per of the system, which wi<br>Preliminary Concepts, Sing  | Point Presentations<br>urse in the summer<br>Il be announced by                          | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| wethods   | In online platform<br>online tools. Stude<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021  | with white board, Power P<br>ents who will enroll this con<br>per of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws   | Point Presentations<br>urse in the summer<br>Il be announced by                          | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2   | In online platform<br>online tools. Stude<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021   | with white board, Power F<br>ents who will enroll this cou<br>per of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms  | Point Presentations<br>urse in the summer<br>Il be announced by                          | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2<br>Week 2   | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021   | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity   | Point Presentations<br>urse in the summer<br>Il be announced by                          | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 2<br>Week 2<br>Week 3   | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021  | with white board, Power P<br>ents who will enroll this con-<br>per of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept   | Point Presentations<br>urse in the summer<br>Il be announced by                          | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3   | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021   | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules   | Point Presentations<br>urse in the summer<br>II be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4   | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021   | with white board, Power P<br>ents who will enroll this con-<br>per of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative   | Point Presentations<br>urse in the summer<br>II be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4   | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021  | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which wi<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I   | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5                               | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021   | with white board, Power P<br>ents who will enroll this con-<br>per of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative   | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5  | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021  | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept   | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6 | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>9.09.2021  | with white board, Power P<br>ents who will enroll this con-<br>per of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration  | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6   | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>3.09.2021<br>9.09.2021<br>10.09.2021                            | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II   | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7                                    | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>9.09.2021<br>10.09.2021<br>16.09.2021 | with white board, Power P<br>ents who will enroll this con-<br>per of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration  | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7                             | In online platform<br>online tools. Study<br>becoming a memb<br><b>Date</b><br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021             | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration<br>Applications of Integration   | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | -                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8               | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>26.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021       | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration<br>Applications of Integration<br>Applications of Integral<br><b>N</b> inal Exam | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.                       |                          | he course by                          |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8               | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>26.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021       | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration<br>Applications of Integration<br>Applications of Integral<br><b>N</b> inal Exam | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Functio  | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty m                        | semester<br>nember.<br>Graphs             |                          | he course by                          |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8               | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>26.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021       | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration<br>Applications of Integration<br>Applications of Integral<br><b>N</b> inal Exam | Point Presentations<br>urse in the summer<br>Il be announced by<br>gle-variable Function | r scho<br>/ the f<br><b>T</b> | ol 2021<br>FOPICS                          | semester<br>nember.<br>Graphs<br>e        | are required to follow t | Weight in<br>Semester                 |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8               | In online platform<br>online tools. Study<br>becoming a memb<br>Date<br>5.08.2021<br>6.08.2021<br>12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>26.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021       | with white board, Power P<br>ents who will enroll this con-<br>ber of the system, which will<br>Preliminary Concepts, Sing<br>Limit concept, Limit Laws<br>Indeterminate forms<br>Limit and Contuinity<br>Derivative concept<br>Derivative Rules<br>Applications of Derivative<br>Midterm Exam I<br>Applications of Derivative<br>Integral concept<br>Techniques of Integration<br>Midterm Exam II<br>Techniques of Integration<br>Applications of Integration   | Point Presentations<br>urse in the summer<br>II be announced by<br>gle-variable Function | r scho<br>/ the f<br><b>T</b> | ol 2021<br>aculty n<br>OPICS<br>ad their ( | semester<br>hember.<br>Graphs<br>e<br>4,6 | are required to follow t | Weight in<br>Semester<br>Evaluation ( |

|                          |                      | MARMARA UNIVERSI   | TY - Facu                | lty of E                                    | ngineering  |                         |   |
|--------------------------|----------------------|--|--------------------------|---|---|-------------------------|---|
|                          |                      | SY   | LLABUS                   |   |   |                         |   |
|                          |                      | Mechanica  | al Enginee               | ring  |   |                         |   |
|                          |                      | 2020-2023  | 1 Summer S               | chool                                       |   |                         |   |
| Course Code              |                      | Course Name  | Course Type              | Weekly Co<br>Hours<br>T A                   |   | ECTS                    | Weekly Time&<br>Classroom<br>Schedule   |
| EE 2034                  |                      | of Electrical and Electronic<br>Engineering  | Compulsory               | 6 0   | 0 5   | 5                       | Wednesday<br>16:00-18:50                |
| Prerequisite             | N/A                  |  | Prereq                   | uisite to                                   |   |                         | Thursday<br>16.00-18:50                 |
| Course Lecturer          | Asst. Prof. Dr. İbra | him Sina Kuseyri   |                          |   |   |                         |   |
| Teaching<br>Assistant(s) | N/A                  |  |                          |   | Office Hours  | N/A                     |   |
| E-mail                   | sina.kuseyri@marma   | ara.edu.tr   |                          |   | Schedule  |                         |   |
| Phone                    | N/A                  |  |                          |   | Office / Room No  | N/A                     |   |
| Course<br>Objectives     | The aim of the cou   | irse is to teach the fundamentals  | of electrical            | and elec                                    | tronic engineer   | ing to non-EE engineeri | ng students                             |
| Textbooks<br>and/or      | Electrical Engineer  | ing: Principles and Applications,  | A.R. Hambley             | /, Pearso                                   | n.  |                         |   |
| References               |                      |  |                          |   |   |                         |   |
| Teaching<br>methods      | online Pearson My    | with white board, Power Point P<br>/Lab tools. Students who will enr<br>Illing to the system with an addit | oll this course          | e in the s                                  | ummer school  | 2021 semester are requ  |   |
| WEEK                     | Date                 |  |                          | то  | PICS  |                         |   |
| Week 1                   | 8/3/2021             | Introduction and Preliminary Co  | oncepts                  |   |   |                         |   |
| Week 1                   | 8/4/2021             | Resistive Circuits   |                          |   |   |                         |   |
| Week 2                   | 8/10/2021            | Resistive Circuits   |                          |   |   |                         |   |
| Week 2                   | 8/11/2021            | Capacitance and RC Circuits  |                          |   |   |                         |   |
| Week 3                   | 8/17/2021            | Inductance and RL Cicuits  |                          |   |   |                         |   |
| Week 3                   | 8/18/2021            | Circuit Analysis with Governing  | Laws                     |   |   |                         |   |
| Week 4                   | 8/24/2021            | Circuit Analysis with Governing  | Laws                     |   |   |                         |   |
| Week 4                   | 8/25/2021            | Midterm Exam   |                          |   |   |                         |   |
| Week 5                   | 8/31/2021            | AC Circuit Fundamentals  |                          |   |   |                         |   |
| Week 5                   | 9/1/2021             | Frequency Response of Electirca  | al Circuits              |   |   |                         |   |
| Week 6                   | 9/7/2021             | Analog Filters   |                          |   |   |                         |   |
| Week 6                   | 9/8/2021             | Introduction to Electronics  |                          |   |   |                         |   |
| Week 7                   | 9/14/2021            | Diodes and Transistors   |                          |   |   |                         |   |
| Week 7                   | 9/15/2021            | Operational Amplifiers and Apli  | cations                  |   |   |                         |   |
| Week 8                   | 9/21/2021            | Final Exam   |                          |   |   |                         |   |
| Eval                     | Gols VERSITES        | Evaluation Tool  | Quantity                 |   | Date  | Weight in Total (%)     | Weight in<br>Semester<br>Evaluation (%) |
| T                        | OOIS ERSITES         | Midterm Exam   | 1                        | N N   | Week 4  | 30                      | 50                                      |
| .RA                      | UN FAKULUMU          | Homework   | 5                        | Со  | ntinuous  | 30                      | 50                                      |
| MARMANDIS                | SLIN BOLL            | Final Exam   | 1                        | Ň   | Week 8  | 40                      |   |
| MUHEKINA                 |                      | - ~  | ed Rafet<br>nir<br>Metni | University, o<br>email-mehn<br>Date: 2021.0 | ed by Mehmed Rafet Özdemir<br>med Rafet Özdemir, o-Marma<br>a-Englineering Faculty,<br>net.ozdemir jemarmara.edu.tr,<br>6.2110:56:37+03707<br>. VAZIN |                         |   |

|                                   |   | MAR                         | MARA UNIVERS                                 | ITY - Facu      | lty of    | Eng    | neering     |  |   |
|-----------------------------------|---|-----------------------------|--|-----------------|-----------|--------|-------------|--|---|
|                                   |   |                             | SY   | 'LLABUS         |           |        |             |  |   |
|                                   |   |                             | Mechanic                                     | al Enginee      | ring      |        |             |  |   |
|                                   |   |                             |  | 1 Summer S      | -         |        |             |  |   |
|                                   |   |                             |  |                 | Weekly    | Course |             | [  | Weekly Time&                            |
| Course Code                       |   | Course Nan                  | ne   | Course Type     |           | _      | Credits     | ECTS   | Classroom<br>Schedule                   |
| ME 3061                           | E   | luid Mecha                  | nics   | Compulsory      | 4 C       | 0      | 6           | . 6  | Tuesday 16:00-2<br>00 & Wednesday       |
| Prerequisite                      | N/A   |                             |  | Prereq          | uisite to |        | ME 3071     |  | 13.00-17:00                             |
| Course Lecturer                   | Asst. Prof. Dr. Me                          | hmed Rafet                  | ÖZDEMİR                                      |                 |           |        |             |  |   |
| Teaching<br>Assistant(s)          | N/A   |                             |  |                 |           |        | e Hours     | N/A  |   |
| E-mail                            | mehmet.ozdemir@                             | marmara.edu                 | <u>ı.tr</u>                                  |                 |           |        | duic        |  |   |
| Phone                             | N/A   |                             |  |                 |           | Offic  | e / Room No | N/A  |   |
| Course<br>Objectives              | fluid dynamics. Th<br>mechanics proble      | e course ind<br>ms and lays | ludes control volume<br>the groundwork for c | e, differential | and dir   | nensi  | onal metho  | and their properties, flu<br>ods used for formulatio<br>5. |   |
|                                   | Fluid Mechanics ,                           | R. C. Hibbel                | er, Pearson.                                 |                 |           |        |             |  |   |
| Textbooks<br>and/or<br>References | Çengel. Y. A., Ciml                         | oala, J. M., F              | luid Mechanics: Fund                         | lamentals and   | d Applie  | ation  | s, McGraw   | -Hill.   |   |
| References                        | Fluid Mechanics, F                          | .M. White,                  | McGraw-Hill.                                 |                 |           |        |             |  |   |
| Teaching<br>methods               | online tools. Stude                         | ents who wi                 |  | the summer      | school    | 2021   | semester a  | outcomes will be follo<br>are required to follow t         |   |
| WEEK                              | Date  |                             |  |                 | тс        | PICS   | ;           |  |   |
| Week 1                            | 3.08.2021                                   |                             | n and Preliminary Co                         |                 |           |        |             |  |   |
| Week 1                            | 4.08.2021                                   |                             | istribution in the fluic                     |                 |           |        |             |  |   |
| Week 2                            | 10.08.2021                                  |                             | istribution in the fluid                     | 3               |           |        |             |  |   |
| Week 2                            | 11.08.2021                                  | Fluid Static                |  |                 |           |        |             |  |   |
| Week 3                            | 17.08.2021                                  | Fluid Static                |  |                 |           |        |             |  |   |
| Week 3                            | 18.08.2021                                  |                             | lations in Control Vol                       |                 |           |        |             |  |   |
| Week 4                            | 24.08.2021                                  | Midterm Ex                  | lations in Control Vol                       | umes            |           |        |             |  |   |
| Week 4<br>Week 5                  | 31.08.2021                                  |                             | Relations in Control                         | Volumer         |           |        |             |  |   |
| Week 5                            | 1.09.2021                                   | Viscous flor                |  | volumes         | 1         |        |             |  |   |
| Week 6                            | 7.09.2021                                   | Viscous flo                 |  |                 |           |        |             | а.   |   |
| Week 6                            | 8.09.2021                                   | Midterm Ex                  |  |                 |           |        |             |  |   |
| Week 7                            | 14.09.2021                                  |                             | d Design for Pipe Flow                       | w               |           |        |             |  |   |
| Week 7                            | 15.09.2021                                  |                             | d Design for Pipe Flow                       |                 |           |        |             |  |   |
| Week 8                            | 21.09.2021                                  | Final Exam                  |  |                 |           |        |             |  |   |
|                                   | STALL C                                     | Evaluation                  |  | Quantity        |           | Dat    | e           | Weight in Total (%)  | Weight in<br>Semester<br>Evaluation (%) |
|                                   | PIR CITES                                   | Midterm E                   | Exams  | 2               | ١         | Neek   | 4,6         | 45   | 45                                      |
| -                                 | A UNIVERSITES                               | Pap-up du                   | uizzes                                       | 5               |           | Рор    | up          | 15   | 15                                      |
| MARMAR                            | SLIK FAOLUM                                 | Final Exa                   | 1  | 1               |           | Week   | 15          | 40   | 40                                      |
| MUHE                              | A UNIVERSILTE<br>SLIK FAKÜLTE<br>MÜH. BÖLÜM | N                           | R  |                 |           |        |             |  |   |

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S States

|                                   |                    | Mech  | anical Enginee     | ering                    |                          |                            |  |
|-----------------------------------|--------------------|---|--------------------|--------------------------|--------------------------|----------------------------|--|
|                                   |                    | 2020  | -2021 Summer S     |                          |                          |                            |  |
| Course Code                       |                    | Course Name   | Course Type        | WeeklyCo<br>Hours<br>T A |                          | ECTS                       | Weekly Time<br>Classroom<br>Schedule   |
| ME 3071                           |                    | Heat Transfer   | Compulsory         | 4 0                      | 0 6                      | 6                          | Tuesday 1200<br>00 &                   |
| Prerequisite                      | ME 3071            |   | Prereq             | uisite to                | N/A                      | •                          | - Wednesday<br>09.00-1300              |
| Course Lecturer                   | Prof. Dr. Bayram   | ŞAHİN   | ·                  |                          | ·                        |                            | ·                                      |
| Teaching<br>Assistant(s)          | N/A                | 1   |                    |                          | Office Hours<br>Schedule | N/A                        |  |
| E-mail                            | baysahin@yild      | iz.edu.tr   |                    |                          |                          |                            |  |
| Phone                             | N/A                |   |                    |                          | Office/Room              | N/A                        |  |
|                                   | 1. To introduce h  | eat transfer modes, conduc  | tion,convection ar | nd radiatio              |                          | the ability to calculate h | eat transfer                           |
| Course<br>Objectives              | -                  | ain physical interpretation sk<br>nd solve mathematical mode                              | -                  | -                        |                          |                            |  |
|                                   | Heat Transfer ,Y., | A. <;engel and A. Ghajar, Mc  | GrawHi <b>Ⅱ</b> .  |                          |                          |                            |  |
| Textbooks<br>and/or<br>References | Introduction to H  | eat Transfer,Incropera and I  | DeWitt, Wiley.     |                          |                          |                            |  |
| References                        | HeatTransfer, J. I | P. Holman, McGraw-Hill.   |                    |                          |                          |                            |  |
| Teaching methods                  | online tools. Stud | with white board, Power Pennets who will enroll this cour<br>ber of the system, which wil | se in the summer   | school 20                | 021 semester a           |                            | -                                      |
| WEEK                              | Date               |   |                    | TOP                      | ICS                      |                            |  |
| Week 1                            | 3.08.2021          | Introduction and Prelimina  | ry Concepts, Revie | ew of The                | rmodynamics              | I                          |  |
| Week 1                            | 4.08-2021          | Heat Transfer Mechanisms  | 5                  |                          |                          |                            |  |
| Week 2                            | 10.08.2021         | Steady State 1-D Conduction   | on                 |                          |                          |                            |  |
| Week 2                            | 11.08.2021         | Steady State 3-D Conduction   | on                 |                          |                          |                            |  |
| Week 3                            | 17.08.2021         | Steady State Conduction in  | Fins               |                          |                          |                            |  |
| Week 3                            | 18.08.2021         | Steady State Conduction in  | Fins               |                          |                          |                            |  |
| Week4                             | 24.08.2021         | Transient Heat Conduction   | , Lumped System A  | Analysis                 |                          |                            |  |
| Week 4                            | 25.08.2021         | Midterm Exam I  |                    |                          |                          |                            |  |
| Weeks                             | 31.08.2021         | General Transient Heat Co   | nduction Analysis  |                          |                          |                            |  |
| Week 5                            | 1.09.2021          | Fundamentals of Convection  | on                 |                          |                          |                            |  |
| Week 6                            | 7.09.2021          | External Convection   |                    |                          |                          |                            |  |
| Week 6                            | 8.09.2021          | Midterm Exam II   |                    |                          |                          |                            |  |
| Week 7                            | 14.09.2021         | Internal Convection   |                    |                          |                          |                            |  |
| Week 7                            | 15.09.2021         | Natural Convection  |                    |                          |                          |                            |  |
| Week 8                            | 21.09.2021         | Final Exam  |                    |                          |                          |                            |  |
| Ęva                               | wation             | Evaluation Tool   | Quantity           |                          | Date                     | Weight inTotal(%)          | Weight in<br>Semester<br>Evaluation (9 |
|                                   | OPIS               | Final Exams   | 2                  | VX                       | eekk 44,65               | 60                         | 60                                     |
|                                   | A LINE WILLE       |   | 1                  |                          | /eek 15                  | 4. II 1.5752               |  |

|  |   |  | SYLLABUS   |        |                         |                          |                        |   |
|--|---|--|--|--------|-------------------------|--------------------------|------------------------|---|
|  |   | Mecha  | nical Enginee  | ring   | 5                       |                          |                        |   |
|  |   | 2020-2   | 021 Summer Sc  |        |                         |                          |                        |   |
| Course Code  |   | Course Name  | Course Type  |        | kly Cours<br>Hours      | e<br>Credits             | ECTS                   | Weekly T<br>Classro                                 |
|  |   |  |  | Т      | A L                     |                          |                        | Sched<br>Tuesday                                    |
| MATH 2055  | Diff  | erential Equations   | Compulsory   | 3      | 0 0                     | 3                        | 4                      | 18:00 - 2<br>Thursday                               |
| Prerequisite   |   |  | Prerequ  | uisite | to                      |                          | T                      | 12:00 - 1   |
| Course Lecturer  | Asst. Prof. Dr. Abo   | dussamet SUBAŞI (İTÜ)  |  |        |                         |                          |                        |   |
| Teaching<br>Assistant(s)   |   |  |  |        |                         | fice Hours               |                        |   |
| E-mail   | subasiab@itu.edu.t  | <u>r</u>   |  |        | Sc                      | nedule                   |                        |   |
| Phone  |   |  |  |        | Of                      | fice / Room No           | ,                      |   |
| Course   |   | e basic concepts required to u   |  |        | solve a                 | and interpret            | differential equation  | s.  |
| Objectives   |   | ds to solve differential equation<br>to apply knowledge of math  | /1   |        | g prob                  | lems.                    |                        |   |
|  |   |  |  |        |                         |                          | and Verke M-Constant   | Edu 11  |
|  | Cengel, Y. A., & Pa   | alm, W. J. (2013). Differential  | Equations for Eng  | ginee  | rs and                  | scientists. N            | ew York: McGraw-Hill   | Education   |
|  | R. Kent Nagle, Edv  | ward B. Saff, Arthur David Snic  | der. (2019). Funda   | amer   | ntals of                | Differential             | Equations. Pearson, 9  | th Edition  |
| Textbooks  | Zill, D. G. (2001). /   | A first course in differential eq  | uations with mod   | delin  | g appli                 | cations. Paci            | fic Grove, CA: Brooks/ | Cole Thon   |
| and/or<br>References   | Learning.   |  |  |        |                         |                          |                        |   |
|  | Kreyszig, E. (2006  | ). Advanced Engineering Math   | nematics. John Wi  | iley 8 | & Sons,                 | Inc. New Yo              | rk, 9th Edition.       |   |
|  | Xie, W. (2010). Di  | fferential equations for engine  | eers. New York: C  | amb    | ridge L                 | niversity Pre            | 255.                   |   |
|  |   |  |  |        |                         |                          | 1                      |   |
| Teaching   |   | vith white board and Lecture N<br>enroll in the summer school (  | -  |        |                         |                          | -                      |   |
| methods  |   | n will be announced by the fac   |  |        |                         |                          | ,                      |   |
| WEEK   | Date  |  |  | Т      | OPIC                    | s                        |                        |   |
| Week 1   | 8/3/2021  | Introduction to Differential   | Equations  |        |                         |                          |                        |   |
| Week 1   | 8/5/2021  | First Order Differential Equa  | itions   |        |                         |                          |                        |   |
| Week 2   | 8/10/2021   | First Order Differential Equa  | itions   |        |                         |                          |                        |   |
|  | 8/12/2021   | Second Order Differential Ec   |  |        |                         |                          |                        |   |
| Week 2   | -,,   | Second Order Dinerential Et  | quations   |        |                         |                          |                        |   |
| Week 2<br>Week 3   | 8/17/2021   | Second Order Differential Ed   |  |        |                         |                          |                        |   |
|  |   |  |  |        |                         |                          |                        |   |
| Week 3   | 8/17/2021   | Second Order Differential Ec   | quations   |        |                         |                          |                        |   |
| Week 3<br>Week 3   | 8/17/2021<br>8/19/2021  | Second Order Differential Ec<br>Engineering Applications   | quations   |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4   | 8/17/2021<br>8/19/2021<br>8/24/2021   | Second Order Differential Ec<br>Engineering Applications<br>Higher Order Differential Eq   | quations<br>uations  |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4   | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021  | Second Order Differential Ec<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I   | quations<br>uations  |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5   | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021   | Second Order Differential Ec<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq   | quations<br>uations  |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5   | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021<br>9/2/2021   | Second Order Differential Ec<br>Engineering Applications<br>Higher Order Differential Eq<br><b>Midterm Exam I</b><br>Higher Order Differential Eq<br>The Laplace Transform   | uations<br>uations<br>uations                              |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6   | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021<br>9/2/2021<br>9/7/2021   | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform   | uations<br>uations<br>uations<br>tions                     |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6                               | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021                                       | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa   | uations<br>uations<br>uations<br>tions                     |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7                     | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021                          | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa   | uations<br>uations<br>uations<br>tions                     |        |                         |                          |                        |   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>9/2/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021<br>9/16/2021<br>9/21/2021 | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa<br>Engineering Applications<br>Final Exam | uations<br>uations<br>uations<br>tions                     |        |                         | ate                      | Weight in Total<br>(%) | Semes   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>9/2/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021<br>9/16/2021<br>9/21/2021 | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa<br>Engineering Applications<br>Final Exam | uations<br>uations<br>uations<br>tions<br>tions            |        |                         | ate                      | -                      | Semes   |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>9/2/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021<br>9/16/2021<br>9/21/2021 | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa<br>Engineering Applications<br>Final Exam | uations uations uations tions tions Quantity               |        | Po<br>We                | p-up<br>eek 4            | (%)                    | Semes<br>Evaluatio                                  |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>9/2/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021<br>9/16/2021<br>9/21/2021 | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa<br>Engineering Applications<br>Final Exam | uations uations uations uations tions tions tions          | tc     | Po<br>We<br>be ar       | p-up<br>eek 4<br>nounced | (%)<br>5 × 4%          | Semes<br>Evaluatio<br>20<br>30                      |
| Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/17/2021<br>8/19/2021<br>8/24/2021<br>8/26/2021<br>8/31/2021<br>9/2/2021<br>9/7/2021<br>9/9/2021<br>9/14/2021<br>9/16/2021             | Second Order Differential Ed<br>Engineering Applications<br>Higher Order Differential Eq<br>Midterm Exam I<br>Higher Order Differential Eq<br>The Laplace Transform<br>The Laplace Transform<br>Systems of Differential Equa<br>Systems of Differential Equa<br>Engineering Applications<br>Final Exam | auations uations uations uations uations tions tions tions | tc     | Po<br>We<br>be ar<br>la | p-up<br>eek 4            | (%)<br>5 × 4%<br>30    | Weigh<br>Semes<br>Evaluatio<br>20<br>30<br>10<br>40 |

|   |  | MARMARA UNIVE   |  | 10,01            |                 | . 0                       |                                |                                     |
|---|--|---|--|------------------|-----------------|---------------------------|--------------------------------|-------------------------------------|
|   |  |   | SYLLABUS   |                  |                 |                           |                                |                                     |
|   |  | Mecha   | nical Enginee                                    | ring             |                 |                           |                                |                                     |
|   |  | 2020-   | 2021 Summer S                                    | chool            |                 |                           |                                |                                     |
|   |  | <b>.</b>  |  | Weekly           |                 |                           |                                | Weekly Ti                           |
| Course Code   |  | Course Name   | Course Type                                      | Hou<br>T A       | -               | Credits                   | ECTS                           | Classroo<br>Schedu                  |
| ME 1052   |  | Statics   | Compulsory                                       | 6 0              | 0               | 6                         | 6                              | Monday 1<br>15:00                   |
| Prerequisite  | N/A  |   | Prereq   | uisite to        |                 | ME 2003 Dy<br>Strength of | ynamics & ME 2072<br>Materials | Wednes<br>16:00-19                  |
| Course Lecturer   | Prof.Dr. Aykut KEN   | ITLİ  |  |                  |                 |                           |                                |                                     |
| Teaching<br>Assistant(s)  | N/A  |   |  |                  |                 | e Hours                   | N/A                            |                                     |
| E-mail  | akentli@marmara.ee   | <u>du.tr</u>  |  |                  | Sche            | aule                      |                                |                                     |
| Phone   | N/A  |   |  |                  | Offic           | e / Room No               | N/A                            |                                     |
| Course  | To manifely student  | to with a share and the second  |  | h a 4h a .       |                 |                           |                                |                                     |
| Objectives  | To provide studen  | ts with a clear and thorough  | presentation of t                                | ne theo          | ory and         | d applicatio              | ons of engineering mecr        | nanics.                             |
|   | Statics , R. C. Hibbe  | eler, Pearson.  |  |                  |                 |                           |                                |                                     |
| Textbooks   |  |   |  |                  |                 |                           |                                |                                     |
| and/or<br>References  |  |   |  |                  |                 |                           |                                |                                     |
|   |  |   |  |                  |                 |                           |                                |                                     |
|   |  |   |  |                  |                 |                           |                                |                                     |
|   |  | / <b>5</b> \  |  |                  |                 |                           |                                |                                     |
| Teaching  |  | (Pearson) with white board,   |  |                  |                 |                           |                                |                                     |
| Teaching<br>methods   | using online tools.  | (Pearson) with white board,<br>Students who will enroll this<br>mber of the system, which v   | s course in the su                               | mmer s           | chool           | 2021 seme                 | ester are required to fol      |                                     |
| •   | using online tools.  | Students who will enroll this   | s course in the su                               | mmer s<br>by the | chool           | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods   | using online tools.<br>by becoming a me  | Students who will enroll this   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK   | using online tools.<br>by becoming a me<br><b>Date</b>   | Students who will enroll this<br>mber of the system, which v  | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021   | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Ver  | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1<br>Week 1   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021   | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)  | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021   | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1<br>Week 1<br>Week 2<br>Week 2   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021  | Students who will enroll this<br>ember of the system, which v<br>General Principle, Force Ver<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1<br>Week 2<br>Week 2<br>Week 3   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021   | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods<br>WEEK<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021  | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021   | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems (cont'd)  | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021  | Students who will enroll this<br>mber of the system, which w<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam  | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021   | Students who will enroll this<br>mber of the system, which we<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>(cont'd)<br>Midterm Exam<br>Internal Forces   | s course in the su<br>vill be announced          | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5  | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021                                       | Students who will enroll this<br>mber of the system, which we<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction  | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 6   | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021<br>9/6/2021                           | Students who will enroll this<br>mber of the system, which we<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)   | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 6 Week 6                                    | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/6/2021<br>9/8/2021                            | Students who will enroll this<br>mber of the system, which we<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems<br>(cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)<br>Center of Gravity and Centr   | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7                      | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/6/2021<br>9/8/2021<br>9/13/2021               | Students who will enroll this<br>mber of the system, which we<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)<br>Center of Gravity and Centr<br>Moments of Inertia  | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      |                                     |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8        | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/13/2021<br>9/15/2021 | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)<br>Center of Gravity and Centr<br>Moments of Inertia<br>Moments of Inertia (cont'd)<br>Final Exam                                      | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool<br>facult | 2021 seme<br>y member.    | ester are required to fol      | Veigh<br>Semes                      |
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| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8 | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/13/2021<br>9/15/2021 | Students who will enroll this<br>mber of the system, which v<br>General Principle, Force Vec<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)<br>Center of Gravity and Centr<br>Moments of Inertia<br>Moments of Inertia (cont'd)<br>Final Exam                                      | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | chool facult    | 2021 seme<br>y member.    | ester are required to fol      | Weight<br>Semest<br>Evaluatio<br>60 |
| methods WEEK Week 1 Week 1 Week 2 Week 2 Week 3 Week 3 Week 4 Week 4 Week 5 Week 5 Week 6 Week 6 Week 7 Week 7 Week 8               | using online tools.<br>by becoming a me<br><b>Date</b><br>8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/13/2021<br>9/15/2021 | Students who will enroll thisember of the system, which we general Principle, Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force Vectors (cont'd)<br>Equilibrium of a Particle<br>Force System Resultants<br>Equilibrium of a Rigid Body<br>Structural systems<br>Structural systems<br>Structural systems (cont'd)<br>Midterm Exam<br>Internal Forces<br>Friction<br>Friction (cont'd)<br>Center of Gravity and Centr<br>Moments of Inertia<br>Moments of Inertia (cont'd)<br>Final Exam | s course in the su<br>vill be announced<br>ctors | mmer s<br>by the | Dat             | 2021 seme<br>y member.    | ester are required to fol      | Weight<br>Semest<br>Evaluatio       |

|  |  | SY  | LLABUS  |             |               |                      |                           |  |
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|  |  | Mechanica   | al Enginee  | ring        |               |                      |                           |  |
|  |  |   | L Summer S  | -           |               |                      |                           |  |
|  |  |   |   | Weekly C    |               |                      |                           | Weekly Time&                               |
| Course Code  |  | Course Name   | Course Type   | Houi<br>T A | rs<br>L       | Credits              | ECTS                      | Classroom<br>Schedule                      |
| ME 264   | The  | ermodynamics II   | Compulsory  | 3 0         | 0             | 3                    | 5                         | Monday 09:00-1<br>00 <b>&amp; Tuesday:</b> |
| Prerequisite   | ME 2064  |   | Prereq  | uisite to   |               | ME 4083              | 1                         | 09.00-12:00                                |
| Course Lecturer  | Asst. Prof. Dr. Meł  | nmed Rafet Özdemir  |   |             |               |                      |                           |  |
| Teaching<br>Assistant(s)   | N/A  |   |   |             | Offic<br>Sche | e Hours              | N/A                       |  |
| E-mail   | mehmet.ozdemir@  | marmara.edu.tr  |   |             | Scrie         | uue                  |                           |  |
| Phone  | N/A  |   |   |             | Offic         | e / Room No          | N/A                       |  |
| Course   | Objective of the co  | ourse is that students gain the kn  | owledge and   | l ability t | o app         | ly 1st and           | 2nd laws of thermodyn     | amics to                                   |
| Objectives   | -  | on and air conditioning systems   |   | , .         |               | ,                    | · · · · · ,               |  |
|  | Thermodynamics -   | – An Engineering Approach, Yunu   | is Cengel and   | d Michae    | el Bole       | s, 8th edit          | ion, 2014, McGraw Hill.   |  |
| Textbooks  | Thermodynamics -   | - An Interactive Approach, Subra  | a Bhattacha   | riee 201    | 6. Pe         | arson                |                           |  |
| and/or<br>References   |  |   |   | ,, 201      | , י כו        |                      |                           |  |
|  |  | eering Thermodynamics, Michae   | l J. Moran, H   | loward N    | l. Sha        | piro, Daisie         | e D. Boettner and Marga   | aret B. Bailey,                            |
|  | 8th edition, 2015,   | Wiley.  |   |             |               |                      |                           |  |
| Teaching   |  | with white board, Power Point P   |   |             |               |                      |                           |  |
| methods  |  | ents who will enroll this course in   | the summer  | school      |               |                      | are required to follow th | ne course by                               |
|  | hocoming a momb  | or of the system which will be a  | nnounced h  | the fac     | ultv m        | omhor                |                           |  |
|  | becoming a memb  | per of the system, which will be a  | nnounced by   |             |               |                      |                           |  |
| WEEK   | Date   |   | nnounced by   |             | elty m        |                      |                           |  |
| Week 1   | <b>Date</b><br>8/2/2021  | Review of Second Law Analysis   |   | то          | PICS          |                      |                           |  |
|  | Date<br>8/2/2021<br>8/3/2021   | Review of Second Law Analysis<br>Introduction to power cycles; st   |   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021   | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles   |   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2<br>Week 2   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles   | andard air as   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021   | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc   | andard air as<br>les  | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc   | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021   | Review of Second Law Analysis<br>Introduction to power cycles; st.<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc  | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021<br>8/24/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I   | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021   | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles   | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>8/31/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles   | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>8/31/2021<br>9/6/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures   | andard air as<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>8/31/2021<br>9/6/2021<br>9/7/2021  | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II  | andard air as<br>iles<br>iles<br>iles   | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 7   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>8/31/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021                           | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Com  | andard air as<br>les<br>les<br>les<br>nditioning  | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7                     | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/6/2021<br>9/13/2021<br>9/14/2021              | Review of Second Law Analysis<br>Introduction to power cycles; st.<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con   | andard air as<br>les<br>les<br>les<br>nditioning  | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 7   | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/17/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>8/31/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021                           | Review of Second Law Analysis<br>Introduction to power cycles; st<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Com  | andard air as<br>les<br>les<br>les<br>nditioning  | то          | PICS          |                      |                           |  |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8                     | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/16/2021<br>8/16/2021<br>8/23/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021<br>9/14/2021<br>9/20/2021 | Review of Second Law Analysis<br>Introduction to power cycles; st.<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con   | andard air as<br>les<br>les<br>les<br>nditioning  | то          | PICS          | rnot cycle           | Weight in Total (%)       | Weight in<br>Semester                      |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8           | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021<br>9/13/2021<br>9/14/2021<br>9/20/2021 | Review of Second Law Analysis<br>Introduction to power cycles; str<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con<br>Gas–Vapor Mixtures and Air-Con<br>Final Exam<br><b>Evaluation Tool</b> | andard air as   | sumptic     | PICS          | rnot cycle           |                           | Semester<br>Evaluation (%                  |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8           | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021<br>9/13/2021<br>9/14/2021<br>9/20/2021 | Review of Second Law Analysis<br>Introduction to power cycles; str<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con<br>Gas–Vapor Mixtures and Air-Con<br>Final Exam<br><b>Evaluation Tool</b> | andard air as<br>eles<br>eles<br>eles<br>eles<br>ditioning<br>nditioning<br><b>Quantity</b><br>2      | sumptic     | PICS on; Cal  | e<br>4,6             | 50                        | Semester<br>Evaluation (%<br>50            |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8           | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021<br>9/13/2021<br>9/14/2021<br>9/20/2021 | Review of Second Law Analysis<br>Introduction to power cycles; str<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con<br>Gas–Vapor Mixtures and Air-Con<br>Final Exam<br><b>Evaluation Tool</b> | andard air as<br>iles<br>iles<br>iles<br>iles<br>ditioning<br>nditioning<br><b>Quantity</b><br>2<br>4 | TO          | PICS          | e<br>4,6<br>up       | 50<br>10                  | Semester<br>Evaluation (%<br>50<br>10      |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8           | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/7/2021<br>9/13/2021<br>9/13/2021<br>9/14/2021<br>9/20/2021 | Review of Second Law Analysis<br>Introduction to power cycles; str<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con<br>Gas–Vapor Mixtures and Air-Con<br>Final Exam<br><b>Evaluation Tool</b> | andard air as<br>eles<br>eles<br>eles<br>eles<br>ditioning<br>nditioning<br><b>Quantity</b><br>2      | TO          | PICS on; Cal  | e<br>4,6<br>up       | 50                        | Semester<br>Evaluation (S                  |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 7<br>Week 8 | Date<br>8/2/2021<br>8/3/2021<br>8/9/2021<br>8/10/2021<br>8/10/2021<br>8/16/2021<br>8/23/2021<br>8/23/2021<br>8/24/2021<br>8/30/2021<br>9/6/2021<br>9/6/2021<br>9/13/2021<br>9/14/2021              | Review of Second Law Analysis<br>Introduction to power cycles; str<br>Gas Power Cycles<br>Gas Power Cycles<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Vapor and Combined Power Cyc<br>Midterm Exam I<br>Refrigeration Cycles<br>Refrigeration Cycles<br>Gas Mixtures<br>Midterm Exam II<br>Gas–Vapor Mixtures and Air-Con<br>Gas–Vapor Mixtures and Air-Con<br>Final Exam<br><b>Evaluation Tool</b> | andard air as<br>iles<br>iles<br>iles<br>iles<br>ditioning<br>nditioning<br><b>Quantity</b><br>2<br>4 |             | PICS on; Cal  | e<br>4,6<br>up<br>15 | 50<br>10                  | Semester<br>Evaluation (<br>50<br>10       |

|  |   |   | SYLLABUS   |           |         |                   |                           |                     |
|--|---|---|--|-----------|---------|-------------------|---------------------------|---------------------|
|  |   | Mecha   | nical Enginee  | ring      |         |                   |                           |                     |
|  |   | 2020-2  | 2021 Summer S  | chool     |         |                   |                           |                     |
| Course Code  |   | Course Name   | Course Type  | -         |         | Credits           | ECTS                      | Week<br>Clas<br>Sch |
| ME 2075  | Statics &   | & Strength of Materials   | Compulsory   | 6 0       | 0 0     | 4                 | 4                         | Mond<br>21          |
| Prerequisite   | N/A   |   | Prerequ  | uisite to | )       |                   |                           | Wedne<br>1          |
| Course Lecturer  | Prof.Dr. Aykut KE   | NTLİ  |  |           |         |                   |                           |                     |
| Teaching<br>Assistant(s)   | N/A   |   |  |           |         | ce Hours<br>edule | N/A                       |                     |
| E-mail   | akentli@marmara.  | <u>edu.tr</u>   |  |           | Jein    |                   |                           |                     |
| Phone  | N/A   |   |  |           | Offi    | ce / Room No      | N/A                       |                     |
| Course<br>Objectives   | engineering poin  |   | -  | -         | s of st | atics and st      | rength of materials with  | n an                |
| Textbooks<br>and/or<br>References  | Russell C. Hibbele  | er, Statics and Mechanics of M  |  |           |         |                   |                           |                     |
| Teaching<br>methods  | using online tools  | n (Pearson) with white board,<br>s. Students who will enroll this<br>ember of the system, which w   | s course in the su   | mmer      | school  | l 2021 seme       | ester are required to fol |                     |
| WEEK   |   |   |  |           |         |                   |                           |                     |
|  | Date  |   |  | Т         | OPICS   | 5                 |                           |                     |
| Week 1   | <b>Date</b><br>8/2/2021   | Introduction  |  | т         |         | \$                |                           |                     |
|  |   | Introduction<br>Vector representation of for  | rces   | т(        |         | <b>.</b>          |                           |                     |
| Week 1   | 8/2/2021  |   | rces   |           |         | <u> </u>          |                           |                     |
| Week 1<br>Week 1   | 8/2/2021<br>8/4/2021  | Vector representation of for  | rces   | т(<br>    |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2   | 8/2/2021<br>8/4/2021<br>8/9/2021  | Vector representation of for<br>Concept of moment   | rces   | т(<br>    |         | ;<br>             |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021   | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body  |  |           |         | ;<br>             |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints  |  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021   | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body   |  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity  |  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021   | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas  | y  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas<br>Forces in beams   | y<br>diagrams  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas<br>Forces in beams<br>Shear and bending moment   | y<br>diagrams<br>sian coordinates  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021<br>9/6/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas<br>Forces in beams<br>Shear and bending moment<br>Stress components in Cartes  | y<br>diagrams<br>sian coordinates  |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6   | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021<br>9/6/2021<br>9/8/2021  | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas<br>Forces in beams<br>Shear and bending moment<br>Stress components in Cartes<br>Mechanical Properties of M                          | y<br>diagrams<br>sian coordinates<br>aterials                            |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7                               | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/25/2021<br>8/30/2021<br>9/1/2021<br>9/6/2021<br>9/8/2021<br>9/13/2021                           | Vector representation of for<br>Concept of moment<br>Equilibrium of a rigid body<br>Method of joints<br>Forces acting on a rigid body<br>Center of gravity<br>Moments of areas<br>Forces in beams<br>Shear and bending moment<br>Stress components in Cartes<br>Mechanical Properties of M<br>Pure bending of beams | y<br>diagrams<br>sian coordinates<br>aterials                            |           |         | \$<br>            |                           |                     |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/15/2021<br>9/15/2021 | Vector representation of forConcept of momentEquilibrium of a rigid bodyMethod of jointsForces acting on a rigid bodyCenter of gravityMoments of areasForces in beamsShear and bending momentStress components in CartesMechanical Properties of MPure bending of beamsTransverse shear and the shFinal Exam        | y<br>diagrams<br>sian coordinates<br>aterials                            |           | DPICS   |                   | Weight in Total (%)       | Ser                 |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/15/2021<br>9/15/2021 | Vector representation of forConcept of momentEquilibrium of a rigid bodyMethod of jointsForces acting on a rigid bodyCenter of gravityMoments of areasForces in beamsShear and bending momentStress components in CartesMechanical Properties of MPure bending of beamsTransverse shear and the shFinal Exam        | y<br>diagrams<br>sian coordinates<br>aterials<br>ear formula             |           |         |                   | Weight in Total (%)       | We<br>Ser<br>Evalua |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/15/2021<br>9/15/2021 | Vector representation of forConcept of momentEquilibrium of a rigid bodyMethod of jointsForces acting on a rigid bodyCenter of gravityMoments of areasForces in beamsShear and bending momentStress components in CartesMechanical Properties of MPure bending of beamsTransverse shear and the shFinal Exam        | y<br>diagrams<br>sian coordinates<br>aterials<br>ear formula<br>Quantity |           | Da      |                   |                           | Ser<br>Evalua       |
| Week 1<br>Week 2<br>Week 2<br>Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 8/2/2021<br>8/4/2021<br>8/9/2021<br>8/11/2021<br>8/16/2021<br>8/18/2021<br>8/23/2021<br>8/23/2021<br>8/25/2021<br>9/1/2021<br>9/1/2021<br>9/6/2021<br>9/13/2021<br>9/15/2021<br>9/15/2021 | Vector representation of forConcept of momentEquilibrium of a rigid bodyMethod of jointsForces acting on a rigid bodyCenter of gravityMoments of areasForces in beamsShear and bending momentStress components in CartesMechanical Properties of MPure bending of beamsTransverse shear and the sh                  | y<br>diagrams<br>sian coordinates<br>aterials<br>ear formula<br>Quantity |           | Da      | te                | 60                        | Ser<br>Evalua       |

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|------------------------|--|---|-----------------------|--------------------|--------------------|---------------------------|---------------------------|
|                        |  |   | SYLLABUS              |                    |                    |                           |                           |
|                        |  | Mech  | nanical Enginee       | ring               |                    |                           |                           |
|                        |  | 2020  | 0-2021 Summer S       | chool              |                    |                           |                           |
| Course Code            |  | Course Name   | Course Type           | Weekly Co<br>Hours |                    | ECTS                      | Weekly Ti<br>Classroo     |
| course code            |  |   | Course Type           | T A                | L                  | ECI3                      | Schedu                    |
| ME 2003                |  | Dynamics  | Compulsory            | 8 0                | 0 6                | 6                         | 09:00-12<br>Friday        |
| Prerequisite           | ME 1052 Statics  |   | Prereq                | uisite to          |                    |                           | 13.00-16                  |
| Course Lecturer        | Asst. Prof. Dr. İbr  | ahim Sina Kuseyri   |                       |                    |                    |                           |                           |
| Teaching               | N/A  |   |                       |                    | Office Hours       |                           |                           |
| Assistant(s)<br>E-mail | sina.kuseyri@marn  | ara edu tr  |                       |                    | Schedule           | N/A                       |                           |
| Phone                  | N/A  |   |                       |                    | Office / Room No   | N/A                       |                           |
| FIIOTE                 |  |   |                       |                    | onice / Room Re    |                           |                           |
| Course<br>Objectives   | The aim of the co  | urse is to teach the fundam                               | ientals of kinematio  | s and kin          | etics of particl   | es and rigid bodies.      |                           |
|                        | Dynamics, R. C. H  | ibbeler, Pearson.   |                       |                    |                    |                           |                           |
| Textbooks<br>and/or    |  |   |                       |                    |                    |                           |                           |
| References             |  |   |                       |                    |                    |                           |                           |
|                        |  |   |                       |                    |                    |                           |                           |
| Teaching<br>methods    | online Pearson M   | n with white board, Power I<br>yLab tools. Students who w | ill enroll this cours | e in the s         | ummer school       | 2021 semester are requ    |                           |
|                        | the course by enr  | olling to the system with ar                              | n additional fee, wh  | iich will b        | e announced b      | by the course instructor. |                           |
| WEEK                   | Date   |   |                       | TO                 | PICS               |                           |                           |
| Week 1                 | 8/3/2021   | Introduction and Prelimin                                 | ary Concepts          |                    |                    |                           |                           |
| Week 1                 | 8/4/2021   | Kinematics of Particles                                   |                       |                    |                    |                           |                           |
| Week 2                 | 8/10/2021  | Kinematics of Particles                                   |                       |                    |                    |                           |                           |
| Week 2                 | 8/11/2021  | Kinematics of Rigid Bodie                                 |                       |                    |                    |                           |                           |
| Week 3                 | 8/17/2021  | Kinematics of Rigid Bodie                                 | S                     |                    |                    |                           |                           |
| Week 3                 | 8/18/2021  | Kinetics of Particles                                     |                       |                    |                    |                           |                           |
| Week 4                 | 8/24/2021  | Kinetics of Particles                                     |                       |                    |                    |                           |                           |
| Week 4                 | 8/25/2021  | Midterm Exam  |                       |                    |                    |                           |                           |
| Week 5                 | 8/31/2021  | Kinetics of Rigid Bodies                                  |                       |                    |                    |                           |                           |
| Week 5                 | 9/1/2021   | Kinetics of Rigid Bodies                                  |                       |                    |                    |                           |                           |
| Week 6                 | 9/7/2021   | Work and Energy Method                                    |                       |                    |                    |                           |                           |
| Week 6                 | 9/8/2021   | Work and Energy Method                                    |                       |                    |                    |                           |                           |
| Week 7                 | 9/14/2021  | Impulse-Momentum Met                                      |                       |                    |                    |                           |                           |
| Week 7                 | 9/15/2021  | Impulse-Momentum Met                                      | hods                  |                    |                    |                           |                           |
| Week 8                 | 9/21/2021  | Final Exam  |                       | 1                  |                    |                           |                           |
| WEEK 0                 | -  | Evaluation Tool   | Quantity              |                    | Date               | Weight in Total (%)       | Weigh<br>Seme<br>Evaluati |
|                        |  |   |                       |                    |                    |                           |                           |
|                        | luation  | Midterm Exam  | 1                     | ١                  | Week 4             | 30                        | 50                        |
|                        | UN FAKULTES  | Midterm Exam<br>Homework                                  | 1 5                   |                    | Week 4<br>ntinuous | 30<br>30                  |                           |
|                        | UN FAKULTES  | Midterm Exam<br>Homework<br>Final Exam                    |                       | Co                 |                    |                           | 50<br>50                  |
|                        | Ination<br>Were stress<br>UN FAKULTES<br>SLIK FAKULTES<br>SLIK FAKULTES<br>MUH. BOLUMU | Midterm Exam<br>Homework<br>Final Exam                    | 5                     | Co                 | ntinuous           | 30                        |                           |
|                        | *  | Midterm Exam<br>Homework<br>Final Exam                    | 5                     | Co                 | ntinuous<br>Week 8 | 30                        |                           |

|                      |                                       |   | SYLLABUS           |                |                   |                  |                     |                                       |
|----------------------|---------------------------------------|---|--------------------|----------------|-------------------|------------------|---------------------|---------------------------------------|
|                      |                                       | Mecha   | inical Enginee     | ring           |                   |                  |                     |                                       |
|                      |                                       |   | 2021 Summer S      | _              |                   |                  |                     |                                       |
|                      |                                       | 2020-   | zuzi summer s      |                | ly Course         |                  |                     | Weekly Time8                          |
| Course Code          |                                       | Course Name   | Course Type        |                | ours              | Credits          | ECTS                | Classroom<br>Schedule                 |
| ME 3018              | Мес                                   | hanical Vibrations  | Elective           | 6              | <b>Α L</b><br>0 0 | 5                | 5                   | Tuesday<br>09:00-11:50                |
| Prerequisite         | ME 2003 Dynamics                      |   | Prerec             | uisite 1       | to                |                  |                     | Thursday<br>09.00-11:50               |
| Course Lecturer      | Asst. Prof. Dr. İbra                  | ahim Sina Kuseyri   |                    |                |                   |                  |                     | 09.00-11.50                           |
| Teaching             | N/A                                   |   |                    |                |                   |                  |                     |                                       |
| Assistant(s)         |                                       |   |                    |                | Offic<br>——Sche   | e Hours<br>dule  | N/A                 |                                       |
| E-mail               | sina.kuseyri@marm                     | ara.edu.tr  |                    |                |                   |                  |                     |                                       |
| Phone                | N/A                                   |   |                    |                | Offic             | e / Room No      | N/A                 |                                       |
| Course<br>Objectives | The aim of the co                     | urse is to teach the fundame                              | ntals mechanical   | vibrat         | ions.             |                  |                     |                                       |
|                      | Text: Mechanical                      | Vibrations, S.S. Rao, Pearson                             |                    |                |                   |                  |                     |                                       |
| Textbooks<br>and/or  |                                       |   |                    |                |                   |                  |                     |                                       |
| and/or<br>References | Reference: Engine                     | ering Vibrations, D. Inman, V                             | Viley              |                |                   |                  |                     |                                       |
|                      |                                       |   |                    |                |                   |                  |                     |                                       |
| Teaching<br>methods  | In online platform                    | with white board, Power Po                                | int Presentations  | •              |                   |                  |                     |                                       |
| WEEK                 | Date                                  |   |                    | Т              | OPICS             | 5                |                     |                                       |
| Week 1               | 8/3/2021                              | Introduction and Prelimina                                | ry Concepts        |                |                   |                  |                     |                                       |
| Week 1               | 8/4/2021                              | Lumped Modeling of Elastic                                |                    | ems            |                   |                  |                     |                                       |
| Week 2               | 8/10/2021                             | Free Respnse of First Order                               | •                  |                |                   |                  |                     |                                       |
| Week 2               | 8/11/2021                             | Free Response of First Orde                               |                    |                |                   |                  |                     |                                       |
| Week 3               | 8/17/2021                             | Forced Harmonic Response                                  |                    |                |                   |                  |                     |                                       |
| Week 3               | 8/18/2021                             | Forced Harmonic Response                                  |                    |                | 5                 |                  |                     |                                       |
| Week 4               | 8/24/2021                             | General Forced Response o                                 | f First Order Syst | ems            |                   |                  |                     |                                       |
| Week 4               | 8/25/2021                             | Midterm Exam  | Systems            |                |                   |                  |                     |                                       |
| Week 5               | 8/31/2021                             | Vibration of Second Order S                               |                    |                |                   |                  |                     |                                       |
| Week 5<br>Week 6     | 9/1/2021<br>9/7/2021                  | Vibration of Second Order S<br>Introduction to Rotor Dyna | -                  |                |                   |                  |                     |                                       |
| Week 6               | 9/8/2021                              | Vibration Isolation and Vibr                              |                    |                |                   |                  |                     |                                       |
| Week 0               | 9/14/2021                             | Vibration of MDOF Systems                                 |                    |                |                   |                  |                     |                                       |
| Week 7               | 9/15/2021                             | Vibration of MDOF Systems                                 |                    |                |                   |                  |                     |                                       |
| Week 8               | 9/21/2021                             | Final Exam  |                    |                |                   |                  |                     |                                       |
|                      | · · · · · · · · · · · · · · · · · · · |   | Quantity           |                | Dat               | te               | Weight in Total (%) | Weight in<br>Semester<br>Evaluation ( |
| Eval                 | uation SITES!                         | Midterm Exam  | 1                  | -              | Wee               | k 4              | 30                  | Evaluation (                          |
| T                    | UNIVERVILLE                           | Project   | 1                  | -              | Wee               |                  | 30                  | 50                                    |
| ARMARA               | LIK FA BOLUMI                         | Final Exam  | 1                  | -              | Wee               |                  | 40                  |                                       |
| TAUHENUNA            | MILITI                                | 2 / Maler   |                    | -Digitally ris |                   |                  |                     |                                       |
| IN' KIL              |                                       | A A Mehn  | ned Rafetra        | DN on-M        | timed Rafet Or    | demir, o-Marmara |                     |                                       |
| MAT                  | an wine and                           |   | mir Metni b        | University,    | ou Engineerie     | g Faculty,       |                     |                                       |

|                      |  |                                 | YLLABUS         | -        |                    | - 0  |  |                                     |
|----------------------|--|---------------------------------|-----------------|----------|--------------------|--|--|-------------------------------------|
|                      |  | _                               |                 | -        |                    |  |  |                                     |
|                      |  |                                 | cal Enginee     | _        |                    |  |  |                                     |
|                      |  | 2020-20                         | 21 Summer S     |          |                    |  | I  |                                     |
| Course Code          |  | Course Name                     | Course Type     |          | ours               | Credits  | ECTS   | Weekly Time8<br>Classroom           |
| ME 3021              | System L   | Dynamics and Control            | Compulsory      |          |                    | <b>L</b><br>0 5  | 5  | Schedule<br>Thursday<br>13:00-15:50 |
| Prerequisite         | Math 2055 Different  | ial Equations                   | Prereq          | uisite t |                    | MF 4022 C  | ontrol Systems   | Friday                              |
|                      | Asst. Prof. Dr. İbra   |                                 |                 |          |                    |  |  | 09.00-11:50                         |
| Tooching             |  |                                 |                 |          |                    |  |  |                                     |
| Assistant(s)         | N/A  |                                 |                 |          |                    | ffice Hours<br>chedule   | N/A  |                                     |
| E-mail               | sina.kuseyri@marm  | ara.edu.tr                      |                 |          |                    |  |  |                                     |
| Phone                | N/A  |                                 |                 |          | o                  | ffice / Room No  | N/A  |                                     |
| Course<br>Objectives | The aim of the cou   | irse is to teach the fundamenta | Ils modeling ar | ıd anal  | ysis               | of dynamic sy  | vstems, and feedback co                                | ontrol.                             |
| Toutheate            | Text: Dynamic Syte   | ems: Modeling, Simulation and   | Control, C.A. H | lueve    | r, Wi              | ley.   |  |                                     |
| Textbooks<br>and/or  | Deference 1: Contra  | m Dunamice Orate Desire         |                 |          |                    |  |  |                                     |
| References           |  | m Dynamics, Ogata, Pearson      |                 |          |                    |  |  |                                     |
|                      | Reference 2. Cont  | rol Systems, Nise, Wiley        |                 |          |                    |  |  |                                     |
| Teaching<br>methods  | In online platform   | with white board, Power Point   | Presentations   |          |                    |  |  |                                     |
| WEEK                 | Date   |                                 |                 | Т        | ΟΡΙ                | CS   |  |                                     |
| Week 1               | 8/3/2021   | Introduction and Preliminary    | Concepts        |          |                    |  |  |                                     |
| Week 1               | 8/4/2021   | Modeling Mechanical System      | 5               |          |                    |  |  |                                     |
| Week 2               | 8/10/2021  | Modeling Electrical and Electr  | omechanical S   | stems    | 5                  |  |  |                                     |
| Week 2               | 8/11/2021  | Modeling Fluid and Thermal S    |                 |          |                    |  |  |                                     |
| Week 3               | 8/17/2021  | Standard System Representat     |                 |          |                    |  |  |                                     |
| Week 3               | 8/18/2021  | Standard System Representat     |                 |          |                    |  |  |                                     |
| Week 4               | 8/24/2021  | Numerical Simulation of Dyna    | mic Systems     |          |                    |  |  |                                     |
| Week 4               | 8/25/2021  | Midterm Exam                    |                 |          |                    |  |  |                                     |
| Week 5               | 8/31/2021  | Review of Complex Numbers       | and Laplace Tra | ansform  | n                  |  |  |                                     |
| Week 5               | 9/1/2021   | Transient Response              |                 |          |                    |  |  |                                     |
| Week 6               | 9/7/2021   | Transient Response              |                 |          |                    |  |  |                                     |
| Week 6               | 9/8/2021   | Frequency Response              |                 |          |                    |  |  |                                     |
| Week 7               | 9/14/2021  | Feedback Control                |                 |          |                    |  |  |                                     |
| Week 7               | 9/15/2021  | Feedback Control                |                 |          |                    |  |  |                                     |
| Week 8               | 9/21/2021  | Final Exam<br>I                 |                 |          |                    |  |  | Weight in                           |
| Eval                 | uation csl   | Evaluation Tool                 | Quantity        |          | C                  | Date   | Weight in Total (%)                                    | Semester<br>Evaluation (            |
| Ţ                    | SOIS ERSITES   | Midterm Exam                    | 1               |          | W                  | eek 4  | 30   | 50                                  |
| RA                   | UNI FAKULUMI   | Project                         | 1               |          | W                  | eek 7  | 30   | 50                                  |
| MARMANDIS            | AUH. BOL   | Final Exam                      | 1               |          | W                  | eek 8  | 40   |                                     |
| MUHAKINA             | and a state of the |                                 | nmed Ra<br>emir | fet      | DN:<br>Univ<br>ema | tally signed by Mehme<br>cm-Mehmed Rafet Özz<br>versity, cu-Engineerin<br>ið mehmet.ozdernirai<br>e: 2021.06.21 10:56:37 | demir, o⊶Marmara<br>g Faculty,<br>marmara.edu.tr, c=TR |                                     |

## MARMARA UNIVERSITY - Faculty of Engineering

## SYLLABUS

## **Mechanical Engineering**

| 2020-2021 | Summer | Schoo |
|-----------|--------|-------|
|-----------|--------|-------|

|  |   |   | 2020  | 2021 Summer S  | choc   | ol 🛛                          |             |                           |   |  |  |  |  |
|--|---|---|---|--|--------|-------------------------------|-------------|---------------------------|---|--|--|--|--|
| Course Code  | Course Nar<br>Thermodyna  |   | me  | Course Type  |        | kly Course<br>Hours           | Credits     | ECTS<br>5                 | Weekly Time8<br>Classroom<br>Schedule<br>Thursday 09:00 |  |  |  |  |
| ME2063   |   |   | mics I  | Compulsory   | Т<br>3 | A L<br>0 0                    | 5           |                           |   |  |  |  |  |
| Prerequisite   | N/A   |   |   | Prereq   | uisite | to                            | ME 2064     |                           | 12-00 & Frida<br>09.00-12:00                            |  |  |  |  |
| Course Lecturer  | Asst. Prof. Dr. M   | ehmed Rafet   | ÖZDEMİR   |  |        |                               |             |                           | 1   |  |  |  |  |
| Teaching<br>Assistant(s)   | N/A   |   |   |  |        | Offic                         | ce Hours    | N/A                       |   |  |  |  |  |
| E-mail   | mehmet.ozdemir@   | marmara.ed  | u.tr  |  |        | Sche                          | dule        |                           |   |  |  |  |  |
| Phone  | N/A   |   |   |  |        | Offic                         | e / Room No | N/A                       |   |  |  |  |  |
| Course<br>Objectives   | The aim of the course is to provide a comprehensive and rigorous approach to engineering thermodynamics from the<br>classical point of view. This course lays the foundation for subsequent thermodynamics, fluid mechanics and heat transfer<br>courses and prepares students to use thermodynamics in professional practice.      |   |   |  |        |                               |             |                           |   |  |  |  |  |
|  | Thermodynamics – An Engineering Approach, Yunus Cengel and Michael Boles, 8th edition, 2014, McGraw Hill.   |   |   |  |        |                               |             |                           |   |  |  |  |  |
|  | Thermodynamics – An Interactive Approach, Subrata Bhattacharjee, 2016, Pearson  |   |   |  |        |                               |             |                           |   |  |  |  |  |
|  | Principles of Engineering Thermodynamics, Michael J. Moran, Howard N. Shapiro, Daisie D. Boettner and Margaret B. Bailey<br>8th edition, 2015, Wiley.   |   |   |  |        |                               |             |                           |   |  |  |  |  |
| Teaching<br>methods  | In online platform with white board, Power Point Presentations. In this course, learning outcomes will be followed using online tools. Students who will enroll this course in the summer school 2021 semester are required to follow the course by becoming a member of the system, which will be announced by the faculty member. |   |   |  |        |                               |             |                           |   |  |  |  |  |
| WEEK   | Date  | TOPICS  |   |  |        |                               |             |                           |   |  |  |  |  |
| Week 1   | 5.08.2021   | Introduction and Preliminary Concepts   |   |  |        |                               |             |                           |   |  |  |  |  |
| Week 1   | 6.08.2021   | Energy, Enegy Transfer and General Energy Analysis  |   |  |        |                               |             |                           |   |  |  |  |  |
|  | 0.00.2021   |   | egy transfer and  | General chergy A   | indiys | Properties of Pure Substances |             |                           |   |  |  |  |  |
| Week 2   | 12.08.2021  |   |   |  | indiya |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 2   |   | Properties  |   | es   | indiys |                               |             |                           |   |  |  |  |  |
|  | 12.08.2021  | Properties<br>Properties  | of Pure Substanc  | es<br>es   |        |                               |             |                           |   |  |  |  |  |
| Week 2   | 12.08.2021<br>13.08.2021  | Properties<br>Properties<br>Energy Ana  | of Pure Substanc  | es<br>es<br>istems   |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3   | 12.08.2021<br>13.08.2021<br>19.08.2021  | Properties<br>Properties<br>Energy Ana<br>Mass and  | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy   | es<br>es<br>rstems<br>Control Volumes  |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021  | Properties<br>Properties<br>Energy Ana<br>Mass and  | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in   | es<br>es<br>rstems<br>Control Volumes  |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021  | Properties<br>Properties<br>Energy Ana<br>Mass and I<br>Mass and I<br>Midterm E   | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in   | es<br>es<br>sstems<br>Control Volumes<br>Control Volumes                           |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021  | Properties<br>Properties<br>Energy Ana<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of   | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I  | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s                      |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021   | Properties<br>Properties<br>Energy And<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>2nd Law of   | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic   | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021  | Properties<br>Properties<br>Energy And<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>2nd Law of   | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>le and Refrigerati                      | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6   | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>9.09.2021   | Properties<br>Properties<br>Energy Ana<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>2nd Law of<br>Carnot Cyc                                       | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>le and Refrigerati<br>xam II            | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6                               | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>9.09.2021<br>10.09.2021   | Properties<br>Properties<br>Energy And<br>Mass and<br>Mass and<br>Midterm E<br>2nd Law of<br>Carnot Cyc<br>Midterm E  | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>le and Refrigerati<br>xam II            | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7                     | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>9.09.2021<br>10.09.2021<br>16.09.2021   | Properties<br>Properties<br>Energy Ana<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>2nd Law of<br>Carnot Cyc<br>Midterm E<br>Entropy Co            | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>cle and Refrigerati<br>xam II<br>oncept | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        |                               |             |                           |   |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021<br>21.09.2021  | Properties<br>Properties<br>Energy And<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>Carnot Cyc<br>Midterm E<br>Entropy Co<br>Entropy<br>Final Exam | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>cle and Refrigerati<br>xam II<br>oncept | es<br>es<br>rstems<br>Control Volumes<br>Control Volumes<br>s<br>s                 |        | Dat                           | e           | Weight in Total (%)       | Weight in<br>Semester<br>Evaluation (%                  |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021<br>21.09.2021  | Properties<br>Properties<br>Energy And<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>Carnot Cyc<br>Midterm E<br>Entropy Co<br>Entropy<br>Final Exam | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>cle and Refrigerati<br>xam II<br>oncept | es<br>es<br>stems<br>Control Volumes<br>Control Volumes<br>s<br>s<br>s<br>on Cycle |        | Dat                           |             | Weight in Total (%)<br>45 | Semester  |  |  |  |  |
| Week 2<br>Week 3<br>Week 3<br>Week 4<br>Week 4<br>Week 5<br>Week 5<br>Week 6<br>Week 6<br>Week 7<br>Week 7<br>Week 8 | 12.08.2021<br>13.08.2021<br>19.08.2021<br>20.08.2021<br>26.08.2021<br>27.08.2021<br>2.09.2021<br>3.09.2021<br>10.09.2021<br>16.09.2021<br>17.09.2021<br>21.09.2021  | Properties<br>Properties<br>Energy And<br>Mass and I<br>Mass and I<br>Midterm E<br>2nd Law of<br>Carnot Cyc<br>Midterm E<br>Entropy Co<br>Entropy<br>Final Exam | of Pure Substanc<br>of Pure Substanc<br>alysis in Closed Sy<br>Energy analysis in<br>Energy analysis in<br>xam I<br>f Thermodynamic<br>f Thermodynamic<br>cle and Refrigerati<br>xam II<br>oncept | es<br>es<br>control Volumes<br>Control Volumes<br>s<br>s<br>on Cycle<br>Quantity   |        |                               | 4,6         |                           | Semester<br>Evaluation (%                               |  |  |  |  |

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