| Course Code and Name             | EKO301 EC   | CONOMY   |  |  |  |  |  |  |
|----------------------------------|---|--|--|--|--|--|--|--|
| Course Semester                  | 5   |  |  |  |  |  |  |  |
| Catalog Content                  | Understandi<br>economic ar<br>Understandi<br>and income<br>Understandi<br>mixed econo<br>Examining<br>monopoly, a<br>Introducing<br>income, and<br>Examining<br>inflation, an | Understanding economic concepts and interpreting economic events usine<br>economic analysis tools<br>Understanding demand and supply concepts, evaluating the effects of prior<br>and income on demand and supply quantities<br>Understanding the role of the government in the economy and the concept of<br>mixed economy<br>Examining and evaluating market structures such as perfect competition<br>monopoly, and imperfect competition<br>Introducing to macroeconomics, understanding the determination of nation<br>income, and the concepts of aggregate demand and aggregate supply<br>Examining topics such as money, central banking, monetary syster<br>inflation, and unemployment |  |  |  |  |  |  |
| Textbook                         | ECONOMY<br>Yayıncılık,  | <ul><li>(7, Prof. Dr. Kurban Unlüönen, Doç. Dr. Ahmet Tayfun, Nobel</li></ul>  |  |  |  |  |  |  |
| Supplementary Textbooks          | Economics   | by Paul Samuelson and William Nordhaus   |  |  |  |  |  |  |
| Credit                           | 2 ECTS  |  |  |  |  |  |  |  |
| Prerequisites of the<br>Course ( | No  |  |  |  |  |  |  |  |
| Type of the Course               | Compulsory  | 1  |  |  |  |  |  |  |
| Instruction Language             | Turkish   |  |  |  |  |  |  |  |
| Course Objectives                | 1. Understan<br>economic th<br>2. To expres<br>3. To exami<br>and product<br>4. Analyze s<br>5. Internation   | nd the basic principles of economic science and the rationale of<br>nought<br>so the price mechanism and the formation of prices.<br>ine the enterprise and its varieties together with production, costs<br>tion factors.<br>some current developments with money and banking issues.<br>onal economic issues, multinational companies, foreign capital,<br>exchange and Turkey with applications.  |  |  |  |  |  |  |
| Instruction Methods              | Face to face  |  |  |  |  |  |  |  |
| Weekly Schedule                  | 1. Week<br>2. Week  | Common Economic Problems of All Societies  |  |  |  |  |  |  |
|                                  | 3. Week   | Definition of Talebin, Factors Affecting Demand, Demand Flex   |  |  |  |  |  |  |
|                                  | 4. Week   | Definition of Supply, Factors Affecting Supply, Supply Flexibi   |  |  |  |  |  |  |
|                                  | 5. Week   | Market and Market Price Formation, Market Types  |  |  |  |  |  |  |
|                                  | 6. Week   | Government's Price Intermediary, Ceiling-Based Price Practice  |  |  |  |  |  |  |
|                                  | 7. Week   | Consumer Balance   |  |  |  |  |  |  |
|                                  | 8. Week   | Production and Manufacturing Balance   |  |  |  |  |  |  |
|                                  | 9. Week   | Firm Balance   |  |  |  |  |  |  |
|                                  | 10. Week  | National Income, Factors Determining National Income   |  |  |  |  |  |  |
|                                  | 11. Week  | Employment and Unemployment  |  |  |  |  |  |  |
|                                  | 12. Week  | Income Distribution  |  |  |  |  |  |  |

|   | 13. We  | ek Mo  | oney and the  | Bank   |                           |   |              |                     |              |
|---|---|--|---|--|---------------------------|---|--------------|---------------------|--------------|
|   | 14. We  | ek For   | eign Trade  |  |                           |   | _            | _                   |              |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly<br>Weekly<br>Reading<br>Internet<br>Designin<br>Report p<br>Preparin<br>Preparat<br>Final Ex | theoretical of<br>tutorial hou<br>Activities 4<br>browsing, ling<br>and imple<br>oreparing<br>g a Presenta<br>ion of Midte<br>am and Pre | course hours<br>rs<br>ibrary work 6<br>ementing mat<br>ation Presenta<br>erm and Midt<br>paration for F | 2<br>terials<br>tions<br>term Exam 4<br>Vinal Exam 4 |                           |   |              |                     |              |
|   |   |  |   |  | Numbers                   | W | Tota<br>eigh | al<br>tin           | g            |
|   | Midtern<br>Assigni<br>Applica   | n Exams<br>nent<br>ation   |   |  | 1                         |   | ( /0         | )                   |              |
| Assessment Criteria   | Project<br>Practice   | 5  |   |  |                           |   |              |                     |              |
|   | Final E   | xam  |   |  | 1                         |   |              |                     | -            |
|   | Percent   | of In-term   | Studies (%)   |  | 60                        |   |              |                     | $\neg$       |
|   | Percent   | age of Final   | l Exam to Tot   | tal Score (%)  | 40                        |   |              |                     |              |
|   | Attenda   | ance   |   |  |                           |   |              | 7 4                 |              |
|   |   | Activity   | 7   | Total<br>Number of<br>Weeks                          | Duration (weekly<br>hour) |   | P<br>d<br>W  | ota<br>erio<br>/orl | ll<br>b<br>k |
|   | Weekly  | Theoretical C  | ourse Hours   | 14   | 2                         |   |              | 28                  |              |
|   | Weekly 7  | Futorial Hour  | rs  |  |                           |   |              |                     | +            |
|   | Reading   | Tasks  |   | 2  | 4                         |   |              | 8                   |              |
|   | Studies   |  |   | 1  | 6                         |   |              | 6                   |              |
|   | Material<br>Impleme   | Design and ntation   |   |  |                           |   |              |                     |              |
|   | Report P  | reparing   |   |  |                           |   |              |                     |              |
| Workload  | Preparing   | g a Presentati   | on  |  |                           |   |              |                     |              |
|   | Presentat   | tions  |   |  |                           |   |              |                     |              |
|   | Midterm<br>Preperati  | Exam and<br>on for Midter  | rm Exam   | 1  | 4                         |   |              | 4                   |              |
|   | Final Exa<br>Final Exa<br>Other (s  | am and Prepe<br>am<br>hould be   | eration for   | 1  | 4                         |   |              | 4                   |              |
|   | emphasiz  | zed)   |   |  |                           |   |              |                     | -            |
|   | Total Wo  | orkload  |   |  |                           |   | 5            | $\frac{50}{2}$      | _            |
|   | Course C  | Credit (ECTS)  | )   |  |                           |   | 3            | <u>572</u><br>2     | <i>s</i>     |
|   |   | No   | Program   | 1 Outcomes   | 1                         | 2 | 3            | 4                   | 5            |
|   |   | 1  | Adequate kr<br>mathematics<br>engineering   | nowledge in<br>s, science and<br>subjects            |                           |   |              |                     |              |
| Contribution Level Between Course   |   |  | discipline; a   | bility to use  |                           |   |              |                     |              |

|  | 1                     |                   | 1  |   | 1 | 1 |  |
|--|-----------------------|-------------------|--|---|---|---|--|
| Learning Outcomes and Program<br>Outcomes            |                       | 2                 | Ability to identify,<br>formulate, and solve<br>complex engineering<br>problems; ability to select<br>and apply proper analysis                                    |   |   |   |  |
|  |                       | 3                 | Ability to design a complex<br>system, process, device or<br>product under realistic<br>constraints and conditions,  | X |   |   |  |
|  |                       | 4                 | Ability to develop, select<br>and use modern techniques<br>and tools necessary for<br>analysis and solution of<br>complex problems in<br>engineering applications; | X |   |   |  |
|  |                       | 5                 | Ability to design and<br>conduct experiments,<br>gather data, analyze and<br>interpret results for<br>examination of engineering                                   |   |   |   |  |
|  |                       | 6                 | Ability to work efficiently<br>in intra-disciplinary teams.  | X |   |   |  |
|  |                       | 7                 | Ability to work efficiently in multi-disciplinary teams.   |   |   |   |  |
|  |                       | 8                 | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum<br>of one foreign language.                             |   |   |   |  |
|  |                       | 9                 | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective                         |   |   |   |  |
|  |                       | 10                | Recognition of the need for<br>lifelong learning; ability to<br>access information, to<br>follow developments in   | Х |   |   |  |
|  |                       | 11                | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering                                | Х |   |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Faculty M<br>tasarim@ | lember<br>gazi.ec | rs of the Department<br>lu.tr  |   |   |   |  |

|                       | Program<br>Outcome<br>1 | Program<br>Outcome<br>2 | Program<br>Outcome3 | Program<br>Outcome4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcom<br>e 8 | Program<br>Outcome9 | Program<br>Outcome1<br>0 | Program<br>Outcome11 |
|-----------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------|---------------------|--------------------------|----------------------|
| TOTAL                 |                         |                         | 1                   | 1                   |                     | 1                   |                     |                          |                     | 1                        | 1                    |
| Learning<br>outcome 1 |                         |                         |                     |                     |                     |                     |                     |                          |                     |                          | 1                    |
| Learning<br>outcome 2 |                         |                         | 1                   |                     |                     |                     |                     |                          |                     |                          |                      |
| Learning<br>outcome 3 |                         |                         |                     |                     |                     |                     |                     |                          |                     | 1                        |                      |
| Learning<br>outcome 4 |                         |                         |                     | 1                   |                     |                     |                     |                          |                     |                          |                      |
| Learning<br>outcome 5 |                         |                         |                     |                     |                     | 1                   |                     |                          |                     |                          |                      |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %50 |
|--------------------------------|-----|
| Engineering Sciences           | %50 |
| Engineering Design             | %0  |
| Social Sciences                | %0  |
| Education Sciences             | %0  |
| Science                        | %0  |
| Health Sciences                | %0  |
| Field Knowledge                | %0  |

| Course Code and<br>Name         ENG101 ENGLISH 1           Course Semester         1           Catalogue Dato of<br>the Course (Course<br>Content)         Beginner-level English grammar and vocabulary knowledge<br>Reading, writing, listening, and speaking skills <sup>+/</sup> Course Textbooks         Open Mind- Elementary Student's, Book Pack<br>Mickey Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles           Supplementary         Open Mind- Elementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Open Mind- Elementary Teacher's Book (Tim Bowen, Yvonne Maruniak)           Credit (ECTS)         2 ECTS           Prerequisities for the<br>Course (Attendance<br>Reguirements)         Free is in precquisite for this course.<br>Participation is compulsory.           Course Objective         Description is compulsory.         Description is compulsory.           Course Objective         Description is to express oneself verbally using simple expressions, grammar structures, and<br>Vocabulary.         Description is and understanding daily conversations.<br>Developing is beginare-level reading skills and foreign language and understanding daily conversations.<br>Developing is beginare-level reading skills and ducetrading daily conversations.<br>Developing is beginare-level reading skills and ducetrading simple expressions, grammar structures, and<br>vocabulary.         Is as vocabulary related to various thems (numbers, family, leisure activities, objects,<br>in directions and their family can be introduced.         Is assis vocabulary related to various thems (numbers, family, leisure activities, objects,<br>in virous place. (Momer, reom, dominior, vit) yan be descrinbed.         Is assis vocabulary related  |  |   | COURSE DESCRIPTION FORM   |  |  |  |  |  |  |  |
|---|--|---|---|--|--|--|--|--|--|--|
| Course Semester         1           Catalogue Data of<br>the Course (Course<br>Content)         Reginner-level Finglish grammar and vocabulary knowledge<br>Reading, writing, listening, and speaking skills*/           Course Textbooks         Open Mind- Elementary Student's Book Pack<br>(Content)         Open Mind- Elementary Student's Book Pack<br>(Direk Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles           Supplementary         Open Mind- Elementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>(Open Mind- Elementary Workbook (Ingrid Wisniewska, Dorothy E. Zemach)         ZECTS           Terrequisites for the<br>Course (Ittendance<br>Reguirements)         ZECTS         Participation is compulsory.           Language of<br>Instruction         English         Phing able to meet basic communication needs encountered in duily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.           Course Objectives         Developing the ability to create simple written texts and communicate.<br>Developing beginner-level reading skills and understanding simple texts.<br>Guining the ability to effectively communicate in duily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.           Course Learning<br>Outcomes         1. Basic vocabulary related to various thems (numbers, family, leisure activities, objects,<br>time, directions, and the frequency of their activities can be expressed by asking and<br>answering questions.           2. Oneself and their family can be introduced.         5. The time can be told and expressions related to time can be used.  | Course Code and<br>Name  | ENG101 ENG  | LISH 1  |  |  |  |  |  |  |  |
| Catalogue Data of<br>the Course (Course<br>Course)         Beginner-level English grammar and vocabulary knowledge<br>Reading, writing, listening, and speaking skills*/           Course Textbooks         Open Mind-Elementary Student's Book Pack<br>Mickey Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles           Supplementary<br>Textbooks         Open Mind-Elementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Open Mind-Elementary Workbook (Ingrid Wisniewska, Dorothy E. Zemich)           Credit (ECTS)         ZECTS           Prerequisites for th<br>Course (Attendance<br>Requirements)         There is no perequisite for this course.<br>Participation is compulsory.           Course Type         Compulsory         Compulsory           Language of<br>Instruction         English           Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.         Developing is bablity to create simple written texts and communicate.<br>Developing itstening skills and understanding simple texts.<br>Graming the ability of refer vely communicate in daily life by combining speaking, listening,<br>reading, and writing skills.           0. Course Objectives         1. Base vocabular preleted to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           0. Course Isad bet in the course and the frequency of their activities can be expressed by asking and<br>anawering questions.           0. Their daily lives and the frequency of their activities can be expressed by asking and<br>answering questions.           1. Week         Introduct   | Course Semester  | 1   |   |  |  |  |  |  |  |  |
| Course Textbooks         Open Mind- Elementary Student's Book Pack<br>Mickey Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles           Supplementary<br>Textbooks         Open Mind- Elementary Workbook (Ingrid Wisniewska, Dorothy F. Zemach)           Credit (ECTS)         2 ECTS           Prerequisites for the<br>Course (Jatendance<br>Requirements)         Compulsory           Language of<br>Instruction         English           Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oncest! verbally using simple expressions, grammar structures, and<br>vocabulary.           Developing listening skills in a foreign language and understanding daily conversations.<br>Developing listening and co-chically life by combining speaking, listening,<br>reading, and writing skills in a foreign language and understanding daily conversations.<br>Developing listening and co-chically life by combining speaking, listening,<br>reading, and writing skills in a foreign language and understanding daily conversations.<br>Developing listening and co-chically life by combining speaking.           Course Learning<br>Outcomes         1. Basic vocabulary related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and therefuence) of their activities can be expressed by asking and<br>answering questions.           Ustance Advances         Interd daily lives and the frequence) of their activities can be expressed by asking and<br>answering questions.           Ustance advactation<br>e(c.)         1. Week         Introduction to the course and presenting orientation           Ustance advactation<br>e(c.)         1. Week  | <b>Catalogue Data of</b><br><b>the Course</b> (Course<br>Content)                          | Beginner-level<br>Reading, writir   | English grammar and vocabulary knowledge<br>ng, listening, and speaking skills*/  |  |  |  |  |  |  |  |
| Supplementary<br>Textbooks         Open Mind- Elementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Open Mind- Elementary Workbook (Ingrid Wisniewska, Dorothy E. Zemach)           Credit (ECTS)         2 ECTS           Perrequisites for the<br>Course (Attendance<br>Requirements)         There is no prerequisite for this course.<br>Participation is compulsory.           Course Type         Compulsory         Instruction           Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.         Developing the ability to create simple written texts and communicate.<br>Developing the ability to ereate simple written texts and communicate.<br>Developing the ability to ereate simple written texts and communicate.<br>Developing the sality related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           Course Learning<br>Outcomes         The rid ability iters and the frequency of their activities can be expressed by asking and<br>answering questions.           A. Various places (chome, room, dormitory, city) can be described.         The time can be told and expressions related to time can be used.           Distance education<br>etc.         Introduction to the course and presenting orientation           Usature of the color<br>of the Course         Introduction to the course and presenting orientation           Z. Week         Introduction to the course and presenting orientation           Z. Week         Giving and asking persona  | Course Textbooks   | Open Mind- El<br>Mickey Rodge   | lementary Student's Book Pack<br>rs, Joanne Taylore-Knowles, Steve Taylore-Knowles  |  |  |  |  |  |  |  |
| Credit (ECTS)         2 ECTS           Prerequisites for this course.<br>Participation is compulsory.         There is no prerequisite for this course.<br>Participation is compulsory.           Course (Miendance<br>Requirements)         Compulsory           Language of<br>Instruction         Engish           Tourse Objectives         Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.           Developing the ability to create simple written texts and communicate.<br>Developing beginner-level reading skills and understanding daily conversations.<br>Developing beginner-level reading skills and understanding simple exts.<br>Gaining the ability to effectively communicate in daily life by combining speaking, listening,<br>reading, and writing skills and understanding simple exts.<br>Gaining the ability to effectively communicate in daily life by combining speaking.           Course Learning<br>Outcomes         1. Basic vocabulary related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           Course ducation<br>etc.         1. Merek         Introduction to the course and presenting orientation           Statuce active and to take diver, given, and directions can be provided.         1.           Instruction Method<br>(Face-to-face,<br>Distance education<br>etc.         2. Week         Giving and asking personal information such as name, age, nationality<br>the help of tycs/no questions, and talking in a polite way           3. Week  | Supplementary<br>Textbooks   | Open Mind- El<br>Open Mind- El  | lementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>lementary Workbook (Ingrid Wisniewska, Dorothy E. Zemach)  |  |  |  |  |  |  |  |
| Prerequisites for the<br>Course (Attendance<br>Requirements)         There is no prerequisite for this course.<br>Participation is compulsory.           Course Type         Compulsory           Language of<br>Instruction         English           Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.           Course Objectives         Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.           Course Objectives         Developing listening skills in a foreign language and understanding daily conversations.<br>Developing listening skills.           Developing listening stalls.         Instruction daily life by combining speaking, listening,<br>reading, and writing skills.           I.         Basic vocabulary related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           Ourse Learning<br>Outcomes         Their daily lives and the frequency of their activities can be expressed by asking and<br>answering questions.           A Various places (home, room, dormitory, city) can be described.         Their daily lives and the frequency of their activities can be used.           Being able to face         Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way           Being diving and asking perso   | Credit (ECTS)  | 2 ECTS  |   |  |  |  |  |  |  |  |
| Course Type         Compulsory           Language of<br>Instruction         English           Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.<br>Developing the ability to create simple written texts and communicate.<br>Developing beginner-level reading skills and understanding daily conversations.<br>Developing beginner-level reading skills and understanding simple texts.<br>Gaining the ability to effectively communicate in daily life by combining speaking, listening,<br>reading, and writing skills.           Course Learning<br>Outcomes         1. Basic vocabulary related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           2. Oneself and their family can be introduced.         3. Their daily lives and the frequency of their activities can be expressed by asking and<br>answering questions.           4. Various places (home, room, dormitory, city) can be described.         5. The time can be told and expressions related to time can be used.           5. Addresses can be asked for, given, and directions can be provided.         3. Week         Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way           3. Week         Giving and | <b>Prerequisites for the</b><br><b>Course</b> ( <i>Attendance</i><br><i>Requirements</i> ) | There is no pre<br>Participation is   | compulsory.   |  |  |  |  |  |  |  |
| Language of<br>Instruction         English           Course Objectives         Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.<br>Developing the ability to create simple written texts and communicate.<br>Developing listening skills in a foreign language and understanding daily conversations.<br>Developing the ability to effectively communicate in daily life by combining speaking, listening,<br>reading, and writing skills.           Course Learning<br>Outcomes         In Basic vocabulary.<br>Their daily lives and the frequency of their activities can be expressed by asking and<br>answering questions.<br>4. Various places (home, room, domitory, city) can be described.<br>5. The time can be told and expressions related to time can be used.<br>6. Addresses can be told and expressions related to time can be used.<br>6. Addresses can be asked for, given, and directions can be provided.           Instruction Method<br>(Frace-to-face,<br>Distance education<br>etc.)         Face to face<br>Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way<br>3. Week           Sweek         Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions and differentiating ordinal and cardinal numinal<br>4. Week           Sweek         Involving structures related to possessions to talk about family and<br>relative the help of we/no questions to discuss about free time<br>hobbies           7. Week         General Midterm Revision           8. Week         Asking and answering information questions to discuss about people's<br>hobbies.             | Course Type  | Compulsory  | npulsory  |  |  |  |  |  |  |  |
| Being able to meet basic communication needs encountered in daily life in a foreign language.<br>Being able to express oneself verbally using simple expressions, grammar structures, and<br>vocabulary.<br>Developing the ability to create simple written texts and communicate.<br>Developing interning skills in a foreign language and understanding daily conversations.<br>Developing interning skills and understanding simple texts.<br>Gaining the ability to effectively communicate in daily life by combining speaking, listening,<br>reading, and writing skills.           Course Learning<br>Outcomes         1. Basic vocabulary related to various themes (numbers, family, leisure activities, objects,<br>time, directions, and eco-friendly living) can be used when writing and speaking.           2. Oneself and their family can be introduced.         3. Their daily lives and the frequency of their activities can be expressed by asking and<br>answering questions.           4. Various places (home, room, dormitory, city) can be described.         5. The time can be told and expressions related to time can be used.           6. Addresses can be asked for, given, and directions can be provided.         1.           Instruction Method<br>(Face-to-face,<br>Distance education<br>etc.)         1. Week         Introduction to the course and presenting orientation           2. Week         Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions and differentiating ordinal and cardinal numl<br>4. Week           3. Week         Involving structures related to possessions to talk about family and relation<br>the help of wh- questions and differentiating ordinal and cardinal numl<br>4. Week           6. Week         Asking and answering                                  | Language of  | English   | ish   |  |  |  |  |  |  |  |
| 1.       Basic vocabulary related to various themes (numbers, family, leisure activities, objects, time, directions, and eco-friendly living) can be used when writing and speaking.         2.       Oneself and their family can be introduced.         3.       Their daily lives and the frequency of their activities can be expressed by asking and answering questions.         4.       Various places (home, room, dormitory, city) can be described.         5.       The time can be told and expressions related to time can be used.         6.       Addresses can be asked for, given, and directions can be provided.         Instruction Method (Face-to-face, Distance education etc.)         I. Week         9.       Weekly Schedule of the Course         4.       Week         9.       Week         1.       Meek         1.       Meek         1.       Meek         1.       Meek         1.       Meek   | Course Objectives  | Being able to n<br>Being able to<br>vocabulary.<br>Developing the<br>Developing list<br>Developing be<br>Gaining the ab<br>reading, and w                         | neet basic communication needs encountered in daily life in a foreign language.<br>express oneself verbally using simple expressions, grammar structures, and<br>e ability to create simple written texts and communicate.<br>tening skills in a foreign language and understanding daily conversations.<br>ginner-level reading skills and understanding simple texts.<br>ility to effectively communicate in daily life by combining speaking, listening,<br>riting skills.   |  |  |  |  |  |  |  |
| Instruction Method<br>(Face-to-face,<br>Distance education<br>etc.)       Face to face         I. Week       Introduction to the course and presenting orientation         2. Week       Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way         3. Week       Giving and asking personal information such as name, age, nationality<br>the help of wh- questions and differentiating ordinal and cardinal numl         4. Week       Describing people and organizations by using articles, and talking<br>members and occupations         5. Week       Involving structures related to possessions to talk about family and<br>nobbies         7. Week       General Midterm Revision         8. Week       Asking and answering information questions to discuss about people's<br>hobbies, and the things they like         9. Week       Telling the time and the frequency and sequence of people's activities  | Course Learning<br>Outcomes  | <ol> <li>Basic voca<br/>time, direc</li> <li>Oneself ar</li> <li>Their daily<br/>answering</li> <li>Various pl</li> <li>The time of</li> <li>Addresses</li> </ol> | abulary related to various themes (numbers, family, leisure activities, objects,<br>etions, and eco-friendly living) can be used when writing and speaking.<br>Ind their family can be introduced.<br>If y lives and the frequency of their activities can be expressed by asking and<br>questions.<br>Places (home, room, dormitory, city) can be described.<br>If y lives and expressions related to time can be used.<br>If y lives and expressions related to time can be used.<br>If y lives are asked for, given, and directions can be provided. |  |  |  |  |  |  |  |
| Weekly Schedule of<br>the Course1. WeekIntroduction to the course and presenting orientation2. WeekGiving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way3. WeekGiving and asking personal information such as name, age, nationality<br>the help of wh- questions and differentiating ordinal and cardinal numbers<br>and occupations4. WeekDescribing people and organizations by using articles, and talking<br>members and occupations5. WeekInvolving structures related to possessions to talk about family and<br>nebises6. WeekAsking and answering yes/no questions to discuss about free time<br>hobbies7. WeekGeneral Midterm Revision8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  | <b>Instruction Method</b><br>(Face-to-face,<br>Distance education<br>etc.)                 | Face to face  |   |  |  |  |  |  |  |  |
| Weekly Schedule of<br>the Course2. WeekGiving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite wayality<br>ality3. WeekGiving and asking personal information such as name, age, nationality<br>the help of wh- questions and differentiating ordinal and cardinal numbers<br>and occupationsnumbers<br>and organizations by using articles, and talking about<br>members and occupations4. WeekDescribing people and organizations by using articles, and talking<br>members and occupationsabout<br>members and occupations5. WeekInvolving structures related to possessions to talk about family and<br>hobbiesrelation<br>active<br>hobbies7. WeekGeneral Midterm Revisionactive<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  |  | 1. Week   | Introduction to the course and presenting orientation   |  |  |  |  |  |  |  |
| Weekly Schedule of<br>the Course3. WeekGiving and asking personal information such as name, age, nationality<br>the help of wh- questions and differentiating ordinal and cardinal<br>numbers and occupations4. WeekDescribing people and organizations by using articles, and talking<br>members and occupations5. WeekInvolving structures related to possessions to talk about family and<br>hobbies6. WeekAsking and answering yes/no questions to discuss about free time<br>hobbies7. WeekGeneral Midterm Revision8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities   |  | 2. Week   | Giving and asking personal information such as name, age, nationality<br>the help of yes/no questions, and talking in a polite way  |  |  |  |  |  |  |  |
| Weekly Schedule of<br>the Course4. WeekDescribing people and organizations by using articles, and talking<br>members and occupationsabove<br>members and occupations5. WeekInvolving structures related to possessions to talk about family and relation<br>hobbiesd relation6. WeekAsking and answering yes/no questions to discuss about free time<br>hobbiesactive<br>active7. WeekGeneral Midterm Revisionexternal members and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  |  | 3. Week   | Giving and asking personal information such as name, age, nationality<br>the help of wh- questions and differentiating ordinal and cardinal numb  |  |  |  |  |  |  |  |
| Weekly Schedule of<br>the Course5. WeekInvolving structures related to possessions to talk about family and relation6. WeekAsking and answering yes/no questions to discuss about free time<br>hobbiesactive<br>active7. WeekGeneral Midterm Revision8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  |  | 4. Week   | Describing people and organizations by using articles, and talking about members and occupations  |  |  |  |  |  |  |  |
| 6. WeekAsking and answering yes/no questions to discuss about free time<br>hobbiesactiv<br>hobbies7. WeekGeneral Midterm Revision8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  | Weekly Schedule of the Course  | 5. Week   | Involving structures related to possessions to talk about family and rela   |  |  |  |  |  |  |  |
| 7. WeekGeneral Midterm Revision8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities  |  | 6. Week   | Asking and answering yes/no questions to discuss about free time activ hobbies  |  |  |  |  |  |  |  |
| 8. WeekAsking and answering information questions to discuss about people's<br>hobbies, and the things they like9. WeekTelling the time and the frequency and sequence of people's activities   |  | 7. Week   | General Midterm Revision  |  |  |  |  |  |  |  |
| 9. Week Telling the time and the frequency and sequence of people's activities  |  | 8. Week   | Asking and answering information questions to discuss about people's hobbies, and the things they like  |  |  |  |  |  |  |  |
|   |  | 9. Week   | Telling the time and the frequency and sequence of people's activities  |  |  |  |  |  |  |  |

|   | 10           | <b>0. Week</b> Describing places and attractions, and skimming a reading text for the text for the text of the text for the text for the text of the text for the text of text |   |  |   |  |       |             | r the main i   |              |      |             |
|---|--------------|--|---|--|---|--|-------|-------------|--|--------------|------|-------------|
|   | 11           | . Week   | Asking an   | nd giving di   | rections and ch   | ecking   | unde  | ersta       | nding  | g            |      |             |
|   | 12           | Week   | Delineati   | ng different   | lifestyles, and   | talking  | aboi  | ut the      | e thir   | ngs h        | appe | ning at the |
|   | 12           | . week   | moment of   | of speaking  |   |  |       |             |  |              |      | _           |
|   | 13           | . Week   | Elaborati   | ng on a gree   | n lifestyle and   | distingu   | iishi | ing tl      | ne di  | ffere        | nce  | between     |
|   |              |  | permanen  | t routines an  | nd events at the  | e time o   | f spe | eakın       | ıg   |              |      |             |
|   | 14           | . Week   | General F   |  | on  |  |       |             |  |              |      |             |
| <b>—</b> • • • • •  | We<br>We     | ekly theoret   | ical course h<br>hours: 0   | iours: 2   |   |  |       |             |  |              |      |             |
| Teaching Activities<br>(The time spent for the  | Rea          | ding Activit   | ties: 1   |  |   |  |       |             |  |              |      |             |
| activities listed here  | Inte         | ernet browsu   | ng, lıbrary w<br>implementin  | vork: 0<br>o materials: 0  |   |  |       |             |  |              |      |             |
| will determine the  | Rep          | ort preparin   | ig: 0   | g materials. 0   |   |  |       |             |  |              |      |             |
| required)   | Pre          | paring a Pre   | sentation and   | d Presentations  | s 3   |  |       |             |  |              |      |             |
| 1 /   | Prej<br>Fina | paration of M<br>al Exam and   | Midterm and<br>Preparation  | for Final Exa  | m: 2<br>m: 2  |  |       |             |  |              |      |             |
|   |              |  | Treputation   | Number(s)  | \   | Weight (   | %)    |             |  |              |      |             |
|   |              | • •.   |   |  |   | 20   |       |             |  |              |      |             |
|   |              | dterm exam   | 1   | 1  |   | 30   |       |             |  |              |      |             |
|   | Ar           | oplication   |   |  |   |  |       |             |  |              |      |             |
| Assessment Criteria   | Pr           | oject  |   | 1  |   | 10   |       |             |  |              |      |             |
|   | Pra          | actice   |   | 2  |   | 20   |       |             |  |              |      |             |
|   | Fi           | nal exam   |   | 3  |   | $\frac{20}{40}$  |       |             |  |              |      |             |
|   | То           | otal   |   | -  |   | 100  |       |             |  |              |      |             |
|   |              |  |   |  | Number of   | Duratio  | n     | E           | nd of  | i -          |      |             |
|   |              |  | Activity  |  | Weeks   | (Weekl   | y S   | Semes<br>Wo | ster 'l<br>rklog                                     | l'otal<br>ad |      |             |
|   |              |  |   |  |   | IIVui)   | · .   |             | I KIU  | iu           |      |             |
|   |              | Weekly the   | eoretical cou   | rse hours  | 14  | 2  |       |             | 28   |              |      |             |
|   |              | Weekly the<br>Weekly pra   | eoretical cou   | rse hours<br>e hours   | 14  | 2  |       |             | 28   |              | -    |             |
|   |              | Weekly the<br>Weekly pra<br>Reading ac   | coretical counce<br>actical course<br>tivities  | rse hours<br>e hours   | 14<br>7   | 2  |       |             | 28<br>7  |              | -    |             |
|   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea   | eoretical cou<br>actical cours<br>tivities<br>arch and libr   | rse hours<br>e hours<br>ary work   | 14<br>7   | 2  |       |             | 28   |              | -    |             |
| Workload of the   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials   | coretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme  | rse hours<br>e hours<br>ary work<br>enting   | 14<br>7   | 2  |       |             | 28 7   |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r   | coretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport   | rse hours<br>e hours<br>ary work<br>enting   | 14<br>7   | 2  |       |             | 28   |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a  | coretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p   | rse hours<br>e hours<br>ary work<br>enting<br>presentations  | 14<br>7<br>1  | 2  |       |             | 28 7 3   |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar  | coretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>and revision f   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm   | 14<br>7<br>1<br>3   | 2<br>1<br>3<br>2   |       |             | 28<br>7<br>3<br>6                                    |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam  | coretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>and revision f   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final  | 14<br>7<br>1<br>3<br>3  | 2<br>1<br>3<br>2<br>2  |       |             | 28<br>7<br>3<br>6<br>6                               |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work  | coretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>ad revision f<br>and revision  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final  | 14<br>7<br>1<br>3<br>3  | 2<br>1<br>3<br>2<br>2  |       |             | 28<br>7<br>3<br>6<br>6<br>50                         |              | -    |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>Exam<br>Total work<br>Total work  | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>and revision<br>and revision<br>load<br>load/25  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final  | 14<br>7<br>1<br>3<br>3  | 2<br>1<br>3<br>2<br>2  |       |             | 28<br>7<br>3<br>6<br>6<br>50<br>50/25                |              |      |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre  | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>nd revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final  | 14<br>7<br>1<br>3<br>3  | 2<br>1<br>3<br>2<br>2  |       |             | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2           |              |      |             |
| Workload of the<br>Course   |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cree<br>No   | coretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>and revision<br>load<br>load/25<br>edit (ECTS)   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou  | 14<br>7<br>1<br>3<br>3  | 2<br>1<br>3<br>2<br>2<br>1   | 2     |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4           | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and                     |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>nd revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)   | rse hours e hours e hours ary work enting presentations or midterm n for final Program Ou knowledge in 1 pering subjects   | 14<br>7<br>1<br>3<br>3<br>tcomes<br>nathematics, scier<br>pertaining to the   | 2<br>1<br>3<br>2<br>2<br>2<br>nce                                      |       |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4           | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>and revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)<br>Adequate b<br>and engine<br>relevant di   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in r<br>cering subjects<br>ascipline; abilit  | 14<br>7<br>1<br>3<br>3<br>s<br>treates<br>nathematics, science<br>pertaining to the<br>y to use theoretics  | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al                           |       |             | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4      | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and impleme<br>eport<br>and making p<br>nd revision f<br>and revision<br>load<br>load/25<br>edit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie   | rse hours e hours e hours ary work enting presentations or midterm n for final Program Ou knowledge in n ering subjects iscipline; abilit d information  | 14<br>7<br>1<br>3<br>3<br>3<br>intcomes<br>mathematics, scier<br>pertaining to the<br>y to use theoretics<br>in these areas to  | 2<br>1<br>3<br>2<br>2<br>1<br>nce<br>al                                |       |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4           | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>and revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)<br>Adequate b<br>and engine<br>relevant di<br>and applie<br>model and  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>or midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>ascipline; abilit<br>d information<br>solve enginee   | 14<br>7<br>1<br>3<br>3<br>3<br>treases<br>pertaining to the<br>y to use theoretics<br>in these areas to<br>ring problems.   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al                           |       |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4      | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>nd revision f<br>and revision<br>load<br>load/25<br>edit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>complex e   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>or midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>iscipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro  | 14<br>7<br>1<br>3<br>3<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al<br>x                      | 2     |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4      | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1   | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>and revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)<br>Adequate b<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>or midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>ascipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro<br>apply proper a  | 14<br>7<br>1<br>3<br>3<br>3<br>4<br>5<br>7<br>1<br>7<br>1<br>3<br>3<br>3<br>1<br>3<br>5<br>7<br>1<br>3<br>3<br>1<br>7<br>1<br>3<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>1<br>3<br>1<br>3   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al                           |       |             | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4<br>4 | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Course Cre<br>No<br>1<br>2  | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>nd revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and<br>modeling p   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>or midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>iscipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro<br>apply proper a<br>methods for th<br>design a comp                     | 14<br>7<br>1<br>3<br>3<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1  | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al<br>x                      | 2     | 3           | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4      | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1<br>2<br>2<br>3  | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>and revision f<br>and revision<br>load<br>load/ 25<br>edit (ECTS)<br>Adequate b<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and<br>modeling p  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>ascipline; abilit<br>d information<br>solve enginee<br>identify, formungineering pro<br>apply proper a<br>methods for the<br>design a comport<br>product under n | 14         7         1         3         3         3         utcomes         mathematics, science         pertaining to the         y to use theoretics         in these areas to         ring problems.         ulate, and solve         blems; ability to         nalysis and         is purpose.         lex system, procest         realistic constrain | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al<br>x<br>ss, x<br>ts       |       | 3           | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4<br>4 | 5            |      |             |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes |              | Weekly the<br>Weekly pra<br>Reading ac<br>Internet sea<br>Designing a<br>materials<br>Making a r<br>Preparing a<br>Midterm ar<br>Final exam<br>Total work<br>Total work<br>Course Cre<br>No<br>1<br>2<br>2<br>3  | eoretical course<br>actical course<br>tivities<br>arch and libr<br>and implement<br>eport<br>and making p<br>ind revision f<br>and revision<br>load<br>load/25<br>edit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and<br>modeling p<br>Ability to<br>and course<br>select and | rse hours e hours e hours ary work enting presentations or midterm n for final Program Ou knowledge in n ering subjects scipline; abilit d information solve enginee identify, formu ngineering pro apply proper a methods for th design a comp product under n ions, in such a                                  | 14<br>7<br>1<br>3<br>3<br>3<br>4<br>5<br>7<br>1<br>3<br>3<br>3<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al<br>x<br>ss, x<br>ts<br>ne | 2     |             | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4      | 5            |      |             |

|                     |         | methods for this purpose.                      |   |  |      |  |
|---------------------|---------|--|---|--|------|--|
|                     | 4       | Ability to develop, select and use modern      |   |  |      |  |
|                     |         | techniques and tools necessary for analysis    |   |  |      |  |
|                     |         | and solution of complex problems in            |   |  |      |  |
|                     |         | engineering applications; ability to use       |   |  |      |  |
|                     |         | information technologies effectively.          |   |  |      |  |
|                     | 5       | Ability to design and conduct experiments,     |   |  |      |  |
|                     |         | gather data, analyze and interpret results for |   |  |      |  |
|                     |         | examination of engineering problems or         |   |  |      |  |
|                     |         | discipline-specific research topics.           |   |  |      |  |
|                     | 6       | Ability to work efficiently in intra-          | x |  |      |  |
|                     |         | disciplinary teams.                            |   |  |      |  |
|                     | 7       | Ability to work efficiently in multi-          |   |  |      |  |
|                     |         | disciplinary teams.                            |   |  |      |  |
|                     | 8       | Ability to communicate effectively in          | x |  |      |  |
|                     |         | Turkish, both orally and in writing;           |   |  |      |  |
|                     |         | knowledge of a minimum of one foreign          |   |  |      |  |
|                     |         | language.                                      |   |  |      |  |
|                     | 9       | Ability to write effective reports and         | x |  |      |  |
|                     |         | understand written reports, to prepare design  |   |  |      |  |
|                     |         | and production reports, to make effective      |   |  |      |  |
|                     |         | presentations, to give clear and               |   |  |      |  |
|                     |         | understandable instructions and to receive.    |   |  |      |  |
|                     | 10      | Recognition of the need for lifelong learning; | x |  |      |  |
|                     |         | ability to access information, to follow       |   |  |      |  |
|                     |         | developments in science and technology, and    |   |  |      |  |
|                     |         | to continue to educate him/herself.            |   |  |      |  |
|                     |         |  |   |  | <br> |  |
|                     | 11      | Conformity to ethical principles, professional |   |  |      |  |
|                     |         | and ethical responsibility; Information on     |   |  |      |  |
|                     |         | standards used in engineering applications.    |   |  |      |  |
|                     | ~ 11    |  |   |  |      |  |
| Lecturer(s) and     | College | e of Foreign Languages Members                 |   |  |      |  |
| Contact Information | ydyo@   | gaz1.edu.tr                                    |   |  |      |  |
|                     |         |  |   |  |      |  |
|                     |         |  |   |  |      |  |

|                       | Program<br>Outcome1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcom<br>e 8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------|---------------------|----------------------|----------------------|
| TOTAL                 |                     | 1                   | 1                   |                     |                     | 1                   |                     | 1                        | 1                   | 1                    |                      |
| Learning<br>outcome 1 |                     |                     |                     |                     |                     |                     |                     |                          | 1                   |                      |                      |
| Learning<br>outcome 2 |                     |                     |                     |                     |                     |                     |                     | 1                        |                     |                      |                      |
| Learning<br>outcome 3 |                     |                     | 1                   |                     |                     |                     |                     |                          |                     |                      |                      |
| Learning<br>outcome 4 |                     |                     |                     |                     |                     | 1                   |                     |                          |                     |                      |                      |
| Learning<br>outcome 5 |                     | 1                   |                     |                     |                     |                     |                     |                          |                     |                      |                      |
| Learning<br>outcome 6 |                     |                     |                     |                     |                     |                     |                     |                          |                     | 1                    |                      |

# Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

|  |  | COURSE DESCRIPTION FORM  |  |  |  |  |
|--|--|--|--|--|--|--|
| Course Code and<br>Name  | ENG102 ENG   | LISH 2   |  |  |  |  |
| Course Semester  | 2  |  |  |  |  |  |
| <b>Catalogue Data of</b><br><b>the Course</b> (Course<br>Content)          | At the beginne<br>Reading, writin  | r level, English grammar and vocabulary knowledge<br>ng, listening, and speaking skills  |  |  |  |  |
| Course Textbooks   | Open Mind- E<br>Mickey Rodge   | lementary Student's Book Pack<br>rs, Joanne Taylore-Knowles, Steve Taylore-Knowles   |  |  |  |  |
| Supplementary<br>Textbooks   | Open Mind- E<br>Open Mind- E   | lementary Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>lementary Workbook (Ingrid Wisniewska, Dorothy E. Zemach)   |  |  |  |  |
| Credit (ECTS)  | 2 ECTS   |  |  |  |  |  |
| <b>Prerequisites for the</b><br><b>Course</b> (Attendance<br>Requirements) | There is no pro<br>Participation is  | erequisite for this course.<br>s compulsory.   |  |  |  |  |
| Course Type  | Compulsory   |  |  |  |  |  |
| Language of<br>Instruction   | English  |  |  |  |  |  |
| Course Objectives  | Being able to r<br>Being able to e<br>Being able to e<br>Developing be   | neet daily life needs in a foreign language.<br>express oneself verbally using simple expressions.<br>express oneself in writing using grammatical structures correctly.<br>ginner-level listening, speaking, reading, and writing skills. |  |  |  |  |
| Course Learning<br>Outcomes  | <ol> <li>Various words related to personality, clothing, food, technology, hobbies, habits, and activities are used when writing and speaking.</li> <li>Expresses skills.</li> <li>Expresses past experiences and future plans by writing and speaking.</li> <li>Makes comparisons.</li> <li>Orders at a restaurant and comments on menus.</li> <li>Uses necessary expressions for inviting, suggesting, and expressing obligation.</li> </ol> |  |  |  |  |  |
| Instruction Method<br>(Face-to-face,<br>Distance education<br>etc.)        | Face to face   |  |  |  |  |  |
| Weekly Schedule of   | 1. Week  | Describing people's personality, and grasping the main idea of texts   |  |  |  |  |
| the Course   | 2. Week  | Expressing abilities and using vocabulary related to talents and abilities   |  |  |  |  |
|  | 3. Week  | Integrating adverbs of manner to describe actions and showing interest in conversations  |  |  |  |  |
|  | 4. Week  | Identifying clothes, demonstrating items, and depicting gadgets  |  |  |  |  |
|  | 5. Week  | Making comparison and writing compound sentences   |  |  |  |  |
|  | 6. Week  | Distinguishing different types of food and expressing their amounts, and discerning formal informal phone conversations  |  |  |  |  |
|  | 7. Week  | General Midterm Revision   |  |  |  |  |
|  | 8. Week  | Interpreting menus to order in a restaurant and applying phrases for invitations, suggestions obligations  |  |  |  |  |
|  | 9. Week  | Describing events which happened in the past, and talking about feelings and states by usin adjectives   |  |  |  |  |
|  | 10. Week   | Asking and answering questions about past, and talking about experiences by using verb collocations  |  |  |  |  |
|  | 11. Week   | Discussing about key events in people's lives, talking about past events in an order, and sca texts for specific information   |  |  |  |  |
|  | 12. Week   | Describing people's lives with object pronouns and using filler phrases during conversation  |  |  |  |  |

|  |  | take time   |  |   |   |   |             |           |
|--|--|---|--|---|---|---|-------------|-----------|
|  | 13. Week   | Stating futu<br>activities  | are plans and a  | rrangements and   | ascertaining  | g main i  | dea of list | ening and |
|  | 14. Week   | General Fir   | nal Revision   |   |   |   |             |           |
| Teaching Activities<br>(The time spent for the<br>activities listed here<br>will determine the<br>amount of credit<br>required)<br>Assessment Criteria | 14. WeekWeekly theorWeekly tutoriReading ActiviInternet browDesigning andReport prepariPreparing a PPreparation oFinal Exam andMidterm exampleAssignmentApplicationProjectPracticeQuiz | General Fin<br>etical course h<br>al hours: 0<br>vities: 1<br>sing, library w<br>d implementin<br>ring: 0<br>resentation an<br>f Midterm and<br>nd Preparation                  | nal Revision<br>nours: 2<br>york: 0<br>ng materials: 0<br>d Presentations<br>Midterm Exan<br>for Final Exan<br><b>Number(s)</b>  | s 3<br>m: 2<br>m: 2   | Weight (%<br>30<br>10<br>20   | )   |             |           |
|  | Final exam   |   | 1  |   | 40  |   |             |           |
|  |  | Activity  |  | Number of<br>Weeks  | Duration<br>(Weekly<br>Hour)  | 100urationEnd ofWeeklySemester TotHour)Workload |             |           |
|  | Weekly t   | heoretical cou  | rse hours  | 14  | 2   |   | 28          |           |
|  | Weekly p   | practical cours   | e hours  |   |   |   |             |           |
|  | Reading  | activities  |  | 7   | 1   |   | 7           |           |
| Workload of the<br>Course  | Designin<br>materials  | earch and libr<br>g and impleme   | ary work<br>enting   |   |   |   |             |           |
|  | Dranamin   | and making a  | presentations  | 1   | 2   |   | 3           | -         |
|  | Midterm  | and revision f  | for midterm  | 3   | 2   |   | <u> </u>    | -         |
|  | Final exam   | m and revision  | n for final  | 3   | 2   |   | 6           |           |
|  | Total wo   | rkload  |  |   |   |   | 50          |           |
|  | Total wo   | rkload/ 25  |  |   |   |   | 50/25       |           |
|  | Course C   | redit (ECTS)  |  |   |   |   | 2           |           |
| Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes   | <u>No</u><br>1<br>2<br>3   | Adequate<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>complex e<br>select and<br>modeling<br>Ability to<br>device or p<br>and condit<br>desired res | Program Ou<br>knowledge in 1<br>eering subjects<br>iscipline; abilit<br>d information<br>l solve enginee<br>identify, formung<br>ineering pro<br>apply proper a<br>methods for the<br>design a comp<br>product under t<br>tions, in such a<br>sult; ability to a | atcomes<br>mathematics, scie<br>pertaining to the<br>y to use theoretic.<br>in these areas to<br>ring problems.<br>allate, and solve<br>blems; ability to<br>nalysis and<br>is purpose.<br>lex system, proce<br>realistic constrain<br>way as to meet the<br>apply modern des | 1       nce       al       x       sss,       ts       he       ign | 2 3   | 4 5         |           |
|  | 4  | methods for<br>Ability to<br>techniques<br>and solution<br>engineering  | or this purpose<br>develop, select<br>s and tools nece<br>on of complex<br>ag applications;  | t and use modern<br>essary for analysi<br>problems in<br>; ability to use   | s   |   |             |           |

|                     |         | information technologies effectively.          |   |  |      |  |
|---------------------|---------|--|---|--|------|--|
|                     | 5       | Ability to design and conduct experiments,     |   |  |      |  |
|                     |         | gather data, analyze and interpret results for |   |  |      |  |
|                     |         | examination of engineering problems or         |   |  |      |  |
|                     |         | discipline-specific research topics.           |   |  |      |  |
|                     | 6       | Ability to work efficiently in intra-          | х |  |      |  |
|                     |         | disciplinary teams.                            |   |  |      |  |
|                     | 7       | Ability to work efficiently in multi-          |   |  |      |  |
|                     |         | disciplinary teams.                            |   |  |      |  |
|                     | 8       | Ability to communicate effectively in          | х |  |      |  |
|                     |         | Turkish, both orally and in writing;           |   |  |      |  |
|                     |         | knowledge of a minimum of one foreign          |   |  |      |  |
|                     |         | language.                                      |   |  |      |  |
|                     | 9       | Ability to write effective reports and         | х |  |      |  |
|                     |         | understand written reports, to prepare design  |   |  |      |  |
|                     |         | and production reports, to make effective      |   |  |      |  |
|                     |         | presentations, to give clear and               |   |  |      |  |
|                     |         | understandable instructions and to receive.    |   |  |      |  |
|                     | 10      | Recognition of the need for lifelong learning; | х |  |      |  |
|                     |         | ability to access information, to follow       |   |  |      |  |
|                     |         | developments in science and technology, and    |   |  |      |  |
|                     |         | to continue to educate him/herself.            |   |  |      |  |
|                     |         |  |   |  | <br> |  |
|                     | 11      | Conformity to ethical principles, professional | х |  |      |  |
|                     |         | and ethical responsibility; Information on     |   |  |      |  |
|                     |         | standards used in engineering applications.    |   |  |      |  |
|                     |         |  |   |  |      |  |
| Lecturer(s) and     | College | e of Foreign Languages Members                 |   |  |      |  |
| Contact Information | ydyo@   | gazı.edu.tr                                    |   |  |      |  |
|                     |         |  |   |  |      |  |
|                     |         |  |   |  |      |  |

|                          | Program<br>Outcome<br>1 | Program<br>Outcome2 | Program<br>Outcome<br>3 | Program<br>Outcome4 | Program<br>Outcome<br>5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome<br>9 | Program<br>Outcome10 | Program<br>Outcome11 |
|--------------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|---------------------|-------------------------|-------------------------|----------------------|----------------------|
| TOTAL                    |                         | 1                   |                         |                     |                         | 1                   |                     | 1                       | 1                       | 1                    | 1                    |
| Learning                 |                         |                     |                         |                     |                         |                     |                     |                         | 1                       |                      |                      |
| outcome<br>1             |                         |                     |                         |                     |                         |                     |                     |                         |                         |                      |                      |
| Learning<br>outcome<br>2 |                         |                     |                         |                     |                         |                     |                     | 1                       |                         |                      |                      |
| Learning<br>outcome<br>3 |                         |                     |                         |                     |                         |                     |                     |                         |                         |                      | 1                    |
| Learning<br>outcome<br>4 |                         | 1                   |                         |                     |                         |                     |                     |                         |                         |                      |                      |
| Learning<br>outcome<br>5 |                         |                     |                         |                     |                         | 1                   |                     |                         |                         |                      |                      |
| Learning<br>outcome<br>6 |                         |                     |                         |                     |                         |                     |                     |                         |                         | 1                    |                      |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

|  |  | COURSE DESCRIPTION FORM   |            |  |  |  |  |  |  |  |  |
|--|--|---|------------|--|--|--|--|--|--|--|--|
| Course Code and<br>Name  | ENG201 ENG   | LISH 3  |            |  |  |  |  |  |  |  |  |
| Course Semester  | 3  |   |            |  |  |  |  |  |  |  |  |
| <b>Catalogue Data of</b><br><b>the Course</b> (Course<br>Content)                          | Intermediate le<br>Reading, listen   | ermediate level English grammar, vocabulary, and writing knowledge<br>ading, listening, and speaking skills   |            |  |  |  |  |  |  |  |  |
| Course Textbooks   | Open Mind- Pr<br>Mickey Rodger   | e-Intermediate Student's Book Pack<br>rs, Joanne Taylore-Knowles, Steve Taylore-Knowles   |            |  |  |  |  |  |  |  |  |
| Supplementary<br>Textbooks   | Open Mind- Pr<br>Open Mind- Pr   | ben Mind- Pre-intermediate Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>ben Mind- Pre-Intermediate Workbook (Ingrid Wisniewska, Dorothy E. Zemach)  |            |  |  |  |  |  |  |  |  |
| Credit (ECTS)  | 2 ECTS   |   |            |  |  |  |  |  |  |  |  |
| <b>Prerequisites for the</b><br><b>Course</b> ( <i>Attendance</i><br><i>Requirements</i> ) | There is no pre<br>Participation is  | requisite for this course.<br>compulsory.   |            |  |  |  |  |  |  |  |  |
| Course Type  | Compulsory   |   |            |  |  |  |  |  |  |  |  |
| Language of<br>Instruction   | English  |   |            |  |  |  |  |  |  |  |  |
| Course Objectives  | Developing the skill of effective communication in a foreign language<br>Enhancing the ability to express ideas and opinions in a foreign language within the<br>framework of cultural appropriateness<br>Ensuring the ability to use grammatical structures correctly by improving written and spoken<br>communication skills<br>Enhancing the ability to use a wide range of vocabulary at the specified level<br>Providing the ability to apply listening, speaking, reading, and writing skills at an intermediate |   |            |  |  |  |  |  |  |  |  |
| Course Learning<br>Outcomes  | <ol> <li>Requests p</li> <li>Expresses</li> <li>Initiates an</li> <li>Describes</li> <li>Asks and a</li> <li>Engages in<br/>travel, hou</li> </ol>   | bermission, makes requests, and responds to them.<br>ideas, feelings, and experiences on various topics.<br>and concludes mutual conversation in different situations.<br>various places and objects.<br>answers questions about an event related to the past.<br>an speaking and writing by making comparisons on various topics (film, music,<br>isehold chores). |            |  |  |  |  |  |  |  |  |
| Instruction Method<br>(Face-to-face,<br>Distance education<br>etc.)                        | Face to face   |   |            |  |  |  |  |  |  |  |  |
|  | 1. Week  | Talking about cultural trends and important events  |            |  |  |  |  |  |  |  |  |
|  | 2. Week  | Asking and answering questions about people's lives during a specific period i  | n the past |  |  |  |  |  |  |  |  |
|  | 3. Week  | Writing about an important event in the past  |            |  |  |  |  |  |  |  |  |
|  | 4. Week  | Expressing opinions and talking about cultural activities   |            |  |  |  |  |  |  |  |  |
| the Course   | 5. Week  | Talking about a film by making comparisons and writing about a famous cultu   | al icon    |  |  |  |  |  |  |  |  |
|  | 6. Week  | Talking about travel  |            |  |  |  |  |  |  |  |  |
|  | 7. Week  | Midterm General Revision  |            |  |  |  |  |  |  |  |  |
|  | 8. Week  | Asking for permission, making requests, and responding to them  |            |  |  |  |  |  |  |  |  |
|  | 9. Week  | Expressing experiences, opinions, and feelings  |            |  |  |  |  |  |  |  |  |

|  | 10. Wee  | Week Describing important life changes and experiences  |  |   |  |  |         |   |                  |                |  |  |  |  |
|--|--|---|--|---|--|--|---------|---|------------------|----------------|--|--|--|--|
|  | 11. Wee  | ek  | Describing   | types of music  | and giving opini   | ons about r  | nusic a | ind ma  | king predi       | ctions about a |  |  |  |  |
|  | 12 Wa  | ••••  | reading text   | t<br>out homes and  | household chores   |  |         |   |                  | -              |  |  |  |  |
|  | 12. wee  | ek  | Writing ton  | vic sentences fo  | nousenoid enoice   |  |         |   |                  | -              |  |  |  |  |
|  | 13. Wee  | ek  | Final Gana   | ral Devision  |  |  |         |   |                  | _              |  |  |  |  |
|  | 14. Wee  | ek  |  |   |  |  |         |   |                  | _              |  |  |  |  |
| <b>Teaching Activities</b><br>(The time spent for the<br>activities listed here<br>will determine the<br>amount of credit<br>required) | Weekly t<br>Weekly t<br>Reading<br>Internet b<br>Designin<br>Report p<br>Preparing<br>Preparati<br>Final Exa | kly theoretical course hours: 2<br>kly tutorial hours: 0<br>ding Activities: 1<br>met browsing, library work: 0<br>igning and implementing materials: 0<br>ort preparing: 0<br>paring a Presentation and Presentations 3<br>paration of Midterm and Midterm Exam: 2<br>l Exam and Preparation for Final Exam: 2   |  |   |  |  |         |   |                  |                |  |  |  |  |
|  |  |   | 1  | Number(s)   |  | Weight (%  | )       |   |                  |                |  |  |  |  |
|  | Midtern  | n avam  |  | 1   |  | 30   |         |   |                  |                |  |  |  |  |
|  | Assignn  | nent  |  | 1   |  | 30   |         |   |                  |                |  |  |  |  |
| Assessment Criteria  | Applica  | tion  |  |   |  |  |         |   |                  |                |  |  |  |  |
|  | Project  |   |  | 1   |  | 10   |         |   |                  |                |  |  |  |  |
|  | Ouiz   | •   |  | 3   |  | 20   |         |   |                  |                |  |  |  |  |
|  | Final ex   | am  |  | 1   |  | 40   |         |   |                  |                |  |  |  |  |
|  | Total  |   |  |   |  | 100  | 1       |   |                  | _              |  |  |  |  |
|  |  |   | Activity   |   | Number of<br>Weeks   | Duration<br>(Weekly<br>Hour)                               | Sen     | End o<br>lester [<br>Vorklo                     | f<br>Fotal<br>ad |                |  |  |  |  |
|  |  |   |  |   |  |  |         |   |                  |                |  |  |  |  |
|  | Wee  | ekly theo   | oretical cou   | rse hours   | 14   | 2  |         | 28  |                  |                |  |  |  |  |
|  | Wee<br>Wee   | ekly theo<br>ekly prac  | oretical coursection of the second se | rse hours<br>e hours  | 14   | 2  |         | 28  |                  |                |  |  |  |  |
|  | Wee<br>Wee<br>Read   | ekly theo<br>ekly prac<br>ding act  | oretical cou<br>ctical cours<br>ivities  | rse hours<br>e hours  | 14<br>7  | 2  |         | 28  |                  |                |  |  |  |  |
|  | Wee<br>Wee<br>Read<br>Inter  | ekly theo<br>ekly prao<br>ding act<br>rnet sear   | oretical course<br>ctical course<br>ivities<br>rch and libr  | rse hours<br>e hours<br>ary work  | 14<br>7  | 2  |         | 28  |                  |                |  |  |  |  |
| Workload of the  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate  | ekly theo<br>ekly prae<br>ding act<br>rnet sear<br>igning a<br>erials   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and impleme   | rse hours<br>e hours<br>ary work<br>enting  | 14<br>7  | 2  |         | 28  |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and impleme<br>port   | rse hours<br>e hours<br>ary work<br>enting  | 14<br>7  | 2  |         | <u>    28                                </u>   |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>paring a   | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p  | rse hours<br>e hours<br>ary work<br>enting<br>presentations   | 14<br>7<br>1   | 2  |         | 28<br>7<br>3                                    |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Reac<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midt  | ekly theo<br>ekly pra-<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>paring an<br>term an  | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and impleme<br>port<br>nd making p<br>d revision f  | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm  | 14<br>7<br>1<br>3  | 2<br>1<br>3<br>2   |         | 28<br>7<br>3<br>6                               |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Mida<br>Fina                                   | ekly theo<br>ekly prace<br>ding act<br>rnet sean<br>igning a<br>erials<br>ting a re<br>paring an<br>term an<br>il exam  | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and implement<br>eport<br>nd making p<br>d revision f<br>and revision   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final   | 14<br>7<br>1<br>3<br>3   | 2<br>1<br>3<br>2<br>2                                      |         | 28<br>7<br>3<br>6<br>6                          |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midt<br>Fina<br>exan<br>Tota                   | ekly theo<br>ekly prace<br>ding act<br>rrnet sear<br>igning a<br>erials<br>ting a re<br>paring ar<br>term and<br>term and<br>term and<br>t exam<br>n  | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and impleme<br>eport<br>nd making I<br>d revision f<br>and revision   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final   | 14<br>7<br>1<br>3<br>3   | 2<br>1<br>3<br>2<br>2                                      |         | 28<br>7<br>3<br>6<br>6<br>50                    |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midu<br>Fina<br>exan<br>Tota                          | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>paring an<br>term an<br>al exam<br>n<br>al workle<br>al workle   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and impleme<br>eport<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final   | 14<br>7<br>1<br>3<br>3   | 2<br>1<br>3<br>2<br>2                                      |         | 28<br>7<br>3<br>6<br>6<br>50<br>50/25           |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cour   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>paring ar<br>term an<br>il exam<br>n<br>il workl-<br>il workl-<br>rse Crec   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/25<br>dit (ECTS)   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final   | 14<br>7<br>1<br>3<br>3   | 2<br>1<br>3<br>2<br>2                                      |         | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2      |                  |                |  |  |  |  |
| Workload of the<br>Course  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midt<br>Fina<br>exan<br>Tota<br>Tota<br>Cour   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a rec<br>varing an<br>term an-<br>il exam<br>al workle<br>al workle<br>rse Crece<br>No   | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and impleme<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)  | rse hours e hours ary work enting presentations for midterm n for final Program Ou  | 14<br>7<br>1<br>3<br>3<br>1<br>1<br>3  | 2<br>1<br>3<br>2<br>2                                      |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4      | 5                | _              |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and  | WeeWeeReadInterDesimateMakPrepMiddFinaexamTotaTotaCound1   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a ree<br>paring an<br>term an<br>al exam<br>al workl-<br>al workl-<br>rse Crece<br>No<br>1   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/25<br>dit (ECTS)<br>Adequate<br>and engine   | rse hours e hours e hours ary work enting presentations or midterm n for final Program Ou knowledge in n pering subjects  | 14<br>7<br>1<br>3<br>3<br>utcomes<br>mathematics, scie   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce                     | 2 3     | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4 | 5                | _              |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midt<br>Fina<br>exan<br>Tota<br>Tota<br>Cour   | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re-<br>varing ar<br>term an-<br>il exam<br>al workl-<br>n<br>al workl-<br>rse Cree<br>No<br>1  | oretical cours<br>ctical cours<br>civities<br>rch and libr<br>and impleme<br>cport<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di   | rse hours e hours e hours ary work enting presentations or midterm n for final Program Ou knowledge in n cering subjects ascipline; abilit  | 14       7       1       3       3       intcomes       mathematics, scie       pertaining to the       y to use theoretical   | 2<br>1<br>3<br>2<br>2<br>1<br>nce<br>al                    |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4      | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cour          | ekly theo<br>ekly prace<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a ree<br>paring an<br>term and<br>a workle<br>al workle<br>al workle<br>rse Cree<br>No<br>1  | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and impleme<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>scipline; abilit<br>d information   | 14<br>7<br>1<br>3<br>3<br>3<br>itcomes<br>mathematics, scie<br>pertaining to the<br>y to use theoretics<br>in these areas to   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al               |         | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4 | 5                | _              |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midt<br>Fina<br>exan<br>Tota<br>Tota<br>Cour          | ekly theo<br>ekly prad<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>paring ar<br>term an-<br>il exam<br>al workl-<br>n<br>d workl-<br>rse Crece<br>No<br>1  | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and   | rse hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>iscipline; abilit<br>d information<br>solve enginee<br>identify, form   | 14<br>7<br>1<br>3<br>3<br>3<br>ttcomes<br>mathematics, scie<br>pertaining to the<br>y to use theoretics<br>in these areas to<br>ring problems.<br>llate, and solve   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al               |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4      | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Coun          | ekly theo<br>ekly prad<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a ree<br>varing an<br>term an<br>al workle<br>al workle<br>al workle<br>rse Cree<br>No<br>1   | oretical course<br>ctical course<br>ivities<br>rch and libr<br>and impleme<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applice<br>model and<br>Ability to<br>complex en   | rse hours<br>e hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>iscipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro   | 14         7         1         3         3         itcomes         mathematics, scie         pertaining to the         y to use theoretics         in these areas to         ring problems.         ilate, and solve         blems; ability to   | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al               |         | 28<br>7<br>3<br>6<br>6<br>50<br>50/25<br>2<br>4 | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cou           | ekly theo<br>ekly prad<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a re<br>aring ar<br>term an-<br>il exam<br>al workl-<br>n<br>d workl-<br>rse Crece<br>No<br>1   | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>complex en<br>select and   | rse hours<br>e hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>cering subjects<br>scipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro<br>apply proper a  | 14         7         1         3         3         atcomes         mathematics, scie         pertaining to the         y to use theoretics         in these areas to         ring problems.         ilate, and solve         blems; ability to         nalysis and   | 2<br>1<br>3<br>2<br>2<br>1<br>1<br>nce<br>al               |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4      | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cour          | ekly theo<br>ekly prad<br>ding act<br>rnet sear<br>igning a<br>erials<br>ting a ree<br>varing an<br>term an<br>al workle<br>al | oretical cours<br>ctical cours<br>ctivities<br>rch and libr<br>and implement<br>port<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and<br>modeling r   | rse hours<br>e hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>erring subjects<br>iscipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro<br>apply proper a<br>methods for th<br>design a comp  | 14         7         1         3         3         3         itcomes         mathematics, scie         pertaining to the         y to use theoretics         in these areas to         ring problems.         ilate, and solve         blems; ability to         nalysis and         is purpose.         lex system proce  | 2<br>1<br>3<br>2<br>2<br>2<br>1<br>nce<br>al               |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4 | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cou           | ekly theorements the search of  | oretical cours<br>ctical cours<br>ivities<br>rch and libr<br>and implement<br>port<br>nd making p<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate l<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>complex ensistent<br>select and<br>modeling p   | rse hours<br>e hours<br>e hours<br>ary work<br>enting<br>presentations<br>for midterm<br>n for final<br>Program Ou<br>knowledge in n<br>eering subjects<br>scipline; abilit<br>d information<br>solve enginee<br>identify, formu<br>ngineering pro<br>apply proper a<br>methods for th<br>design a comp<br>product under n                        | 14         7         1         3         3         a         3         blems; access to ring problems.         ilate, and solve         blems; ability to nalysis and is purpose.         lex system, proce         realistic constrain  | 2<br>1<br>3<br>2<br>2<br>1<br>nce<br>al<br>ss, ts          |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4 | 5                |                |  |  |  |  |
| Workload of the<br>Course<br>Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes                                  | Wee<br>Read<br>Inter<br>Desi<br>mate<br>Mak<br>Prep<br>Midd<br>Fina<br>exan<br>Tota<br>Tota<br>Cour<br>I     | ekly theorements the search of  | oretical cours<br>ctical cours<br>civities<br>rch and libr<br>and implement<br>port<br>d revision f<br>and revision<br>oad<br>oad/ 25<br>dit (ECTS)<br>Adequate I<br>and engine<br>relevant di<br>and applie<br>model and<br>Ability to<br>select and<br>modeling to<br>Ability to<br>device or p<br>and condit  | rse hours<br>e hours<br>e hours<br>ary work<br>enting<br>presentations<br>or midterm<br>n for final<br>Program Ou<br>knowledge in the<br>ering subjects<br>iscipline; abilit<br>d information<br>isolve enginee<br>identify, formungineering pro<br>apply proper a<br>methods for the<br>design a comport<br>product under the<br>ions, in such a | 14         7         1         3         3         3         itcomes         mathematics, scie         pertaining to the         y to use theoretics         in these areas to         ring problems.         ilate, and solve         blems; ability to         nalysis and         is purpose.         lex system, proce         realistic constrain         way as to meet th | 2<br>1<br>3<br>2<br>2<br>1<br>nce<br>al<br>ss,<br>ts<br>ne |         | 28<br>7<br>3<br>6<br>50<br>50/25<br>2<br>4<br>4 | 5                |                |  |  |  |  |

|                            |     | methods for this purpose.                      |   |  |  |
|----------------------------|-----|--|---|--|--|
|                            | 4   | Ability to develop, select and use modern      | Í |  |  |
|                            |     | techniques and tools necessary for analysis    | Í |  |  |
|                            |     | and solution of complex problems in            | Í |  |  |
|                            |     | engineering applications; ability to use       | Í |  |  |
|                            |     | information technologies effectively.          |   |  |  |
|                            | 5   | Ability to design and conduct experiments,     | Í |  |  |
|                            |     | gather data, analyze and interpret results for | Í |  |  |
|                            |     | examination of engineering problems or         | Í |  |  |
|                            |     | discipline-specific research topics.           |   |  |  |
|                            | 6   | Ability to work efficiently in intra-          |   |  |  |
|                            |     | disciplinary teams.                            |   |  |  |
|                            | 7   | Ability to work efficiently in multi-          | x |  |  |
|                            |     | disciplinary teams.                            |   |  |  |
|                            | 8   | Ability to communicate effectively in          | x |  |  |
|                            |     | Turkish, both orally and in writing;           | Í |  |  |
|                            |     | knowledge of a minimum of one foreign          | Í |  |  |
|                            |     | language.                                      |   |  |  |
|                            | 9   | Ability to write effective reports and         | x |  |  |
|                            |     | understand written reports, to prepare design  | Í |  |  |
|                            |     | and production reports, to make effective      | Í |  |  |
|                            |     | presentations, to give clear and               | Í |  |  |
|                            |     | understandable instructions and to receive.    |   |  |  |
|                            | 10  | Recognition of the need for lifelong learning; | Í |  |  |
|                            |     | ability to access information, to follow       | Í |  |  |
|                            |     | developments in science and technology, and    | Í |  |  |
|                            |     | to continue to educate him/herself.            | Í |  |  |
|                            |     |  |   |  |  |
|                            | 11  | Conformity to ethical principles, professional | Í |  |  |
|                            |     | and ethical responsibility; Information on     | Í |  |  |
|                            |     | standards used in engineering applications.    |   |  |  |
|                            | ~ 1 |  |   |  |  |
| Lecturer(s) and            | Col | lege of Foreign Languages Members              |   |  |  |
| <b>Contact Information</b> | ydy | o@gaz1.edu.tr                                  |   |  |  |
|                            |     |  |   |  |  |

|                       | Program<br>Outcome1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcom<br>e 8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------|---------------------|----------------------|----------------------|
| TOTAL                 |                     |                     |                     |                     |                     |                     | 2                   | 2                        | 2                   |                      |                      |
| Learning<br>outcome 1 |                     |                     |                     |                     |                     |                     | 1                   |                          |                     |                      |                      |
| Learning<br>outcome 2 |                     |                     |                     |                     |                     |                     |                     |                          | 1                   |                      |                      |
| Learning<br>outcome 3 |                     |                     |                     |                     |                     |                     |                     | 1                        |                     |                      |                      |
| Learning<br>outcome 4 |                     |                     |                     |                     |                     |                     | 1                   |                          |                     |                      |                      |
| Learning<br>outcome 5 |                     |                     |                     |                     |                     |                     |                     |                          | 1                   |                      |                      |
| Learning<br>outcome 6 |                     |                     |                     |                     |                     |                     |                     | 1                        |                     |                      |                      |

## Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| %0   |
|------|
| %0   |
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| %0   |
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| %0   |
|      |

|  |  | COURSE DESCRIPTION FORM  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Course Code and<br>Name  | ENG202 ENG   | LISH 4   |  |  |  |  |  |  |  |  |  |  |  |
| Course Semester  | 4  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Catalogue Data of</b><br><b>the Course</b> (Course<br>Content)                          | Intermediate le<br>Reading, listen   | nediate level English grammar, vocabulary, and writing knowledge<br>ing, listening, and speaking skills<br>Mind- Pre-Intermediate Student's Book Pack  |  |  |  |  |  |  |  |  |  |  |  |
| Course Textbooks   | Open Mind- Pr<br>Mickey Rodger   | e-Intermediate Student's Book Pack<br>rs, Joanne Taylore-Knowles, Steve Taylore-Knowles  |  |  |  |  |  |  |  |  |  |  |  |
| Supplementary<br>Textbooks   | Open Mind- Pr<br>Open Mind- Pr   | Mind- Pre-intermediate Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Mind- Pre-Intermediate Workbook (Ingrid Wisniewska, Dorothy E. Zemach)   |  |  |  |  |  |  |  |  |  |  |  |
| Credit (ECTS)  | 2 ECTS   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Prerequisites for the</b><br><b>Course</b> ( <i>Attendance</i><br><i>Requirements</i> ) | There is no pre-<br>Participation is   | requisite for this course.<br>compulsory.  |  |  |  |  |  |  |  |  |  |  |  |
| Course Type  | Compulsory   |  |  |  |  |  |  |  |  |  |  |  |  |
| Language of<br>Instruction   | English  |  |  |  |  |  |  |  |  |  |  |  |  |
| Course Objectives  | Developing the<br>Enhancing the a<br>Improving writ<br>Enhancing the a<br>Providing the a<br>level.  | skills to communicate effectively in a foreign language.<br>ability to express thoughts appropriately within a cultural context.<br>ten and spoken communication skills to use grammatical structures correctly.<br>ability to effectively utilize a specific vocabulary.<br>bility to apply listening, speaking, reading, and writing skills at an intermediate   |  |  |  |  |  |  |  |  |  |  |  |
| Course Learning<br>Outcomes<br>Instruction Method  | <ol> <li>Expresses</li> <li>Distinguish</li> <li>Predicts ar</li> <li>Predicts ur</li> <li>Asks for an</li> <li>Describes</li> <li>Engages in interperson</li> </ol> | agreement and disagreement on various topics.<br>hes between real and hypothetical situations in the present tense.<br>nd verifies the topic in reading and listening texts.<br>hknown words in reading texts using contextual information.<br>nd offers help.<br>foods and writes recipes.<br>n conversation and makes suggestions on various topics (foods, restaurants,<br>nal relationships, climate, and nature). |  |  |  |  |  |  |  |  |  |  |  |
| (Face-to-face,<br>Distance education<br>etc.)  | Face to face   |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1. Week  | Describing food and talking about diet and recipes   |  |  |  |  |  |  |  |  |  |  |  |
|  | 2. Week  | Listening to people making complaints in a restaurant and writing a recipe   |  |  |  |  |  |  |  |  |  |  |  |
|  | 3. Week  | Talking about relationships  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4. Week  | Reading advice about relationships and talking about them  |  |  |  |  |  |  |  |  |  |  |  |
| Weekly Schedule of   | 5. Week  | Talking about the weather, climate change and the natural world  |  |  |  |  |  |  |  |  |  |  |  |
| the Course   | 6. Week  | Interrupting the others politely in a conversation   |  |  |  |  |  |  |  |  |  |  |  |
|  | 7. Week  | Midterm General Revision.  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8. Week  | Talking about parties and social plans and events  |  |  |  |  |  |  |  |  |  |  |  |
|  | 9. Week  | Asking for and offering help and writing topic sentences   |  |  |  |  |  |  |  |  |  |  |  |
|  | 10. Week   | Understanding agreement and disagreement   |  |  |  |  |  |  |  |  |  |  |  |
|  | 11. Week   | Talking about materials and technology and writing a review of a product   |  |  |  |  |  |  |  |  |  |  |  |

|  | 12  | 2. Week   | Expressing   | a certain cond  | ition and the resu  | lt of tha            | t cor                               | nditio | on   |                               |   |  |  |
|--|---|---|--|---|---|----------------------|-------------------------------------|--------|------|-------------------------------|---|--|--|
|  | 13  | 3. Week   | eek         Expressing a certain condition and the result of that condition           eek         Talking about different values and suggesting supporting details to topic sen  |   |   |                      |                                     |        |      |                               |   |  |  |
|  | 14  | I. Week   | Week Final General Revision  |   |   |                      |                                     |        |      |                               |   |  |  |
| <b>Teaching Activities</b><br>(The time spent for the<br>activities listed here<br>will determine the<br>amount of credit<br>required) | We<br>We<br>Rea<br>Into<br>De<br>Rej<br>Pre | ekly theoretical course hours: 2<br>ekly tutorial hours: 0<br>ading Activities: 1<br>ernet browsing, library work: 0<br>signing and implementing materials: 0<br>port preparing: 0<br>eparing a Presentation and Presentations 3<br>eparation of Midterm and Midterm Exam: 2<br>al Exam and Preparation for Final Exam: 2 |  |   |   |                      |                                     |        |      |                               |   |  |  |
|  | гш  | ai exam and   | Ind Preparation for Final Exam: 2       Number(s)     Weight (%)   |   |   |                      |                                     |        |      |                               |   |  |  |
| Assessment Criteria  | M<br>As<br>Aj<br>Pr                         | idterm exam<br>ssignment<br>pplication<br>oject   | 1  | 1   |   | 30                   |                                     |        |      |                               | - |  |  |
|  | Pr  | actice  |  |   |   |                      |                                     |        |      |                               |   |  |  |
|  |   | uiz   |  | 3   |   | 20                   |                                     |        |      |                               | - |  |  |
|  |   | nal exam  |  | 1   |   | 100                  |                                     |        |      |                               | - |  |  |
|  |   |   | Activity   |   | Number of<br>Weeks  | Durat<br>(Wee<br>Hou | DurationEnd(WeeklySemesterHour)Work |        |      | nd of<br>ster Total<br>rkload |   |  |  |
|  |   | Weekly the  | eoretical cou  | rse hours   | 14  | 2                    |                                     |        | 28   |                               |   |  |  |
| Workload of the  |   | Weekly pra  | actical cours  | e hours   |   |                      |                                     |        |      |                               | _ |  |  |
|  |   | Reading ac  | tivities   | 1   | 7   | 1                    |                                     |        | 7    |                               |   |  |  |
|  |   | Designing<br>materials  | arch and libr<br>and implem  | enting  |   |                      |                                     |        |      |                               |   |  |  |
| Course   |   | Making a r  | eport  |   |   |                      |                                     |        |      |                               |   |  |  |
|  |   | Preparing a   | and making   | presentations   | 1 3 3   |                      |                                     |        |      |                               |   |  |  |
|  |   | Midterm a   | nd revision f  | For midterm   | 3   | 2                    |                                     |        | 6    | _                             |   |  |  |
|  |   | Final exam  | and revision   | n for final   | 3   | 2                    |                                     | 6      |      |                               |   |  |  |
|  |   | Total work  | load   |   |   |                      |                                     |        | 50   |                               |   |  |  |
|  |   | Total work  | load/ 25   |   |   |                      |                                     |        | 50/2 | 5                             |   |  |  |
|  |   | Course Cre  | edit (ECTS)  |   |   |                      |                                     |        | 2    |                               |   |  |  |
| Contribution Level<br>between Course<br>Outcomes and<br>Program Outcomes   |   | <u>No</u>   | Adequate<br>and engine<br>relevant di<br>and applie<br>model and   | Program Ou<br>knowledge in r<br>eering subjects<br>iscipline; abilit<br>d information i<br>solve engineer | nathematics, scie<br>pertaining to the<br>y to use theoretic<br>in these areas to<br>ring problems. | 1<br>nce<br>al       | 2                                   | 2      | 3 4  |                               | 5 |  |  |
|  |   | 2   | Ability to identify, formulate, and solve<br>complex engineering problems; ability to<br>select and apply proper analysis and<br>modeling methods for this purpose.  |   |   |                      |                                     |        |      |                               |   |  |  |
|  |   | 3   | Ability to design a complex system, process,       x         device or product under realistic constraints       and conditions, in such a way as to meet the         desired result; ability to apply modern design       methods for this purpose. |   |   |                      |                                     |        |      |                               |   |  |  |
|  |   | 4   | Ability to<br>techniques<br>and solutio<br>engineerin  | develop, select<br>s and tools nece<br>on of complex j<br>ag applications;                                | and use modern<br>essary for analysi<br>problems in<br>ability to use                               | s x                  |                                     |        |      |                               |   |  |  |

|                     |   |         | information technologies effectively.          |   |   |  |  |
|---------------------|---|---------|--|---|---|--|--|
|                     |   | 5       | Ability to design and conduct experiments,     | x |   |  |  |
|                     |   |         | gather data, analyze and interpret results for |   |   |  |  |
|                     |   |         | examination of engineering problems or         |   |   |  |  |
|                     |   |         | discipline-specific research topics.           |   |   |  |  |
|                     |   | 6       | Ability to work efficiently in intra-          | x |   |  |  |
|                     |   |         | disciplinary teams.                            |   |   |  |  |
|                     |   | 7       | Ability to work efficiently in multi-          |   | х |  |  |
|                     |   |         | disciplinary teams.                            |   |   |  |  |
|                     |   | 8       | Ability to communicate effectively in          |   |   |  |  |
|                     |   |         | Turkish, both orally and in writing;           |   |   |  |  |
|                     |   |         | knowledge of a minimum of one foreign          |   |   |  |  |
|                     |   |         | language.                                      |   |   |  |  |
|                     |   | 9       | Ability to write effective reports and         |   |   |  |  |
|                     |   |         | understand written reports, to prepare design  |   |   |  |  |
|                     |   |         | and production reports, to make effective      |   |   |  |  |
|                     |   |         | presentations, to give clear and               |   |   |  |  |
|                     |   |         | understandable instructions and to receive.    |   |   |  |  |
|                     |   | 10      | Recognition of the need for lifelong learning; |   |   |  |  |
|                     |   |         | ability to access information, to follow       |   |   |  |  |
|                     |   |         | developments in science and technology, and    |   |   |  |  |
|                     |   |         | to continue to educate him/herself.            |   |   |  |  |
|                     | ŀ | 11      | Conformity to othical principles professional  |   |   |  |  |
|                     |   | 11      | and ethical responsibility: Information on     |   |   |  |  |
|                     |   |         | standards used in engineering applications     |   |   |  |  |
|                     |   |         | standards used in engineering appreations.     |   |   |  |  |
|                     |   | College | of Foreign Languages Members                   |   |   |  |  |
| Lecturer(s) and     |   | vdvo@   | oazi edu tr                                    |   |   |  |  |
| Contact Information |   | Jujow   | Buzhouun                                       |   |   |  |  |
|                     |   |         |  |   |   |  |  |

|                       | Program<br>Outcome1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcom | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|----------------------|----------------------|
| TOTAL                 |                     |                     |                     |                     |                     | -                   |                     | e 8               |                     |                      |                      |
| TOTAL                 |                     |                     | 2                   | 1                   | 1                   | 1                   | 2                   |                   |                     |                      |                      |
| Learning<br>outcome 1 |                     |                     |                     |                     |                     |                     | 1                   |                   |                     |                      |                      |
| Learning<br>outcome 2 |                     |                     | 1                   |                     |                     |                     |                     |                   |                     |                      |                      |
| Learning<br>outcome 3 |                     |                     | 1                   |                     |                     |                     |                     |                   |                     |                      |                      |
| Learning<br>outcome 4 |                     |                     |                     | 1                   |                     |                     |                     |                   |                     |                      |                      |
| Learning<br>outcome 5 |                     |                     |                     |                     | 1                   |                     |                     |                   |                     |                      |                      |
| Learning<br>outcome 6 |                     |                     |                     |                     |                     | 1                   |                     |                   |                     |                      |                      |
| Learning<br>outcome 7 |                     |                     |                     |                     |                     |                     | 1                   |                   |                     |                      |                      |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |
|--------------------------------|------|
| Engineering Sciences           | %0   |
| Engineering Design             | %0   |
| Social Sciences                | %100 |
| Education Sciences             | %0   |
| Science                        | %0   |
| Health Sciences                | %0   |
| Field Knowledge                | %0   |

| COURSE DESCRIPTION FORM   |   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| Course Code and Name  | ENG301 ENGLISH 5  |  |  |  |  |  |  |  |
| Course Semester   | 5   |  |  |  |  |  |  |  |
| <b>Catalogue Data of the</b><br><b>Course</b> (Course Content)  | The course coded ENG 302 following the course coded ENG 301, encompasses the teaching of English grammar ,vocabulary and writing knowledge along with listening, reading skills at intermediate level (B1).   |  |  |  |  |  |  |  |
| Course Textbooks  | Open Mind- Intermediate Student's Book Pack<br>Mickey Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles  |  |  |  |  |  |  |  |
| Supplementary Textbooks   | Open Mind- Intermediate Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Open Mind- Intermediate Workbook (Ingrid Wisniewska, Dorothy E. Zemach)  |  |  |  |  |  |  |  |
| Credit (ECTS)   | 3   |  |  |  |  |  |  |  |
| <b>Prerequisites for the</b><br><b>Course</b> (Attendance<br>Requirements)  | There is no prerequisite for this course.<br>Participation is compulsory.   |  |  |  |  |  |  |  |
| Course Type   | Compulsory  |  |  |  |  |  |  |  |
| Language of Instruction   | English   |  |  |  |  |  |  |  |
| Course Objectives   | Students taking this course can effectively convey an idea in a culturally appropriate manner ,can communicate in speaking and writing ,can use a range of vocabulary items and grammatical structures in language skills (reading, writing, listening, and speaking) at intermediate level.  |  |  |  |  |  |  |  |
| Course Learning<br>Outcomes   | <ul> <li>Students</li> <li>give information about people, places and objects</li> <li>talk about past situations and describe regrets</li> <li>give advice about different topics (medical problems, crime, learning)</li> <li>ask questions and describe events in various situations</li> <li>distinguish facts and opinions and make deductions</li> <li>explain and express preferences</li> <li>differentiate between defining and non-defining information</li> </ul>   |  |  |  |  |  |  |  |
| <b>Instruction Method</b><br>(Face-to-face, Distance<br>education etc.)   | Distance  |  |  |  |  |  |  |  |
| Weekly Schedule of the<br>Course  | <ol> <li>Distinguishing facts and opinions and making deductions</li> <li>Discussing how to improve learning using collocations and arguing opinions<br/>for and against</li> <li>Describing people, places and things and talking about embarrassing events</li> <li>Talking about experiences and feelings</li> <li>Giving advice on medical problems and talking about injuries</li> <li>Describing health problems and symptoms and expressing regrets,</li> <li>Midterm General Revision</li> <li>Explaining and expressing preferences</li> <li>Differentiating between defining and non-defining information</li> <li>Talking about offences and reflecting on past situations</li> <li>Stating intentions and unfulfilled plans and making soft criticism</li> <li>Describing a degree or quality and agreeing and disagreeing</li> <li>Taking notes while listening, describing work experience using phrasal verbs</li> </ol> |  |  |  |  |  |  |  |
| <b>Teaching Activities</b><br>(The time spent for the<br>activities listed here will<br>determine the amount of<br>credit required) | Weekly theoretical course hours -4<br>Reading activities -1<br>Internet search and library work -1<br>Preparing and making presentations -1<br>Midterm and revision for midterm -2<br>Final exam and revision for final exam -2   |  |  |  |  |  |  |  |

|                         |                     |                   | Number(s                | Weight (%)         |                  |                        |      |                    |                        |     |
|-------------------------|---------------------|-------------------|-------------------------|--------------------|------------------|------------------------|------|--------------------|------------------------|-----|
|                         | <b>N</b> (* 14      |                   | 1                       |                    | 30               |                        |      |                    |                        |     |
|                         | Midterm ex          | kam               | 1                       |                    | 30               |                        |      |                    |                        |     |
|                         | Assignmen           | า                 | -                       |                    |                  |                        |      |                    |                        |     |
| Assessment Criteria     | Project             | 1                 | 1                       |                    |                  | 10                     |      |                    |                        |     |
|                         | Practice            |                   | -                       |                    |                  | -                      |      |                    |                        |     |
|                         | Quiz                |                   | 3                       |                    |                  | 20                     |      |                    |                        |     |
|                         | Final exam          | l                 | 1                       |                    |                  | 40                     |      |                    |                        |     |
|                         | Total               |                   |                         |                    |                  | 100                    |      |                    |                        |     |
|                         |                     | Activity          |                         | Number of<br>Weeks | Dur<br>(We<br>Ho | ation<br>eekly<br>our) | Se   | En<br>emest<br>Wor | d of<br>er To<br>kload | tal |
|                         | Weekly the          | eoretical course  | hours                   | 14                 | 4                | 4                      |      | 5                  | 6                      |     |
|                         | Weekly pr           | actical course he | ours                    |                    |                  |                        |      |                    |                        |     |
|                         | Reading ad          | ctivities         |                         | 1                  | -                | 1                      |      |                    | 1                      |     |
|                         | Internet sea        | arch and library  | work                    | 1                  |                  | 1                      |      |                    | 1                      |     |
| Workload of the Course  | Designing materials | and implementi    | ng                      |                    |                  |                        |      |                    |                        |     |
|                         | Making a r          | eport             |                         |                    |                  |                        |      |                    |                        |     |
|                         | Preparing a         | and making pres   | sentations              | 1                  |                  | 1                      |      |                    | 1                      |     |
|                         | Midterm a           | nd revision for 1 | nidterm                 | 3                  |                  | 2                      |      |                    | 6                      |     |
|                         | Final exam          | and revision fo   | or final                | 2                  |                  | 2.                     |      |                    | 4                      |     |
|                         | exam                | exam              |                         |                    |                  | _                      | +    |                    |                        |     |
|                         | Total workload      |                   |                         |                    |                  |                        | 69   |                    |                        |     |
|                         | Total work          | load/ 25          |                         |                    |                  |                        | 2.76 |                    |                        |     |
|                         | Course Cre          | edit (ECTS)       |                         |                    |                  |                        |      |                    | 3                      |     |
| Contribution Level      | No                  | Pro               | ogram Outco             | omes               |                  | 1                      | 2    | 3                  | 4                      | 5   |
| between Course Outcomes | 1                   | Adequate knov     | vledge in ma            | athematics,        |                  |                        |      |                    |                        |     |
| and Frogram Outcomes    |                     | to the relevant   | discipline: a           | bility to use      |                  |                        |      |                    |                        |     |
|                         |                     | theoretical and   | applied info            | ormation in        |                  |                        |      |                    |                        |     |
|                         |                     | these areas to r  | nodel and so            | olve engineering   |                  |                        |      |                    |                        |     |
|                         |                     | problems.         |                         |                    |                  |                        |      |                    |                        |     |
|                         | 2                   | Ability to ident  | tify, formula           | ate, and solve     |                  |                        |      |                    |                        |     |
|                         |                     | complex engin     | v proper and            | ems; ability to    |                  |                        |      |                    |                        |     |
|                         |                     | modeling meth     | ods for this            | purpose.           |                  |                        |      |                    |                        |     |
|                         | 3                   | Ability to desig  | gn a comple             | x system,          |                  | x                      |      |                    |                        |     |
|                         |                     | process, device   | e or product            | under realistic    |                  |                        |      |                    |                        |     |
|                         |                     | constraints and   | conditions,             | in such a way      |                  |                        |      |                    |                        |     |
|                         |                     | as to meet the o  | lesired resultsion meth | ods for this       |                  |                        |      |                    |                        |     |
|                         |                     | purpose.          |                         |                    |                  |                        |      |                    |                        |     |
|                         | 4                   | Ability to deve   | lop, select a           | nd use modern      | x                |                        |      |                    |                        |     |
|                         |                     | techniques and    | tools neces             | sary for analysis  |                  |                        |      |                    |                        |     |
|                         |                     | and solution of   | complex pr              | oblems in          |                  |                        |      |                    |                        |     |
|                         |                     | information tec   | plications; a           | ffectively         |                  |                        |      |                    |                        |     |
|                         | 5                   | Ability to desig  | gn and cond             | uct experiments,   | x                |                        |      |                    |                        |     |
|                         |                     | gather data, and  | alyze and in            | terpret results    |                  |                        |      |                    |                        |     |
|                         |                     | for examination   | n of enginee            | ring problems      |                  |                        |      |                    |                        |     |
|                         | 6                   | or discipline-sp  | becitic resea           | rch topics.        | v                |                        |      |                    |                        |     |
|                         | 0                   | ADIIITY to Work   | s eniciently            | m mura-            | X                |                        |      |                    |                        |     |
|                         | 7                   | Ability to work   | c efficiently           | in multi-          |                  | x                      |      |                    |                        |     |
|                         |                     | disciplinary tea  | ims.                    |                    |                  |                        |      |                    |                        |     |
|                         | 8                   | Ability to com    | municate eff            | fectively in       |                  |                        |      |                    |                        |     |
|                         |                     | Turkish, both c   | orally and in           | writing;           |                  |                        |      |                    |                        |     |

|  |                             | knowledge of a minimum of one foreign language.   |  |  |  |
|--|-----------------------------|---|--|--|--|
|  | 9                           | Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive. |  |  |  |
|  | 10                          | Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.                                     |  |  |  |
|  | 11                          | Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.  |  |  |  |
| Lecturer(s) and Contact<br>Information | Lecturer's F<br>E-mail addr | First/Last Name:<br>ess:  |  |  |  |

| COURSE DESCRIPTION FORM   |   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| Course Code and Name  | ENG302 ENGLISH 6  |  |  |  |  |  |  |  |
| Course Semester   | 6   |  |  |  |  |  |  |  |
| <b>Catalogue Data of the</b><br><b>Course</b> (Course Content)  | The course coded ENG 302 following the course coded ENG 301, encompasses the teaching of English grammar ,vocabulary and writing knowledge along with listening, reading skills at intermediate level (B1).   |  |  |  |  |  |  |  |
| Course Textbooks  | Open Mind- Intermediate Student's Book Pack<br>Mickey Rodgers, Joanne Taylore-Knowles, Steve Taylore-Knowles  |  |  |  |  |  |  |  |
| Supplementary Textbooks   | Open Mind- Intermediate Teacher's Book (Tim Bowen, Yvonne Maruniak)<br>Open Mind- Intermediate Workbook (Ingrid Wisniewska, Dorothy E. Zemach)  |  |  |  |  |  |  |  |
| Credit (ECTS)   | 3   |  |  |  |  |  |  |  |
| <b>Prerequisites for the</b><br><b>Course</b> (Attendance<br>Requirements)  | There is no prerequisite for this course.<br>Participation is compulsory.   |  |  |  |  |  |  |  |
| Course Type   | Compulsory  |  |  |  |  |  |  |  |
| Language of Instruction   | English   |  |  |  |  |  |  |  |
| Course Objectives   | Students taking this course can effectively convey an idea in a culturally appropriate manner ,can communicate in speaking and writing ,can use a range of vocabulary items and grammatical structures in language skills (reading, writing, listening, and speaking) at intermediate level.  |  |  |  |  |  |  |  |
| Course Learning<br>Outcomes   | <ul> <li>Students</li> <li>give information about people, places and objects</li> <li>talk about past situations and describe regrets</li> <li>give advice about different topics (medical problems, crime, learning)</li> <li>ask questions and describe events in various situations</li> <li>distinguish facts and opinions and make deductions</li> <li>explain and express preferences</li> <li>differentiate between defining and non-defining information</li> </ul>   |  |  |  |  |  |  |  |
| <b>Instruction Method</b><br>(Face-to-face, Distance<br>education etc.)   | Distance  |  |  |  |  |  |  |  |
| Weekly Schedule of the<br>Course  | <ol> <li>Distinguishing facts and opinions and making deductions</li> <li>Discussing how to improve learning using collocations and arguing opinions<br/>for and against</li> <li>Describing people, places and things and talking about embarrassing events</li> <li>Talking about experiences and feelings</li> <li>Giving advice on medical problems and talking about injuries</li> <li>Describing health problems and symptoms and expressing regrets,</li> <li>Midterm General Revision</li> <li>Explaining and expressing preferences</li> <li>Differentiating between defining and non-defining information</li> <li>Talking about offences and reflecting on past situations</li> <li>Stating intentions and unfulfilled plans and making soft criticism</li> <li>Describing a degree or quality and agreeing and disagreeing</li> <li>Taking notes while listening, describing work experience using phrasal verbs</li> </ol> |  |  |  |  |  |  |  |
| <b>Teaching Activities</b><br>(The time spent for the<br>activities listed here will<br>determine the amount of<br>credit required) | Weekly theoretical course hours -4<br>Reading activities -1<br>Internet search and library work -1<br>Preparing and making presentations -1<br>Midterm and revision for midterm -2<br>Final exam and revision for final exam -2   |  |  |  |  |  |  |  |

|                         |                     |                   | Number(s                | Weight (%)         |                  |                        |      |                    |                        |     |
|-------------------------|---------------------|-------------------|-------------------------|--------------------|------------------|------------------------|------|--------------------|------------------------|-----|
|                         | <b>N</b> (* 14      |                   | 1                       |                    | 30               |                        |      |                    |                        |     |
|                         | Midterm ex          | kam               | 1                       |                    | 30               |                        |      |                    |                        |     |
|                         | Assignmen           | า                 | -                       |                    |                  |                        |      |                    |                        |     |
| Assessment Criteria     | Project             | 1                 | 1                       |                    |                  | 10                     |      |                    |                        |     |
|                         | Practice            |                   | -                       |                    |                  | -                      |      |                    |                        |     |
|                         | Quiz                |                   | 3                       |                    |                  | 20                     |      |                    |                        |     |
|                         | Final exam          | l                 | 1                       |                    |                  | 40                     |      |                    |                        |     |
|                         | Total               |                   |                         |                    |                  | 100                    |      |                    |                        |     |
|                         |                     | Activity          |                         | Number of<br>Weeks | Dur<br>(We<br>Ho | ation<br>eekly<br>our) | Se   | En<br>emest<br>Wor | d of<br>er To<br>kload | tal |
|                         | Weekly the          | eoretical course  | hours                   | 14                 | 4                | 4                      |      | 5                  | 6                      |     |
|                         | Weekly pr           | actical course he | ours                    |                    |                  |                        |      |                    |                        |     |
|                         | Reading ad          | ctivities         |                         | 1                  | -                | 1                      |      |                    | 1                      |     |
|                         | Internet sea        | arch and library  | work                    | 1                  |                  | 1                      |      |                    | 1                      |     |
| Workload of the Course  | Designing materials | and implementi    | ng                      |                    |                  |                        |      |                    |                        |     |
|                         | Making a r          | eport             |                         |                    |                  |                        |      |                    |                        |     |
|                         | Preparing a         | and making pres   | sentations              | 1                  |                  | 1                      |      |                    | 1                      |     |
|                         | Midterm a           | nd revision for 1 | nidterm                 | 3                  |                  | 2                      |      |                    | 6                      |     |
|                         | Final exam          | and revision fo   | or final                | 2                  |                  | 2.                     |      |                    | 4                      |     |
|                         | exam                | exam              |                         |                    |                  | _                      | +    |                    |                        |     |
|                         | Total workload      |                   |                         |                    |                  |                        | 69   |                    |                        |     |
|                         | Total work          | load/ 25          |                         |                    |                  |                        | 2.76 |                    |                        |     |
|                         | Course Cre          | edit (ECTS)       |                         |                    |                  |                        |      |                    | 3                      |     |
| Contribution Level      | No                  | Pro               | ogram Outco             | omes               |                  | 1                      | 2    | 3                  | 4                      | 5   |
| between Course Outcomes | 1                   | Adequate knov     | vledge in ma            | athematics,        |                  |                        |      |                    |                        |     |
| and Frogram Outcomes    |                     | to the relevant   | discipline: a           | bility to use      |                  |                        |      |                    |                        |     |
|                         |                     | theoretical and   | applied info            | ormation in        |                  |                        |      |                    |                        |     |
|                         |                     | these areas to r  | nodel and so            | olve engineering   |                  |                        |      |                    |                        |     |
|                         |                     | problems.         |                         |                    |                  |                        |      |                    |                        |     |
|                         | 2                   | Ability to ident  | tify, formula           | ate, and solve     |                  |                        |      |                    |                        |     |
|                         |                     | complex engin     | v proper and            | ems; ability to    |                  |                        |      |                    |                        |     |
|                         |                     | modeling meth     | ods for this            | purpose.           |                  |                        |      |                    |                        |     |
|                         | 3                   | Ability to desig  | gn a comple             | x system,          |                  | x                      |      |                    |                        |     |
|                         |                     | process, device   | e or product            | under realistic    |                  |                        |      |                    |                        |     |
|                         |                     | constraints and   | conditions,             | in such a way      |                  |                        |      |                    |                        |     |
|                         |                     | as to meet the o  | lesired resultsion meth | ods for this       |                  |                        |      |                    |                        |     |
|                         |                     | purpose.          |                         |                    |                  |                        |      |                    |                        |     |
|                         | 4                   | Ability to deve   | lop, select a           | nd use modern      | x                |                        |      |                    |                        |     |
|                         |                     | techniques and    | tools neces             | sary for analysis  |                  |                        |      |                    |                        |     |
|                         |                     | and solution of   | complex pr              | oblems in          |                  |                        |      |                    |                        |     |
|                         |                     | information tec   | plications; a           | ffectively         |                  |                        |      |                    |                        |     |
|                         | 5                   | Ability to desig  | gn and cond             | uct experiments,   | x                |                        |      |                    |                        |     |
|                         |                     | gather data, and  | alyze and in            | terpret results    |                  |                        |      |                    |                        |     |
|                         |                     | for examination   | n of enginee            | ring problems      |                  |                        |      |                    |                        |     |
|                         | 6                   | or discipline-sp  | becitic resea           | rch topics.        | v                |                        |      |                    |                        |     |
|                         | 0                   | ADIIITY to Work   | s eniciently            | m mura-            | X                |                        |      |                    |                        |     |
|                         | 7                   | Ability to work   | c efficiently           | in multi-          |                  | x                      |      |                    |                        |     |
|                         |                     | disciplinary tea  | ims.                    |                    |                  |                        |      |                    |                        |     |
|                         | 8                   | Ability to com    | municate eff            | fectively in       |                  |                        |      |                    |                        |     |
|                         |                     | Turkish, both c   | orally and in           | writing;           |                  |                        |      |                    |                        |     |

|              | knowledge of a minimum of one foreign         |   |   |  |   |   |
|--------------|---|---|---|--|---|---|
|              |   |   |   |  |   |   |
|              | language.                                     |   |   |  |   |   |
| 9            | Ability to write effective reports and        |   |   |  |   |   |
|              | understand written reports, to prepare        |   |   |  |   |   |
|              | design and production reports, to make        |   |   |  |   |   |
|              | effective presentations, to give clear and    |   |   |  |   |   |
|              | understandable instructions and to receive.   |   |   |  |   |   |
| 10           | Recognition of the need for lifelong          |   |   |  |   |   |
|              | learning; ability to access information, to   |   |   |  |   |   |
|              | follow developments in science and            |   |   |  |   |   |
|              | technology, and to continue to educate        |   |   |  |   |   |
|              | him/herself.                                  |   |   |  |   |   |
|              |   |   |   |  |   |   |
| 11           | Conformity to ethical principles,             |   |   |  |   |   |
|              | professional and ethical responsibility;      |   |   |  |   |   |
|              | Information on standards used in              |   |   |  |   |   |
|              | engineering applications.                     |   |   |  |   |   |
|              |   |   |   |  |   |   |
|              |   |   |   |  |   |   |
| Lecturer's F | irst/Last Name:                               |   |   |  |   |   |
| E-mail addr  | ess:  |   |   |  |   |   |
|              |   |   |   |  |   |   |
|              |   |   |   |  |   |   |
|              | 9<br>10<br>11<br>Lecturer's F<br>E-mail addre | knowledge of a minimum of one foreign<br>language.         Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive.         Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.         11       Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.         Lecturer's First/Last Name:<br>E-mail address: | knowledge of a minimum of one foreign<br>language.       Image:         9       Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive.         10       Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.         11       Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.         Lecturer's First/Last Name:<br>E-mail address: | knowledge of a minimum of one foreign<br>language.       9         Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive.         10       Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.         11       Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.         Lecturer's First/Last Name:<br>E-mail address: | knowledge of a minimum of one foreign<br>language.       Image:         9       Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive.         10       Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.         11       Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.         Lecturer's First/Last Name:<br>E-mail address: | knowledge of a minimum of one foreign<br>language.       Image:         9       Ability to write effective reports and<br>understand written reports, to prepare<br>design and production reports, to make<br>effective presentations, to give clear and<br>understandable instructions and to receive.         10       Recognition of the need for lifelong<br>learning; ability to access information, to<br>follow developments in science and<br>technology, and to continue to educate<br>him/herself.         11       Conformity to ethical principles,<br>professional and ethical responsibility;<br>Information on standards used in<br>engineering applications.         Lecturer's First/Last Name:<br>E-mail address: |

| COURSE DESCRIPTION FORM   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Course Code and Name  | ENG401 ENGLISH FOR TECHNOLOGY  |  |  |  |  |  |  |
| Course Semester   | 7-8  |  |  |  |  |  |  |
| <b>Catalogue Data of the</b><br><b>Course</b> (Course Content)          | Coded ENG 401, this course combines four language skills (listening, reading, speaking, and writing) necessary for students' occupational studies in English within specific themes/scopes in the field of engineering. The content of the course covers the occupational subjects presented to students through motivating and engaging educational tools and makes them aware of the occupational language structures and functions that will be frequently encountered in occupational life.  |  |  |  |  |  |  |
| Course Textbooks  | English for Engineering 2 (student's book & workbook) / Blackswan Publishing   |  |  |  |  |  |  |
| Supplementary Textbooks   | Course notes prepared by the Program and Material Development Unit   |  |  |  |  |  |  |
| Credit (ECTS)   | 3  |  |  |  |  |  |  |
| Prerequisites for the<br>Course (Attendance<br>Requirements)            | In order to be able to take this course, students are required to pass the 304 English course.<br>Attendance is compulsory.  |  |  |  |  |  |  |
| Course Type   |  |  |  |  |  |  |  |
| Language of Instruction   | English<br>Students taking this course can apply English language structures and knowledge across  |  |  |  |  |  |  |
| Course Objectives   | occupational and linguistic contexts and can use language skills (reading, writing, listening, and speaking) in occupational and academic contexts by making use of fundamental terminologies and structures in relation to their major.   |  |  |  |  |  |  |
| Course Learning<br>Outcomes   | <ul> <li>At the end of this course, students</li> <li>1. identify and define the subject-specific vocabulary in listening and reading</li> <li>2. talk about the qualities of engineers and types of engineering degrees</li> <li>3. identify problems and suggest solutions</li> <li>4. discuss the significance of creativity in engineering</li> <li>5. identify different tables and graphs</li> <li>6. describe the materials and their properties used for engineering purposes</li> <li>7. relate between different types of engineering</li> <li>8. describe changes, benefits and experiences within the field of engineering</li> <li>9. ask about the risks of products across different engineering fields</li> <li>10. express their opinions and doubts about certain processes</li> </ul>   |  |  |  |  |  |  |
| <b>Instruction Method</b><br>(Face-to-face, Distance<br>education etc.) | Distance Education   |  |  |  |  |  |  |
| Weekly Schedule of the<br>Course  | <ol> <li>Introduction, Electrical Engineering</li> <li>Aerospace Engineering, History of Engineering</li> <li>An Engineer's Education, An engineer's Education, Presenting Information</li> <li>Problem Solving, Creativity, Tables and Graphs</li> <li>Dimensions and Drawings, Materials and Properties, Working with Numbers</li> <li>Sales Engineering, Agricultural Engineering, Industrial Engineering</li> <li>Midterm General Revision</li> <li>Software Engineering, Genetic Engineering</li> <li>Newton's Laws, Laws of Thermodynamics. Rate Processes</li> <li>Statics and Dynamics, Electricity, SI System of Units</li> <li>Engineering Design Method, Models</li> <li>Statistics, Computer Engineering, Materials Engineering</li> <li>Environmental Engineering, Nuclear Engineering, Biomedical Engineering</li> <li>Environmental Engineering, Nuclear Engineering, Biomedical Engineering</li> </ol> |  |  |  |  |  |  |
| <i>(The time spent for the</i>  | Weekly theoretical course hours 4<br>Reading activities -1   |  |  |  |  |  |  |

| activities listed here will<br>determine the amount of | Internet search and library work-1<br>Preparing and making presentations -1<br>Midterm and revision for midterm -2 |                                 |                         |                      |                  |                       |          |                 |                           |           |        |  |  |  |
|--|--|---------------------------------|-------------------------|----------------------|------------------|-----------------------|----------|-----------------|---------------------------|-----------|--------|--|--|--|
| credit required)                                       | Final exam a   | nd revision for                 | final exam -            | -2                   |                  |                       |          |                 |                           |           |        |  |  |  |
|  | Number(s)  |                                 |                         |                      |                  |                       |          | Weight (%)      |                           |           |        |  |  |  |
|  | Midterm ev   | am                              | 1                       |                      | 30               |                       |          |                 |                           | _         |        |  |  |  |
|  | Assignment   |                                 | -                       |                      |                  |                       |          |                 |                           |           | $\neg$ |  |  |  |
|  | Application  |                                 | _                       |                      |                  | _                     |          |                 |                           |           | -      |  |  |  |
| Assessment Criteria                                    | Project  |                                 | 1                       |                      |                  | 10                    | )        |                 |                           |           | ٦      |  |  |  |
|  | Practice   |                                 | -                       |                      |                  | -                     |          |                 |                           |           |        |  |  |  |
|  | Quiz   |                                 | 3                       |                      |                  | 20                    |          |                 |                           |           |        |  |  |  |
|  | Final exam   | inal exam 1                     |                         |                      |                  |                       |          |                 |                           |           |        |  |  |  |
|  | Total  |                                 |                         |                      |                  | 100                   | )        |                 |                           |           |        |  |  |  |
|  |  | Activity                        |                         | Number of<br>Weeks   | Dur<br>(Wo<br>Ho | atio<br>eekly<br>our) | n<br>v S | E<br>Seme<br>Wa | nd of<br>ster T<br>orkloa | otal<br>d |        |  |  |  |
|  | Weekly the   | oretical course                 | hours                   | 14                   |                  | 4                     |          |                 | 56                        |           |        |  |  |  |
|  | Weekly pra   | ctical course he                | ours                    |                      |                  |                       |          |                 |                           |           |        |  |  |  |
|  | Reading ac   | tivities                        |                         | 1                    |                  | 1                     |          |                 | 1                         |           |        |  |  |  |
|  | Internet sea   | rch and library                 | work                    | 1                    |                  | 1                     |          |                 | 1                         |           |        |  |  |  |
| Workload of the Course                                 | Designing a materials  | and implementi                  | ng                      |                      |                  |                       |          |                 |                           |           |        |  |  |  |
|  | Making a re  | eport                           |                         |                      |                  |                       |          |                 |                           |           |        |  |  |  |
|  | Preparing and making presentations   |                                 |                         | 1                    |                  | 1                     |          |                 | 1                         |           |        |  |  |  |
|  | Midterm and revision for midterm   |                                 |                         | 3                    |                  | 2                     |          | 6               |                           |           |        |  |  |  |
|  | Final exam and revision for final  |                                 |                         | 2                    | 2                |                       |          | 4               |                           |           |        |  |  |  |
|  | exam<br>Total workload   |                                 |                         |                      |                  |                       | _        |                 | (0)                       |           | -      |  |  |  |
|  | Total workload   |                                 |                         |                      |                  |                       |          |                 | 69                        |           | -      |  |  |  |
|  | Total workload/ 25   |                                 |                         |                      |                  |                       |          | 2.76            |                           |           | -      |  |  |  |
|  | Course Cre   | dit (ECTS)                      |                         |                      |                  |                       |          |                 | 3                         |           | +      |  |  |  |
| Contribution Level                                     | No<br>1  |                                 | Program Ou              | tcomes               |                  | 1                     | 2        | 3               | 4                         | 5         | -      |  |  |  |
| and Program Outcomes                                   | 1  | and engineeri                   | ng subjects i           | pertaining to the    | nce              |                       |          |                 |                           |           |        |  |  |  |
| 0  |  | relevant disci                  | pline; ability          | to use theoretic     | al               |                       |          |                 |                           |           |        |  |  |  |
|  |  | and applied in                  | formation in            | n these areas to     |                  |                       |          |                 |                           |           |        |  |  |  |
|  |  | model and sol                   | lve engineer            | ing problems.        |                  |                       |          |                 |                           |           | _      |  |  |  |
|  | 2  | Ability to ide                  | ntify, formu            | late, and solve      |                  |                       |          |                 |                           |           |        |  |  |  |
|  |  | select and apr                  | leering prot            | alvsis and           |                  |                       |          |                 |                           |           |        |  |  |  |
|  |  | modeling met                    | hods for this           | s purpose.           |                  |                       |          |                 |                           |           |        |  |  |  |
|  | 3  | Ability to des                  | ign a compl             | ex system, proce     | ss,              |                       | х        |                 |                           |           | ]      |  |  |  |
|  |  | device or proc                  | duct under re           | ealistic constrain   | ts               |                       |          |                 |                           |           |        |  |  |  |
|  |  | and condition                   | s, in such a s          | way as to meet the   | ie               |                       |          |                 |                           |           |        |  |  |  |
|  |  | methods for th                  | his purpose.            | ppry modern des      | ign              |                       |          |                 |                           |           |        |  |  |  |
|  | 4  | Ability to dev                  | elop, select            | and use modern       |                  | х                     |          |                 |                           |           | 1      |  |  |  |
|  |  | techniques an                   | d tools nece            | ssary for analysis   | s                |                       |          |                 |                           |           |        |  |  |  |
|  |  | and solution c                  | of complex p            | problems in          |                  |                       |          |                 |                           |           |        |  |  |  |
|  |  | information te                  | ppiications;            | aonity to use        |                  |                       |          |                 |                           |           |        |  |  |  |
|  | 5 Ability to design and conduct experiment:  |                                 |                         |                      |                  | x                     |          |                 |                           |           | 1      |  |  |  |
|  |  | gather data, an                 | nalyze and i            | nterpret results for | or               |                       |          |                 |                           |           |        |  |  |  |
|  |  | examination of                  | of engineerir           | ng problems or       |                  |                       |          |                 |                           |           |        |  |  |  |
|  |  | discipline-spe                  | cific researc           | h topics.            |                  |                       |          |                 |                           |           | -      |  |  |  |
|  | 6  | disciplinary to                 | rk efficiently<br>eams. | / in intra-          |                  | x                     |          |                 |                           |           |        |  |  |  |
|  | 7  | Ability to word disciplinary to | rk efficiently<br>eams. | / in multi-          |                  |                       | х        |                 |                           |           |        |  |  |  |

|                         | 8             | Ability to communicate effectively in          |  |      |
|-------------------------|---------------|--|--|------|
|                         |               | Turkish, both orally and in writing;           |  |      |
|                         |               | knowledge of a minimum of one foreign          |  |      |
|                         |               | language.                                      |  |      |
|                         | 9             | Ability to write effective reports and         |  |      |
|                         |               | understand written reports, to prepare design  |  |      |
|                         |               | and production reports, to make effective      |  |      |
|                         |               | presentations, to give clear and               |  |      |
|                         |               | understandable instructions and to receive.    |  | <br> |
|                         | 10            | Recognition of the need for lifelong learning; |  |      |
|                         |               | ability to access information, to follow       |  |      |
|                         |               | developments in science and technology, and    |  |      |
|                         |               | to continue to educate him/herself.            |  |      |
|                         | 11            | Conformity to othical minainlas metassional    |  | <br> |
|                         | 11            | and ethical responsibility: Information on     |  |      |
|                         |               | standards used in engineering applications     |  |      |
|                         |               | standards used in engineering applications.    |  |      |
|                         |               |  |  | <br> |
|                         | Lecturer's Fi | rst/Last Name:                                 |  |      |
| Lecturer(s) and Contact | E-mail addre  | ss:  |  |      |
| Information             |               |  |  |      |
|                         |               |  |  |      |

| Course Description Form  |  |   |  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|--|
| Course Code and Name   | FİZ101 PHYSI   | CS 1  |  |  |  |  |  |  |
| Course Semester  | 1  |   |  |  |  |  |  |  |
| Catalog Content  | Understanding fundamental principles and concepts of physics.<br>Analyzing various aspects and characteristics of motion.<br>Grasping Newton's laws of motion and their practical applications.<br>Understanding energy concepts such as work, kinetic, and potential energy, and<br>examining their conservation. |   |  |  |  |  |  |  |
| Textbook   | Fen ve Mühendislik için Fizik I, Editör: Kemal ÇOLAKOĞLU Physics For Scientists and Engineers with Modern Physics, R.Serway, Saunders College  |   |  |  |  |  |  |  |
| Supplementary Textbooks  | University Physics with Modern Physics" by Hugh D. Young ve Roger A. Freedman  |   |  |  |  |  |  |  |
| ECTS   | 6 ECTS   |   |  |  |  |  |  |  |
| <b>Prerequisites of the</b><br><b>Course</b> ( <i>Attendance</i> | Attendance   |   |  |  |  |  |  |  |
| Type of the Course   | Compulsory   |   |  |  |  |  |  |  |
| Instruction Language   | Turkish  |   |  |  |  |  |  |  |
| Course Objectives  | l o gain skills h  | low to solve the basic mechanical and physical problems.  |  |  |  |  |  |  |
| Course Learning Outcomes   | 1 To develop<br>2 To develop<br>3. To gain pro   | the ability to relate physics to the real world<br>eliminary skills for solving basic problems related to |  |  |  |  |  |  |
| Instruction Methods  | Face to face   |   |  |  |  |  |  |  |
| Weekly Schedule  | 1. Week  | Physics and Measurement   |  |  |  |  |  |  |
|  | 2. Week  | Motion in One Dimension   |  |  |  |  |  |  |
|  | 3. Week  | Vectors   |  |  |  |  |  |  |
|  | 4. Week  | Motion in Two Dimensions  |  |  |  |  |  |  |
|  | 5. Week  | The Laws of Motion  |  |  |  |  |  |  |
|  | 6. Week  | Circular Motion   |  |  |  |  |  |  |
|  | 7. Week  | Work  |  |  |  |  |  |  |
|  | 8. Week  | Kinetic Energy  |  |  |  |  |  |  |
|  | 9. Week  | Potential Energy  |  |  |  |  |  |  |
|  | 10. Week   | Conservation of Energy  |  |  |  |  |  |  |
|  | 11. Week   | Linear Momentum   |  |  |  |  |  |  |
|  | 12. Week   | Collisions  |  |  |  |  |  |  |
|  | 13. Week   | Rotation of a Rigid Object about a Fixed Axis   |  |  |  |  |  |  |
|  | 14. Week   | Rotation of a Rigid Object about a Fixed Axis (cont.)   |  |  |  |  |  |  |

| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theoretical course hours: 4<br>Weekly tutorial hours: 0<br>Reading Activities: 2<br>Internet browsing, library work: 2<br>Designing and implementing materials: 0<br>Report preparing: 0<br>Preparing a Presentation and Presentations: 0<br>Preparation of Midterm and Midterm Exam: 10<br>Final Exam and Preparation for Final Exam: 14<br>Other: 2 |         |                    |  |  |  |
|---|--|---------|--------------------|--|--|--|
|   |  | Numbers | Total<br>Weighting |  |  |  |
|   | Midterm Exams  | 1       | 60                 |  |  |  |
|   | Assignment   |         |                    |  |  |  |
|   | Application  |         |                    |  |  |  |
| Assessment Criteria   | Projects   |         |                    |  |  |  |
|   | Practice   |         |                    |  |  |  |
|   | Quiz<br>Percent of In-term Studies (%)   |         |                    |  |  |  |
|   | Percentage of Final Exam to Total Score (%)  | 1       | 40                 |  |  |  |
|   | Attendance   | 1       | 01                 |  |  |  |

|                         |                       | Activity                     | Number of<br>Weeks | Duration<br>(Weekly<br>Hour) |    | End of<br>Semester Tota<br>Workload |    |   |
|-------------------------|-----------------------|------------------------------|--------------------|------------------------------|----|-------------------------------------|----|---|
|                         | Weekly the            | oretical course hours        | 14                 | 4                            | 56 |                                     |    |   |
| Workload of the Course  | Weekly pra            | ctical course hours          |                    |                              |    |                                     |    |   |
|                         | Reading act           | ivities                      | 14                 | 2                            |    | 28                                  |    |   |
|                         | Internet sea          | rch and library work         | 14                 | 2                            |    |                                     | 28 |   |
|                         | Designing a materials | ind implementing             |                    |                              |    |                                     |    |   |
|                         | Making a re           | eport                        |                    |                              |    |                                     |    |   |
|                         | Preparing a           | nd making presentations      |                    |                              |    |                                     |    |   |
|                         | Midterm an            | d revision for midterm       |                    |                              |    |                                     |    |   |
|                         | Final exam            | and revision for final       | 1                  | 10                           |    | 10                                  |    |   |
|                         | exam                  |                              | 1                  | 1.4                          |    | 14                                  |    |   |
|                         | Total workl           | oad                          | 1                  | 14                           |    | 14                                  |    |   |
|                         | Total workl           | oad/ 25                      | 1                  | 2                            |    |                                     | 14 |   |
|                         | Course Cre            | dit (ECTS)                   |                    |                              |    | 150                                 |    |   |
| Contribution Level      | No                    | Program Ou                   | itcomes            | 1                            | 2  | 3                                   | 4  | 5 |
| between Course Outcomes | 1                     | Adequate knowledge in r      | nathematics, scier | nce                          |    |                                     |    |   |
| and Frogram Outcomes    |                       | and engineering subjects     | pertaining to the  | 1                            |    |                                     |    |   |
|                         |                       | and applied information      | in these areas to  | .1                           |    |                                     |    |   |
|                         |                       | model and solve engineer     | ring problems.     |                              |    |                                     |    |   |
|                         | 2                     | Ability to identify, formu   | late, and solve    |                              | X  |                                     |    |   |
|                         |                       | complex engineering pro      | blems; ability to  |                              |    |                                     |    |   |
|                         |                       | select and apply proper a    | nalysis and        |                              |    |                                     |    |   |
|                         | 3                     | Ability to design a compl    |                    | -                            |    |                                     |    |   |
|                         | 5                     | device or product under r    | s A                |                              |    |                                     |    |   |
|                         |                       | and conditions, in such a    | way as to meet th  | e                            |    |                                     |    |   |
|                         |                       | desired result; ability to a | pply modern desig  | gn                           |    |                                     |    |   |
|                         |                       | methods for this purpose.    |                    |                              |    |                                     |    |   |
|                         | 4                     | Ability to develop, select   | and use modern     |                              |    |                                     |    |   |

|                         |                                   | techniques and tools necessary for analysis    |   |          |  |  |  |
|-------------------------|-----------------------------------|--|---|----------|--|--|--|
|                         |                                   | and solution of complex problems in            |   |          |  |  |  |
|                         |                                   | engineering applications; ability to use       |   |          |  |  |  |
|                         |                                   | information technologies effectively.          |   |          |  |  |  |
|                         | 5                                 | Ability to design and conduct experiments,     |   |          |  |  |  |
|                         |                                   | gather data, analyze and interpret results for |   |          |  |  |  |
|                         |                                   | examination of engineering problems or         |   |          |  |  |  |
|                         |                                   | discipline-specific research topics.           |   |          |  |  |  |
|                         | 6                                 | Ability to work efficiently in intra-          |   |          |  |  |  |
|                         |                                   | disciplinary teams.                            |   |          |  |  |  |
|                         | 7                                 | Ability to work efficiently in multi-          |   |          |  |  |  |
|                         |                                   | disciplinary teams.                            |   |          |  |  |  |
|                         | 8                                 | Ability to communicate effectively in          |   |          |  |  |  |
|                         |                                   | Turkish, both orally and in writing;           |   |          |  |  |  |
|                         |                                   | knowledge of a minimum of one foreign          |   |          |  |  |  |
|                         |                                   | language.                                      |   |          |  |  |  |
|                         | 9                                 | Ability to write effective reports and         |   |          |  |  |  |
|                         |                                   | understand written reports, to prepare design  |   |          |  |  |  |
|                         |                                   | and production reports, to make effective      |   |          |  |  |  |
|                         |                                   | presentations, to give clear and               |   |          |  |  |  |
|                         |                                   | understandable instructions and to receive.    |   |          |  |  |  |
|                         | 10                                | Recognition of the need for lifelong learning: |   |          |  |  |  |
|                         |                                   | ability to access information, to follow       |   |          |  |  |  |
|                         |                                   | developments in science and technology, and    |   |          |  |  |  |
|                         |                                   | to continue to educate him/herself.            |   |          |  |  |  |
|                         |                                   |  |   |          |  |  |  |
|                         | 11                                | Conformity to ethical principles, professional |   | +        |  |  |  |
|                         |                                   | and ethical responsibility: Information on     |   |          |  |  |  |
|                         |                                   | standards used in engineering applications.    |   |          |  |  |  |
|                         |                                   |  | I | <u> </u> |  |  |  |
|                         | Faculty Members of the Department |  |   |          |  |  |  |
| Lecturer(s) and Contact | fenfizik@oa                       | zi edu tr                                      |   |          |  |  |  |
| Information             |                                   |  |   |          |  |  |  |
|                         |                                   |  |   |          |  |  |  |
|                         |                                   |  |   |          |  |  |  |

|                              | Program<br>Outcome1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|------------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL                        |                     | 2                   | 1                   |                         |                     |                     |                     |                         |                     |                      |                      |
| Learnin<br>g<br>outcome<br>1 |                     |                     | 1                   |                         |                     |                     |                     |                         |                     |                      |                      |
| Learnin<br>g<br>outcome<br>2 |                     | 1                   |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learnin<br>g<br>outcome<br>3 |                     | 1                   |                     |                         |                     |                     |                     |                         |                     |                      |                      |

| Mathematics and Basic Sciences | %70 |
|--------------------------------|-----|
| Engineering Sciences           | %30 |
| Engineering Design             | %0  |
| Social Sciences                | %0  |
| Education Sciences             | %0  |
| Science                        | %0  |
| Health Sciences                | %0  |
| Field Knowledge                | %0  |

| Course Description Form                        |  |                                   |  |  |  |  |  |  |
|--|--|-----------------------------------|--|--|--|--|--|--|
| Course Code and Name                           | FIZ102 PHYS  | SICS 2                            |  |  |  |  |  |  |
| Course Semester                                | 2  |                                   |  |  |  |  |  |  |
| Catalog Content                                | Understanding and calculating electric fields and potentials.<br>Understanding circuit analysis and the behavior of its components.<br>Understanding electromagnetic forces and magnetic fields.<br>Understanding the effects of capacitance and dielectric materials.<br>Understanding the fundamental principles of electromagnetic waves.     |                                   |  |  |  |  |  |  |
| Textbook                                       | Physics for Scientists and Engineers, R.Serway & John W. Jewett<br>Thomson Brooks/Cole © 2004 6th Edition.   |                                   |  |  |  |  |  |  |
| Supplementary Textbooks                        | Young Freedman University Physics 13th Edition. Fundamentals of Physics [ 10th Edition] Halliday & Resnick.  |                                   |  |  |  |  |  |  |
| ECTS   | 6 ECTS   |                                   |  |  |  |  |  |  |
| Prerequisites of the<br>Course (<br>Attendance | Attendance   |                                   |  |  |  |  |  |  |
| Type of the Course                             | Compulsory   |                                   |  |  |  |  |  |  |
| Instruction Language                           | Turkish  |                                   |  |  |  |  |  |  |
| Course Objectives                              | <ul> <li>Investigating fundamental electrical and magnetic phenomena in nature and learning basic concepts.</li> <li>Developing analytical thinking and acquiring the discipline to create basic algorithms for problem-solving.</li> <li>1. Gaining the ability to analyze engineering problems.</li> <li>2. Facilitating solutions.</li> </ul> |                                   |  |  |  |  |  |  |
| Course Learning Outcomes                       | 3. Acquiring   | practical application skills.     |  |  |  |  |  |  |
| Instruction Methods                            | Face to face   | -                                 |  |  |  |  |  |  |
| Weekly Schedule                                | 1. Week  | Electric Charge and Coulomb's Law |  |  |  |  |  |  |
|  | 2. Week  | The Electric Field                |  |  |  |  |  |  |
|  | 3. Week  | Gauss' Law                        |  |  |  |  |  |  |
|  | 4. Week  | Electric Potential                |  |  |  |  |  |  |
|  | 5. Week  | Electric Potential (cont.)        |  |  |  |  |  |  |
|  | 6. Week  | Capacitors and Dielectrics        |  |  |  |  |  |  |
|  | 7. Week  | Current and Resistance            |  |  |  |  |  |  |
|  | 8. Week  | DC Circuits                       |  |  |  |  |  |  |
|  | 9. Week  | The Magnetic Field                |  |  |  |  |  |  |
|  | 10. Week   | The Biot-Savart Law               |  |  |  |  |  |  |
|  | 11. Week   | Ampere's Law                      |  |  |  |  |  |  |
|  | 12. Week   | Solenoids and Toroids             |  |  |  |  |  |  |
|  | 13. Week   | Faraday's Law                     |  |  |  |  |  |  |
|  | 14. Week   | Lenz's Law                        |  |  |  |  |  |  |
|  |  |                                   |  |  |  |  |  |  |

| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theoretical course hours: 4<br>Weekly tutorial hours: 0<br>Reading Activities: 2<br>Internet browsing, library work: 2<br>Designing and implementing materials: 0<br>Report preparing: 0<br>Preparing a Presentation and Presentations: 0<br>Preparation of Midterm and Midterm Exam: 10<br>Final Exam and Preparation for Final Exam: 14<br>Other: 2 |         |                           |  |  |  |  |  |
|---|--|---------|---------------------------|--|--|--|--|--|
|   |  | Numbers | Total<br>Weighting<br>(%) |  |  |  |  |  |
|   | Midterm Exams  | 1       | 60                        |  |  |  |  |  |
|   | Assignment   |         |                           |  |  |  |  |  |
| Assessment Criteria   | Application  |         |                           |  |  |  |  |  |
|   | Projects   |         |                           |  |  |  |  |  |
|   | Practice   |         |                           |  |  |  |  |  |
|   | Quiz   |         |                           |  |  |  |  |  |
|   | Percent of In-term Studies (%)   |         |                           |  |  |  |  |  |
|   | Percentage of Final Exam to Total Score (%)  | 1       | 40                        |  |  |  |  |  |
|   | Attendance   |         |                           |  |  |  |  |  |

|                         |                       | Activity                     | Number of<br>Weeks   | Duratio<br>(Weekl<br>Hour) | y<br>y | End of<br>Semester Tot<br>Workload |       |   |
|-------------------------|-----------------------|------------------------------|----------------------|----------------------------|--------|------------------------------------|-------|---|
|                         | Weekly the            | oretical course hours        | 14                   | 4                          |        | 56                                 |       |   |
|                         | Weekly pra            | ctical course hours          |                      |                            |        |                                    |       |   |
|                         | Reading ac            | tivities                     | 14                   | 2                          |        | 28                                 |       |   |
|                         | Internet sea          | urch and library work        | 14                   | 2                          |        |                                    | 28    |   |
|                         | Designing a materials | and implementing             |                      |                            |        |                                    |       |   |
| Workload of the Course  | Making a re           | eport                        |                      |                            |        |                                    |       |   |
|                         | Preparing a           | nd making presentations      |                      |                            |        |                                    |       |   |
|                         | Midterm an            | nd revision for midterm      | 1                    | 10                         |        | 10                                 |       |   |
|                         | Final exam            | and revision for final       | 1                    | 14                         |        | 14                                 |       |   |
|                         | exam                  |                              | 7                    | 2                          |        | 14                                 |       |   |
|                         | Other                 |                              | /                    |                            |        | 150                                |       |   |
|                         | Total work            | load                         |                      |                            |        | 1                                  | 50/25 |   |
|                         | Total work            | load/25                      |                      |                            |        | 1                                  | 50/25 |   |
|                         | Course Cre            | dit (ECTS)                   |                      |                            |        |                                    | 0     |   |
| Contribution Level      | No                    | Program Ou                   | itcomes              | 1                          | 2      | 3                                  | 4     | 5 |
| between Course Outcomes | 1                     | Adequate knowledge in r      | nathematics, scien   | ice                        |        | x                                  |       |   |
| and Program Outcomes    |                       | and engineering subjects     | pertaining to the    |                            |        |                                    |       |   |
|                         |                       | relevant discipline; abilit  | y to use theoretical | 1                          |        |                                    |       |   |
|                         |                       | model and solve engineer     |                      |                            |        |                                    |       |   |
|                         | 2.                    | Ability to identify, formu   | x                    |                            |        |                                    |       |   |
|                         | _                     | complex engineering pro      |                      |                            |        |                                    |       |   |
|                         |                       | select and apply proper a    |                      |                            |        |                                    |       |   |
|                         |                       | modeling methods for this    | s purpose.           |                            |        |                                    |       |   |
|                         | 3                     | Ability to design a compl    | ex system, process   | s,                         |        | x                                  |       |   |
|                         |                       | device or product under r    | ealistic constraints | s                          |        |                                    |       |   |
|                         |                       | and conditions, in such a    | way as to meet the   | e                          |        |                                    |       |   |
|                         |                       | desired result; ability to a | gn                   |                            |        | 1                                  |       |   |

|                         |                | methods for this purpose.                      |   |   |   |      |
|-------------------------|----------------|--|---|---|---|------|
|                         | 4              | Ability to develop, select and use modern      |   |   | х |      |
|                         |                | techniques and tools necessary for analysis    |   |   |   |      |
|                         |                | and solution of complex problems in            |   |   |   |      |
|                         |                | engineering applications; ability to use       |   |   |   |      |
|                         |                | information technologies effectively.          |   |   |   |      |
|                         | 5              | Ability to design and conduct experiments,     |   | X |   |      |
|                         |                | gather data, analyze and interpret results for |   |   |   |      |
|                         |                | examination of engineering problems or         |   |   |   |      |
|                         |                | discipline-specific research topics.           |   |   |   |      |
|                         | 6              | Ability to work efficiently in intra-          |   |   |   |      |
|                         |                | disciplinary teams.                            |   |   |   |      |
|                         | 7              | Ability to work efficiently in multi-          |   |   |   |      |
|                         |                | disciplinary teams.                            |   |   |   |      |
|                         | 8              | Ability to communicate effectively in          |   |   |   |      |
|                         |                | Turkish, both orally and in writing;           |   |   |   |      |
|                         |                | knowledge of a minimum of one foreign          |   |   |   |      |
|                         |                | language.                                      |   |   |   |      |
|                         | 9              | Ability to write effective reports and         |   |   |   |      |
|                         | -              | understand written reports to prepare design   |   |   |   |      |
|                         |                | and production reports to make effective       |   |   |   |      |
|                         |                | presentations to give clear and                |   |   |   |      |
|                         |                | understandable instructions and to receive     |   |   |   |      |
|                         | 10             | Recognition of the need for lifelong learning: | x |   |   | <br> |
|                         | 10             | ability to access information to follow        |   |   |   |      |
|                         |                | developments in science and technology and     |   |   |   |      |
|                         |                | to continue to educate him/herself             |   |   |   |      |
|                         |                | to continue to educate min/nersen.             |   |   |   |      |
|                         | 11             | Conformity to ethical principles professional  |   |   |   |      |
|                         | 11             | and ethical responsibility. Information on     |   |   |   |      |
|                         |                | standards used in engineering applications     |   |   |   |      |
|                         |                | standards used in engineering applications.    |   |   |   |      |
|                         | Ee cultu Marri | have of the Demonstration                      |   |   |   |      |
| Lecturer(s) and Contact | farfiril @     | i adu te                                       |   |   |   |      |
| Information             | iennzik@gaz    | 1.544.4  |   |   |   |      |
|                         |                |  |   |   |   |      |
|                         |                |  |   |   |   |      |

|                       | Progra<br>m<br>Outcom<br>e1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|-----------------------|-----------------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL                 | 3                           | 1                   | 3                   | 3                       | 2                   |                     |                     |                         |                     | 1                    |                      |
| Learning<br>outcome 1 | 1                           | 1                   | 1                   | 1                       | 1                   |                     |                     |                         |                     |                      |                      |
| Learning<br>outcome 2 | 1                           |                     | 1                   | 1                       |                     |                     |                     |                         |                     |                      |                      |
| Learning<br>outcome 3 | 1                           |                     | 1                   | 1                       | 1                   |                     |                     |                         |                     | 1                    |                      |
# Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %70 |
|--------------------------------|-----|
| Engineering Sciences           | %30 |
| Engineering Design             | %0  |
| Social Sciences                | %0  |
| Education Sciences             | %0  |
| Science                        | %0  |
| Health Sciences                | %0  |
| Field Knowledge                | %0  |

|   | COURSE DES  | SCRIPTION   |
|---|---|---|
| Course code and title   | FİZ156 PHY  | SICS LABORATORY   |
| Course Semester   | 1   |   |
| Course Content  | Recognizing I<br>Conducting p<br>Transferring of<br>graphs.<br>Preparing scie<br>Understandin<br>Analyzing mo<br>Understandin<br>Analyzing the<br>Examining sin | aboratory and measurement instruments.<br>hysical measurements and understanding error calculations.<br>experimental data to tables, drawing graphs, and interpreting<br>entific reports.<br>g the concepts of velocity and acceleration.<br>otion in two dimensions.<br>g Newton's laws of motion and motion on an inclined plane.<br>e physical effects of collisions.<br>mple harmonic motion. |
| Recommended or Required Reading   | Laboratory M<br>Engineers, 5 t  | anual for General Physics, Physics 1 For Scientists and<br>h edition, Raymond A. Serway, Robert J. Beichner   |
| Recommended or Required Reading   | Young Freed<br>Fundamentals   | nan UniversityPhysics 13th Edition<br>of Physics [ 10th Edition] Halliday & Resnick   |
| Credits of Course (ECTS)  | 2 ECTS  |   |
| Prerequisites   | Lectures must   | t be attended by students.  |
| Type of Course  | Basic Science   | Education   |
| Language of Instruction   | English   |   |
| Purpose and Object of the Course  | Investigating<br>analyzing the<br>Acquiring the   | fundamental mechanical phenomena in nature experimentally and<br>m with basic concepts<br>ability to obtain, understand, and use experimental data  |
| Learning Outcomes Of The Course Unit  | 1. Learning n<br>2.Export to E<br>benefits of th<br>3. Examing the classical n  | neasurement methods and error calculation<br>xperimental Data to the Table, learning of drawing data graphs,<br>e graphs and writing report<br>ne results of reproducible and error-including experiments with<br>nechanical formulas   |
| Planned Learning Activities and Teaching<br>Methods   | Face to face  |   |
|   | 1. Week   | Introduction of laboratory and laboratory equipment   |
|   | 2. Week   | Physical measurement and error  |
|   | 3. Week   | Export to experimental data to the table, learning of drawing data gr<br>and writing report   |
| ecommended or Required Reading<br>ecommended or Required Reading<br>redits of Course (ECTS)<br>rerequisites<br>ype of Course<br>anguage of Instruction<br>arpose and Object of the Course<br>earning Outcomes Of The Course Unit<br>anned Learning Activities and Teaching<br>lethods | 4. Week   | Making of "Velocity, Acceleration" experiment   |
|   | 5. Week   | Evaluating of results of "Velocity, Acceleration" experiment and we   |
| Course Per Week   | 6. Week   | Making of "I'wo dimensional motion" experiment  |
|   | 7. Week   | Evaluating of results of "Two dimensional motion" experiment and  |
|   | 8. Week   | Making of "Newton's Laws of Motion in the inclined Plane" experi  |
|   | 9. Week   | Evaluating of results of "Newton's Laws of Motion in the inclined I reports   |
|   | 10. Week  | Making of "Collisions" experiment   |
|   | 11. Week  | Evaluating of results of "Collisions" experiment and writing reports  |
|   | 12. Week  | Midterm exam, make-up experiment  |
|   | 13. Week  | Making of "Simple Harmonic Motion" experiment   |
|   | 14. Week  | Evaluating of results of "Simple Harmonic Motion" experiment and  |

| Workload                                       | Weekly<br>Weekly<br>Reading<br>Internet<br>Designin<br>Report p<br>Preparin<br>Preparati<br>Final Ex | theoretical course hou<br>tutorial hours: 1<br>Activities: 0<br>browsing, library wor<br>ng and implementing reparing: 0<br>g a Presentation and I<br>ion of Midterm and N<br>am and Preparation fo | rs: 0<br>k: 0<br>materials:<br>Presentatic<br>fidterm E:<br>or Final E:   | 0<br>ons: 0<br>kam: 5<br>kam: 5 |                     |             |       |                           |   |             |
|--|--|---|---|---------------------------------|---------------------|-------------|-------|---------------------------|---|-------------|
|  |  |   | Numbe   | r Tota                          | l cont<br>(%        | tribu<br>5) | itioi | 1                         |   |             |
|  | Mid-ter  | rms   | 1   |                                 | 20                  | )           |       |                           |   |             |
|  | Assign   | ment  | 8   |                                 | 40                  | )           |       |                           |   |             |
|  | Exercis  | se  |   |                                 |                     |             |       |                           |   |             |
| Assessment Methods And Criteria                | Project  | s   |   |                                 |                     |             |       |                           |   |             |
|  | Ouiz   | 0   |   |                                 |                     |             |       |                           |   |             |
|  | Quiz   |   |   |                                 |                     |             |       |                           |   |             |
|  | Contrib  | oution of In-term   |   |                                 |                     |             |       |                           |   |             |
|  | Studies  | to Overall Grade  |   |                                 |                     |             |       |                           |   |             |
|  | (%)  | ution of Final  | 1   |                                 | 10                  | )           |       |                           |   |             |
|  | Examir   | nation to Overall   | 1   |                                 | 40                  | )           |       |                           |   |             |
|  | Grade (  | (%)   |   |                                 |                     |             |       |                           |   |             |
|  | Attenda  | ince  | L   |                                 | 1                   |             | _     |                           |   |             |
|  |  | Activities  |   | Total<br>number<br>of weeks     | l Time<br>er (Weekl |             | ')    | effi<br>at t<br>of<br>sen | otal<br>cienc<br>he en<br>f the<br>nester | y<br>d<br>r |
|  | Theoretic<br>Week  | cal Study Hours of Co   | ourse Per   |                                 |                     |             |       |                           |   |             |
|  | Practicin  | g Hours of Course Pe  | r Week  | 14                              |                     | 2           |       |                           | 28  |             |
|  | Reading  |   |   |                                 |                     |             |       |                           |   |             |
| Efficiency                                     | Searching  | g in Internet and Libr  | ary   |                                 |                     |             |       |                           |   |             |
|  | Designin   | g and Materials, App  | lying   |                                 |                     |             |       |                           |   |             |
|  | Preparing  | g Reports   |   | 12                              |                     | 1           |       |                           | 12  |             |
| fficiency                                      | Preparing  | g Presentation  |   |                                 |                     |             |       | _                         |   |             |
|  | Presentat  | tion  |   |                                 |                     |             |       |                           |   |             |
|  | Mid-Terr   | n and Studying for M  | lid-Term  | 1                               |                     | 5           |       |                           | 5   |             |
| ssessment Methods And Criteria                 | Final and  | l Studying for Final  |   | 1                               |                     | 5           |       |                           | 5   |             |
|  | Other  |   |   |                                 |                     |             |       |                           |   |             |
|  | TOTAL  | WORKLOAD  |   |                                 |                     |             |       |                           | 50  |             |
|  | TOTAL  | WORKLOAD/ 25  |   |                                 |                     |             |       | 5                         | 0/25                                      |             |
|  | ECTS of  | Course  | rs: 0<br>c: 0 naterials: 0<br>resentations: 0 idterm Exam: 5<br>r Final Exam: 5<br>Total contrib (%)<br>1 20 8 40 (%)<br>1 20 8 40<br>1 20 8 40 8 40 8 40 8 40 8 40 8 40 8 40 8 |                                 |                     | 2           |       |                           |   |             |
| Contribution Level between Course Outcomes and | No   | Progra  | m Outcon  | nes                             | <u> </u>            | 1           | 2     | 3                         | 4   | 5           |
| Program Outcomes                               | 1  | Adequate knowledg   | e in mathe  | ematics, scie                   | ence                |             |       | x                         |   |             |
|  |  | and engineering sub   | jects perta   | ining to the                    |                     |             |       |                           |   |             |
|  |  | relevant discipline;  | ability to ı  | ise theoretic                   | al                  |             |       |                           |   |             |
|  |  | and applied information model and solve end   | uion in the   | roblems                         |                     |             |       |                           |   |             |
|  | 2  | Ability to identify.  | formulate.  | and solve                       | +                   |             |       | +                         | -   | +           |
|  | -  | complex engineerin  | g problem   | s; ability to                   |                     |             |       |                           |   |             |
|  |  | select and apply pro  | per analys  | sis and                         |                     |             |       |                           |   |             |
|  |  | modeling methods f  | or this pu  | pose.                           |                     |             |       |                           | -   |             |
|  | 3  | Ability to design a c   | complex synder  | stem, proce                     | ess,                | X           |       |                           |   |             |
|  |  | and conditions in su  | ider realls   | as to meet t                    | he                  |             |       |                           |   |             |
|  |  | desired result: abilit  | y to apply  | modern des                      | sign                |             |       |                           |   |             |
|  |  | methods for this pur  | pose.   |                                 | 5                   |             |       |                           |   |             |

|                                     | 4        | Ability to develop, select and use modern      |   |   |   |             |
|-------------------------------------|----------|--|---|---|---|-------------|
|                                     |          | techniques and tools necessary for analysis    |   |   |   |             |
|                                     |          | and solution of complex problems in            |   |   |   |             |
|                                     |          | engineering applications; ability to use       |   |   |   |             |
|                                     |          | information technologies effectively.          |   |   |   |             |
|                                     | 5        | Ability to design and conduct experiments,     |   |   | х |             |
|                                     |          | gather data, analyze and interpret results for |   |   |   |             |
|                                     |          | examination of engineering problems or         |   |   |   |             |
|                                     |          | discipline-specific research topics.           |   |   |   |             |
|                                     | 6        | Ability to work efficiently in intra-          | X |   |   |             |
|                                     |          | disciplinary teams.                            |   |   |   |             |
|                                     | 7        | Ability to work efficiently in multi-          |   |   |   |             |
|                                     |          | disciplinary teams.                            |   |   |   |             |
|                                     | 8        | Ability to communicate effectively in          |   |   |   |             |
|                                     | -        | Turkish, both orally and in writing:           |   |   |   |             |
|                                     |          | knowledge of a minimum of one foreign          |   |   |   |             |
|                                     |          | language.                                      |   |   |   |             |
|                                     | 9        | Ability to write effective reports and         | x |   |   |             |
|                                     | -        | understand written reports, to prepare design  |   |   |   |             |
|                                     |          | and production reports, to make effective      |   |   |   |             |
|                                     |          | presentations, to give clear and               |   |   |   |             |
|                                     |          | understandable instructions and to receive.    |   |   |   |             |
|                                     | 10       | Recognition of the need for lifelong learning: |   |   |   |             |
|                                     | -        | ability to access information, to follow       |   |   |   |             |
|                                     |          | developments in science and technology, and    |   |   |   |             |
|                                     |          | to continue to educate him/herself.            |   |   |   |             |
|                                     |          |  |   |   |   |             |
|                                     | 11       | Conformity to ethical principles, professional |   | х |   |             |
|                                     |          | and ethical responsibility; Information on     |   |   |   |             |
|                                     |          | standards used in engineering applications.    |   |   |   |             |
|                                     |          |  |   |   |   | · · · · · · |
|                                     | Faculty  | Members of the Department                      |   |   |   |             |
| Lecturer(s) and Contact Information | fenfizik | @gazi.edu.tr                                   |   |   |   |             |
|                                     | Ì        | 00   |   |   |   |             |
|                                     |          |  |   |   |   |             |
|                                     |          |  |   |   |   |             |

# Contribution of the Course to Program Outcomes

|          | Program<br>Outcome | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|----------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|----------------------|
| TOTAL    | 3                  |                     | 1                   | 4                  | 3                   | 1                   |                     | 0                  | 1                   |                      | 2                    |
| Learning | 1                  |                     | 1                   |                    | 1                   | 1                   |                     |                    | 1                   |                      | 1                    |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 1        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning | 1                  |                     |                     |                    | 1                   |                     |                     |                    | 1                   |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 2        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning | 1                  |                     | 1                   |                    | 1                   | 1                   |                     |                    |                     |                      | 1                    |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 3        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %60 |
|--------------------------------|-----|
| Engineering Sciences           | %40 |
| Engineering Design             | %0  |
| Social Sciences                | %0  |
| Education Sciences             | %0  |
| Science                        | %0  |
| Health Sciences                | %0  |
| Field Knowledge                | %0  |

|   | Course Description<br>Form   |
|---|--|
| Course Code and Name  | ISG301 OCCUPATIONAL HEALTH AND SAFETY 1  |
| Course Semester   | 5  |
| Catalog Content   | OHS general concepts, aim and importance<br>An overview of safety culture and occupational health and safety<br>OHS legislation and OHS services. OHS management systems<br>Ethics in OHS<br>Work hygiene and hazards in workplace<br>Risk factors<br>Occupational accidents and occupational diseases and basic<br>protection methods<br>Emergency plans and first aid<br>Special circumstances in working life |
| Textbook  | <ol> <li>A Manual for Primary Health Care Workers, 2001,<br/>WHO-EM/OCH/85/E/L, World Health Organization, Regional<br/>Office for the Eastern Mediterranean.</li> <li>Goetsch, D.L., Occupational Safety and Health for Technologists,<br/>Engineers, and Managers, 8th Edition, Pearson, 2010.</li> </ol>  |
| Supplementary Textbooks   | <ol> <li>Alli, B. O., Occupational Health and Safety, ILO, International<br/>Labour Office, Geneva, 2008.</li> </ol>   |
| Credit  | 2 ECTS   |
| Prerequisites<br>of the Course (<br>Attendance<br>Requirements) | No Prerequisites<br>%70 Attendance Requirements  |
| Type of the Course  | Compulsory   |
| Instruction Language  | Turkish  |
| Course Objectives   | To understand the safety culture and learn the benefits to enterprise<br>To learn the basic principles of OHS<br>To learn the legal aspect of OHS<br>To learn basic protection methods<br>To learn emergency and first aid requirements and needs<br>To sense the risk factors and evaluate the effects on OHS   |
| Course Learning Outcomes  | <ol> <li>They can understand the importance of the occupational health and<br/>safety</li> <li>They can gain risk management skills.</li> <li>They can gain the ability to develop skills of the work place layout<br/>under the skin of occupational health and safety principles.</li> <li>They can plan the activities of prevention the occupational accidents<br/>and diseases be for occurring.</li> </ol> |
| Instruction Methods   | Face to face   |

|   | 1. Week  | Safety Culture and C  | Occupational H              | Iealth and Safe  | ty                |
|---|--|---|-----------------------------|------------------|-------------------|
|   | 2. Week  | Principles in Labour  | Law and Plac                | e of Occupation  | nal Health        |
|   | 3. Week  | Occupational Health   | and Safety L                | egislation       |                   |
|   | 4. Week  | Working Environme   | ent Monitoring              | ; - OHS Service  | S                 |
|   | 5. Week  | Ethics in Occupation  | nal Health and              | Safety. OHS M    | lanagement Systen |
|   | 6. Week  | Shift and Night Wor   | k. Special Ris              | k Groups in Wo   | ork Life          |
| Weekly Schedule   | 7. Week  | Work Accidents, Oc  | cupational Dis              | seases and Heal  | th Monitoring     |
|   | 8. Week  | Occupational Diseas   | ses and Health              | Monitoring       |                   |
|   | 9. Week  | Protection Policies a   | nd Basic Metl               | nods             |                   |
|   | 10. Week   | Emergency Plans an  | d First Aid                 |                  |                   |
|   | 11. Week   | Workplace Hygiene   | e Hazards                   |                  |                   |
|   | 12. Week   | Physical Risk Factor  | rs. Ergonomic               | Risk Factors     |                   |
|   | 13. Week   | Biological Risk Fact  | tors                        |                  |                   |
|   | 14 Week  | Chemical Risk Facto   | ors                         |                  |                   |
|   |  |   |                             |                  |                   |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theore<br>Weekly tutoria<br>Reading Activi<br>Internet brows<br>Designing and<br>Report preparin<br>Preparing a Pro<br>Presentations:<br>Preparation of<br>Final Exam and | tical course hours: 2<br>il hours: 0<br>ities: 1<br>ing, library work: 1<br>implementing materia<br>ng: 0<br>esentation: 0<br>0<br>Midterm and Midterm<br>d Preparation for Final | ls: 0<br>Exam: 2<br>Exam: 2 |                  |                   |
|   |  |   | Number<br>s                 | Total<br>Weighti |                   |
|   |  |   |                             | ng (%)           |                   |
|   | Midterm Exar   | ms  | 1                           | 60               |                   |
|   | Assignment   |   |                             |                  |                   |
|   | Projects   |   |                             |                  |                   |
| Assessment Criteria   | Practice   |   |                             |                  |                   |
|   | Quiz   |   |                             |                  |                   |
|   | Percent of In-   | term Studies  |                             | 60               |                   |
|   | (70)<br>Percentage of  | Final Exam to   |                             | 40               |                   |
|   | Total Score (%   | %)  |                             |                  |                   |
|   | Attendance   |   |                             |                  |                   |

|   |   | Activi<br>ty  | Total<br>Numb<br>er of<br>Week<br>s   | I<br>0<br>()<br>y<br>h  | Dui<br>on<br>we<br>nou | rati<br>ekl<br>ır) |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |
|---|---|---|---|---|------------------------|--------------------|---|---|---|
|   | Weekl<br>Hours  | y Theoretical Course  | 14  |   |                        | 2                  |   |   | 28  |
|   | Weekl   | y Tutorial Hours  |   |   |                        |                    |   |   |   |
|   | Readir  | ng Tasks  | 8   |   |                        | 1                  |   |   | 8   |
| Workload  | Studie  | s   | 10  |   |                        | 1                  |   |   | 10  |
|   | Materi<br>and<br>Impler   | al Design nentation   |   |   |                        |                    |   |   |   |
|   | Report  | t Preparing   |   |   |                        |                    |   |   |   |
|   | Prepar  | ring a Presentation   |   |   |                        |                    |   |   |   |
|   | Presen  | itations  |   |   |                        |                    |   |   |   |
|   | Midter<br>Preper<br>Midter  | rm Exam and<br>ration for<br>rm Exam  | 1   |   |                        | 2                  |   |   | 2   |
|   | Final I<br>Preper<br>Exam   | Exam and<br>ation for Final   | 1   |   |                        | 2                  |   |   | 2   |
|   | Other   | ( should  |   |   |                        |                    |   |   |   |
|   | be<br>empha   | sized)  |   |   |                        |                    |   |   |   |
|   | Total   | Workload  | -   |   |                        | -                  |   |   | 50  |
|   | Total   | Workload / 25   |   |   |                        |                    |   |   | 50/25   |
|   | Course  | e Credit (ECTS)   |   | h Durati<br>on<br>(weekl<br>y<br>hour)<br>2 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ |                        | 2                  |   |   |   |
|   | N<br>o  | Program Outco   | mes   | 1   | 2                      | 3                  | 4 | 5 |   |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1   | Adequate knowledg<br>mathematics, science<br>engineering subject<br>pertaining to the rel<br>discipline; ability to<br>theoretical and appliinformation in these<br>model and solve en<br>problems. | ge in<br>ce and<br>ss<br>levant<br>b use<br>lied<br>e areas to<br>gineering   |   |                        |                    |   |   |   |
|   | 2 Ability to identify, formulate,<br>and solve complex<br>engineering problems; ability<br>to select and apply proper<br>analysis and modeling<br>methods for this purpose. |   |   |   |                        |                    |   |   |   |
|   | 3   | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to me<br>desired result; abili-<br>apply modern desig<br>methods for this pu             | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |   |                        |                    |   |   |   |

|                              |              |  | _ | _ | _ | _ | _ |  |
|------------------------------|--------------|--|---|---|---|---|---|--|
|                              | 4            | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |   | x |   |   |   |  |
|                              | 5            | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |   |   |   |   |   |  |
|                              | 6            | Ability to work efficiently in intra-disciplinary teams.   |   |   | X |   |   |  |
|                              | 7            | Ability to work efficiently in multi-disciplinary teams.   |   |   |   |   |   |  |
|                              | 8            | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |   | x |   |   |   |  |
|                              | 9            | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |   |   |   |   |   |  |
|                              | 1 0          | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |   |   |   |   |   |  |
|                              | 1            | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |   |   |   | X |   |  |
| The Course's Lecturer(s) and | Dep<br>tasar | artment Management<br>rim@gazi.edu.tr  |   |   |   |   |   |  |
| Contact Informations         |              | $\bigcirc o$   |   |   |   |   |   |  |

|                          | Program<br>Outcome<br>1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|--------------------------|-------------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL                    |                         |                     |                     | 2                       |                     | 3                   |                     | 2                       |                     |                      | 4                    |
| Learning<br>outcome<br>1 |                         |                     |                     | 1                       |                     | 1                   |                     | 1                       |                     |                      | 1                    |
| Learning<br>outcome<br>2 |                         |                     |                     | 1                       |                     | 1                   |                     | 1                       |                     |                      | 1                    |
| Learning<br>outcome<br>3 |                         |                     |                     |                         |                     | 1                   |                     |                         |                     |                      | 1                    |
| Learning<br>outcome      |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      | 1                    |

| 4 |  |  |  |  |  |  |
|---|--|--|--|--|--|--|

| Mathematics and Basic Sciences | <b>%</b> 0 |
|--------------------------------|------------|
| Engineering Sciences           | %75        |
| Engineering Design             | %0         |
| Social Sciences                | %20        |
| Education Sciences             | %0         |
| Science                        | %0         |
| Health Sciences                | %5         |
| Field Knowledge                | %0         |

|   | Course Description<br>Form   |
|---|--|
| Course Code and Name  | ISG302 OCCUPATIONAL HEALTH AND SAFETY 2  |
| Course Semester   | 6  |
| Catalog Content   | Fire, explosion and protection<br>Occupational Health and Safety in workplace carried out in various<br>work<br>Risk identification and OHS in different works<br>Risk assessment and risk management<br>OHS approach in specific works domain   |
| Textbook  | <ol> <li>A Manual for Primary Health Care Workers, 2001,<br/>WHO-EM/OCH/85/E/L, World Health Organization, Regional<br/>Office for the Eastern Mediterranean.</li> <li>Goetsch, D.L., Occupational Safety and Health for Technologists,<br/>Engineers, and Managers, 8th Edition, Pearson, 2010.</li> </ol>  |
| Supplementary Textbooks   | <ol> <li>Alli, B. O., Occupational Health and Safety, ILO, International<br/>Labour Office, Geneva, 2008.</li> </ol>   |
| Credit  | 2 ECTS   |
| <b>Prerequisites</b><br>of the Course (<br><i>Attendance</i><br><i>Requirements</i> ) | No Prerequisites<br>%70 Attendance Requirements  |
| Type of the Course  | Compulsory   |
| Instruction Language  | Turkish  |
| Course Objectives   | To understand the safety culture and learn the benefits to enterprise<br>To learn the basic principles of OHS<br>To learn the legal aspect of OHS<br>To learn basic protection methods<br>To learn emergency and first aid requirements and needs<br>To sense the risk factors and evaluate the effects on OHS   |
| Course Learning Outcomes  | <ol> <li>They can understand the importance of the occupational health and<br/>safety</li> <li>They can gain risk management skills.</li> <li>They can gain the ability to develop skills of the work place layout<br/>under the skin of occupational health and safety principles.</li> <li>They can plan the activities of prevention the occupational accidents<br/>and diseases be for occurring.</li> </ol> |
| Instruction Methods   | Face to face   |

|   | 1. Week   | Fire and Fire Protec  | tion   |                  |             |  |  |  |  |
|---|---|---|--|------------------|-------------|--|--|--|--|
|   | 2. Week   | Explosion and Expl  | osion and Explosion Protection. OHS in Electrical Worl |                  |             |  |  |  |  |
|   | 3. Week   | OHS in Confined Sp  | paces Works  |                  |             |  |  |  |  |
|   | 4. Week   | OHS on Working at   | Height   |                  |             |  |  |  |  |
|   | 5. Week   | OHS at Design, Ma   | nufacturing an   | d Usage of Work  | c Equipment |  |  |  |  |
|   | 6. Week   | 6. Week OHS in Construction   |  |                  |             |  |  |  |  |
| Weekly Schedule   | 7. Week   | OHS in Mining Ope   | erations   |                  |             |  |  |  |  |
|   | 8. Week   | Risk Management A   | Approach   |                  |             |  |  |  |  |
|   | 9. Week   | Risk Management A   | Approach   |                  |             |  |  |  |  |
|   | 10. Week  | Risk Assessment M   | ethods   |                  |             |  |  |  |  |
|   | 11. Week  | Project Presentation  | in specific wo   | orks domain      |             |  |  |  |  |
|   | 12. Week  | Project Presentation in specific works domain   |  |                  |             |  |  |  |  |
|   | 13. Week  | Project Presentation in specific works domain   |  |                  |             |  |  |  |  |
|   | 14. Week Project Presentation in specific works domain  |   |  |                  |             |  |  |  |  |
|   |   |   |  |                  |             |  |  |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theore<br>Weekly tutoria<br>Reading Activ<br>Internet brows<br>Designing and<br>Report prepari<br>Preparing a Pro<br>Presentations:<br>Preparation of<br>Final Exam an | ekly theoretical course hours: 2<br>ekly tutorial hours: 0<br>ading Activities: 0<br>ernet browsing, library work: 0<br>signing and implementing materials: 0<br>bort preparing: 1<br>paring a Presentation: 1<br>sentations: 1<br>paration of Midterm and Midterm Exam: 3<br>al Exam and Preparation for Final Exam: 3 |  |                  |             |  |  |  |  |
|   |   |   | Number<br>s  | Total<br>Weighti |             |  |  |  |  |
|   |   |   |  | ng (%)           |             |  |  |  |  |
|   | Midterm Exai  | ms  | 1  | 60               |             |  |  |  |  |
|   | Application   |   |  |                  |             |  |  |  |  |
| Assessment Critoria   | Projects  |   |  |                  |             |  |  |  |  |
| Assessment Crucita  | Practice  |   |  |                  |             |  |  |  |  |
|   | Quiz<br>Dereart of In   | town Studies  |  | 60               |             |  |  |  |  |
|   | (%)   | term Studies  |  | 0U               |             |  |  |  |  |
|   | Percentage of<br>Total Score (9   | Final Exam to<br>%)   | 40   |                  |             |  |  |  |  |
|   | Attendance  |   |  |                  |             |  |  |  |  |

|   |  | Activi<br>ty  | Total<br>Numb<br>er of<br>Week<br>s   | Durati<br>on<br>(weekl<br>y<br>hour) |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |   |       |
|---|--|---|---|--------------------------------------|---|---|---|---|-------|
|   | Weekl<br>Hours   | y Theoretical Course  | 14  | 2                                    |   |   |   |   | 28    |
|   | Weekl  | y Tutorial Hours  |   |                                      |   |   |   |   |       |
|   | Readir   | ng Tasks  |   |                                      |   |   |   |   |       |
| Workload  | Studie   | S   |   |                                      |   |   |   |   |       |
|   | Materi<br>and<br>Impler  | ial Design<br>mentation   |   |                                      |   |   |   |   |       |
|   | Repor  | t Preparing   | 6   |                                      |   | 1 |   |   | 6     |
|   | Prepar   | ring a Presentation   | 5   |                                      |   | 1 |   |   | 5     |
|   | Presen   | itations  | 5   |                                      |   | 1 |   |   | 5     |
|   | Midter<br>Preper<br>Midter   | rm Exam and<br>ration for<br>rm Exam  | 1   |                                      |   | 3 |   |   | 3     |
|   | Final I<br>Preper  | Exam and ration for Final   | 1   |                                      |   | 3 |   |   | 3     |
|   | Other  |   |   |                                      |   |   |   |   |       |
|   | be<br>empha  | vized)  |   |                                      |   |   |   |   |       |
|   | Total  | Workload  | _   |                                      |   | _ |   |   | 50    |
|   | Total  | Workload / 25   |   |                                      |   |   |   |   | 50/25 |
|   | Course   | e Credit (ECTS)   |   |                                      |   |   | 2   |   |       |
|   | N<br>o   | Program Outco   | mes   | 1                                    | 2 | 3 | 4   | 5 |       |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1 Adequate knowledge in<br>mathematics, science and<br>engineering subjects<br>pertaining to the relevant<br>discipline; ability to use<br>theoretical and applied<br>information in these areas to<br>model and solve engineering |   |   |                                      |   |   |   |   |       |
|   | 2 Ability to identify, formulate,<br>and solve complex<br>engineering problems; ability<br>to select and apply proper<br>analysis and modeling<br>methods for this purpose.  |   |   |                                      |   | x |   |   |       |
|   | 3  | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to mo<br>desired result; abili-<br>apply modern desig<br>methods for this pu | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                                      |   |   |   |   |       |

|  | 4           | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |  |   |  |
|--|-------------|--|--|---|--|
|  | 5           | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |  |   |  |
|  | 6           | Ability to work efficiently in intra-disciplinary teams.   |  | X |  |
|  | 7           | Ability to work efficiently in multi-disciplinary teams.   |  |   |  |
|  | 8           | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |  | x |  |
|  | 9           | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |  | X |  |
|  | 1<br>0      | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |  | x |  |
|  | 1           | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |  | x |  |
| The Course's Lecturer(s) and<br>Contact Informations | Dep<br>tasa | artment Management<br>rim@gazi.edu.tr  |  |   |  |

|              | Program<br>Outcome<br>1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|--------------|-------------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL        |                         | 3                   |                     |                         |                     | 4                   |                     | 4                       | 4                   | 4                    | 4                    |
| Learning     |                         | 1                   |                     |                         |                     | 1                   |                     | 1                       | 1                   | 1                    | 1                    |
| outcome<br>1 |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning     |                         | 1                   |                     |                         |                     | 1                   |                     | 1                       | 1                   | 1                    | 1                    |
| outcome<br>2 |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning     |                         | 1                   |                     |                         |                     | 1                   |                     | 1                       | 1                   | 1                    | 1                    |
| outcome<br>3 |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning     |                         |                     |                     |                         |                     | 1                   |                     | 1                       | 1                   | 1                    | 1                    |
| outcome<br>4 |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |

| Mathematics and Basic Sciences | <b>%0</b> |
|--------------------------------|-----------|
| Engineering Sciences           | %75       |
| Engineering Design             | %0        |
| Social Sciences                | %20       |
| Education Sciences             | %0        |
| Science                        | %0        |
| Health Sciences                | %5        |
| Field Knowledge                | %0        |

|   | Course Description<br>Form   |
|---|--|
| Course Code and Name  | IST201 PROBABILITY AND STATISTICS  |
| Course Semester   | 3  |
| Catalog Content   | Basic concepts of probability and statistics<br>Random variables and their special functions<br>Distribution and density functions<br>Multivariate distributions and densities<br>Independent random variables<br>Application of correlation statistics to engineering systems   |
| Textbook  | <ol> <li>Fikri Akdeniz. Olasılık ve İstatistik. Nobel Kitabevi, 2022.</li> <li>S.M. Ross. A First Course in Probability. Pearson, 2012.</li> </ol>   |
| Supplementary Textbooks   | 1. Introduction to Probability and Statistic for Engineers and Scientists-<br>Shaldon M.Ross, Nobel.   |
| Credit  | 5 ECTS   |
| <b>Prerequisites</b><br>of the Course (<br><i>Attendance</i><br><i>Requirements</i> ) | No Prerequisites<br>%70 Attendance Requirements  |
| Type of the Course  | Compulsory   |
| Instruction Language  | Turkish  |
| Course Objectives   | Learning statistics fundamentals and applications<br>Ability to conduct research and data analysis<br>Learning statistical methods that support design decisions<br>Ability to use basic concepts in problem solving   |
| Course Learning Outcomes  | <ol> <li>Ability to use statistical methods to support design decisions</li> <li>Identifying appropriate metrics to measure the performance of the design and improving the design by performing statistical analysis</li> <li>Ability to use experimental design techniques to analyze the effects of factors and optimize the design process</li> <li>Ability to support design decisions using methods such as hypothesis testing, confidence intervals and regression analysis</li> <li>Ability to analyze probability distributions, collect data with statistical methods, and interpret analysis</li> </ol> |
| Instruction Methods   | Face to face   |

|   | 1. Week  | Definition of probab<br>probability, finite pr   | oility, sample s                      | pace and ever                   | nt, geometri               | c probability          |  |  |  |  |
|---|--|--|---------------------------------------|---------------------------------|----------------------------|------------------------|--|--|--|--|
|   | 2. Week  | Conditional probabil conditional probabil  | lity, axioms of<br>ity                | conditional p                   | robability,                | product rule,          |  |  |  |  |
|   | 3. Week  | Independent events,<br>Theorem   | complete inde                         | ependence, tot                  | al probabili               | ty formula, ti         |  |  |  |  |
|   | 4. Week  | Random variable, do distribution and pro   | efinitions of co<br>bability function | ontinuous and<br>on of discrete | discrete rar<br>random var | dom variable<br>iables |  |  |  |  |
|   | 5. Week  | 5. Week Probability distribution and probability density function of   |                                       |                                 |                            |                        |  |  |  |  |
| Weekly Schedule   | 6. Week  | 6. Week Distribution functions of discrete and continuous random functions   |                                       |                                 |                            |                        |  |  |  |  |
| Weekly Schedule   | 7. Week  | Expected value, vari<br>variance   | iance and stand                       | dard deviation                  | concepts,                  | properties of          |  |  |  |  |
|   | 8. Week  | Discrete probability   | distributions:                        | Uniform, Ber                    | noulli, Bino               | mial, Binom            |  |  |  |  |
|   | 9. Week  | Discrete probability   | distributions:                        | geometric, Pa                   | scal (negati               | ve binomial            |  |  |  |  |
|   | 10. Week   | Week Continuous probability distributions: Uniform, Expo   |                                       |                                 |                            |                        |  |  |  |  |
|   | 11. Week   | Definition of statisti<br>complete count, sam  | cs, basic conce<br>pling types        | epts: Populatio                 | on, paramet                | er, sample, sa         |  |  |  |  |
|   | 12. Week         Sampling distribution, central limit theorem  |  |                                       |                                 |                            |                        |  |  |  |  |
|   | 13. Week   | Point estimate, inter  | val estimate (c                       | onfidence int                   | erval)                     |                        |  |  |  |  |
|   | 14 Week  | Tests of hypothesis,   | power of test,                        | independence                    | e test, confo              | rmity test             |  |  |  |  |
|   |  |  | · ·                                   | -                               |                            |                        |  |  |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theoret<br>Weekly tutoria<br>Reading Activi<br>Internet browsi<br>Designing and<br>Report preparin<br>Preparing a Pre<br>Presentations:<br>Preparation of<br>Final Exam and | Weekly theoretical course hours: 3<br>Weekly tutorial hours: 0<br>Reading Activities: 1<br>Internet browsing, library work: 2<br>Designing and implementing materials: 0<br>Report preparing: 0<br>Preparing a Presentation: 0<br>Presentations: 0<br>Preparation of Midterm and Midterm Exam: 4<br>Final Exam and Preparation for Final Exam: 2 |                                       |                                 |                            |                        |  |  |  |  |
|   |  |  | Number                                | Total                           |                            |                        |  |  |  |  |
|   |  |  | S                                     | Weighti                         |                            |                        |  |  |  |  |
|   | Midterm Exar   | ns   | 1                                     | ng (%)                          | -                          |                        |  |  |  |  |
|   | Assignment   |  | 1                                     | 00                              |                            |                        |  |  |  |  |
|   | Application  |  |                                       |                                 |                            |                        |  |  |  |  |
|   | Projects   |  |                                       |                                 |                            |                        |  |  |  |  |
| Assessment Criteria   | Practice   |  |                                       |                                 |                            |                        |  |  |  |  |
|   | Quiz   |  |                                       |                                 |                            |                        |  |  |  |  |
|   | Percent of In-   | term Studies   |                                       | 60                              |                            |                        |  |  |  |  |
|   | (70)<br>Percentage of  | Final Exam to  |                                       | 40                              | -                          |                        |  |  |  |  |
|   | Total Score (%   | (6)  |                                       | rv                              |                            |                        |  |  |  |  |
|   | Attendance   |  |                                       |                                 |                            |                        |  |  |  |  |

|   |   | Activi<br>ty  | Total<br>Numb<br>er of<br>Week<br>s   | Du<br>on<br>(w<br>y<br>ho |   | Durati<br>on<br>(weekl<br>y<br>hour) |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |
|---|---|---|---|---------------------------|---|--------------------------------------|---|---|---|
|   | Weekl<br>Hours  | y Theoretical Course  | 14  |                           |   | 3                                    |   |   | 42  |
|   | Weekl   | y Tutorial Hours  |   | 1                         |   |                                      |   |   |   |
|   | Readir  | ng Tasks  | 5   | 1                         |   |                                      |   |   | 5   |
| Workload  | Studie  | s   | 14  |                           |   | 2                                    |   |   | 28  |
|   | and   | lal Design  |   |                           |   |                                      |   |   |   |
|   | Impler  |   |   |                           |   |                                      |   |   |   |
|   | Repor   | t Preparing   |   |                           |   |                                      |   |   |   |
|   | Prepar  | ring a Presentation   |   |                           |   |                                      |   |   |   |
|   | Presen<br>Midter  | tations<br>rm Exam and  | 6   |                           |   | 4                                    |   |   | 24  |
|   | Preper<br>Midter  | ration for<br>rm Exam   | 0   |                           |   | 7                                    |   |   | 27  |
|   | Final I<br>Preper   | Exam and<br>ration for Final  | 13  |                           |   | 2                                    |   |   | 26  |
|   | Other   | ( should  |   |                           |   |                                      |   |   |   |
|   | be  |   |   |                           |   |                                      |   |   |   |
|   | empha<br>Total V  | usized)<br>Workload   |   |                           |   |                                      |   |   | 125   |
|   | Total   | Workload / 25   |   |                           |   |                                      |   |   | 125/25  |
|   | Course  | e Credit (ECTS)   |   |                           |   |                                      |   |   | 5   |
|   | N   | Program Outco   | mes   | 1                         | 2 | 3                                    | 4 | 5 |   |
|   | 0   |   |   |                           |   |                                      | - | 5 |   |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1   | ge in<br>ce and<br>s<br>levant<br>o use<br>lied<br>e areas to<br>gineering  |   |                           |   |                                      | X |   |   |
|   | 2 Ability to identify, formulate,<br>and solve complex<br>engineering problems; ability<br>to select and apply proper<br>analysis and modeling<br>methods for this purpose. |   |   |                           |   |                                      | x |   |   |
|   | 3   | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to me<br>desired result; abili-<br>apply modern desig<br>methods for this pu | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                           |   |                                      |   |   |   |

|  | 4             | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |       | x    |   |  |
|--|---------------|--|-------|------|---|--|
|  | 5             | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |       |      |   |  |
|  | 6             | Ability to work efficiently in intra-disciplinary teams.   |       | X    |   |  |
|  | 7             | Ability to work efficiently in multi-disciplinary teams.   |       |      |   |  |
|  | 8             | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |       |      |   |  |
|  | 9             | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |       |      |   |  |
|  | 1 0           | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |       |      |   |  |
|  | 1<br>1        | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |       | X    |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Facu<br>fenis | Ity Members of the Department of S<br>tatistik@gazi.edu.tr   | Stati | stic | S |  |

|                          | Program<br>Outcome<br>1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|--------------------------|-------------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL                    | 5                       | 4                   |                     | 2                       |                     | 2                   |                     |                         |                     |                      | 2                    |
| Learning<br>outcome<br>1 | 1                       |                     |                     |                         |                     | 1                   |                     |                         |                     |                      |                      |
| Learning<br>outcome<br>2 | 1                       | 1                   |                     |                         |                     |                     |                     |                         |                     |                      | 1                    |
| Learning<br>outcome<br>3 | 1                       | 1                   |                     |                         |                     | 1                   |                     |                         |                     |                      | 1                    |
| Learning<br>outcome<br>4 | 1                       | 1                   |                     | 1                       |                     |                     |                     |                         |                     |                      |                      |

| Learning | 1 | 1 | 1 |  |  |  |  |
|----------|---|---|---|--|--|--|--|
| outcome  |   |   |   |  |  |  |  |
| 5        |   |   |   |  |  |  |  |

| Mathematics and Basic Sciences % | 6100       |
|----------------------------------|------------|
| Engineering Sciences             | <b>%0</b>  |
| Engineering Design               | <b>%0</b>  |
| Social Sciences                  | <b>%</b> 0 |
| Education Sciences               | <b>%</b> 0 |
| Science                          | %0         |
| Health Sciences                  | <b>%</b> 0 |
| Field Knowledge                  | <b>%</b> 0 |

| Course Description<br>Form                                      |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Course Code and Name  | KİM101 CHEMISTRY   |  |  |  |  |  |  |  |
| Course Semester   | 2  |  |  |  |  |  |  |  |
| Catalog Content   | Properties and Measurement of Matter<br>Atoms, Atomic Theory and Some Basic Concepts<br>Electron Structure and Periodic Properties of Atom<br>Chemical Stoichiometry and Reaction Types<br>Chemical Bonding<br>Gases<br>Thermodynamics<br>Intermolecular Forces, Liquids and Solids<br>Solutions and Physical Properties<br>Chemical Kinetics<br>Chemical Equilibrium<br>Acids-Bases and Aqueous Solution Equilibria<br>Electrochemistry   |  |  |  |  |  |  |  |
| Textbook  | <ol> <li>Genel Kimya: İlkeler ve Modern Uygulamalar (2 Cilt) Yazarlar:<br/>Petrucci, Harwood, Herring. Çeviri editörleri: Tahsin UYAR, Serpil<br/>AKSOY.</li> </ol>  |  |  |  |  |  |  |  |
| Supplementary Textbooks   | 1. Genel Kimya Temel Kavramlar, Raymond CHANG, Çeviri<br>editörleri; Tahsin UYAR, Serpil AKSOY, Recai İNAM.  |  |  |  |  |  |  |  |
| Credit  | 6 ECTS   |  |  |  |  |  |  |  |
| Prerequisites<br>of the Course (<br>Attendance<br>Requirements) | No Prerequisites<br>%70 Attendance Requirements  |  |  |  |  |  |  |  |
| Type of the Course  | Compulsory   |  |  |  |  |  |  |  |
| Instruction Language  | Turkish  |  |  |  |  |  |  |  |
| Course Objectives   | Having the basic chemistry knowledge required for engineering<br>education<br>Ability to evaluate basic chemistry skills within the scope of design  |  |  |  |  |  |  |  |
| Course Learning Outcomes  | <ol> <li>To be able to comment on the structure of the atom and theories about<br/>the atom, the periodic table and make applications.</li> <li>can make calculations using stoichiometry in chemical reactions.</li> <li>Apply different theories about liquid solutions and gases and solve<br/>problems.</li> <li>Can make applications about heat, work, enthalpy and internal energy<br/>changes.</li> <li>Demonstrate the three-dimensional structures of chemical compounds<br/>using the concept of bonding and various theories related to the concept<br/>of bonding.</li> <li>Have knowledge about crystalline structures of solids and can solve<br/>related questions.</li> </ol> |  |  |  |  |  |  |  |
| Instruction Methods   | Face to face   |  |  |  |  |  |  |  |

|   | 1. Week  | Properties and Measu                        | rement of Ma   | atter            |         |  |  |  |  |
|---|--|---|----------------|------------------|---------|--|--|--|--|
|   | 2. Week  | Atoms, Atomic Theor                         | ry and Some    | Basic Concept    | s       |  |  |  |  |
|   | 3. Week  | Electron Structure of                       | the Atom and   | d Periodic Prop  | perties |  |  |  |  |
|   | 4. Week  | Chemical Stoichiometry and Reaction Types   |                |                  |         |  |  |  |  |
|   | 5. Week  | k Chemical Bonds                            |                |                  |         |  |  |  |  |
|   | 6. Week  | General Properties of                       | Gases, Simp    | le Gas Laws      |         |  |  |  |  |
| Weekly Schedule   | 7. Week  | Thermodynamic Con                           | cepts          |                  |         |  |  |  |  |
|   | 8. Week  | Intermolecular Forces                       | s, Liquids and | l Solids         |         |  |  |  |  |
|   | 9. Week  | Solutions and Physica                       | al Properties  |                  |         |  |  |  |  |
|   | 10. Week   | Chemical Kinetics                           |                |                  |         |  |  |  |  |
|   | 11. Week   | Chemical Equilibriun                        | n              |                  |         |  |  |  |  |
|   | 12 Week  | Acids-Bases and Aqueous Solution Equilibria |                |                  |         |  |  |  |  |
|   | 12. Week   | Electrochemistry                            |                |                  |         |  |  |  |  |
|   | 14 W1-   | Electrochemistry                            |                |                  |         |  |  |  |  |
|   | 14. week   |   |                |                  |         |  |  |  |  |
|   |  |   |                |                  |         |  |  |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theoretical course hours: 4<br>Weekly tutorial hours: 0<br>Reading Activities: 2<br>Internet browsing, library work: 4<br>Designing and implementing materials: 0<br>Report preparing: 0<br>Preparing a Presentation: 0<br>Presentations: 0<br>Preparation of Midterm and Midterm Exam: 1<br>Final Exam and Preparation for Final Exam: 1 |   |                |                  |         |  |  |  |  |
|   |  |   | Number<br>s    | Total<br>Weighti |         |  |  |  |  |
|   | M 1 T  |   |                | ng (%)           |         |  |  |  |  |
|   | Midterm Exar   | ns  | 1              | 60               |         |  |  |  |  |
|   | Application  |   |                |                  |         |  |  |  |  |
| Assassment Criteria   | Projects   |   |                |                  |         |  |  |  |  |
|   | Practice   |   |                |                  |         |  |  |  |  |
|   | Quiz   |   |                |                  |         |  |  |  |  |
|   | Percent of In-   | term Studies                                |                | 60               |         |  |  |  |  |
|   | Percentage of<br>Total Score (%  | Final Exam to                               |                | 40               |         |  |  |  |  |
|   | Attendance   |   |                |                  |         |  |  |  |  |

|   |                     | Activi<br>ty   | Total<br>Numb<br>er of<br>Week<br>s   | Durati<br>on<br>(weekl<br>y<br>hour) |   |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |        |
|---|---------------------|--|---|--------------------------------------|---|---|---|---|--------|
|   | Weekl<br>Hours      | y Theoretical Course   | 14  | 4                                    |   |   |   |   | 56     |
|   | Weekl               | y Tutorial Hours   |   |                                      |   |   |   |   |        |
|   | Readir              | ng Tasks   | 14  | 2                                    |   |   |   |   | 28     |
| Workload  | Studies             |  | 14  | 4                                    |   |   |   |   | 56     |
|   | Materi<br>and       | al Design  |   |                                      |   |   |   |   |        |
|   | Impler              | mentation  |   |                                      |   |   |   |   |        |
|   | Repor               | t Preparing  |   |                                      |   |   |   |   |        |
|   | Prepar              | ing a Presentation   |   |                                      |   |   |   |   |        |
|   | Presen              | itations   |   |                                      |   |   |   |   |        |
|   | Preper              | ration for   | 5   |                                      | 1 |   |   | 5   |        |
|   | Final I<br>Preper   | 5  | 1   |                                      |   |   | 5 |   |        |
|   | Other               | ( should   |   |                                      |   |   |   |   |        |
|   | be<br>emphasized)   |  |   |                                      |   |   |   |   |        |
|   | Total V             | usized)<br>Workload  |   |                                      |   |   |   |   | 150    |
|   | Total Workload / 25 |  |   |                                      |   |   |   |   | 150/25 |
|   | Course              | e Credit (ECTS)  |   |                                      |   |   |   |   | 6      |
|   | N                   | Program Outco  | mes   | 1                                    | 2 | 3 | 4 | 5   |        |
|   | 0                   |  |   | 1                                    |   |   |   |   |        |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1                   | 1 Adequate knowledge in<br>mathematics, science and<br>engineering subjects<br>pertaining to the relevant<br>discipline; ability to use<br>theoretical and applied<br>information in these areas to<br>model and solve engineering<br>problems |   |                                      |   |   |   |   |        |
|   | 2                   | 2 Ability to identify, formulate,<br>and solve complex<br>engineering problems; ability<br>to select and apply proper<br>analysis and modeling<br>methods for this purpose.  |   |                                      |   |   |   |   |        |
|   | 3                   | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to mo<br>desired result; abili<br>apply modern desig<br>methods for this pu   | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                                      |   |   |   |   |        |

|  | 4  | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |  |   |  |  |   |  |
|--|--|--|--|---|--|--|---|--|
|  | 5  | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |  | x |  |  | _ |  |
|  | 6  | Ability to work efficiently in<br>intra-disciplinary teams.  |  | X |  |  |   |  |
|  | 7  | multi-disciplinary teams.  |  |   |  |  |   |  |
|  | 8  | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |  |   |  |  |   |  |
|  | 9  | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |  |   |  |  |   |  |
|  | 1 0  | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |  |   |  |  |   |  |
|  | 1  | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |  |   |  |  |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Faculty Members of the Department of Chemistry<br>fenkimya@gazi.edu.tr |  |  |   |  |  |   |  |

|          | Program<br>Outcome<br>1 | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome<br>4 | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome<br>8 | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|----------|-------------------------|---------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|----------------------|----------------------|
| TOTAL    |                         |                     |                     |                         | 2                   | 2                   |                     |                         |                     |                      |                      |
| Learning |                         |                     |                     |                         | 1                   | 1                   |                     |                         |                     |                      |                      |
| outcome  |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| 1        |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning |                         |                     |                     |                         | 1                   | 1                   |                     |                         |                     |                      |                      |
| outcome  |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| 2        |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| outcome  |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| 3        |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| Learning |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| outcome  |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |
| 4        |                         |                     |                     |                         |                     |                     |                     |                         |                     |                      |                      |

| Learning<br>outcome |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|
| 5                   |  |  |  |  |  |  |
| Learning            |  |  |  |  |  |  |
| outcome             |  |  |  |  |  |  |
| 6                   |  |  |  |  |  |  |

| Mathematics and Basic Sciences | %10 |
|--------------------------------|-----|
| Engineering Sciences           | %40 |
| Engineering Design             | %20 |
| Science                        | %20 |
| Field Knowledge                | %10 |

|   | Course Description<br>Form   |
|---|--|
| Course Code and Name  | KİM151 CHEMISTRY LABORATORY  |
| Course Semester   | 2  |
| Catalog Content   | Giving basic chemistry knowledge<br>Learning basic laboratory rules and order<br>Recognition of substances by their physical and chemical properties<br>Purification methods in chemistry, crystallization application<br>Diffusion application<br>Stoichiometry application<br>Calculation of Ideal Gas Constant application<br>Effect of Temperature on Reaction Rate application<br>Indicators and pKa determination application<br>Acid-Base titration application<br>Chemical Balance application |
| Textbook  | <ol> <li>Genel Kimya: İlkeler ve Modern Uygulamalar (2 Cilt) Yazarlar:<br/>Petrucci, Harwood, Herring. Çeviri editörleri: Tahsin UYAR, Serpil<br/>AKSOY.</li> </ol>  |
| Supplementary Textbooks   | <ol> <li>Genel Kimya Temel Kavramlar, Raymond CHANG, Çeviri<br/>editörleri; Tahsin UYAR, Serpil AKSOY, Recai İNAM.</li> </ol>  |
| Credit  | 2 ECTS   |
| Prerequisites<br>of the Course (<br>Attendance<br>Requirements) | No Prerequisites<br>%70 Attendance Requirements  |
| Type of the Course  | Compulsory   |
| Instruction Language  | Turkish  |
| Course Objectives   | Understanding basic chemistry information<br>Learning basic laboratory rules and order<br>Ability to experiment<br>Analyzing test results<br>Interpretation of analyzes  |
| Course Learning Outcomes  | <ol> <li>Ability to reinforce basic chemistry knowledge through chemistry experiments</li> <li>Getting to know the laboratory and learning how to use it</li> <li>Ability to perform different experiment applications</li> <li>Ability to analyze test results</li> <li>Ability to interpret experimental analyzes</li> <li>Ability to write experiments in reports</li> <li>Ability to work in groups</li> </ol>   |
| Instruction Methods   | Face to face   |

|   | 1. Week  | Introduction and pr  | eparation           |                               |  |  |  |  |  |
|---|--|--|---------------------|-------------------------------|--|--|--|--|--|
|   | 2. Week  | Recognition of phy   | sical and chem      | ical properties of substances |  |  |  |  |  |
|   | 3. Week  | Purification method  | ls in chemistry,    | , crystallization             |  |  |  |  |  |
|   | 4. Week  | 4. Week Diffusion  |                     |                               |  |  |  |  |  |
|   | 5. Week  | 5. Week Stoichiometry  |                     |                               |  |  |  |  |  |
|   | 6. Week  | 6. Week Calculation of the Ideal Gas Constant  |                     |                               |  |  |  |  |  |
| Weekly Schedule   | 7. Week  | Effect of Temperate  | ure on Reactior     | n Rate                        |  |  |  |  |  |
|   | 8. Week  | Indicators and pKa   | determination       |                               |  |  |  |  |  |
|   | 9. Week  | Acid-Base titration  | Acid-Base titration |                               |  |  |  |  |  |
|   | 10. Week   | ek Chemical Equilibrium  |                     |                               |  |  |  |  |  |
|   | 11. Week   | Application  |                     |                               |  |  |  |  |  |
|   | 12. Week   | Application  |                     |                               |  |  |  |  |  |
|   | 13. Week   | Application  |                     |                               |  |  |  |  |  |
|   | 14. Week Application   |  |                     |                               |  |  |  |  |  |
|   |  |  |                     |                               |  |  |  |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theore<br>Weekly tutoria<br>Reading Activ<br>Internet brows<br>Designing and<br>Report preparin<br>Preparing a Pro<br>Presentations:<br>Preparation of<br>Final Exam an | Weekly theoretical course hours: 0<br>Weekly tutorial hours: 2<br>Reading Activities: 0<br>Internet browsing, library work: 0<br>Designing and implementing materials: 0<br>Report preparing: 1<br>Preparing a Presentation: 0<br>Presentations: 0<br>Preparation of Midterm and Midterm Exam: 5<br>Final Exam and Preparation for Final Exam: 5 |                     |                               |  |  |  |  |  |
|   |  |  | Number<br>s         | Total<br>Weighti              |  |  |  |  |  |
|   | Midterm Exa  | ns   | 1                   | 30                            |  |  |  |  |  |
|   | Assignment   |  |                     |                               |  |  |  |  |  |
|   | Application  |  | 1                   | 15                            |  |  |  |  |  |
| Assessment Criteria   | Projects   |  |                     |                               |  |  |  |  |  |
|   | Quiz   |  | 1                   | 15                            |  |  |  |  |  |
|   | Percent of In-   | term Studies   | -                   | 60                            |  |  |  |  |  |
|   | (%)  |  |                     |                               |  |  |  |  |  |
|   | Percentage of<br>Total Score (%  | Final Exam to  |                     | 40                            |  |  |  |  |  |
|   | Attendance   | ,  |                     |                               |  |  |  |  |  |

|   |                            | Activi<br>ty  | Total<br>Numb<br>er of<br>Week<br>s   | Durati<br>on<br>(weekl<br>y<br>hour) |   |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |       |
|---|----------------------------|---|---|--------------------------------------|---|---|---|---|-------|
|   | Weekl<br>Hours             |   |   |                                      |   |   |   | u   |       |
|   | Weekl                      | 14  | 2   |                                      |   |   |   | 28  |       |
|   | Readir                     | ng Tasks  |   |                                      |   |   |   |   |       |
| Workload  | Studie                     | s   |   |                                      |   |   |   |   |       |
|   | Materi<br>and<br>Impler    | al Design   |   |                                      |   |   |   |   |       |
|   | Repor                      | t Preparing   | 12  |                                      |   | 1 |   |   | 12    |
|   | Prepar                     | ing a Presentation  |   |                                      |   |   |   |   |       |
|   | Presen                     | itations  |   |                                      |   |   |   |   |       |
|   | Midter<br>Preper<br>Midter | rm Exam and<br>ration for<br>rm Exam  | 1   |                                      | 5 |   |   |   | 5     |
|   | Final I<br>Preper<br>Exam  | Exam and<br>ation for Final   | 1   | 5                                    |   |   | 5 |   |       |
|   | Other                      | ( should  |   |                                      |   |   |   |   |       |
|   | be<br>empha                | usized)   |   |                                      |   |   |   |   |       |
|   | Total Workload             |   | -   |                                      |   | - |   |   | 50    |
|   | Total                      | Workload / 25   |   |                                      |   |   |   |   | 50/25 |
|   | Course                     | e Credit (ECTS)   |   |                                      |   |   |   |   | 2     |
|   | N<br>o                     | Program Outco   | mes   | 1                                    | 2 | 3 | 4 | 5   |       |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1                          | Adequate knowledg<br>mathematics, science<br>engineering subject<br>pertaining to the rel<br>discipline; ability to<br>theoretical and appliinformation in these<br>model and solve en<br>problems. | ge in<br>ce and<br>s<br>levant<br>o use<br>lied<br>e areas to<br>gineering    |                                      |   |   |   |   |       |
|   | 2                          | Ability to identify,<br>and solve complex<br>engineering problem<br>to select and apply<br>analysis and model<br>methods for this pu  | formulate,<br>ns; ability<br>proper<br>ing<br>rpose.                          |                                      |   |   |   |   |       |
|   | 3                          | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to me<br>desired result; abili-<br>apply modern desig<br>methods for this pu             | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                                      |   |   |   |   |       |

|  | 4             | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |      | x   |     |   |  |
|--|---------------|--|------|-----|-----|---|--|
|  | 5             | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |      |     |     | X |  |
|  | 6             | Ability to work efficiently in intra-disciplinary teams.   |      |     |     |   |  |
|  | 7             | Ability to work efficiently in multi-disciplinary teams.   | x    |     |     |   |  |
|  | 8             | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |      |     | X   |   |  |
|  | 9             | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. | x    |     |     |   |  |
|  | 1<br>0        | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |      |     |     |   |  |
|  | 1<br>1        | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   | x    |     |     |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Facu<br>fenki | lty Members of the Department of G<br>imya@gazi.edu.tr   | Chei | mis | try |   |  |

|          | Program<br>Outcome | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|----------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|----------------------|
|          | 1                  |                     |                     | 4                  |                     |                     |                     | 8                  |                     |                      |                      |
| TOTAL    |                    |                     |                     | 2                  | 5                   |                     | 1                   | 3                  | 1                   |                      | 1                    |
| Learning |                    |                     |                     | 1                  | 1                   |                     | 1                   |                    |                     |                      | 1                    |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 1        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     |                    | 1                   |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 2        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     |                    | 1                   |                     |                     | 1                  |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 3        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 4        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |

| Learning<br>outcome<br>5 |  | 1 | 1 |  | 1 |   |  |
|--------------------------|--|---|---|--|---|---|--|
| Learning<br>outcome<br>6 |  |   |   |  |   | 1 |  |
| Learning<br>outcome<br>7 |  |   |   |  |   |   |  |

| Mathematics and Basic Sciences | %70 |
|--------------------------------|-----|
| Engineering Sciences           | %30 |

| Course Description<br>Form                                      |   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| Course Code and Name  | MAT101 MATHEMATICS 1  |  |  |  |  |  |  |
| Course Semester   | 1   |  |  |  |  |  |  |
| Catalog Content   | Function definition and some special functions<br>Limit of functions and some special trigonometric functions<br>Derivative of functions<br>Absolute and local extremes, maximum—minimum<br>Definite and indefinite integrals of special functions  |  |  |  |  |  |  |
| Textbook  | 1. Genel Matematik-1, Anar, İ.E., 2013.   |  |  |  |  |  |  |
| Supplementary Textbooks   | <ol> <li>Thomas Kalkülüs-12.Baskı, Cilt 1 / George B. Thomas, Maurice D.<br/>Weir, Joel R. Hass, 2011.</li> </ol>   |  |  |  |  |  |  |
| Credit  | 6 ECTS  |  |  |  |  |  |  |
| Prerequisites<br>of the Course (<br>Attendance<br>Reauirements) | No Prerequisites<br>%70 Attendance Requirements   |  |  |  |  |  |  |
| Type of the Course  | Compulsory  |  |  |  |  |  |  |
| Instruction Language  | Turkish   |  |  |  |  |  |  |
| Course Objectives   | Defining the function definition and some special functions<br>Calculating the limit of functions and the limit of some special<br>trigonometric functions<br>Differentiating functions<br>Solving absolute and local extrema, maximum and minimum problems<br>Taking definite and indefinite integrals of some special functions |  |  |  |  |  |  |
| Course Learning Outcomes  | <ol> <li>Ability to perform mathematical analysis</li> <li>Ability to perform engineering calculations effectively</li> <li>Learning the interdisciplinary approach required to solve complex<br/>engineering problems</li> <li>Ability to identify and formulate complex engineering problems</li> </ol>                         |  |  |  |  |  |  |
| Instruction Methods   | Face to face  |  |  |  |  |  |  |

|   | 1. Week   | Sets, Real numbers,             | , intervals, ineq      | ualities, neighbo          | urhoods, coordina  | tes |  |  |
|---|---|---------------------------------|------------------------|----------------------------|--------------------|-----|--|--|
|   | 2. Week   | Functions: Definition           | on function, det       | finition and imag          | e of sets          |     |  |  |
|   | 3. Week   | 3. Week Special Functions       |                        |                            |                    |     |  |  |
|   | 4. Week   |                                 |                        |                            |                    |     |  |  |
|   | 5. Week   | 5. Week Continuity of Functions |                        |                            |                    |     |  |  |
|   | 6. Week   | Concept of derivativ            | ve                     |                            |                    |     |  |  |
| Weekly Schedule   | 7. Week   | Differentiation of ex           | xponenetial, log       | garithmic, hyperl          | olic and inverse h | іур |  |  |
|   | 8. Week   | Application of Diffe            | erentiation            |                            |                    |     |  |  |
|   | 9. Week   | Physical interpretat            | ion of different       | iaition, concavity         | Rolle's theorem    |     |  |  |
|   | 10. Week  | Graphic Drawing                 |                        |                            |                    |     |  |  |
|   | 11. Week  | The Definition of R             | iemann Integra         | als and their prop         | erties             |     |  |  |
|   | 12. Week Indefinite Integral  |                                 |                        |                            |                    |     |  |  |
|   | 13. Week  | Methods of Computing Integral   |                        |                            |                    |     |  |  |
|   | 14. Week  | Integral of Partial fractions   |                        |                            |                    |     |  |  |
|   |   |                                 |                        |                            |                    |     |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | odsWeekly theoretical course hours: 4<br>Weekly tutorial hours: 0<br>Reading Activities: 2<br>Internet browsing, library work: 2<br>Designing and implementing materials: 0<br>Report preparing: 1<br>Preparing a Presentation: 0 |                                 |                        |                            |                    |     |  |  |
|   | Preparation of E  | Midterm and Midtern             | n Exam: 3<br>I Exam: 5 |                            |                    |     |  |  |
|   | i mai Daum an   |                                 | а <u>Блин</u> а, у     |                            |                    |     |  |  |
|   |   |                                 | Number<br>s            | Total<br>Weighti<br>ng (%) |                    |     |  |  |
|   | Midterm Exan  | ns                              | 1                      | 60                         |                    |     |  |  |
|   | Assignment  |                                 |                        |                            |                    |     |  |  |
|   | Application<br>Projects   |                                 |                        |                            |                    |     |  |  |
| Assessment Criteria   | Practice  |                                 |                        |                            |                    |     |  |  |
|   | Quiz  |                                 |                        |                            |                    |     |  |  |
|   | Percent of In-t   | term Studies                    |                        | 60                         |                    |     |  |  |
|   | (%)<br>Percentage of  |                                 |                        |                            |                    |     |  |  |
|   | Total Score (%  | (i)                             |                        | ••                         |                    |     |  |  |
|   | Attendance  |                                 |                        |                            |                    |     |  |  |

|   |                   | Activi<br>ty   | Total<br>Numb<br>er of<br>Week<br>s   | I<br>  0<br>  (<br>  y<br>  h | Dui<br>on<br>we<br>nou | rati<br>ekl<br>Ir) |        |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |
|---|-------------------|--|---|-------------------------------|------------------------|--------------------|--------|---|---|
|   | Weekl<br>Hours    | y Theoretical Course   | 14  |                               |                        | 4                  |        |   | 56  |
|   | Weekl             | y Tutorial Hours   |   |                               |                        |                    |        |   |   |
|   | Readin            | ng Tasks   | 10  |                               |                        | 2                  |        |   | 20  |
| Workload  | Studie            | s  | 10  | ) 2                           |                        |                    |        |   | 20  |
|   | and               | al Design  |   |                               |                        |                    |        |   |   |
|   | Implei            | mentation  |   |                               |                        |                    |        |   |   |
|   | Repor             | t Preparing  |   |                               |                        |                    |        |   |   |
|   | Prepar            | ing a Presentation   |   |                               |                        |                    |        |   |   |
|   | Presen            | itations   | 0   |                               |                        | 2                  |        |   | 24  |
|   | Preper<br>Midter  | ration for<br>rm Exam  | 0   |                               |                        | 3                  |        |   | 24  |
|   | Final I<br>Preper | Exam and ation for Final   | 6   |                               |                        | 5                  |        |   | 30  |
|   | Exam<br>Other     | ( should   |   |                               |                        |                    |        |   |   |
|   | be                | ( )  |   |                               |                        |                    |        |   |   |
|   |                   | usized)<br>Workload  |   |                               |                        | _                  |        |   | 150   |
|   |                   | Workload / 25  |   |                               |                        |                    | 150/25 |   |   |
|   | Course            | e Credit (ECTS)  |   |                               |                        | 6                  |        |   |   |
|   | N                 | Program Outco  | mes   | 1                             | 2                      | 3                  | 4      | 5 |   |
|   | 0                 |  |   | 1                             |                        |                    |        | 5 |   |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes |                   | Adequate knowledg<br>mathematics, science<br>engineering subject<br>pertaining to the rel<br>discipline; ability to<br>theoretical and appl<br>information in these<br>model and solve en<br>problems. | ge in<br>ce and<br>s<br>levant<br>o use<br>lied<br>e areas to<br>gineering    |                               |                        |                    |        |   |   |
|   |                   | 2 Ability to identify, for<br>and solve complex<br>engineering problems;<br>to select and apply pro<br>analysis and modeling<br>methods for this purpo   |   |                               | x                      |                    |        |   |   |
|   | 3                 | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to mo<br>desired result; abili-<br>apply modern desig<br>methods for this pu                | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                               |                        |                    |        |   |   |

|  | 4                   | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |      | x   |       |   |  |
|--|---------------------|--|------|-----|-------|---|--|
|  | 5                   | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |      | x   |       |   |  |
|  | 6<br>7              | Ability to work efficiently in<br>intra-disciplinary teams.<br>Ability to work efficiently in  |      |     |       |   |  |
|  |                     | multi-disciplinary teams.  |      |     |       |   |  |
|  | 8                   | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |      |     |       |   |  |
|  | 9                   | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |      |     |       |   |  |
|  | 1 0                 | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |      |     |       |   |  |
|  | 1                   | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |      |     |       |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Facu<br><u>fefm</u> | lty Members of the Department of Matematik@gazi.edu.tr   | Matl | nem | iatic | s |  |

|          | Program<br>Outcome | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|----------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|----------------------|
|          | 1                  |                     |                     | 4                  |                     |                     |                     | 8                  |                     |                      |                      |
| TOTAL    |                    | 2                   |                     | 2                  | 2                   |                     |                     |                    |                     |                      |                      |
| Learning |                    | 1                   |                     | 1                  |                     |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 1        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    | 1                   |                     |                    | 1                   |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 2        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     | 1                  |                     |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 3        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     |                    | 1                   |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 4        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |

| Course Category                |      |  |
|--------------------------------|------|--|
| Mathematics and Basic Sciences | %100 |  |
| Engineering                    | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %0   |  |
| Education                      | %0   |  |
| Science                        | %0   |  |
| Health                         | %0   |  |
| Field                          | %0   |  |

\_\_\_\_\_
|   | Course Description<br>Form  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| Course Code and Name  | MAT102 MATHEMATICS 2  |  |  |  |  |  |  |
| Course Semester   | 2   |  |  |  |  |  |  |
| Catalog Content   | The applications of definite integral<br>Sequences, convergence tests for series and positive series<br>Limits and derivatives of multivariable functions<br>Double integral  |  |  |  |  |  |  |
| Textbook  | <ol> <li>Genel Matematik-1, Anar, İ.E., 2013.</li> <li>Genel Matematik-2, Anar, İ.E., 2013.</li> </ol>  |  |  |  |  |  |  |
| Supplementary Textbooks   | <ol> <li>Thomas Kalkülüs - 12.Baskı, Cilt 1 / George B. Thomas, Maurice D.<br/>Weir, Joel R. Hass, 2011.</li> <li>Thomas Kalkülüs - 12.Baskı, Cilt 2 / George B. Thomas, Maurice D.<br/>Weir, Joel R. Hass, 2012.</li> </ol>  |  |  |  |  |  |  |
| Credit  | 6 ECTS  |  |  |  |  |  |  |
| Prerequisites<br>of the Course (<br>Attendance<br>Requirements) | No Prerequisites<br>%70 Attendance Requirements   |  |  |  |  |  |  |
| Type of the Course  | Compulsory  |  |  |  |  |  |  |
| Instruction Language  | Turkish   |  |  |  |  |  |  |
| Course Objectives   | Learning the concept of integral and being able to apply it<br>To be able to apply convergence tests for series with positive terms<br>Be able to calculate limits and derivatives of multivariable functions<br>Being able to take double integrals  |  |  |  |  |  |  |
| Course Learning Outcomes  | <ol> <li>Ability to perform mathematical analysis</li> <li>Ability to perform engineering calculations effectively</li> <li>Learning the interdisciplinary approach required to solve complex<br/>engineering problems</li> <li>Ability to identify and formulate complex engineering problems</li> </ol> |  |  |  |  |  |  |
| Instruction Methods   | Face to face  |  |  |  |  |  |  |

|   | 1. Week   | 1. Week Applications of definite integral  |                                      |                                   |                           |  |  |  |  |
|---|---|--|--------------------------------------|-----------------------------------|---------------------------|--|--|--|--|
|   | 2. Week   | . Week Calculation of volume (cross section, disc and shell method   |                                      |                                   |                           |  |  |  |  |
|   | 3. Week   | 3. Week Calculation of length of an arc and surface area of revolution   |                                      |                                   |                           |  |  |  |  |
|   | 4. Week   | 4. Week Polar Coordinates : Definition, drawing of an arc, calculation area of revolution  |                                      |                                   |                           |  |  |  |  |
|   | 5. Week   | 5. Week Improper integrals and its rules of convergence  |                                      |                                   |                           |  |  |  |  |
| Waaldy Sakadula   | 6. Week   | Sequences : Definit<br>divergence of seque   | ion, types, mor<br>ences             | notone and fin                    | ite sequences, subseque   |  |  |  |  |
| Weekly Schedule   | 7. Week   | Series : Definition,   | convergence a                        | nd divergence,                    | , posite series and conve |  |  |  |  |
|   | 8. Week   | Alternating series, a convergence  | absolute and co                      | onditional conv                   | vergence, power series,   |  |  |  |  |
|   | 9. Week   | Power Series, Taylo  | or and Maclaur                       | in Series                         |                           |  |  |  |  |
|   | 10. Week  | Multivariable funct<br>functions of two va   | ions : Definitio<br>riables, partial | n, domain of o<br>differentiation | definition, graphs, limit |  |  |  |  |
|   | 11. Week  | Transformation of t  | he region and j                      | acobiens                          |                           |  |  |  |  |
|   | 12. Week  | Double integrals : I   | Definition, prop                     | erties, comput                    | tation, bölge dönüşümle   |  |  |  |  |
|   | 13. Week  | Veek Fubini's theorems   |                                      |                                   |                           |  |  |  |  |
|   | 14 Week   | 14 Week Double Integrals in Polar coordinates  |                                      |                                   |                           |  |  |  |  |
|   |   |  |                                      |                                   |                           |  |  |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theore<br>Weekly tutoria<br>Reading Activ<br>Internet brows<br>Designing and<br>Report prepari<br>Preparing a Pro<br>Presentations:<br>Preparation of<br>Final Exam an | tical course hours: 4<br>al hours: 0<br>ities: 2<br>ing, library work: 2<br>implementing materiang: 0<br>esentation: 0<br>0<br>Midterm and Midtern<br>d Preparation for Fina | als: 0<br>n Exam: 3<br>ıl Exam: 5    |                                   |                           |  |  |  |  |
|   |   |  | Number                               | Total<br>Weighti                  |                           |  |  |  |  |
|   |   |  | 5                                    | ng (%)                            |                           |  |  |  |  |
|   | Midterm Exa   | ms   | 1                                    | 40                                |                           |  |  |  |  |
|   | Assignment  |  | 1                                    | 20                                |                           |  |  |  |  |
|   | Application   |  |                                      |                                   |                           |  |  |  |  |
| Assessment Criteria   | Projects  |  |                                      |                                   |                           |  |  |  |  |
|   | Ouiz  |  |                                      |                                   |                           |  |  |  |  |
|   | Percent of In-  | term Studies   |                                      | 60                                |                           |  |  |  |  |
|   | (%)   |  |                                      |                                   |                           |  |  |  |  |
|   | Percentage of<br>Total Score (9   | Final Exam to<br>%)  |                                      | 40                                |                           |  |  |  |  |
|   | Attendance  |  |                                      |                                   |                           |  |  |  |  |

|   |                   | Activi<br>ty   | Total<br>Numb<br>er of<br>Week<br>s   | I<br>  0<br>  (<br>  y<br>  h | Dui<br>on<br>we<br>nou | :ati<br>ekl<br>r) |   |   | Tot<br>al<br>Peri<br>od<br>Wor<br>k<br>Loa<br>d |
|---|-------------------|--|---|-------------------------------|------------------------|-------------------|---|---|---|
|   | Weekl<br>Hours    | y Theoretical Course   | 14  |                               |                        | 4                 |   |   | 56  |
|   | Weekl             | y Tutorial Hours   |   |                               |                        |                   |   |   |   |
|   | Readin            | ng Tasks   | 10  |                               |                        | 2                 |   |   | 20  |
| Workload  | Studie            | s  | 10  |                               |                        | 2                 |   |   | 20  |
|   | and               | al Design  |   |                               |                        |                   |   |   |   |
|   | Implei            | mentation  |   |                               |                        |                   |   |   |   |
|   | Repor             | t Preparing  |   |                               |                        |                   |   |   |   |
|   | Prepar            | ing a Presentation   |   |                               |                        |                   |   |   |   |
|   | Presen            | itations   | 0   |                               |                        | 2                 |   |   | 24  |
|   | Preper<br>Midter  | ation for<br>rm Exam   | 8   |                               |                        | 3                 |   |   | 24  |
|   | Final I<br>Preper | Exam and ation for Final   | 6   |                               |                        | 5                 |   |   | 30  |
|   | Exam<br>Other     | ( should   |   |                               |                        |                   |   |   |   |
|   | be                | ( )  |   |                               |                        |                   |   |   |   |
|   | empha<br>Total V  | usized)<br>Workload  | _   |                               |                        | _                 |   |   | 150   |
|   | Total             | Workload / 25  |   |                               |                        |                   |   |   | 150/25  |
|   | Course            | e Credit (ECTS)  |   |                               |                        |                   |   |   | 6   |
|   | N                 | Program Outco  | mes   | 1                             | 2                      | 3                 | 4 | 5 |   |
|   |                   |  |   | 1                             |                        |                   |   | 5 |   |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes |                   | Adequate knowledg<br>mathematics, science<br>engineering subject<br>pertaining to the rel<br>discipline; ability to<br>theoretical and appl<br>information in these<br>model and solve en<br>problems. | ge in<br>ce and<br>ss<br>levant<br>o use<br>lied<br>e areas to<br>gineering   |                               |                        |                   |   |   |   |
|   | 2                 | Ability to identify,<br>and solve complex<br>engineering probler<br>to select and apply<br>analysis and model<br>methods for this pu   | formulate,<br>ns; ability<br>proper<br>ing<br>rpose.                          |                               | x                      |                   |   |   |   |
|   | 3                 | Ability to design a<br>system, process, de<br>product under realis<br>constraints and con<br>such a way as to mo<br>desired result; abili-<br>apply modern desig<br>methods for this pu                | complex<br>vice or<br>stic<br>ditions, in<br>eet the<br>ty to<br>gn<br>rpose. |                               |                        |                   |   |   |   |

|  | 4                   | Ability to develop, select and<br>use modern techniques and<br>tools necessary for analysis<br>and solution of complex<br>problems in engineering<br>applications; ability to use<br>information technologies<br>effectively.    |      | x   |       |   |  |
|--|---------------------|--|------|-----|-------|---|--|
|  | 5                   | Ability to design and conduct<br>experiments, gather data,<br>analyze and interpret results<br>for examination of<br>engineering problems or<br>discipline-specific research<br>topics.  |      | x   |       |   |  |
|  | 6<br>7              | Ability to work efficiently in<br>intra-disciplinary teams.<br>Ability to work efficiently in  |      |     |       |   |  |
|  |                     | multi-disciplinary teams.  |      |     |       |   |  |
|  | 8                   | Ability to communicate<br>effectively in Turkish, both<br>orally and in writing;<br>knowledge of a minimum of<br>one foreign language.   |      |     |       |   |  |
|  | 9                   | Ability to write effective<br>reports and understand<br>written reports, to prepare<br>design and production<br>reports, to make effective<br>presentations, to give clear<br>and understandable<br>instructions and to receive. |      |     |       |   |  |
|  | 1 0                 | Recognition of the need for<br>lifelong learning; ability to<br>access information, to follow<br>developments in science and<br>technology, and to continue<br>to educate him/herself.   |      |     |       |   |  |
|  | 1<br>1              | Conformity to ethical<br>principles, professional and<br>ethical responsibility;<br>Information on standards<br>used in engineering<br>applications.   |      |     |       |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | Facu<br><u>fefm</u> | lty Members of the Department of Matematik@gazi.edu.tr   | Matł | nem | iatic | s |  |

|          | Program<br>Outcome | Program<br>Outcome2 | Program<br>Outcome3 | Program<br>Outcome | Program<br>Outcome5 | Program<br>Outcome6 | Program<br>Outcome7 | Program<br>Outcome | Program<br>Outcome9 | Program<br>Outcome10 | Program<br>Outcome11 |
|----------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|----------------------|
|          | 1                  |                     |                     | 4                  |                     |                     |                     | 8                  |                     |                      |                      |
| TOTAL    |                    | 2                   |                     | 2                  | 2                   |                     |                     |                    |                     |                      |                      |
| Learning |                    | 1                   |                     | 1                  |                     |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 1        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    | 1                   |                     |                    | 1                   |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 2        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     | 1                  |                     |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 3        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| Learning |                    |                     |                     |                    | 1                   |                     |                     |                    |                     |                      |                      |
| outcome  |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |
| 4        |                    |                     |                     |                    |                     |                     |                     |                    |                     |                      |                      |

| Course Category                |      |  |
|--------------------------------|------|--|
| Mathematics and Basic Sciences | %100 |  |
| Engineering                    | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %0   |  |
| Education                      | %0   |  |
| Science                        | %0   |  |
| Health                         | %0   |  |
| Field                          | %0   |  |

| COURSE DESCRIPTION FORM                     |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Course Code and Name                        | MAT201 DIFFERENTIAL EQUATIONS  |  |  |  |  |  |  |
| Course Semester                             | 3  |  |  |  |  |  |  |
| Catalog Data of the Course (Course Content) | Some basic skills such as first and high order differential equations, solutions and applications with Laplace and inverse Laplace transformation and applications.  |  |  |  |  |  |  |
| Textbook of the Course                      | Kitabevi, 2016.  |  |  |  |  |  |  |
| Supplementary Textbooks                     | Ogün Doğru, Diferensiyel Denklemlerin Temelleri (Çeviri Kitap), Nobel<br>Yayıncılık, 2013.<br>Tahsin Engin, Cevdet Cerit, Fatma Ayaz, Mühendislik ve Temel Bilimler<br>için Diferensiyel Denklemler, İzmir Güven Kitabevi, 2013.   |  |  |  |  |  |  |
| Credit (ECTS)                               | 6  |  |  |  |  |  |  |
| Prerequisites of the Course                 | There is no prerequisite or co-requisite for this course.  |  |  |  |  |  |  |
| Type of the Course                          | Compulsory   |  |  |  |  |  |  |
| Instruction Language of the Course          | Turkish  |  |  |  |  |  |  |
| Course Objectives                           | To be able to study first and high order differential equations, solutions<br>and applications with Laplace and inverse Laplace transformation and<br>applications.  |  |  |  |  |  |  |
| Learning Outcomes                           | <ol> <li>Understand the differential equation concept</li> <li>Learning the types of differential equation</li> <li>Be able to formulate mathematical models for engineering problems</li> <li>Be able to determine the particular and general solutions of the first and second-order differential equations</li> <li>Be able to solve the differential equations with Laplace transform</li> </ol>   |  |  |  |  |  |  |
| Instruction Method                          | The type of this course is face to face.   |  |  |  |  |  |  |
| Weekly Schedule of the Course               | <ol> <li>Mathematical models. Definition of linear and nonlinear differential<br/>equations . Separable equations.</li> <li>Solution of for various linear and nonlinear forms in y of f(x,y).</li> <li>Exact differential equations. Integrating factors. Linear first-order<br/>equation. Existence and uniqueness of solutions. Picard?s iteration</li> <li>Second-order constant-coefficient linear differential equations. Higher-<br/>order differential equations.</li> <li>Characteristic equation and case of real repeated and complex<br/>roots. Euler?s formula for complex exponential function. Cauchy-Euler.</li> <li>The nonhomogeneous equation and applications of second order<br/>differential equations</li> <li>Laplace transform method. First and second shifting theorems</li> <li>Transformation of initial-value problems with various discontinuous<br/>loading functions</li> <li>Convolution. Unit impulses and the dirac delta function.</li> <li>Laplace Transform solution of Systems.</li> <li>Differential equations with polynomial coefficients</li> <li>I. midterm exam, Power series solutions of initial value problems</li> <li>Final exam</li> </ol> |  |  |  |  |  |  |

| <b>Assesment Tasks</b><br>(The time spent for the activities listed here will<br>determine the amount of credit required.) | Weekly theoretical course hours 4<br>Hours per week 0<br>Reading Activities 1<br>Internet browsing, library work 2<br>Designing and implementing materials 0<br>Report preparing 0<br>Preparing a Presentation 0<br>Presentations 0<br>Preparation of Midterm and Midterm Exam 4 |                     |                   |                        |                |               |                   |                   |                           |
|--|--|---------------------|-------------------|------------------------|----------------|---------------|-------------------|-------------------|---------------------------|
|  | Final Exam and   | d Preparation       | sayısı            | Exam 4                 | Гор<br>Ka      | olan<br>tkis  | 1<br>1            |                   |                           |
|  |  |                     | 1                 |                        | <u>(</u>       | <u>/)</u>     |                   | -                 |                           |
|  | A saignment  | 8                   | 1                 |                        | 4              | 0<br>0        |                   | -                 |                           |
|  | Assignment<br>Practice   |                     | 0                 |                        |                | 0             |                   | -                 |                           |
|  | Projects   |                     | 0                 |                        |                | 0             |                   | -                 |                           |
|  | Practise   |                     | 0                 |                        |                | 0             |                   | 1                 |                           |
| Assesment Criteria   |  |                     | 0                 |                        |                | <u>0</u>      |                   | 1                 |                           |
|  | Quizes   |                     | 0                 |                        |                | 0             |                   |                   |                           |
|  | Percent of In-ter<br>to Year- to Year  | rm Studies<br>r (%) | 0                 |                        | 4              | 0             |                   |                   |                           |
|  | Percentage of F<br>Total Score (%)   | inal Exam to        | 1                 |                        | 6              | 0             |                   |                   |                           |
|  | Attendance   |                     |                   | _                      |                |               |                   |                   |                           |
|  | E  | fficiency           |                   | Tota<br>Numb<br>of Wee | l<br>er<br>eks | Du<br>(v<br>ł | ira<br>vee<br>10u | tion<br>kly<br>r) | Total Period<br>Work Load |
|  | Weekly Theoretical Course Hours  |                     |                   |                        | 14             |               | 4                 |                   | 56                        |
|  | Hours Per Week   |                     |                   |                        |                |               |                   |                   |                           |
|  | Reading Tasks  |                     |                   |                        |                | 1             |                   |                   | 12                        |
|  | Internet Browsing Library Work   |                     |                   |                        |                | 2             |                   |                   | 26                        |
|  | Designing and Implementing   |                     |                   |                        | _              | +             |                   |                   | 20                        |
|  | Materials  |                     |                   |                        |                |               |                   |                   |                           |
| Workload of the Course   | Report Preparin  | g                   |                   |                        |                |               |                   |                   |                           |
|  | Prenaring a Presentation   |                     |                   |                        | ļ              |               |                   |                   | 1                         |
|  | Presentations  |                     |                   |                        |                |               |                   |                   |                           |
|  | Midterm Exam   |                     |                   |                        | 4              |               | 32                |                   |                           |
|  | Midterm Exam   | 1011 101            | ĺ                 |                        |                |               |                   | 52                |                           |
|  | Final Exam and   | Preperation         | for Final         | 6                      |                | 4             |                   |                   | 24                        |
|  | Exam   | -                   |                   |                        |                |               |                   |                   |                           |
|  | Other  |                     |                   |                        |                |               |                   |                   |                           |
|  | Total Workload   | l                   |                   | -                      |                |               | -                 |                   | 150                       |
|  | Total Workload   | 1/25                |                   | 1                      |                |               |                   |                   | 150/25                    |
|  | Course Credit (  | ECTS)               |                   |                        |                |               |                   |                   | 6                         |
|  |  | Na                  | Progra            | m 1                    |                | 2             | л                 | 5                 | -                         |
|  |  | INO                 | Learni            | ng   <sup>1</sup>      | 2              | 13            | 4                 |                   |                           |
|  |  |                     | Outcor            | nes                    | +-             |               | .                 |                   |                           |
|  |  | No                  | Prograt<br>Outcom | m 1<br>nes             | 2              | 3             | 4                 | 5                 |                           |
|  |  | 1                   | PO1               |                        | X              |               |                   |                   |                           |
| Contribution Level Between Course Outcomes   |  | 2                   | PO2               |                        |                |               | X                 |                   |                           |
| and Program Outcomes   |  | 3                   | PO3               |                        |                |               |                   |                   |                           |
|  |  | 4                   | PO4               |                        |                |               |                   |                   |                           |
|  | -  |                     |                   |                        |                |               |                   |                   |                           |
|  |  | 5                   | PO5               |                        |                |               |                   |                   |                           |
|  |  | 5                   | PO5<br>PO6        |                        |                |               |                   |                   |                           |

|   |                                       | 7                                     | PO7                              |               |     |   |  |
|---|---------------------------------------|---------------------------------------|----------------------------------|---------------|-----|---|--|
|   |                                       | 8                                     | PO8                              |               |     |   |  |
|   |                                       | 9                                     | PO9                              |               |     |   |  |
| Names of Lecturers and e-mails of Lecturers | Mathemati<br>E-mail add<br>Phone: 202 | cs Departmo<br>lress: fefmat<br>21051 | ent Teaching M<br>ematik@gazi.eo | embe<br>lu.tr | ers | - |  |

Contribution of Learning Outcomes to Programme Outcomes

|     | P1 | P2 |
|-----|----|----|
| All | 2  | 4  |
| C1  | 1  | 1  |
| C2  | 1  | 1  |
| C3  | 1  | 1  |
| C4  | 1  | 1  |
| C5  | 1  |    |

Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant

| Course Category                |           |
|--------------------------------|-----------|
| Mathematics and Basic Sciences | %50       |
| Engineering                    | %50       |
| Engineering Design             | %0        |
| Social Sciences                | %0        |
| Education                      | %0        |
| Science                        | %0        |
| Health                         | <u>%0</u> |

|                                  | C  | ourse Description Form  |  |  |  |  |  |
|----------------------------------|--|---|--|--|--|--|--|
| Course Code and Name             | urse Code and Name MAT202 NUMERICAL ANALYSIS   |   |  |  |  |  |  |
| Course Semester                  | 4  | 4   |  |  |  |  |  |
| Catalog Content                  | Error analysis, solution methods of linear and nonlinear equations, solution methods of<br>sets of linear equations<br>Interpolation techniques, curve fitting methods and numerical derivative calculation<br>To have knowledge about numerical integration methods and numerical solution<br>methods of ordinary differential equations  |   |  |  |  |  |  |
| Textbook                         | 1. Sayısal Analiz, G. Oturanç, A., Kurnaz, M., Kiriş, Y., Keskin, Dizgi, Ofset   |   |  |  |  |  |  |
| Supplementary Textbooks          | 1. Richard<br>Brooks/  | L. Burden and J. Douglas Faires Numerical Analysis, ninth edition,<br>Cole, Cengage Learning 2011,  |  |  |  |  |  |
| Credit                           | 5 ECTS   |   |  |  |  |  |  |
| Prerequisites of the Course      | No prerequi<br>70% attenda   | sites<br>ance requirement   |  |  |  |  |  |
| Type of the Course               | Compulsory   | 7   |  |  |  |  |  |
| Instruction Language             | Turkish  |   |  |  |  |  |  |
| Course Objectives                | To compreh<br>solutions to   | end basic numerical methods, algorithms and programming techniques to find various engineering problems   |  |  |  |  |  |
| Course Learning Outcomes         | <ol> <li>Recognize and classify numerical methods and formulate them</li> <li>Know and relate the basic concepts of input and output error in numerical methods</li> <li>Interpret the results of numerical methods correctly</li> <li>Can decide which algorithm to use for the numerical problems encountered</li> <li>Know the advantages and disadvantages of the algorithm used and have a realistic estimation of how the algorithm will work</li> </ol> |   |  |  |  |  |  |
| Instruction Methods              | Face to face   |   |  |  |  |  |  |
| Weekly Schedule                  | 1. Week           2. Week           3. Week           4. Week           5. Week           6. Week           7. Week           8. Week           9. Week           10. Week           11. Week           12. Week           13. Week  | Systems of numbers and errorsComputer representations of numbers, integers and floating-pointnumbers (IEEE notations) Errors due to these impressions.Numerical solution methods of nonlinear equations, Bisection MethodRegula Falsi Method, Newton Raphson MethodFixed Point Iteration, Secant MethodSolution of Linear Equations Systems, Cramer Rule, Gauss EliminationMethod tor SpacesJacobi Iteration, Gauss-Seidel MethodLagrange InterpolationNumerical differentiation methods Richardson ExtrapolationNumerical integral methods, The Trapezoidal Methods, RombergMethodSimpson and Gauss Formulas |  |  |  |  |  |
| Teaching and Learning<br>Methods | 14. Week         Weekly theor         Reading Acti         Internet brow         Designing an         Report prepar         Preparing a P         Presentations         Preparation o         Final Exam a   | Initial Value Problems, Euler Methods, Runge-Kutta Methods retical course hours: 3 hours per week: 0 vities:2 weeks 4 hours rsing, library work: 2weeks 4 hours d implementing materials: 0 ring: 0 resentation: : f Midterm and Midterm Exam: 3 weeks 6 hours nd Preparation for Final Exam: 3 weeks 8 hours   |  |  |  |  |  |

|  |                                     |  | Numbers   | Total<br>Weighti   | ng  |   |                    |                    |     |        |
|--|-------------------------------------|--|---|--|---|---|--------------------|--------------------|-----|--------|
|  | Midterne Freener                    | erm Exams 1 60   |   |  |   |   |                    |                    |     |        |
|  |                                     |  | 1   | 00   |   |   |                    |                    |     |        |
|  | Application                         |  |   |  |   |   |                    |                    |     |        |
|  | Projects                            |  |   |  |   |   |                    |                    |     |        |
| Assessment Criteria  | Practice                            |  |   |  |   |   |                    |                    |     |        |
|  | Quiz                                |  |   |  |   |   |                    |                    |     |        |
|  | Percent of In-ter<br>Studies (%)    | m  |   |  |   |   |                    |                    |     |        |
|  | Percentage of Fi<br>Total Score (%) | nal Exam to  | 1   | 40   |   |   |                    |                    |     |        |
|  | Attendance                          | Activity   |   | Total<br>Number of<br>Weeks  | Duration<br>(weekly<br>hour)                            | 1 | Tot<br>Peri<br>Woi | tal<br>iod<br>rk ] | Loa | nd     |
|  | Weekly Theoret                      | ekly Theoretical Course Hours 14 3   |   |  |   |   |                    |                    |     |        |
|  | Weekly Tutorial                     | kly Tutorial Hours   |   |  |   |   |                    |                    |     |        |
|  | Reading Tasks                       |  |   | 3  | 3   |   |                    | 9                  |     |        |
|  | Studies                             | lies 3 3   |   |  |   |   |                    |                    |     |        |
|  | Material Design                     | terial Design and Implementation 3 3   |   |  |   |   |                    |                    |     |        |
|  | Report Preparing                    | ort Preparing  |   |  |   |   |                    |                    |     |        |
| Workload   | Preparing a Pres                    | entation   |   |  |   |   |                    |                    |     |        |
|  | Presentations                       |  |   |  |   |   |                    |                    |     |        |
|  | Midterm Exam                        | and Preperation fo   | or  | 14   | 2   |   |                    | 28                 |     |        |
|  | Final Exam and                      | Preperation for Fi   | inal Exam   | 14   | 2   |   |                    | 28                 |     |        |
|  | Other (should be                    | e emphasized)  |   |  |   |   |                    |                    |     |        |
|  | Total Workload                      | <u> </u>   |   |  |   |   | 125                |                    |     |        |
|  | Total Workload                      | / 25   |   |  |   |   | 12                 | 25/                | 25  |        |
|  | Course Credit (I                    | ECTS)  |   |  |   |   |                    | 5                  |     |        |
|  | No                                  | Program Out  | comes   |  |   | 1 | 2                  | 3                  | 4   | 5      |
|  | 1                                   | In-depth knowledge of mathematics, science, basic engineering concepts, computer-aided computing and specific engineering areas; ability to use this knowledge effectively in solving complex engineering problems |   |  |   |   | x                  |                    |     |        |
| Contribution Level Between<br>Course Learning Outcomes and<br>Program Outcomes | 2                                   | Ability to identify,<br>problems using kno<br>engineering, and ta<br>Development Goals   | formulate and<br>owledge of basi<br>king into accou<br>s.                 | l analyse complex engineering<br>sic science, mathematics and<br>ount the UN Sustainable |   |   |                    | x                  |     |        |
|  | 3                                   | Ability to generate<br>problems to meet c<br>systems, processes,<br>constraints and con  | creative solution<br>urrent and futu<br>devices or produtions.            | ons to complex<br>re needs; desig<br>ducts under re                                      | x engineering<br>gn complex<br>alistic                  | х |                    |                    |     |        |
|  | 4                                   | Ability to select and<br>modern engineering<br>estimation and mod  | d use appropria<br>g and informati<br>lelling, for the                    | te techniques,<br>on technology<br>analysis and s  | resources and<br>tools, including<br>plution of         |   |                    | x                  |     |        |
|  |                                     | complex engineerir   | ng problems, re   | cognising their  | r limitations.  |   |                    | -                  | _   | $\neg$ |
|  | 5                                   | designing and cond<br>analysing and inter<br>engineering problem   | ucting experin<br>preting results,<br>ns.                                 | to investigate   | g data,<br>complex                                      |   |                    |                    |     |        |
|  | 6                                   | Knowledge of the e<br>health and safety, e<br>within the framewo<br>Goals; awareness o<br>solutions.   | effects of engin<br>conomy, sustai<br>ork of the UN S<br>f the legal cons | eering practice<br>inability and e<br>sustainable De<br>sequences of e                   | es on society,<br>nvironment<br>velopment<br>ngineering |   |                    |                    |     |        |
|  | 7                                   | Acting in accordance<br>engineering profess<br>awareness of non-d<br>diversity.  | ce with the eth<br>sion, awareness<br>iscrimination,                      | ical principles<br>of ethical res<br>impartiality ar                                     | of the<br>ponsibilities;<br>id embracing                |   |                    |                    |     |        |

|  | 8<br>9<br>10        | Ability to work effectively as a team member or leader both individually and within interdisciplinary teams (face-to-face, distance or hybrid).         Ability to communicate effectively on technical issues, both orally and in writing, taking into account the various differences of the target audience (e.g. education, language, profession).         Knowledge of business life practices such as project management and economic feasibility analysis; awareness of entrepreneurship and innovation.         Ability to learn independently and continuously to adapt to new |  |  |
|--|---------------------|---|--|--|
| The Course's                               |                     | and emerging technologies and to think inquisitively about technological changes.   |  |  |
| Lecturer(s) and<br>Contact<br>Informations | Prof. Dr<br>adema@g | Adem ACIR<br>gazi.edu.tr  |  |  |

|                       | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                 | 2                       | 3                       | 1                       | 3                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 1 | 1                       |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 2 |                         | 1                       |                         | 1                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 3 |                         | 1                       |                         | 1                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 4 |                         | 1                       | 1                       | 1                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 5 | 1                       |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

#### **Course Structure**

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

|                                  | С  | Course Descriptio  | n Form  |  |  |  |  |  |
|----------------------------------|--|--|---|--|--|--|--|--|
| Course Code and Name             | MAT203 L   | INEAR ALGEBRA  |   |  |  |  |  |  |
| Course Semester                  | 3  |  |   |  |  |  |  |  |
| Catalog Content                  | Matrix algeb<br>Learning sys<br>and indepen<br>To have kr<br>product spa   | ora, elementary opera<br>stems of linear equati<br>dence, basis and dime<br>nowledge about linea<br>ces, eigenvalues and o   | tions and appli<br>ons and their s<br>ension<br>ar transformati<br>eigenvectors, d                                  | cations, determina<br>olutions, vector sp<br>ions and matrix<br>liagonalization co | ants, matrix norms<br>paces, linear dependence<br>representations, inner<br>ncepts |  |  |  |
| Textbook                         | <ol> <li>Linear A<br/>Judi J. M</li> <li>Elementa<br/>Fourth E</li> </ol>  | lgebra and Its Applic<br>IcDonald, 2015<br>ary Linear Algebra, B<br>dition, 1986.  | ations (5th Edi<br>Bernard Kolman   | ition) by David C.<br>n, MacMillan Pub   | Lay, Steven R. Lay,  |  |  |  |
| Supplementary Textbooks          | I. Uygulan<br>Yayıncıl   | nali Lineer Cebir (7. 1<br>lik, 2002.  | Baskıdan Çevii  | ri), Bernard Kolm  | ian, David R. Hill, Palme  |  |  |  |
| Credit                           | 5 ECTS   |  |   |  |  |  |  |  |
| Prerequisites of the Course      | No prerequ<br>Attendance   | isites<br>Requirement 70%  |   |  |  |  |  |  |
| Type of the Course               | Compulsory   | /  |   |  |  |  |  |  |
| Instruction Language             | Turkish  |  |   |  |  |  |  |  |
| Course Objectives                | This course<br>applications  | aims to introduce stu<br>in engineering.   | dents to the fu   | ndamentals of line   | ear algebra and its  |  |  |  |
| Course Learning Outcomes         | <ol> <li>The conce</li> <li>The conce</li> <li>Explain the</li> <li>Identify set</li> </ol>  | The concept of matrix can be explained<br>The concept of determinant can be explained.<br>Explain the concepts of linear equations and systems of linear equations.<br>Identify solution sets and evaluate the existence and uniqueness of solutions.  |   |  |  |  |  |  |
| Instruction Methods              | Face to face   | 2  |   |  |  |  |  |  |
| Weekly Schedule                  | 1. Week<br>2. Week<br>3. Week<br>4. Week<br>5. Week<br>6. Week<br>7. Week<br>8. Week<br>10. Week<br>11. Week<br>12. Week<br>13. Week<br>14. Week                   | Matrix Algebra<br>Elementary Operation<br>Determinants<br>Linear Equation System<br>Vector Spaces<br>Linear Dependency<br>Base and Dimension<br>Linear Transformation<br>Matrix Representation<br>Inner Product Space<br>Matrix Norms<br>Eigenvalues and Eig<br>Diagonalization  | ons and Applic<br>stems and Solu<br>stems and Solu<br>and Independen<br>ions<br>ons of Linear 7<br>es<br>genvectors | cations<br>ttions<br>ttions<br>ence<br>Transformations                             |  |  |  |  |
| Teaching and Learning<br>Methods | Weekly theor<br>Reading Acti<br>Internet brow<br>Designing an<br>Report prepar<br>Preparing a P<br>Presentations<br>Preparation o<br>Final Exam a<br>Other 0 hours | Veekly theoretical course hours: 3 hours<br>eading Activities: 3 hours<br>iternet browsing, library work: 3 hours<br>esigning and implementing materials: 3<br>eport preparing: 0<br>reparing a Presentation:<br>resentations:<br>reparation of Midterm and Midterm Exam: 2 hours<br>inal Exam and Preparation for Final Exam: 2 hours |   |  |  |  |  |  |
|                                  | Midterm Ex<br>Assignment   | ams  | Numbers   | Total<br>Weighting<br>(%)<br>40  |  |  |  |  |
|                                  | Application  |  |   |  | 1  |  |  |  |

|  | Projects                        |   |                        |                           |                 |                              |                  |                        |          |     |    |   |
|--|---------------------------------|---|------------------------|---------------------------|-----------------|------------------------------|------------------|------------------------|----------|-----|----|---|
| Assessment Criteria                              | Practice                        |   |                        |                           |                 |                              |                  |                        |          |     |    |   |
|  | Quiz                            |   |                        |                           |                 |                              |                  |                        |          |     |    |   |
|  | Percent of In-ter               | rm  |                        |                           | 4               | 0                            |                  |                        |          |     |    |   |
| -  | Studies (%)                     |   |                        |                           |                 | <u> </u>                     |                  |                        |          |     |    |   |
|  | Percentage of F                 | inal Exam to                                |                        | 1                         | 6               | 0                            |                  |                        |          |     |    |   |
| -  | Attendance                      |   |                        |                           |                 |                              |                  |                        |          |     |    |   |
|  |                                 |   |                        |                           |                 | Dentitie                     |                  | Total                  |          |     |    | Т |
|  |                                 | Activity                                    |                        | Total<br>of V             | Number<br>Weeks | (weekly<br>hour)             |                  | Period<br>Work Lo      |          | Lo: | ad |   |
|  | Weekly Theoretic                | al Course Hours                             |                        |                           | 14              | 3                            |                  | 42                     |          | ?   |    |   |
|  | Weekly Tutorial I               | Hours                                       |                        |                           | 2               | 2                            |                  |                        |          |     |    | _ |
|  | Reading Tasks                   |   |                        |                           | 3               | 3                            |                  |                        | 9        |     |    | 4 |
|  | Studies                         |   |                        |                           | 3               | 3                            |                  |                        | <u> </u> |     |    | _ |
|  | Material Design a               | nd  |                        |                           | 3               | 3                            |                  |                        | 9        |     |    |   |
|  | Report Preparing                |   |                        |                           |                 |                              |                  |                        |          |     |    | 1 |
| Workload   | Preparing a Prese               | ntation                                     |                        |                           |                 |                              |                  |                        |          |     |    |   |
|  | Presentations                   |   |                        |                           |                 |                              |                  |                        |          |     |    |   |
|  | Midterm Exam ar<br>Midterm Exam | nd Preperation for                          |                        |                           | 14              | 2                            |                  |                        | 28       | 3   |    |   |
|  | Final Exam and P<br>Exam        | reperation for Final                        |                        |                           | 14              | 2                            |                  |                        | 28       | 3   |    |   |
|  | Other ( should be               | emphasized)                                 |                        |                           |                 |                              |                  | 105                    |          |     |    |   |
|  | Total Workload                  |   |                        |                           |                 |                              |                  | 125                    |          |     |    |   |
|  | Total Workload /                | 25  |                        |                           |                 |                              | 125/             |                        | 5/25     |     |    |   |
|  | Course Credit (EC               | CTS)  |                        |                           |                 |                              |                  | 5                      |          |     |    |   |
|  | No                              | Program Outo                                | comes                  |                           |                 |                              |                  | 1                      | 2 3      | 4   | 5  |   |
|  | 1 In-depth knowledge of ma      |   |                        |                           | s, science,     | basic engin                  | neering          |                        |          | 1   |    |   |
|  |                                 | areas; ability to use                       | this kno               | wledge<br>ems.            | effectively     | y in solving                 | 3                |                        |          | х   |    |   |
| Contribution Level Between                       | 2                               | Ability to identify,                        | formulat               | te and a                  | nalyse con      | plex engin                   | neering          |                        |          |     |    |   |
| Course Learning Outcomes and<br>Program Outcomes |                                 | engineering, and tal                        | cing into              | o account the UN Sustaina |                 |                              | s and            |                        | x        |     |    |   |
| 1 Togram Outcomes                                | 3                               | Ability to generate                         | creative               | solutio                   | ns to comp      | lex engined                  | ering            | x                      | +        | +   |    |   |
|  | 5                               | problems to meet co                         | urrent ar              | nd futur                  | e needs; de     | sign comp                    | lex              |                        |          |     |    |   |
|  |                                 | systems, processes, constraints and con-    | devices<br>ditions.    | or proc                   | lucts under     | realistic                    |                  |                        |          |     |    |   |
|  | 4                               | Ability to select and                       | l use app              | propriat                  | e technique     | es, resource                 | es and           | $\square$              | +        | -   |    |   |
|  |                                 | modern engineering                          | g and inf              | ormatic                   | on technolo     | gy tools, ir                 | ncluding         |                        |          |     |    |   |
|  |                                 | complex engineerin                          | elling, f              | or the a                  | nalysis and     | l solution o<br>peir limitat | ot<br>ions       |                        |          |     |    |   |
|  | 5                               | Ability to use resea                        | rch meth               | nods, in                  | cluding lite    | erature sear                 | ch,              |                        |          |     |    |   |
|  |                                 | designing and cond                          | ucting e               | xperim                    | ents, collec    | ting data,                   |                  |                        |          |     |    |   |
|  |                                 | engineering probler                         | breung r<br>ns.        | esuns, i                  | o investiga     | tte complex                  | X                |                        |          |     |    |   |
|  | 6                               | Knowledge of the e                          | ffects of              | fengine                   | ering pract     | ices on soc                  | ciety,           |                        |          |     |    |   |
|  |                                 | health and safety, e                        | conomy                 | , sustair                 | ability and     | l environm                   | ent              |                        |          |     |    |   |
|  |                                 | Goals; awareness of                         | f the leg              | al conse                  | equences of     | f engineeri                  | ng               |                        |          |     |    |   |
|  | 7                               | solutions.                                  | e with t               | he ethic                  | al principl     | es of the                    |                  | $\left  \right $       | +        | +   |    |   |
|  |                                 | engineering profess                         | ion, awa               | areness                   | of ethical r    | esponsibili                  | ities;           |                        |          |     |    |   |
|  |                                 | awareness of non-d                          | iscrimin               | ation, i                  | npartiality     | and embra                    | icing            |                        |          |     |    |   |
|  | Q                               | aiversity.<br>Ability to work effe          | ctivelv                | as a tea                  | m member        | or leader b                  | oth              | $\left  \cdot \right $ | +        | +   |    |   |
|  | 0                               | individually and wi                         | thin inte              | rdiscipl                  | inary team      | s (face-to-f                 | face,            |                        |          |     |    |   |
|  | 9                               | Ability to communi<br>orally and in writing | cate effe<br>g, taking | ectively<br>g into ac     | on technic      | al issues, b<br>various diff | ooth<br>ferences |                        | Ť        |     |    |   |

|  | of the target audience (e.g. education, language, profession).           10         Knowledge of business life practices such as project management and economic feasibility analysis; awareness of entrepreneurship and innovation.           11         Ability to learn independently and continuously, to adapt to new and emerging technologies and to think inquisitively about technological changes. |      |      | _ | _ |
|--|--|------|------|---|---|
| The Course's<br>Lecturer(s) and<br>Contact<br>Informations | Matematik Bölümü Öğretim Üyeleri<br>E-posta adresi: <u>fefmatematik@gazi.edu.tr</u><br>Telefon: 2021051  | <br> | <br> |   |   |

|                           | Program<br>çıktısı 1 | Program<br>çıktısı 2 | Program<br>çıktısı 3 | Program<br>çıktısı 4 | Program<br>çıktısı 5 | Program<br>çıktısı 6 | Program<br>çıktısı 7 | Program<br>çıktısı 8 | Program<br>çıktısı 9 | Program<br>çıktısı 10 | Program<br>çıktısı 11 |
|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| TOPLAM<br>KATKI<br>DÜZEYI | 4                    | 3                    | 1                    |                      |                      |                      |                      |                      |                      |                       |                       |
| Öğrenim<br>çıktısı 1      | 1                    | 1                    |                      |                      |                      |                      |                      |                      |                      |                       |                       |
| Öğrenim<br>çıktısı 2      | 1                    | 1                    |                      |                      |                      |                      |                      |                      |                      |                       |                       |
| Öğrenim<br>çıktısı 3      | 1                    | 1                    |                      |                      |                      |                      |                      |                      |                      |                       |                       |
| Öğrenim<br>çıktısı 4      | 1                    |                      | 1                    |                      |                      |                      |                      |                      |                      |                       |                       |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Course Structure               |      |  |
|--------------------------------|------|--|
| Mathematics and Basic Sciences | %0   |  |
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |
|                                |      |  |

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| Course Description Form     |   |   |  |  |  |  |  |  |  |
|-----------------------------|---|---|--|--|--|--|--|--|--|
| Course Code and Name        | TAR101 A  | TATURK'S PRINCIPLES AND HISTORY OF REVOLUTION 1   |  |  |  |  |  |  |  |
| Course Semester             | 3   |   |  |  |  |  |  |  |  |
| Catalog Content             | The early 2<br>of the Ottor<br>To learn the<br>Empire in the<br>Understand<br>the war and   | 0th century world and the situation of the Ottoman Empire, the last period<br>nan Empire and the path to World War I.<br>e causes of World War I, the war process, the participation of the Ottoman<br>ne war and the results of the war<br>ing the basic concepts of the National Struggle, the preparation period after<br>the preparations made under the leadership of Mustafa Kemal Atatürk  |  |  |  |  |  |  |  |
| Textbook                    | <ol> <li>Mustafa</li> <li>Aybars,</li> <li>Komisyo</li> <li>Komisyo</li> </ol>  | Kemal, Nutuk, Ankara, 1997.<br>E., Türkiye Cumhuriyeti Tarihi 1-2, İzmir, 2005.<br>on, Türkiye Cumhuriyeti 1-2, Atatürk Araş. Mer. Yayını<br>on, Atatürk İlkeleri ve İnkılap Tarihi I/1-2, II, YÖK Yayını   |  |  |  |  |  |  |  |
| Supplementary Textbooks     | 1. Turan, F<br>Türk İnk   | R. ve diğerleri; Atatürk İlkeleri ve İnkılâp Tarihi, Ankara 1999. Eroğlu, H.;<br>sılap Tarihi, İstanbul 1982.   |  |  |  |  |  |  |  |
| Credit                      | 2 ECTS  |   |  |  |  |  |  |  |  |
| Prerequisites of the Course | No Prerequi<br>Attendance   | isites<br>Requirements %70  |  |  |  |  |  |  |  |
| Type of the Course          | Compulsory  | /   |  |  |  |  |  |  |  |
| Instruction Language        | Turkish   |   |  |  |  |  |  |  |  |
| Course Objectives           | To teach stages of establishment in modern Turkey   |   |  |  |  |  |  |  |  |
| Course Learning Outcomes    | <ol> <li>Cains the<br/>personalitie</li> <li>Develops<br/>occurring to</li> <li>Learns to</li> <li>dealing with</li> <li>views.</li> <li>Develops</li> <li>history.</li> <li>Express a</li> <li>establishing</li> <li>Learns to</li> <li>Adopts u</li> <li>Understa</li> <li>who were n</li> <li>consciousne</li> </ol> | <ul> <li>power to analyze historical information around the subject, time and related s.</li> <li>a realistic perspective by associating a historical event with the events oday.</li> <li>evaluate various materials such as books, articles, movies, television series a historical events correctly. Gains the ability to critically evaluate different</li> <li>the ability to analyze his/her own views and opinions by finding bases from and convey their thoughts correctly. Gains the ability to think abstractly by gempathy with historical characters.</li> <li>present and comment on a historical event.</li> <li>niversal values while respecting and being loyal to their roots.</li> <li>nds the value of the land of the homeland by learning about their ancestors hartyred and veterans to protect our country, and internalizes the ess of national unity and solidarity.</li> </ul> |  |  |  |  |  |  |  |
| Instruction Methods         | Face to face  |   |  |  |  |  |  |  |  |
|                             | 1. Week   | Reasons for the Decline of the Ottoman Empire (Internal and External<br>Reasons)  |  |  |  |  |  |  |  |
|                             | 2. Week   | Reasons for the Decime of the Ottoman Empire Internal and External<br>Reasons)<br>Renovation Activities in the Ottoman Empire (Mahmut I, Selim III<br>Period)   |  |  |  |  |  |  |  |
|                             | 4. Week   | Revolution and Similar Concepts   |  |  |  |  |  |  |  |
|                             | 5. Week   | Innovations made during the reign of Mahmut II  |  |  |  |  |  |  |  |
| Weekly Schedule             | 6. Week   | The Political Situation and Fragmentation of the Ottoman Empire in the<br>19th Century  |  |  |  |  |  |  |  |
|                             | 7. Week   | Lanzimat Period   |  |  |  |  |  |  |  |
|                             | o. week   | Constitutional Monarchy Period  |  |  |  |  |  |  |  |
|                             | 10. Week  | Panislamism, Ottomanism, Islamism, Westernism, Turkism (Turanism)   |  |  |  |  |  |  |  |
|                             | 11. Week  | Tripoli and III. Balkan Wars  |  |  |  |  |  |  |  |
|                             | 12. Week  | Causes and Consequences of World War I  |  |  |  |  |  |  |  |
|                             | 13. Week  | Mustafa Kemal Pasha, Erzurum-Sivas Congresses   |  |  |  |  |  |  |  |
|                             | 14. Week  | Misak-1 Milli and the Opening of the Grand National Assembly of   |  |  |  |  |  |  |  |

| Teaching and Learning<br>Methods  | Week<br>Week<br>Read<br>Intern<br>Mate<br>Repo<br>Prese<br>Prese<br>Midta<br>Final<br>Other | kly theoretical cou-<br>kly applied lesson<br>ing activities 1 ho<br>net search, library<br>rial design, applie<br>ort preparation 1 h<br>entation preparation<br>entation 0 hours<br>erm Exam and Preper<br>r 0 hours | urse hours 2 l<br>a 0 hours<br>burs<br>v work 1 hours<br>cation 0 hours<br>tours<br>on 2 hours<br>eperation for<br>ration for Fin | nours<br>rs<br>s<br>Midterm E<br>al Exam 2 | Exam 2 h<br>hours           | ours           |                              |   |                        |      |     |     |
|-----------------------------------|---|--|---|--|-----------------------------|----------------|------------------------------|---|------------------------|------|-----|-----|
|                                   |   |  |   | Number                                     | 'S                          | Tota           | al Weighting                 |   |                        |      |     |     |
|                                   |   |  |   |  |                             |                | (70)                         |   |                        |      |     |     |
| -                                 | Midte   | erm Exams  |   | 1  |                             |                | 40                           |   |                        |      |     |     |
|                                   | Assig   | nment  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Appli   | cation   |   |  |                             |                |                              |   |                        |      |     |     |
| Assessment Criteria               | Proje   | cts  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Practi  | ice  |   |  |                             |                |                              |   |                        |      |     |     |
| -                                 | Quiz  | 4 CI 4   |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Studi   | es (%)   |   |  |                             |                | 40                           |   |                        |      |     |     |
| -                                 | Perce   | ntage of Final Ex  | am to   | 1  |                             |                | 60                           |   |                        |      |     |     |
|                                   | Total   | Score (%)  |   | 1  |                             |                | 60                           |   |                        |      |     |     |
|                                   | Atten   | dance  |   |  |                             |                |                              |   |                        |      |     | _   |
|                                   |   | Acti   | ivity   |  | Total<br>Number of<br>Weeks |                | Duration<br>(weekly<br>hour) |   | Period<br>Work<br>Load |      | I   |     |
|                                   | Weekly Theoretical Course Hours   |  |   |  | 14                          |                | 2                            |   | 28                     |      |     |     |
|                                   | Week  | ly Tutorial Hours  | 5   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Reading Tasks   |  |   |  | 4                           |                | 1                            |   |                        | 4    |     |     |
|                                   | Studio  | es   |   | 4  |                             | 1              |                              | 4 |                        |      |     |     |
|                                   | Material Design and Implementation  |  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Wateriar Design and Implementation  |  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Report Preparing  |  |   |  | 2                           |                | 1                            |   |                        | 2    |     |     |
| Workload                          | Preparing a Presentation  |  |   |  | 4                           |                | 2                            |   |                        |      |     |     |
|                                   | Presentations   |  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   | Midte   | erm Exam and Pre   | eperation for   |  | 1                           | 2              |                              | 2 |                        | 2    |     |     |
|                                   | Midte   | erm Exam   | 1   |  | 1                           |                |                              |   |                        |      |     |     |
|                                   | Final   | Exam and Preper  | ation for Fina  | al Exam                                    | 1                           |                | 2                            |   |                        | 2    |     |     |
|                                   | Other   | (should be emph  | asized)   |  |                             |                |                              |   |                        |      |     | 1   |
|                                   | Total   | Workload   |   |  |                             |                |                              |   |                        | 50   |     |     |
|                                   | Total   | Workload / 25  |   |  |                             |                |                              |   | 5                      | 50/2 | 25  |     |
|                                   | Cours   | se Credit (ECTS)   |   |  |                             |                |                              |   |                        | 2    |     |     |
|                                   |   | No   | Program   | Outcomes                                   |                             |                |                              | 1 | 2                      | 3 4  | 1 5 | ; [ |
|                                   |   | 1  | In donth lines  | wladge of -                                | hathamat:                   | 00 00          | ianca hasia                  | _ |                        | _    | +   | -   |
|                                   | engineering concepts, computer-aided computing and  |  |   |  |                             |                |                              |   |                        |      |     |     |
|                                   |   |  | specific engin  | neering area                               | ıs; ability                 | to us          | e this                       |   |                        |      |     |     |
|                                   |   |  | knowledge et  | ffectively in                              | solving                     | compl          | ex                           |   |                        |      |     |     |
| <b>Contribution Level Between</b> |   |  | engineering p   | problems.                                  | ulata and                   | analy          | a complex                    |   | $\rightarrow$          |      | -   | -   |
| Course Learning Outcomes and      |   | 2  | engineering r   | problems us                                | ing know                    | anary<br>ledge | of basic                     |   |                        |      |     |     |
| Program Outcomes                  |   |  | science, math   | nematics and                               | d enginee                   | ring,          | and taking into              |   |                        |      |     |     |
|                                   |   |  | account the U   | JN Sustaina                                | ble Deve                    | lopme          | ent Goals.                   |   |                        |      | _   |     |
|                                   |   | 3  | Ability to get  | nerate creati                              | ive solution                | ons to         | complex                      |   |                        |      |     |     |
|                                   |   |  | needs: design   | noorems to<br>complex «                    | vstems n                    | roces          | ses, devices or              |   |                        |      |     |     |
|                                   |   |  | products und  | er realistic o                             | constraint                  | s and          | conditions.                  |   |                        |      |     |     |

|  | 5              | <ul> <li>Ability to select and use appropriate techniques, resources and modern engineering and information technology tools, including estimation and modelling, for the analysis and solution of complex engineering problems, recognising their limitations.</li> <li>Ability to use research methods, including literature search, designing and conducting experiments, collecting data, analysing and interpreting results, to investigate complex engineering problems.</li> </ul> | x |   |
|--|----------------|---|---|---|
|  | 6              | Knowledge of the effects of engineering practices on<br>society, health and safety, economy, sustainability<br>and environment within the framework of the UN<br>Sustainable Development Goals; awareness of the<br>legal consequences of engineering solutions.  |   | x |
|  | 7              | Acting in accordance with the ethical principles of the<br>engineering profession, awareness of ethical<br>responsibilities; awareness of non-discrimination,<br>impartiality and embracing diversity.  |   | X |
|  | 8              | Ability to work effectively as a team member or<br>leader both individually and within interdisciplinary<br>teams (face-to-face, distance or hybrid).   |   |   |
|  | 9              | Ability to communicate effectively on technical<br>issues, both orally and in writing, taking into account<br>the various differences of the target audience (e.g.<br>education, language, profession).   |   | X |
|  | 10             | Knowledge of business life practices such as project<br>management and economic feasibility analysis;<br>awareness of entrepreneurship and innovation.  |   |   |
|  | 11             | Ability to learn independently and continuously, to<br>adapt to new and emerging technologies and to think<br>inquisitively about technological changes.  |   |   |
| The Course's<br>Lecturer(s) and<br>Contact<br>Informations | History Depart | ment Faculty Members  |   |   |

|                       | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                 |                         |                         |                         |                         | 3                       | 4                       | 4                       |                         | 4                       |                          |                          |
| Learning<br>outcome 1 |                         |                         |                         |                         | 1                       | 1                       |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 2 |                         |                         |                         |                         |                         | 1                       |                         |                         |                         |                          |                          |
| Learning<br>outcome 3 |                         |                         |                         |                         | 1                       | 1                       | 1                       |                         | 1                       |                          |                          |
| Learning<br>outcome 4 |                         |                         |                         |                         | 1                       | 1                       |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 5 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |
| Learning<br>outcome 6 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 7 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |
| Learning<br>outcome 8 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

| Course Description Form   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| Course Code and Name  | TAR102 ATATURK'S PRINCIPLES AND HISTORY OF<br>REVOLUTION 2   |  |  |  |  |  |  |  |  |
| Course Semester   | 4  |  |  |  |  |  |  |  |  |
| Catalog Content   | The beginning of the National Struggle, the preparatory period, important<br>congresses and the fronts, victories and results of the Turkish War of<br>Independence.<br>The proclamation of the Republic of Turkey, the creation of the structure of<br>the new state, learning the reforms made in the fields of law, education,<br>economy and culture.<br>Atatürk's principles of republicanism, nationalism, populism, statism,<br>secularism and revolutionism; Having knowledge about Turkish foreign<br>policy during and after Atatürk's period.<br>Learning important historical events and current developments in Turkey<br>after Atatürk's death.  |  |  |  |  |  |  |  |  |
| Textbook  | <ol> <li>Turan, R. ve dığerleri; Atatürk İlkeleri ve İnkilâp Tarihi, Ankara 1999.<br/>Eroğlu, H.; Türk İnkilap Tarihi, İstanbul 1982.</li> </ol>   |  |  |  |  |  |  |  |  |
| Supplementary Textbooks   | <ol> <li>Armaoğlu, Fahir. 20. yüzyıl Siyasi Tarihi, Ankara, 1991.</li> <li>Atatürk'ün Söylev ve Demeçleri, C. I-II-III, Tite Yay., Ankara 1981.</li> <li>Atatürk, M. K., Nutuk (1919-1927) Bugünkü Dille, (yay. haz.) Z.<br/>Korkmaz, Atatürk Araştırma Merkezi Yay., Ankara, 1999.</li> <li>Armaoğlu, F.; Siyasi Tarih 1789-1960, Ankara 1964.</li> <li>Aybars, E.; Türkiye Cumhuriyeti Tarihi I, Ankara 1990.</li> <li>Bayur, Y. H.; Türk İnkılabı Tarihi, C.III, Ankara 1983.</li> <li>Eroğlu, H.; Türk İnkılap Tarihi, İstanbul 1982.</li> </ol>   |  |  |  |  |  |  |  |  |
| Credit  | 2 ECTS   |  |  |  |  |  |  |  |  |
| <b>Prerequisites of the Course</b><br>(Attendance Requirements) | No Prerequisites<br>Attendance Requirements %70  |  |  |  |  |  |  |  |  |
| Type of the Course  | Compulsory   |  |  |  |  |  |  |  |  |
| Instruction Language  | Turkish  |  |  |  |  |  |  |  |  |
| Course Objectives   | Atatürk's Principles and History of Revolution II course is to help students<br>understand the time and conditions they are in and to create a perspective on<br>the future of the world and our country by analyzing this situation.<br>Creating a national memory by informing students about their recent past.<br>To instill self-confidence in students, to learn the founding philosophy of the<br>Republic of Turkey and Atatürk's principles and revolutions, and in the light<br>of this knowledge, to gain national unity and solidarity, the indivisible<br>integrity of the country and the goal of raising the Republic of Turkey to the<br>level of developed countries  |  |  |  |  |  |  |  |  |
| Course Learning Outcomes  | <ol> <li>Gains an interdisciplinary thinking skill by making associations between<br/>the information learned in this course and their main science courses.</li> <li>Gains values such as unity and solidarity, independence, prioritizing<br/>national interests, being loyal to the homeland, being an active citizen.</li> <li>Develops a realistic perspective by associating a historical event with the<br/>events occurring today.</li> <li>Learns to analyze documents while examining materials such as first-hand<br/>sources, documentaries and films used during the course.</li> <li>To have different perspectives on the topics covered in the course by<br/>reading auxiliary books related to Atatürk's Principles and History of<br/>Revolution II course.</li> <li>Develops respect for different views and opinion currents by researching<br/>and reading their own views.</li> <li>Gains experience in how to speak in front of the public when using the<br/>discussion method in group work and in class.</li> <li>Learns to stand strong against the difficulties in life by seeing the<br/>difficulties experienced by their ancestors and their struggle to survive and</li> </ol> |  |  |  |  |  |  |  |  |

|   | to adopt unit<br>Understands<br>ancestors who<br>a sense of nat  | versal values while re<br>the value of the land o<br>o were martyred and ve<br>ional unity and solidari | especting and<br>f the homelar<br>eterans to prot<br>ty. | adhering to<br>ad by learning<br>ect our countr | their roots;<br>about their<br>y, and gains |  |  |
|---|--|---|--|---|---|--|--|
| Instruction Methods   | Face to face   |   |  |   |   |  |  |
|   | 1. Week  | National Struggle, Ea   | stern Front an   | d Southern Fro                                  | ont.  |  |  |
|   | 2. Week  | Establishment of the l  | Regular Army   | and the Weste                                   | ern Front.                                  |  |  |
|   | 3. Week  | Tekalifi Milliye Decisions, Great Offensive, Signing of the Mudanya Armistice.                          |  |   |   |  |  |
|   | 4. Week  | Lausanne Peace Treat  | ty and Its Imp   | ortance.  |   |  |  |
|   | 5. Week  | Reforms in the Politic<br>Establishment of Poli<br>Republic of Turkey an                                | cal Field in the<br>tical Parties, I<br>nd Reactions t   | Republican P<br>Democracy Tria<br>o It.         | eriod,<br>als in the                        |  |  |
|   | 6. Week  | Revolutions in Educa<br>Works.  | tion, Culture,   | Health and Pu                                   | olic  |  |  |
| weekiy Schedule   | 7. Week  | Revolutions in Educa<br>Works.  | tion, Culture,   | Health and Pu                                   | olic  |  |  |
|   | 8. Week  | Economic and Social   | Revolutions.   |   |   |  |  |
|   | 9. Week  | Foreign Policy Follov   | ved by Turkey  | in the Republ                                   | ican Era.                                   |  |  |
|   | 10. Week   | Foreign Policy Betwe  | en 1923-1932   | and 1932-193                                    | 9.  |  |  |
|   | 11. Week   | Ataturk's Principles a  | nd Integrative   | Principles                                      |   |  |  |
|   | 12. Week   | <b>bek</b> Death of Mustafa Kemal Atatürk and İsmet İnönü Period.                                       |  |   |   |  |  |
|   | <b>13. Week</b> Developments in the Democratic Party Period and After.   |   |  |   |   |  |  |
|   | 14. Week   | Türkiye from 1980 to  | the Present.   |   |   |  |  |
| <b>Teaching and Learning Methods</b><br>(These are examples. Please fill which<br>activities you use in the course) | Weekly theoretical course hours: 2<br>Weekly tutorial hours: 0<br>Reading Activities: 1<br>Internet browsing, library work: 1<br>Designing and implementing materials: 0<br>Report preparing: 1<br>Preparing a Presentation: 1<br>Presentations: 2<br>Preparation of Midterm and Midterm Exam: 2<br>Final Exam and Preparation for Final Exam: 2 |   |  |   |   |  |  |
|   |  |   | numbers  | Veighting<br>(%)                                |   |  |  |
|   | Midterm Exan   | ns  | 1  | 60  |   |  |  |
|   | Assignment   |   |  |   |   |  |  |
|   | Projects   |   |  |   |   |  |  |
| Assessment Criteria   | Practice   |   |  |   |   |  |  |
|   | Quiz   |   |  |   |   |  |  |
|   | Percent of In-1  | term Studies  | 1  | 60  |   |  |  |
|   | (%)  |   | 1  | 00  |   |  |  |
|   | Percentage ofScore (%)Attendance   | Final Exam to 1 otal  | 1  | 40  |   |  |  |

|  |                            | Activity  | Total<br>Number<br>of   | Duratio<br>n<br>(weekly  |   |   | To<br>Per<br>Wo<br>Lo | otal<br>rioc<br>ork<br>ad | 1        |
|--|----------------------------|---|---|--|---|---|-----------------------|---------------------------|----------|
|  | Weekly                     | Theoretical Course  | 14  | 2  |   | Т | 2                     | 28                        |          |
|  | Weekly                     | Tutorial Hours  |   |  |   | + |                       |                           |          |
|  | Reading                    | g Tasks   | 4   | 1  |   | + |                       | 4                         |          |
|  | Studies                    |   | 4   | 1  |   |   |                       | 4                         |          |
|  | Materia                    | l Design and  |   |  |   |   |                       |                           |          |
|  |                            | Preparing   | 2   | 1  |   | 2 |                       | 2                         |          |
| Workload                                   | Prepari                    | ng a Presentation   | 2   | 1  |   | + |                       | 2                         |          |
|  | Present                    | ations  | 3   | 2  |   |   |                       | 6                         |          |
|  | Midterr<br>Prepera<br>Exam | n Exam and<br>tion for Midterm  | 1   | 2  |   |   |                       | 2                         |          |
|  | Final E                    | xam and Preperation   | 1   | 2  |   |   |                       | 2                         |          |
|  |                            | quiz)   |   |  |   | t |                       |                           |          |
|  |                            | /orkload  |   |  |   | + |                       | 50                        | $\dashv$ |
|  | Total Workload / 25        |   |   |  |   | + | 50                    | /25                       | +        |
|  | Course                     | Credit (ECTS)   |   |  |   | T |                       | 2                         |          |
|  | No                         | Program Outcom  | ies   |  | 1 | 2 | 3                     | 4                         | 5        |
| Contribution Level Between Course Learning | 1                          | In-depth knowledge of mathematics, science,<br>basic engineering concepts, computer-aided<br>computing and specific engineering areas;<br>ability to use this knowledge effectively in<br>solving complex engineering problems. |   |  |   |   |                       |                           |          |
| Outcomes and Program Outcomes              | 2                          | 2 Ability to identify, formulate and analyse<br>complex engineering problems using<br>knowledge of basic science, mathematics and<br>engineering, and taking into account the UN<br>Sustainable Development Goals.              |   |  |   |   |                       |                           |          |
|  | 3                          | 3 Ability to generate creative solutions<br>complex engineering problems to me<br>current and future needs; design com<br>systems, processes, devices or produ<br>under realistic constraints and condit                        |   |  |   |   |                       |                           |          |
|  | 4                          | Ability to select and u<br>techniques, resources<br>engineering and infor-<br>tools, including estim-<br>for the analysis and so<br>engineering problems<br>limitations.  | use appropria<br>and modern<br>mation techn<br>ation and mo<br>plution of co<br>, recognising | nology<br>odelling,<br>mplex<br>g their                          |   |   |                       |                           |          |
|  | 5                          | Ability to use research<br>literature search, desig<br>experiments, collectin<br>interpreting results, to<br>engineering problems   | n methods, in<br>gning and co<br>g data, analy<br>investigate                                 | ncluding<br>onducting<br>ysing and<br>complex                    |   |   |                       |                           |          |
|  | 6                          | Knowledge of the effe<br>practices on society, h<br>economy, sustainabili<br>within the framework<br>Development Goals; a<br>consequences of engin  | ects of engin<br>health and sa<br>ty and envir<br>of the UN S<br>hwareness of<br>heering solu | eering<br>fety,<br>onment<br>Sustainable<br>f the legal<br>tions |   |   |                       |                           |          |
|  | 7                          | Acting in accordance<br>principles of the engin<br>awareness of ethical r<br>awareness of non-disc  | with the ethneering profe<br>esponsibiliti<br>crimination.                                    | ical<br>ession,<br>es;<br>impartiality                           |   | x |                       |                           |          |
|  | 8                          | and embracing divers<br>Ability to work effect<br>or leader both individ  | ity.<br>ively as a tea<br>ually and wi  | am member<br>thin  |   | - |                       | x                         |          |

|  | <ul> <li>interdisciplinary teams (face-to-face,<br/>distance or hybrid).</li> <li>9 Ability to communicate effectively on<br/>technical issues, both orally and in writing,<br/>taking into account the various differences of<br/>the target audience (e.g. education, language,</li> </ul> |   | x |  |
|--|--|---|---|--|
|  | 10       Knowledge of business life practices such as project management and economic feasibility analysis; awareness of entrepreneurship and innovation.  |   |   |  |
|  | 11 Ability to learn independently and<br>continuously, to adapt to new and emerging<br>technologies and to think inquisitively about<br>technological changes.   | x |   |  |
| The Course's Lecturer(s) and<br>Contact Informations | History Department Faculty Members   |   |   |  |

# **Contribution of Learning Outcomes to Programme Outcomes**

|                       | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                 |                         |                         |                         |                         |                         |                         | 2                       | 4                       | 4                       |                          | 1                        |
| Learning<br>outcome 1 |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          |                          |
| Learning<br>outcome 2 |                         |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                          |                          |
| Learning<br>outcome 3 |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          |                          |
| Learning<br>outcome 4 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 5 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |
| Learning<br>outcome 6 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          | 1                        |
| Learning<br>outcome 7 |                         |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                          |                          |
| Learning<br>outcome 8 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |

Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant

| Course Category                |      |  |
|--------------------------------|------|--|
| Mathematics and Basic Sciences | %0   |  |
| Engineering                    | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education                      | %0   |  |
| Science                        | %0   |  |
| Health                         | %0   |  |
| Field                          | %0   |  |

| Course Description Form                                  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Course Code and Name                                     | TKN401 WORKSHOP PRACTICE   |  |  |  |  |  |  |  |  |
| Course Semester  | 7-8  |  |  |  |  |  |  |  |  |
| Catalog Content  | Developing students' decision-making and application skills by taking<br>responsibility in the workplace training course that takes place in real<br>business life environment<br>Comparing theory and practice knowledge<br>Preparing a regular report of observations during workplace training  |  |  |  |  |  |  |  |  |
| Textbook   | Forms of workplace education, regulations, occupational health safety books, labor law books, various legislation and regulations  |  |  |  |  |  |  |  |  |
| Supplementary Textbooks                                  | Forms of workplace education, regulations, occupational health safety books, labor law books, various legislation and regulations  |  |  |  |  |  |  |  |  |
| Credit (ECTS)  | 20 ECTS  |  |  |  |  |  |  |  |  |
| Prerequisites of the Course<br>(Attendance Requirements) | No prerequisites<br>Attendance Requirement 100%  |  |  |  |  |  |  |  |  |
| Type of the Course                                       | Compulsory   |  |  |  |  |  |  |  |  |
| Instruction Language of the Course                       | Turkish  |  |  |  |  |  |  |  |  |
| Course Objectives  | To reinforce / develop the knowledge, skills and experience of the students in theoretical courses in the faculty and in the laboratory / workshop applications they take.<br>To enable them to recognize workplace organizations, design / production processes and new technologies,<br>To recognize the quality control processes and control mechanisms<br>To prepare students for their professional lives in the field of engineering, to guide them in determining their career goals and to be able to work in the field   |  |  |  |  |  |  |  |  |
| Learning Outcomes  | <ol> <li>Combines theoretical knowledge with practical knowledge.</li> <li>Works cooperatively in a team.</li> <li>Takes responsibility.</li> <li>Observes real business life.</li> <li>Develops decision making skills.</li> <li>Recognize their professional strengths and weaknesses.</li> <li>Gives importance to time and cost efficiency.</li> <li>Acts in accordance with workplace rules.</li> <li>Observes possible problems that may be encountered in business life.</li> <li>Develops solutions to possible problems.</li> <li>Acts in accordance with occupational health and safety rules.</li> </ol>  |  |  |  |  |  |  |  |  |
| Instruction Methods                                      | Practice   |  |  |  |  |  |  |  |  |
| Weekly Schedule  | Week         Topics           1         Legislation and practices related to workplace training, orientation           2         Occupational Health and Safety practices           3         Labor Law applications           4         Engineering ethics and practices           5         Health, environmental and safety impacts of engineering applications           6         Engineering standards and practices           7         Quality management and applications           8         The role of the workplace in sustainable development and practices           9         Faculty member workplace visit and interim report presentation           10         Risk management and its applications in the workplace           11         Organization management and workflow applications           12         Instruction and process follow-up           13         Competitiveness |  |  |  |  |  |  |  |  |
|  | 14 Engineering economics and applications  |  |  |  |  |  |  |  |  |

| Assesment Tasks<br>(The time spent for the activities listed here will<br>determine the amount of credit required.) | Weekly theoretical course hours 5 hours<br>Weekly practical lesson 15 hours<br>Reading activities 0 hours<br>Internet search, library work 2 hours<br>Material design, application 5 hours<br>Report preparation 4 hours<br>Presentation preparation 3 hours<br>Presentation 2 hours<br>Midterm exam and midterm exam 0 hours<br>Final exam and preparation for the final exam 0 hours<br>Other 0 hours |   |                            |                                |                         |                 |     |                                |      |                     |  |
|---|---|---|----------------------------|--------------------------------|-------------------------|-----------------|-----|--------------------------------|------|---------------------|--|
|   | l I   |   | Number                     | s Total                        | Weigł                   | nti             | ng  | (%)                            |      |                     |  |
|   |   |   |                            |                                |                         |                 |     |                                |      |                     |  |
|   | Midter  | m Exams                                     | -                          |                                | ~                       | 0               |     |                                |      |                     |  |
|   | Assign  | ment  | 5                          |                                | 2                       | 0<br>0          |     |                                | _    |                     |  |
|   | Project   | ts  | 13                         |                                | 2                       | 0               |     |                                | _    |                     |  |
| Assesment Criteria  | Practic   | e   |                            | 3                              | 0                       |                 |     | _                              |      |                     |  |
|   | Quizes  |   |                            |                                |                         | -               |     |                                |      |                     |  |
|   | Quizes  |   |                            |                                |                         |                 |     |                                |      |                     |  |
|   | Percent<br>Studies<br>(%)   | of In-term<br>to Year- to Year              |                            |                                | 10                      | )0              |     |                                |      |                     |  |
|   | Percentage of Final<br>Exam to Total Score (%)  |   |                            |                                |                         |                 |     |                                |      |                     |  |
|   | Devam   | Durumu                                      |                            |                                |                         |                 |     |                                |      |                     |  |
|   | Activit   | У   |                            | Total<br>Number<br>of<br>Weeks | Durat<br>(Week<br>Hours | ion<br>dy<br>5) | l   | Total<br>Perio<br>Worl<br>Load |      | al<br>od<br>rk<br>d |  |
|   | Weekh   | theoretical course l                        | nours                      | 15                             | 5                       |                 |     |                                | 75   |                     |  |
|   | Weekh   | applied lesson hour                         | 15                         | 15                             |                         |                 | 225 |                                | 5    |                     |  |
|   | Readin  | g Activities                                |                            |                                | 15                      |                 |     |                                |      |                     |  |
|   | Interne   | t browsing. library v                       | vork                       | 5                              | 5                       |                 |     | 25                             |      |                     |  |
| Workload  | Materia   | al design, application                      | 1                          | 15                             | 5                       |                 |     |                                |      |                     |  |
|   | Report  | preparation                                 |                            | 10                             | 4                       |                 |     |                                | 40   | ,                   |  |
|   | Prepari   | ng a presentation                           |                            | 5                              | 6                       | ,               |     |                                | 30   | )                   |  |
|   | Present   | ations                                      |                            | 5                              | 6                       | ,               |     |                                | 30   | )                   |  |
|   | Midter  | m exam and midtern                          | n exam                     |                                |                         |                 |     |                                |      |                     |  |
|   | Final ex  | xam and preparation                         | for the                    |                                |                         |                 |     |                                |      |                     |  |
|   | Other   |   |                            |                                |                         |                 |     |                                |      |                     |  |
|   | Total w   | vorkload                                    |                            |                                |                         |                 |     |                                | 500  | )                   |  |
|   | Total w   | vorkload/ 25                                |                            |                                |                         |                 |     | 5                              | 00/2 | 25                  |  |
|   | Course  | ECTS credit                                 |                            |                                |                         |                 |     |                                | 20   |                     |  |
|   | No  | No Program Outcomes                         |                            |                                |                         | 1               | 2   | 3                              | 4    | 5                   |  |
|   | 1 In-depth knowledge of mathematics, science,<br>basic engineering concepts, computer-aided<br>computing and specific engineering areas; ability<br>to use this knowledge effectively in solving  |   |                            |                                |                         |                 | x   |                                |      |                     |  |
|   | 2   | Ability to identify, f                      | ormulate an                | d analyse                      |                         |                 |     |                                |      |                     |  |
|   |   | complex engineering<br>of basic science, ma | g problems<br>thematics an | using know<br>nd engineer      | vledge<br>ring,         |                 |     |                                |      |                     |  |
|   | and taking into account the UN Sustainable  |   |                            |                                |                         |                 |     | i                              |      | i 11                |  |

|  |    | Development Goals                                   |   |   |   |     |
|--|----|---|---|---|---|-----|
|  |    | Development Goals.                                  |   |   |   |     |
|  | 3  | Ability to generate creative solutions to complex   |   |   |   |     |
|  |    | engineering problems to meet current and future     |   |   |   |     |
|  |    | devices or products under realistic constraints and |   |   |   |     |
|  |    | applications  |   |   |   |     |
|  |    | A hility to calcat and use enpreprints techniques   | - |   |   |     |
|  | 4  | Additive to select and use appropriate techniques,  |   |   |   |     |
|  |    | information tooknoloov toola including              |   |   |   |     |
|  |    | astimation and modelling for the analysis and       |   |   |   |     |
|  |    | estimation and modeling, for the analysis and       |   |   |   |     |
|  |    | recognising their limitations                       |   |   |   |     |
|  |    | recognising their minitations.                      |   |   |   |     |
|  |    |   |   |   |   |     |
|  | 5  | Ability to use research methods, including          |   |   |   |     |
|  |    | literature search, designing and conducting         |   |   |   |     |
|  |    | experiments, collecting data, analysing and         |   |   |   |     |
| Contribution Level Between Course Learning |    | interpreting results, to investigate complex        |   |   |   |     |
| Outcomes and Program Outcomes              |    | engineering problems.                               |   |   |   |     |
|  | 6  | Knowledge of the effects of engineering practices   |   |   |   |     |
|  |    | on society, health and safety, economy,             |   |   |   |     |
|  |    | sustainability and environment within the           |   |   |   |     |
|  |    | framework of the UN Sustainable Development         |   |   |   |     |
|  |    | Goals; awareness of the legal consequences of       |   |   |   |     |
|  |    | engineering solutions.                              | _ |   |   |     |
|  | 7  | Acting in accordance with the ethical principles    |   |   | Х | C I |
|  |    | of the engineering profession, awareness of         |   |   |   |     |
|  |    | ethical responsibilities; awareness of non-         |   |   |   |     |
|  |    | discrimination, impartiality and embracing          |   |   |   |     |
|  |    | diversity.  | _ |   |   |     |
|  | 8  | Ability to work effectively as a team member or     |   | х |   |     |
|  |    | leader both individually and within                 |   |   |   |     |
|  |    | hybrid)   |   |   |   |     |
|  |    | A bility to communicate offectively on technical    | - |   |   |     |
|  | 9  | issues both orally and in writing taking into       |   |   |   |     |
|  |    | account the various differences of the target       |   |   |   |     |
|  |    | audience (e.g. education, language, profession).    |   |   |   |     |
|  |    | audienee (e.g. education, anguage, protession).     |   |   |   |     |
|  | 10 | Knowledge of business life practices such as        | + | x |   |     |
|  | 10 | project management and economic feasibility         |   | ^ |   |     |
|  |    | analysis: awareness of entrepreneurship and         |   |   |   |     |
|  |    | innovation.   |   |   |   |     |
|  | 11 | Ability to learn independently and continuously,    |   |   | х | (   |
|  |    | to adapt to new and emerging technologies and to    |   |   | [ |     |
|  |    | think inquisitively about technological changes.    |   |   |   |     |
|  |    |   |   |   |   |     |
| The Course's Lecturer(s) and Contact       |    | Head of Department                                  |   |   |   |     |
| Informations                               |    | tasarim@gazi.edu.tr                                 |   |   |   |     |
|  |    |   |   |   |   |     |
|  |    |   |   |   |   |     |

### **Contribution of Learning Outcomes to Programme Outcomes**

|                        | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                  | 2                       |                         |                         |                         |                         |                         | 5                       | 3                       | 5                       | 3                        | 5                        |
| Learning<br>outcome 1  | 1                       |                         |                         |                         |                         |                         |                         |                         | 1                       |                          | 1                        |
| Learning<br>outcome 2  |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          | 1                        |
| Learning<br>outcome 3  |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          | 1                        |
| Learning<br>outcome 4  |                         |                         |                         |                         |                         |                         |                         |                         | 1                       | 1                        | 1                        |
| Learning<br>outcome 5  |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          |                          |
| Learning<br>outcome 6  |                         |                         |                         |                         |                         |                         | 1                       |                         |                         | 1                        |                          |
| Learning<br>outcome 7  |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |
| Learning<br>outcome 8  |                         |                         |                         |                         |                         |                         | 1                       |                         | 1                       |                          |                          |
| Learning<br>outcome 9  |                         |                         |                         |                         |                         |                         | 1                       |                         | 1                       | 1                        | 1                        |
| Learning<br>outcome 10 | 1                       |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 11 |                         |                         |                         |                         |                         |                         | 1                       |                         |                         |                          |                          |

Contribution: 1: Very Slight 2: Slight 3: Moderate 4: Significant 5: Very Significant

Course Structure

Engineering Sciences

%100

| Course Description Form        |  |  |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|
| Course Code and Name           | TKN403 INT   | TKN403 INTERNSHIP  |  |  |  |  |  |  |  |  |
| Course Semester                | 7-8  | 7-8  |  |  |  |  |  |  |  |  |
| Catalog Content                | Depending or<br>engineering ap<br>the business,<br>Learning busin<br>work discipling<br>Increasing the<br>monitoring an<br>Monitoring tee  | Depending on the engineering program, factory organization, field or field work and<br>engineering application projects and competitiveness analysis, general information about<br>the business,<br>Learning business processes, management-organization structure, occupational safety and<br>work discipline, design, application and project studies in the field.<br>Increasing the knowledge and skills related to the field of engineering by closely<br>monitoring and analyzing the work of sector employees,<br>Monitoring technological developments in the sector |  |  |  |  |  |  |  |  |
| Textbook                       | Written and or   | Vritten and online resources related to the department curriculum  |  |  |  |  |  |  |  |  |
| Supplementary<br>Textbooks     | Written and or   | Written and online resources related to the department curriculum  |  |  |  |  |  |  |  |  |
| Credit                         | 10 ECTS  |  |  |  |  |  |  |  |  |  |
| Prerequisites of the<br>Course | No prerequisit<br>Attendance Ol  | es<br>bligation %100   |  |  |  |  |  |  |  |  |
| Type of the Course             | Compulsory   |  |  |  |  |  |  |  |  |  |
| Instruction Language           | Turkish  |  |  |  |  |  |  |  |  |  |
| Course Objectives              | To develop and reinforce the theoretical knowledge acquired by the students in the education<br>and training processes, to recognise the business processes, as well as to transform the<br>theoretical knowledge into skills and experiences by conducting field and field studies in the<br>field of engineering<br>To enable them to get acquainted with the management/organisations of the organisation,<br>production processes and new technologies, to gain skills and dexterity with on-the-job |  |  |  |  |  |  |  |  |  |
| Course Learning<br>Outcomes    | <ol> <li>The studen<br/>field.</li> <li>Learns wor</li> <li>Learns the<br/>maintenand</li> <li>Observes the</li> </ol>   | t recognises the institution where he / she does internship related to his / her<br>k flow and management organisation processes<br>duties and functions of design, planning, production, quality control and<br>ce and repair departments,<br>ne field and field project applications on site   |  |  |  |  |  |  |  |  |
| Instruction Methods            | Practice   |  |  |  |  |  |  |  |  |  |
|                                | 1. Week  | Orientation  |  |  |  |  |  |  |  |  |
|                                | 2. Week  | Examines the application of occupational health and safety rules in the workplace  |  |  |  |  |  |  |  |  |
|                                | 3. Week  | Examines the organisational structure of the organisation  |  |  |  |  |  |  |  |  |
|                                | 4. Week  | Follows work flow processes  |  |  |  |  |  |  |  |  |
|                                | 5. Week  | Takes part in field or field projects  |  |  |  |  |  |  |  |  |
|                                | 6. Week  | Analyses project tasks based on theoretical knowledge  |  |  |  |  |  |  |  |  |
| Westle Calestal                | 7. Week  | Follows field or field applications  |  |  |  |  |  |  |  |  |
| weekly Schedule                | 8. Week  | Monitors industrial product processes  |  |  |  |  |  |  |  |  |
|                                | 9. Week  | Researches product development and new technologies  |  |  |  |  |  |  |  |  |
|                                | 10. Week   | Analyses market and competition conditions   |  |  |  |  |  |  |  |  |
|                                | 11. Week   | Analyses the performance of the organisation   |  |  |  |  |  |  |  |  |
|                                | 12. Week   | Performs productivity analysis   |  |  |  |  |  |  |  |  |
|                                | 13. Week   | Observes applications  |  |  |  |  |  |  |  |  |
|                                | 14. Week   | Reporting  |  |  |  |  |  |  |  |  |
|                                |  |  |  |  |  |  |  |  |  |  |

| Teaching and Learning<br>Methods | Weekly theoretical course hours: 0<br>Weekly tutorial hours: 0<br>Reading Activities: 5<br>Internet browsing, library work 5<br>Designing and implementing materials: 7<br>Report preparing: 5<br>Preparing a Presentation: 0<br>Presentations: 0<br>Preparation of Midterm and Midterm Exam: 0<br>Final Exam and Preparation for Final Exam: 0<br>Other: 3 |   |  |  |   |                                |       |                 |        |           |
|----------------------------------|---|---|--|--|---|--------------------------------|-------|-----------------|--------|-----------|
|                                  |   |   | Numbers  |  | ,   | Tota                           | l Wei | ghti            | ng (%  | <b>()</b> |
| Assessment Criteria              | Mic<br>Ass<br>App<br>Pro<br>Pra<br>Qui<br>Per<br>Stu<br>Per<br>Fin  | dterm Exams<br>signment<br>plication<br>jects<br>ctice<br>iz<br>cent of In-term<br>dies (%)<br>centage of<br>al Exam to |  | 1  |   |                                |       | 50<br>50<br>100 |        |           |
|                                  | Att   | endance   |  |  |   |                                |       |                 |        |           |
|                                  | Activity  |   |  | Total<br>Number of<br>Weeks  | Duration Total Period<br>(weekly Work Load<br>hour) |                                |       | riod<br>ad      |        |           |
|                                  | Weekly Theoretical Course Hours   |   |  |  |   |                                |       |                 |        |           |
|                                  | Weekly Tutorial Hours   |   |  |  |   |                                |       |                 |        |           |
|                                  | Reading Tasks   |   |  | 10   |   | 5                              |       |                 | 50     |           |
|                                  | Studies   |   |  | 8  |   | 5                              |       |                 | 40     |           |
|                                  | Material Design and   |   |  | 15   | 6   |                                |       |                 |        |           |
|                                  | Implementation  |   |  | 10   | 5   |                                |       |                 | 50     |           |
| Workload                         | Report Preparing  |   |  | 10   |   | 5                              | _     |                 | 50     |           |
|                                  | Preparing a Presentation  |   |  |  |   |                                | _     |                 |        |           |
|                                  | Midterm Exam and Preperation  |   |  |  |   |                                |       |                 |        |           |
|                                  | for   | Midterm Exam  |  |  |   |                                |       |                 |        |           |
|                                  | F11<br>Ex   | hal Exam and Prepe  | eration for Final  |  |   |                                |       |                 |        |           |
|                                  | Ot  | her ( should be   |  | 10   |   | 2                              |       |                 | 20     |           |
|                                  | em  | nphasized)  |  |  |   |                                | _     |                 | 250    |           |
|                                  |   | tal Workload / 25   |  |  |   |                                |       | 2               | 250/24 | 5         |
|                                  | Cc  | ourse Credit (ECTS)   | )  |  |   |                                | +     | _               | 10     |           |
|                                  | μ_  | No  | Program Ou   | tcomes   |   | 1                              | 2     | 3               | 4      | 5         |
|                                  |   | 1   | In-depth knowled   | lae of mathemati   | ics   | 1                              | -     |                 |        |           |
| Contribution Level               | I In-depth Knowle<br>science, basic en<br>computer-aided<br>engineering area<br>knowledge effec   |   | science, basic en<br>computer-aided c<br>engineering areas<br>knowledge effect | gineering concep<br>computing and sp<br>s; ability to use the<br>tively in solving | ots,<br>pecific<br>his<br>complex                   | ts,<br>ecific<br>is<br>complex |       |                 |        |           |
| Between Course Learning          |   | 2   | Ability to identif   | y, formulate and   | analyse   |                                |       |                 |        | +         |
| Outcomes and Program<br>Outcomes |   |   | complex enginee<br>knowledge of bas<br>and engineering,<br>the UN Sustained    | ring problems us<br>sic science, math<br>and taking into a                         | sing<br>ematics<br>account                          |                                |       |                 | x      |           |
|                                  |   | 3   | Ability to genera  | te creative solutions to   |   |                                |       |                 |        | +         |

|              |              | complex engineering problems to meet           |      |   |      |
|--------------|--------------|--|------|---|------|
|              |              | current and future needs: design complex       |      |   |      |
|              |              | systems processes devices or products          |      |   |      |
|              |              | under realistic constraints and conditions     |      |   |      |
|              |              |  |      |   |      |
|              | 4            | Ability to select and use appropriate          |      |   |      |
|              |              | techniques, resources and modern               |      |   |      |
|              |              | engineering and information technology         |      |   |      |
|              |              | tools, including estimation and modelling,     |      | X |      |
|              |              | for the analysis and solution of complex       |      |   |      |
|              |              | engineering problems, recognising their        |      |   |      |
|              |              | limitations.                                   |      |   |      |
|              | 5            | Ability to use research methods                |      |   |      |
|              | 5            | including literature search designing and      |      |   |      |
|              |              | andusting avpariments, collecting data         |      |   |      |
|              |              | conducting experiments, conecting data,        |      |   |      |
|              |              | analysing and interpreting results, to         |      |   |      |
|              |              | investigate complex engineering                |      |   |      |
|              |              | problems.                                      | <br> |   | <br> |
|              | 6            | Knowledge of the effects of engineering        |      |   |      |
|              |              | practices on society, health and safety,       |      |   |      |
|              |              | economy, sustainability and environment        |      |   |      |
|              |              | within the framework of the UN                 |      |   |      |
|              |              | Sustainable Development Goals;                 |      |   |      |
|              |              | awareness of the legal consequences of         |      |   |      |
|              |              | engineering solutions.                         |      |   |      |
|              | 7            | Acting in accordance with the ethical          |      |   |      |
|              | /            | principles of the engineering profession       |      |   |      |
|              |              | awaranass of athical responsibilities:         |      |   |      |
|              |              | awareness of curical responsionnes,            |      |   |      |
|              |              | awareness of non-discrimination,               |      |   |      |
|              |              |  |      |   | <br> |
|              | 8            | Ability to work effectively as a team          |      |   |      |
|              |              | member or leader both individually and         |      |   |      |
|              |              | within interdisciplinary teams (face-to-       |      |   |      |
|              |              | face, distance or hybrid).                     |      |   |      |
|              | 9            | Ability to communicate effectively on          |      |   |      |
|              |              | technical issues, both orally and in           |      |   |      |
|              |              | writing, taking into account the various       |      |   |      |
|              |              | differences of the target audience (e.g.       |      |   |      |
|              |              | education, language, profession).              |      |   |      |
|              | 10           | Knowledge of business life practices such      |      |   |      |
|              | 10           | as project management and economic             |      |   |      |
|              |              | feasibility analysis: awareness of             |      |   |      |
|              |              | entrepreneurship and inpovation                |      |   |      |
|              | 11           | Ability to learn independently and             | <br> |   |      |
|              | 11           | continuously to adapt to now and               |      |   |      |
|              |              | amonging toolhoologing and to think            |      |   |      |
|              |              | in quigitively about technologies and to think |      |   |      |
|              |              | inquisitively about technological changes.     |      |   |      |
| The Course's |              |  |      |   |      |
| Lecturer(s)  | Head of Depa | artment  |      |   |      |
| and Contact  | tasarim@gazi | i.edu.tr                                       |      |   |      |
| Informations |              |  |      |   |      |
|              |              |  |      |   |      |

|                       | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                 | 2                       | 4                       | 1                       | 3                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 1 | 1                       | 1                       | 1                       |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 2 |                         | 1                       |                         | 1                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 3 | 1                       | 1                       |                         | 1                       |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 4 |                         | 1                       |                         | 1                       |                         |                         |                         |                         |                         |                          |                          |

#### **Course Structure**

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

|                                | Course Description Form  |
|--------------------------------|--|
| Course Code and Name           | TUR101 TURKISH LANGUAGE 1  |
| Course Semester                | 1  |
| Catalog Content                | Characteristics of language, language-communication-culture relationship, cultural<br>carrier of language and the differences between spoken and written language.<br>Classification of world languages, the place of Turkish among world languages,<br>historical periods of Turkish language, dialects and important works.<br>Turkish vocabulary, sound features and sound events, word formation and affixes, root,<br>stem, affix structure.<br>Word types and features, word formation and morphology<br>Phrases, sentence elements, sentence types and sentence analysis.<br>Spelling rules, punctuation and textuality criteria (basic criteria and coherence tools).  |
| Textbook                       | <ol> <li>Yakıcı, A., Yücel, M., Doğan, M. ve Yelok, V. S., Üniversiteler İçin Türk Dili ve<br/>Kompozisyon Bilgileri (Editör: V. S. Yelok), Bilge Yayınları, Ankara, 2005.</li> <li>Eker, S., Çağdaş Türk Dili, Grafiker Yay., İstanbul, 2006.</li> <li>Parlatır, İ., Gülensoy, T. ve Birinci, N., Yüksek Öğretim Öğrencileri İçin Türk Dili<br/>Kompozisyon Bilgileri, Yargı Yayınevi, Ankara, 2003.</li> </ol>   |
| Supplementary<br>Textbooks     | 1. Bilgin, M., Anlamdan Anlatıma Türkçemiz, Anı Yayıncılık, Ankara, 2005   |
| Credit                         | 2 ECTS   |
| Prerequisites of the<br>Course | No Prerequisites - %70 Attendance Requirements   |
| Type of the Course             | Compulsory   |
| Instruction Language           | Turkish  |
| Course Objectives              | To intuit the features of the Turkish language, the rules of functioning, to show with<br>examples.<br>To develop vocabulary through written and oral texts<br>To gain the habit of following the rules of spelling (spelling) and using punctuation marks in<br>their place.<br>To gain the habit of reading books.<br>To gain the habit of scientific, critical, questioning, interpreting, creative, constructive<br>thinking.  |
| Course Learning<br>Outcomes    | <ol> <li>Knows the relationship between language-culture and language-thought by comprehending the definitions of language, communication and culture. Understands the differences between spoken and written language.</li> <li>Knows the languages of the world and the place of Turkish among the world languages.</li> <li>Knows the historical development of Turkish language, its distribution areas and its current situation.</li> <li>Knows the expressive power of Turkish, its vocabulary and the structural and semantic basic features of its vocabulary.</li> <li>Knows the semantic and structural morphemes based on the basic sound features of Turkish.</li> <li>Knows the structural and semantic functions of dependent and independent morphemes in Turkish.</li> <li>Knows the basic features of Turkish syntax.</li> <li>Knows the basic characteristics of sentence types. Can analyze Turkish sentences.</li> <li>Knows the basic functions of purcles in effective reading and writing.</li> <li>Knows the basic features of textuality.</li> <li>Knows the basic features of textuality.</li> <li>Knows the basic features of cohesion and creates sentences in accordance with the principles of cohesion.</li> </ol> |
| Instruction Methods            | Face to face   |

|                                  | 1. Week  | Notice, Lan  | guage & Features of the Lan  | iguage,              |  |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|----------------------|--|--|--|--|--|--|--|--|
|                                  | 2. Week  | Language –   | Thought Relation,  |                      |  |  |  |  |  |  |  |  |
|                                  | 3. Week  | Mother Ton   | Mother Tongue, Context, Language and Expression, Symbol – Image,                         |                      |  |  |  |  |  |  |  |  |
|                                  | 4. Week  | Culture (Language – Culture Relation, Culture Types),  |  |                      |  |  |  |  |  |  |  |  |
|                                  | 5. Week  | Civilization   | , Petition Writing,  |                      |  |  |  |  |  |  |  |  |
|                                  | 6. Week  | Languages a the Languag  | Languages around the World (Formation of Languages, Types of Languages, C the Languages) |                      |  |  |  |  |  |  |  |  |
| Weekly Schedule                  | 7. Week  | Place of Tur   | Place of Turkish Language among World Languages,   |                      |  |  |  |  |  |  |  |  |
|                                  | 8. Week  | Historical P   | eriods and Progress of Turki   | ish Language,        |  |  |  |  |  |  |  |  |
|                                  | 9. Week  | Current Stat   | tus and Spreading Areas of t   | he Turkish Language, |  |  |  |  |  |  |  |  |
|                                  | 10. Week   | Grammar ar   | nd Sections (Phonetics, Forn   | natting),            |  |  |  |  |  |  |  |  |
|                                  | 11. Week   | Grammar ar   | nd Sections (Phonetics, Forn   | natting),            |  |  |  |  |  |  |  |  |
|                                  | 12. Week   | Elements in  | Turkish Language from For  | reign Language,      |  |  |  |  |  |  |  |  |
|                                  | 13. Week   | Orthography  | y and Application,   |                      |  |  |  |  |  |  |  |  |
|                                  | 14. Week   | Punctuation  | Marks and Usage Related A  | Applications.        |  |  |  |  |  |  |  |  |
|                                  |  |  |  |                      |  |  |  |  |  |  |  |  |
| Teaching and Learning<br>Methods | Weekly theore<br>Weekly tutoria<br>Reading Activ<br>Internet brows<br>Studies: 2<br>Designing and<br>Report prepari<br>Preparing a Pr<br>Presentations:<br>Preparation of<br>Final Exam an<br>Other: 0 | etical course h<br>al hours: 0<br>ities: 0<br>ing, library w<br>implementin<br>ng: 0<br>esentation: 2<br>0<br>Midterm and<br>d Preparation | nours: 2<br>vork: 3<br>ng materials: 0<br>l Midterm Exam: 2<br>n for Final Exam: 2       |                      |  |  |  |  |  |  |  |  |
|                                  |  |  | Numbers  | Total Weighting (%)  |  |  |  |  |  |  |  |  |
|                                  | Midterm Exam   | 15   | 1  | 40                   |  |  |  |  |  |  |  |  |
|                                  | Assignment   |  |  |                      |  |  |  |  |  |  |  |  |
|                                  | Application  |  |  |                      |  |  |  |  |  |  |  |  |
| Assessment Criteria              | Projects   |  |  |                      |  |  |  |  |  |  |  |  |
|                                  | Practice   |  |  |                      |  |  |  |  |  |  |  |  |
|                                  | Quiz   |  |  | 40                   |  |  |  |  |  |  |  |  |
|                                  | Percent of In-to<br>Studies (%)  | erm  |  | 40                   |  |  |  |  |  |  |  |  |
|                                  | Percentage of  | Final Exam   | 1  | 60                   |  |  |  |  |  |  |  |  |
|                                  | to Total Score   | (%)  |  |                      |  |  |  |  |  |  |  |  |
|                                  | Attendance   |  |  |                      |  |  |  |  |  |  |  |  |

|   |                            | Activity   | Total<br>Number<br>of                             | Duratio<br>n<br>(weekly |   |   | To<br>Per<br>Wo<br>Lo | otal<br>rioc<br>ork<br>ad | 1 |
|---|----------------------------|--|---|-------------------------|---|---|-----------------------|---------------------------|---|
|   | Weekly                     | Theoretical Course   | 14  | 2                       |   |   | 2                     | .8                        |   |
|   |                            | Tutorial Hours   |   |                         |   |   |                       |                           |   |
|   |                            | g Tasks  | 2   | 3                       |   |   |                       | 6                         |   |
|   | Studies                    |  | 4   | 2                       |   |   |                       | 8                         |   |
|   | Materia                    | l Design and   |   |                         |   |   |                       |                           |   |
|   | Report                     | Preparing  |   |                         |   | + |                       |                           |   |
| Workload  | Prepari                    | ng a Presentation  | 2   | 2                       |   |   |                       | 4                         |   |
|   | Present                    | ations   |   |                         |   |   |                       |                           |   |
|   | Midterr<br>Prepera<br>Exam | n Exam and<br>tion for Midterm   | 1   | 2                       |   |   |                       | 2                         |   |
|   | Final E:<br>for Fina       | xam and Preperation  | 1   | 2                       |   |   |                       | 2                         |   |
|   | Other (                    | should be  |   |                         |   |   |                       |                           |   |
|   | Total W                    | /orkload   |   |                         |   |   | 5                     | 0                         | ╡ |
|   | Total W                    | /orkload / 25  |   |                         |   |   | 50                    | /25                       | ; |
|   | Course                     | Credit (ECTS)  |   |                         |   |   |                       | 2                         |   |
|   | No                         | Program Outcom   | nes   |                         | 1 | 2 | 3                     | 4                         | 5 |
|   | 1                          | In-depth knowledge of mathematics, science,<br>basic engineering concepts, computer-aided<br>computing and specific engineering areas;<br>ability to use this knowledge effectively in |   |                         |   |   |                       |                           |   |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 2                          | Ability to identify, for   | meering prot                                      | analyse                 |   |   |                       |                           |   |
|   |                            | complex engineering j<br>knowledge of basic sc<br>engineering, and takin   | cience, mathematics and<br>ng into account the UN |                         |   |   |                       |                           |   |
|   | 3                          | Ability to generate cre  | ent Goals.<br>eative solution                     | ons to                  |   |   |                       |                           |   |
|   |                            | complex engineering j<br>current and future nee  | eds; design c                                     | omplex<br>oducts        |   |   |                       |                           |   |
|   |                            | under realistic constra  | ints and cor                                      | ditions.                |   |   |                       |                           |   |
|   | 4                          | techniques, resources  | and modern  | ne                      |   |   |                       |                           |   |
|   |                            | engineering and inform<br>tools including estimation   | mation techi<br>ation and me                      | nology<br>odelling      |   |   |                       |                           |   |
|   |                            | for the analysis and sc<br>engineering problems<br>limitations   | olution of co<br>, recognising                    | mplex<br>g their        |   |   |                       |                           |   |
|   | 5                          | Ability to use research  | n methods, i                                      | ncluding                |   |   | x                     |                           |   |
|   |                            | experiments, collectin   | gning and co                                      | onducting ysing and     |   |   |                       |                           |   |
|   |                            | interpreting results, to   | investigate                                       | complex                 |   |   |                       |                           |   |
|   | 6                          | Knowledge of the effe  | ects of engin                                     | eering                  |   |   |                       |                           |   |
|   |                            | practices on society, h  | ealth and sa                                      | fety,                   |   |   |                       |                           |   |
|   |                            | within the framework   | of the UN S                                       | Sustainable             |   |   |                       |                           |   |
|   |                            | Development Goals; a consequences of engine  | wareness of<br>neering solu                       | f the legal             |   |   |                       |                           |   |
|   | 7                          | Acting in accordance   | with the eth                                      | ical                    |   |   | x                     |                           |   |
|   |                            | principles of the engir<br>awareness of ethical r  | neering profe                                     | ession,                 |   |   |                       |                           |   |
|   |                            | awareness of non-disc  | crimination,                                      | impartiality            |   |   |                       |                           |   |
|   | Q                          | and embracing diversi  | ity.<br>ivelv as a te                             | am member               |   |   |                       | x                         |   |
|   | °                          | or leader both individ   | ually and wi                                      | thin                    |   |   |                       | л                         |   |

|  | interdisciplinary teams (face-to-face, distance or hybrid).  |
|--|--|
|  | 9 Ability to communicate effectively on<br>technical issues, both orally and in writing,<br>taking into account the various differences of<br>the target audience (e.g. education, language,<br>profession). |
|  | 10 Knowledge of business life practices such as<br>project management and economic feasibility<br>analysis; awareness of entrepreneurship and<br>innovation.   |
|  | 11 Ability to learn independently and<br>continuously, to adapt to new and emerging<br>technologies and to think inquisitively about<br>technological changes.   |
| The Course's Lecturer(s) and<br>Contact Informations | Faculty Members of the Department of Turkish Language and<br>Literature<br>geftde@gazi.edu.tr  |

|                        | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                  |                         |                         |                         |                         | 3                       |                         | 3                       | 4                       | 5                       |                          |                          |
| Learning<br>outcome 1  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 2  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 3  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 4  |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          |                          |
| Learning<br>outcome 5  |                         |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 6  |                         |                         |                         |                         | 1                       |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 7  |                         |                         |                         |                         | 1                       |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 8  |                         |                         |                         |                         | 1                       |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 9  |                         |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 10 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 11 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 12 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 13 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

| Course Description          |  |  |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|--|--|
| Course Code and Name        | TUR102 TURKISH LANGUAGE 2  |  |  |  |  |  |  |
| Course Semester             | 2  |  |  |  |  |  |  |
| Catalog Content             | Understanding the structure of sentences and word groups, the elements that make up<br>the sentence, sentence types and analysis methods<br>Topic selection, thought development, determining the main idea, creating a theme,<br>using imagination and learning paragraph structure<br>To have knowledge about creative and fictional writings, writings that convey thoughts<br>and information<br>Understanding how to write minutes, papers, reports, business letters and CVs<br>Understanding spelling and punctuation errors, expression disorders, sound-based<br>mistakes<br>Conference organization and scientific research methods  |  |  |  |  |  |  |
| Textbook                    | <ol> <li>Yakıcı, A., Yücel, M., Doğan, M. ve Yelok, V. S., Üniversiteler İçin Türk Dili ve<br/>Kompozisyon Bilgileri (Editör: V. S. Yelok), Bilge Yayınları, Ankara, 2005.</li> <li>Eker, S., Çağdaş Türk Dili, Grafiker Yay., İstanbul, 2006.</li> <li>Parlatır, İ., Gülensoy, T. ve Birinci, N., Yüksek Öğretim Öğrencileri İçin Türk Dili<br/>Kompozisyon Bilgileri, Yargı Yayınevi, Ankara, 2003.</li> </ol>   |  |  |  |  |  |  |
| Supplementary<br>Textbooks  | 1. Bilgin, M., Anlamdan Anlatıma Türkçemiz, Anı Yayıncılık, Ankara, 2005   |  |  |  |  |  |  |
| Credit                      | 2 ECTS   |  |  |  |  |  |  |
| Prerequisites of the Course | No Prerequisites - %70 Attendance Requirements   |  |  |  |  |  |  |
| Type of the Course          | Compulsory   |  |  |  |  |  |  |
| Instruction Language        | Turkish  |  |  |  |  |  |  |
| Course Objectives           | The aim of this course is to provide students with the basic skills of narration and<br>expression,<br>To reinforce the correct and beautiful use of Turkish, to present a project by providing<br>information about the academic writing process<br>To enable them to comprehend speaking methods and techniques that will be useful in<br>making prepared and unprepared speeches<br>To ensure the acquisition of speaking and writing skills that will be necessary in<br>professional applications such as job applications and job interviews in daily life   |  |  |  |  |  |  |
| Course Learning<br>Outcomes | <ol> <li>Knows the ways to write a successful composition and the process of creating a written composition.</li> <li>Knows the elements that make up a paragraph and why the ways of developing thought are used in a paragraph.</li> <li>Develops writing skills at text level.</li> <li>Develops writing skills by comprehending the basic characteristics of thought writings.</li> <li>Knows the basic features of art writings.</li> <li>Develops writing skills by comprehending the basic qualities of formal and content of official correspondence.</li> <li>Knows the basic principles of scientific research methods and academic writing process.</li> <li>Knows citation, referencing techniques, importance and ethical principles in academic writing.</li> <li>Knows the types of reading and applies reading comprehension strategies.</li> <li>Knows the basic concepts of oral expression, speech and diction.</li> <li>Knows the basic principles and qualities of oral expression types.</li> <li>Develops speaking and presentation techniques by comprehending the basic elements (content, attitude, presentation) to be considered in a successful speech and presentation.</li> </ol> |  |  |  |  |  |  |
| Instruction Methods                    | Face to face   |   |                   |                     |  |  |  |  |
|--|--|---|-------------------|---------------------|--|--|--|--|
|  | 1. Week  | Sentence Structure, Wordings, Sentence and Sentence Composing F   |                   |                     |  |  |  |  |
|  | 2. Week  | Sentence Types  |                   |                     |  |  |  |  |
|  | 3. Week  | Sentence Analysis, Sentence Inspection Examples   |                   |                     |  |  |  |  |
|  | 4. Week  | Composition (In the C   | Note and Keynote) |                     |  |  |  |  |
|  | 5. Week  | Theme, Imagination, F   | Paragraph         |                     |  |  |  |  |
|  | 6. Week  | Narration Types   |                   |                     |  |  |  |  |
|  | 7. Week  | Creative, Fictional Wr  | itings            |                     |  |  |  |  |
| Weekly Schedule                        | 8. Week  | Creative, Fictional Wr  | itings            |                     |  |  |  |  |
| ······································ | 9. Week  | Creative, Fictional Wr  | itings            |                     |  |  |  |  |
|  | 10. Week   | Thought and Idea Transmitting Writings  |                   |                     |  |  |  |  |
|  | 11. Week   | Formal Writings (Minutes, Announcements, Reports, Business Letters and CV   |                   |                     |  |  |  |  |
|  | 12. Week   | Linguistic Faults (Writing and Punctuation Mark Faults)   |                   |                     |  |  |  |  |
|  | 13. Week   | Linguistic Faults (Expression Failures, Voice Based Faults)   |                   |                     |  |  |  |  |
|  | 14. Week   | Conference  |                   |                     |  |  |  |  |
|  |  |   |                   |                     |  |  |  |  |
| Teaching and Learning<br>Methods       | Weekly theory<br>Weekly tutori<br>Reading Activ<br>Internet brows<br>Designing and<br>Report prepar<br>Preparing a Pr<br>Presentations:<br>Preparation of<br>Final Exam an<br>Other: 0 | Theoretical course hours: 2 Tutorial hours: 0 g Activities: 0 t browsing, library work: 2 ing and implementing materials: 2 preparing: 0 ng a Presentation: 0 ations: 0 tion of Midterm and Midterm Exam: 2 xam and Preparation for Final Exam: 2 |                   |                     |  |  |  |  |
|  |  |   | Numbers           | Total Weighting (%) |  |  |  |  |
|  | Midterm Exan<br>Assignment   | ns  | 1                 | 40                  |  |  |  |  |
|  | Application  |   |                   |                     |  |  |  |  |
| Assessment Criteria                    | Projects   | Projects  |                   |                     |  |  |  |  |
| rissessment eriteria                   | Practice   |   |                   |                     |  |  |  |  |
|  | Quiz   |   |                   |                     |  |  |  |  |
|  | Percent of In-t  | term  |                   | 40                  |  |  |  |  |
|  | Percentage of  | Final Exam to Total   | 1                 | 60                  |  |  |  |  |
|  | Score (%)  |   | L                 |                     |  |  |  |  |
|  | Attendance   |   |                   |                     |  |  |  |  |

|   |                       | Activity   | Total<br>Number<br>of   | Duratio<br>n<br>(weekly   |     | T<br>Pe<br>W<br>Le | otal<br>criod<br>ork<br>oad |  |
|---|-----------------------|--|---|---|-----|--------------------|-----------------------------|--|
| -   |                       | Theoretical Course   | 14  | 2   |     |                    | 28                          |  |
|   |                       | / Tutorial Hours   |   |   |     |                    |                             |  |
|   |                       | g Tasks  | 2   | 3   |     |                    | 6                           |  |
|   |                       | i i i i i i i i i i i i i i i i i i i  | 4   | 2   |     |                    | 8                           |  |
|   | Materia               | al Design and  |   |   |     |                    |                             |  |
|   | Report Preparing      |  |   |   |     |                    |                             |  |
| Workload  | Prepari               | ng a Presentation  | 2   | 2   |     |                    | 4                           |  |
|   | Present               | ations   |   |   |     |                    |                             |  |
|   |                       | m Exam and<br>ation for Midterm  | 1   | 2   | 2   |                    | 2                           |  |
|   | Final E<br>for Fina   | xam and Preperation<br>al Exam   | 1   | 2   | 2   |                    | 2                           |  |
|   | emphas                | should be sized)   |   |   |     |                    |                             |  |
|   | Total W               | Vorkload   | -   | -   |     |                    | 50                          |  |
|   | Total Workload / 25   |  |   |   |     | 5                  | 0/25                        |  |
|   | Course                | Program Outcom   | nes   |   |     |                    | 2                           |  |
|   | No                    |  | 105   |   | 1 2 | 3 4                | 4 5                         |  |
| Contribution Level Between Course Learning<br>Outcomes and Program Outcomes | 1<br>2<br>3<br>4<br>5 | <ol> <li>In-depth knowledge of mathematics,<br/>science, basic engineering concepts,<br/>computer-aided computing and specific<br/>engineering areas; ability to use this<br/>knowledge effectively in solving complex<br/>engineering problems.</li> <li>Ability to identify, formulate and analyse<br/>complex engineering problems using<br/>knowledge of basic science, mathematics<br/>and engineering, and taking into account<br/>the UN Sustainable Development Goals.</li> <li>Ability to generate creative solutions to<br/>complex engineering problems to meet<br/>current and future needs; design complex<br/>systems, processes, devices or products<br/>under realistic constraints and conditions.</li> <li>Ability to select and use appropriate<br/>techniques, resources and modern<br/>engineering and information technology<br/>tools, including estimation and modelling,<br/>for the analysis and solution of complex<br/>engineering problems, recognising their<br/>limitations.</li> <li>Ability to use research methods, including<br/>literature search, designing and conducting<br/>experiments, collecting data, analysing and</li> </ol> |   |   |     | X                  |                             |  |
|   | 6                     | engineering problems<br>Knowledge of the effe<br>practices on society, h<br>economy, sustainabili<br>within the framework<br>Sustainable Developm<br>awareness of the legal<br>engineering solutions.<br>Acting in accordance<br>principles of the engin<br>awareness of ethical r<br>awareness of non-disc<br>impartiality and embr   | ects of engin<br>lealth and sa<br>ty and envir<br>of the UN<br>nent Goals;<br>consequence<br>with the eth<br>neering profe<br>esponsibiliti<br>rrimination,<br>acing divers | iceering<br>fety,<br>onment<br>ces of<br>ical<br>ession,<br>es;<br>ity. |     | x                  |                             |  |

|  | 8 Ability to work effectively as a team<br>member or leader both individually and<br>within interdisciplinary teams (face-to-<br>face, distance or hybrid).  | X         |
|--|--|-----------|
|  | 9 Ability to communicate effectively on<br>technical issues, both orally and in writing,<br>taking into account the various differences<br>of the target audience (e.g. education,<br>language, profession). | x         |
|  | 10 Knowledge of business life practices such<br>as project management and economic<br>feasibility analysis; awareness of<br>entrepreneurship and innovation.   |           |
|  | 11 Ability to learn independently and<br>continuously, to adapt to new and<br>emerging technologies and to think<br>inquisitively about technological changes.   |           |
| The Course's Lecturer(s) and<br>Contact Informations | Faculty Members of the Department of Turkish Lan<br>Literature<br>geftde@gazi.edu.tr   | guage and |

## Contribution of the Course to Program Outcomes

|                        | Program<br>outcome<br>1 | Program<br>outcome<br>2 | Program<br>outcome<br>3 | Program<br>outcome<br>4 | Program<br>outcome<br>5 | Program<br>outcome<br>6 | Program<br>outcome<br>7 | Program<br>outcome<br>8 | Program<br>outcome<br>9 | Program<br>outcome<br>10 | Program<br>outcome<br>11 |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| TOTAL                  |                         |                         |                         |                         | 3                       |                         | 3                       | 4                       |                         |                          |                          |
| Learning<br>outcome 1  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 2  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 3  |                         |                         |                         |                         |                         |                         | 1                       | 1                       |                         |                          |                          |
| Learning<br>outcome 4  |                         |                         |                         |                         |                         |                         |                         | 1                       |                         |                          |                          |
| Learning<br>outcome 5  |                         |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 6  |                         |                         |                         |                         | 1                       |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 7  |                         |                         |                         |                         | 1                       |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 8  |                         |                         |                         |                         | 1                       |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 9  |                         |                         |                         |                         |                         |                         |                         |                         |                         |                          |                          |
| Learning<br>outcome 10 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 11 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 12 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |
| Learning<br>outcome 13 |                         |                         |                         |                         |                         |                         |                         |                         | 1                       |                          |                          |

Contribution Level: 1: Very Low 2: Low 3: Medium 4: High 5: Very High

| Mathematics and Basic Sciences | %0   |  |
|--------------------------------|------|--|
| Engineering Sciences           | %0   |  |
| Engineering Design             | %0   |  |
| Social Sciences                | %100 |  |
| Education Sciences             | %0   |  |
| Science                        | %0   |  |
| Health Sciences                | %0   |  |
| Field Knowledge                | %0   |  |

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