



T.C.

ESKİŞEHİR OSMANGAZİ ÜNİVERSİTESİ

FACULTY OF SCIENCES

MATHEMATICS AND COMPUTER SCIENCES DEPARTMENT

COURSE INFORMATION FORM

| Course Name        | Course Code |
|--------------------|-------------|
| Linear Geometry II |             |

| Semester | Number of Course Hours per Week |          | Credit | ECTS |
|----------|---------------------------------|----------|--------|------|
|          | Theory                          | Practice |        |      |
| 8        | 2                               | 2        |        | 6    |

| Course Category (Credit) |                      |        |                   |        |
|--------------------------|----------------------|--------|-------------------|--------|
| Basic Sciences           | Engineering Sciences | Design | General Education | Social |
| x                        |                      |        |                   |        |

| Course Language | Course Level  | Course Type |
|-----------------|---------------|-------------|
| Turkish         | Undergraduate | Elective    |

|                                 |  |
|---------------------------------|--|
| <b>Prerequisite(s) if any</b>   |  |
| <b>Objectives of the Course</b> | The main of the course is to introduce the concepts and techniques involved in the basic topics listed in this lecture and to develop skills in applying those concepts and techniques to the solution of problems |
| <b>Short Course Content</b>     | Special subjects in linear geometry, plane geometry, space geometry, linear spaces and polar spaces, some papers belong to linear geometry   |

| Learning Outcomes of the Course   | Contributed PO(s) | Teaching Methods * | Measuring Methods ** |
|---|-------------------|--------------------|----------------------|
| 1 Gain sufficient knowledge of linear geometry subject, related with science and own branch.  | 1,2,3             | 1,2,5              | A,D                  |
| 2 An ability to apply theoretical and practical knowledge on solving and modeling of problems.  | 1,2,4             | 1,2,5              | A,D                  |
| 3 Develops ability to analyze and solve problems encountered  | 3,4,5,9           | 2,10,12            | A,D                  |
| 4 Analytical thinking skills develop and the ability to make individual and independent decisions develops.                                     | 3,4,5,9           | 10,11              | A,D                  |
| 5 The ability to analyze and interpret data, apply interpretation to other data, and apply this information in a computer environment develops. | 13                | 10,11,13           | A,D                  |
| 6   |                   |                    |                      |
| 7   |                   |                    |                      |
| 8   |                   |                    |                      |

\*Teaching Methods 1:Expression, 2:Discussion, 3:Experiment, 4:Simulation, 5:Question-Answer, 6:Tutorial, 7:Observation, 8:Case Study, 9:Technical Visit, 10:Trouble/Problem Solving, 11:Individual Work, 12:Team/Group Work, 13:Brain Storm, 14:Project Design / Management, 15:Report Preparation and/or Presentation

\*\*Measuring Methods A:Exam, B:Quiz, C:Oral Exam, D:Homework, E:Report, F:Article Examination, G:Presentation, I:Experimental Skill, J:Project Observation, K:Class Attendance; L:Jury Exam

|                                  |  |
|----------------------------------|--|
| <b>Main Textbook</b>             | 1-Kaya, R. (2005) Projektif Geometri, Osmangazi üniversitesi yayınları , yayın no:111, Eskişehir.<br>2- Batten, L.M. (1986). Combinatorics of finite geometries, Cambridge university press. |
| <b>Supporting References</b>     |  |
| <b>Necessary Course Material</b> |  |

| <b>Course Schedule</b> |   |
|------------------------|---|
| 1                      | Special subjects in linear geometry                       |
| 2                      | Special subjects in linear geometry                       |
| 3                      | Special subjects in linear geometry                       |
| 4                      | Special subjects in linear geometry                       |
| 5                      | Special subjects in linear geometry                       |
| 6                      | Special subjects in plane geometry                        |
| 7                      | Special subjects in plane geometry                        |
| 8                      | Mid-Term Exam   |
| 9                      | Special subjects in linear spaces and polar spaces        |
| 10                     | Special subjects in linear spaces and polar spaces        |
| 11                     | Special subjects in linear spaces and polar spaces        |
| 12                     | Special subjects in some papers belong to linear geometry |
| 13                     | Special subjects in some papers belong to linear geometry |
| 14                     | Some papers belong to linear geometry                     |
| 15                     | Some papers belong to linear geometry                     |
| 16,17                  | Final Exam  |

| <b>Calculation of Course Workload</b>                       |               |                    |                              |
|---|---------------|--------------------|------------------------------|
| <b>Activities</b>   | <b>Number</b> | <b>Time (Hour)</b> | <b>Total Workload (Hour)</b> |
| Course Time (number of course hours per week)               | 14            | 4                  | 56                           |
| Classroom Studying Time (review, reinforcing, prestudy,...) | 14            | 2                  | 28                           |
| Homework  |               |                    |                              |
| Quiz Exam   |               |                    |                              |
| Studying for Quiz Exam                                      |               |                    |                              |
| Oral exam   |               |                    |                              |
| Studying for Oral Exam                                      |               |                    |                              |
| Report (Preparation and presentation time included)         |               |                    |                              |
| Project (Preparation and presentation time included)        | 2             | 25                 | 50                           |
| Presentation (Preparation time included)                    |               |                    |                              |
|   |               |                    |                              |
| Mid-Term Exam   |               |                    |                              |
| Studying for Mid-Term Exam                                  |               |                    |                              |
| Final Exam  | 1             | 2                  | 2                            |
| Studying for Final Exam                                     | 1             | 45                 | 45                           |
| <b>Total workload</b>                                       |               |                    | <b>181</b>                   |
| <b>Total workload / 30</b>                                  |               |                    | <b>181/30</b>                |
| <b>Course ECTS Credit</b>                                   |               |                    | <b>6</b>                     |

| Evaluation          |            |
|---------------------|------------|
| Activity Type       | %          |
| Project Observation | 40         |
|                     |            |
|                     |            |
| Bir öge seçin.      |            |
| Bir öge seçin.      |            |
| Final Exam          | 60         |
| <b>Total</b>        | <b>100</b> |

| RELATIONSHIP BETWEEN THE COURSE LEARNING OUTCOMES AND THE PROGRAM OUTCOMES (PO) (5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low) |   |              |
|---|---|--------------|
| NO  | PROGRAM OUTCOME   | Contribution |
| 1   | The ability to apply knowledges of Mathematics and Computer Sciences,   | 5            |
| 2   | To have sufficient theoretical and practical knowledge of Mathematics at international level,   | 5            |
| 3   | The ability of describing, modelling and solving of mathematical problems at Mathematics and related subjects,  | 5            |
| 4   | The skill to solve and design a problem process in accordance with a defined target,  | 5            |
| 5   | Skills to analyze data, interpret and apply to other datum and using these data on computer,  | 4            |
| 6   | The skill to use the modern techniques and computational tools needed for mathematical applications,  | 3            |
| 7   | The skill to make team work within the discipline and interdisciplinary,  | 4            |
| 8   | The ability to improve oneself by following the developments on other modern, scientific and technological subjects as well as Mathematics and Computer Sciences,               | 2            |
| 9   | The skill to communicate orally and in written way, in a clear and concise manner by having individual work skills and ability to independently decide and analytical thinking, | 4            |
| 10  | The skill to have professional and ethical responsibility,  | 4            |
| 11  | The skill to have consciousness for quality issues and scientific research,   | 2            |
| 12  | The skill to be sensitive to environmental issues related with problems and development of living area and consistent in the social relations,                                  | 1            |
| 13  | Ability to solve problems in the working life faced to find an appropriate algoritms via mathematical modeling and to write computer programs,                                  | 4            |
| 14  | The skill to developed design of software systems at different complex levels,  | 1            |
| 15  | The credence of necessity of life-long learning and ability to apply the formation long-life learning.  | 2            |

| LECTUTER(S)  |                             |  |  |  |
|--------------|-----------------------------|--|--|--|
| Prepared by  | Prof. Dr. İbrahim Günaltılı |  |  |  |
| Signature(s) |                             |  |  |  |

Date:06.06.2024