| Course title |  |  | Code | semester | $\mathbf{T}+\mathbf{U}$ | credit | ECTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Game Design and Programming 1 |  |  |  | 5 | $3+0$ | 3 | 4 |
| Prerequisite Courses |  | None |  |  |  |  |  |
| Language of the Course |  | English |  |  |  |  |  |
| Course Level |  | Undergraduate |  |  |  |  |  |
| Type of Course |  | Optional |  |  |  |  |  |
| Course Coordinator |  |  |  |  |  |  |  |
| Instructors |  |  |  |  |  |  |  |
| Course Assistants |  |  |  |  |  |  |  |
| The aim of lesson |  | 2-dimensional game programming and their application areas with examples |  |  |  |  |  |
| Course Content |  | 2D Game Programming General Information / Game Components / Intelligence and Intelligence Games / Animation Components / Puzzle Apps / Matching Applications / Word Game Applications / Direction and Movement Components / Word Game Applications / 2 and 3D Games |  |  |  |  |  |
| Course Learning Outcomes |  | Students who successfully complete this course; <br> 1. Gains knowledge of game theory. <br> 2. 2. Learns programming languages and libraries required for game programming. <br> 3. 3. Can design game graphics. <br> 4. 2D game design |  |  |  |  |  |
| Weeks | Topics |  |  |  |  |  |  |
| one | Game Components |  |  |  |  |  |  |
| 2 | Basic Game Framework |  |  |  |  |  |  |
| 3 | Intelligence and Mind Games |  |  |  |  |  |  |
| 4 | Animation |  |  |  |  |  |  |
| 5 | Puzzle Apps |  |  |  |  |  |  |
| 6 | Matching Apps |  |  |  |  |  |  |
| 7 | Matching Apps |  |  |  |  |  |  |
| 8 | Direction and Motion Components |  |  |  |  |  |  |
| 9 | Cause Effect Relationship |  |  |  |  |  |  |
| 10 | Word Game Applications |  |  |  |  |  |  |
| 11th | Question and Answer Applications |  |  |  |  |  |  |
| 12 | Platform Games |  |  |  |  |  |  |
| 13 | 2-Dimensional Games |  |  |  |  |  |  |
| 14 | 2-Dimensional Games |  |  |  |  |  |  |
| General Competencies |  |  |  |  |  |  |  |
| Gain knowledge of game theory and game programming. With this information the game develops the application. |  |  |  |  |  |  |  |
| resources |  |  |  |  |  |  |  |
| Timuçin Hatipoğlu, Game Programming with Unit 3D, KODLAB, 2019. Mustafa Bayraktar, Unity 3D Make Your Own Game, Zerobir, 2020. |  |  |  |  |  |  |  |
| Evaluation System |  |  |  |  |  |  |  |
| The dates, days and hours of the Midterm Exam, Quiz, Final Exam and Evaluations will be announced later, according to the decision of the Faculty Administrative Board. |  |  |  |  |  |  |  |


|  | WITH PROGRAM LEARNING OUTCOMES COURSE LEARNING OUTCOMES RELATIONSHIP TABLE |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | P07 | PO8 | PO9 | PO10 | PO11 |
| LO1 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| LO2 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 5 | 4 | 5 |
| LO3 | 5 | 5 | 5 | 4 | 5 | 3 | 3 | 3 | 3 | 3 | 3 |
| LO4 | 5 | 5 | 5 | 3 | 5 | 4 | 3 | 3 | 3 | 3 | 3 |
| LO: Learning Outcomes OP: Program Outcomes |  |  |  |  |  |  |  |  |  |  |  |
| Contri bution Level | 1 Very Low |  | 2 Low |  | 3 Medium |  | 4 High |  | 5 Very High |  |  |

Relation of Program Outcomes and Related Course

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Game Design <br> and <br> Programming <br> 1 | 5 | 5 | 5 | 4 | 5 | 3 | 4 | 4 | 3 | 4 | 3 |

