

| COURSE SYLLABUS          |  |                     |  |                               |  |       |
|--------------------------|--|---------------------|--|-------------------------------|--|-------|
| Course Title             | Course Code  | Semester            | Course Hour/Week   |                               | Credit                                   | ECTS  |
| 3D Character Modeling    | GAME 321   | 5                   | <b>Theory</b><br>2   | <b>Practice</b><br>2          | 3  | 5     |
| Course Type              | Compulsory Course  | Department Elective | Faculty Elective   | University Elective           | CoHE (YÖK) Elective                      | Other |
|                          | X  |                     |  |                               |  |       |
| Level of Course          | Associate Degree (Short Cycle)   |                     | Undergraduate (First Cycle)  |                               | Graduate/ Doctoral (Second /Third Cycle) |       |
|                          | -  |                     | Yes  |                               | -  |       |
| Language of Instruction  | English  |                     |  |                               |  |       |
| Course Instructor(s)     | Danish Craig   |                     | <b>E-mail:</b> danish.craig@arucad.edu.tr<br><b>Office:</b> TI OFF 7 |                               |  |       |
| Course Objectives        | <p>This course aims at designing a character and turning it into digital sculpting and three-dimensional organic shapes using Z-Brush. By understanding the 3-dimensional aspects of an organic object in real and virtual space, students will learn how to make polygon models. Students will also explore sculpting techniques for visual effects or characters for films, games, and 3D printer outputs.</p> |                     |  |                               |  |       |
| Course Learning Outcomes | Students will able to:   |                     | Teaching Methods   | Evaluation Methods            |  |       |
|                          | <b>Plan</b> and organize the process of creating a 3D character based on concept sketches and reference materials.   |                     | Project-Based Learning   | Mid-Term Submission           |  |       |
|                          | <b>Develop</b> basic sculpting skills by creating foundational forms and anatomy using digital sculpting tools in Z-Brush.   |                     | Project-Based Learning   | Mid-Term and Final Submission |  |       |
|                          | <b>Design</b> detailed 3D characters suitable for output in games, animated films, visual effects, and 3D printing.  |                     | Project-Based Learning   | Mid-Term and Final Submission |  |       |

|                       |  |                        |                  |
|-----------------------|--|------------------------|------------------|
| <b>Course Content</b> | <b>Produce</b> final rendered characters with basic lighting, posing, and material application for professional presentation.  | Project-Based Learning | Final Submission |
|                       | <b>Create</b> alternative character designs and outputs to meet diverse industry needs and project requirements.   | Project-Based Learning | Final Submission |
|                       | <ul style="list-style-type: none"> <li>● Sculpting with clay.</li> <li>● Understanding concept art.</li> <li>● Step-by-step software tutorials</li> <li>● Basic methods of sculpting a 3D character.</li> <li>● Dynamesh, subtools, and adding mesh.</li> <li>● Polypainting, texture, hair, skin, and other materials.</li> <li>● Basic lighting concepts.</li> <li>● Camera installation and setup.</li> <li>● Rendering options.</li> </ul> |                        |                  |

**COURSE OUTLINE/SCHEDULE**

| Week | Topic  | Implementation<br>(theory/practice) | Required Reading, Preliminary preparation  |
|------|--|-------------------------------------|--|
| 1    | Introduction to the course.<br>What can be done with Z Brush?<br>Course syllabus review.<br>Explaining the course workflow.<br>Showing 3d examples | T                                   | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 2    | Understanding concept art.<br>Gathering references.<br>Come up with a character sketch.<br>Introducing the workspace.                              | T/P                                 | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 3    | Project setup.<br>Understanding mesh.<br>Understanding different brushes.  | T/P                                 | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 4    | Sculpting a skull<br>Creating the basic shapes of the head   | T/P                                 | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 5    | Sculpting the lips and nose  | T/P                                 | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats  |

|    |   |         |  |
|----|---|---------|--|
|    |   |         | Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> )   |
| 6  | Sculpting the eyes, ears, and hair  | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 7  | Practice session.<br>Finalizing the head.<br>How to present a 3D project.   | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 8  | Midterm Exam + How to present a 3D project.                                 | Midterm | No reading is required.  |
| 9  | Understanding the body proportion<br>Sculpting the basic shapes of the body | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 10 | Adding details to the upper body  | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 11 | Adding detail to the lower body   | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 12 | Adding outfit to the character<br>Working on topology                       | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 13 | Adding pose and texture<br>Presenting the character                         | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number:<br><b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 14 | Practice session  | T/P     | "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins with Sandis Kondrats   |

|    |                 |       |   |
|----|-----------------|-------|---|
|    |                 |       | (Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> ) |
| 15 | Final Exam Week | Final | No reading is required  |

|   |   |
|---|---|
| <b>Required Course Material(s) / Reading(s)/ Text Book(s)</b> | <i>"Anatomy for Sculptors: Understanding the Human Figure"</i> by Uldis Zarins with Sandis Kondrats<br>(Library of Congress Catalog Number: <b>2013277494</b> , ISBN-13: <b>978-0989932402</b> )  |
| <b>Recommended Course Material(s)/ Reading(s) /Other</b>      | <p><i>"Figure Drawing: Design and Invention"</i> by Michael Hampton<br/>(Library of Congress Catalog Number: <b>2009934443</b>, ISBN-13: <b>978-0615272818</b>)</p> <p><i>"Force: Dynamic Life Drawing for Animators"</i> by Michael D. Mattesi<br/>(Library of Congress Catalog Number: <b>2002114896</b>, ISBN-13: <b>978-0240808451</b>)</p> <p><i>"Drawing the Head and Hands"</i> by Andrew Loomis<br/>(Library of Congress Catalog Number: <b>52010224</b>, ISBN-13: <b>978-0857680976</b>)</p> <p><i>"Figure Drawing: Design and Invention"</i> by Michael Hampton<br/>(Library of Congress Catalog Number: <b>2009934443</b>, ISBN-13: <b>978-0615272818</b>)</p> |

| ASSESSMENT             |        |             |
|------------------------|--------|-------------|
| Learning Activities    | NUMBER | WEIGHT in % |
| Mid-Term               | 1      | 40          |
| Quiz                   |        |             |
| Assignment             |        |             |
| Project                |        |             |
| Field Study            |        |             |
| Presentation / Seminar |        |             |
| Studio Practice        |        |             |
| Other                  |        |             |

|   |   |     |
|---|---|-----|
| <b>Contribution of Final Examination/Final Project/ Dissertation to the Final Grade</b> | 1 | 60  |
| <b>TOTAL</b>  |   | 100 |

| CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME LEARNING OUTCOMES |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| No  | PROGRAMME LEARNING OUTCOMES   | Level of Contribution (1- lowest/ 5- highest) |   |   |   |   |
|   |   | 1   | 2 | 3 | 4 | 5 |
| 1   | Knows the historical development of the field of communication, basic concepts, theories.   |   | X |   |   |   |
| 2   | Knows the basic concepts and terminology related to the field of game design.   |   |   |   | X |   |
| 3   | Has knowledge about the history of computer and video games and developments in this field.   |   | X |   |   |   |
| 4   | Knows game design processes and related applications.   |   |   |   |   | X |
| 5   | Has the ability to utilize various disciplines such as communication, art, music, psychology, mythology, cinema, etc. in the game design process. |   |   | X |   |   |
| 6   | Has the ability to analyse analogue and digital game genres.  |   |   |   |   | X |
| 7   | Has the ability to use contemporary game engines and problem solving skills.  |   | X |   |   |   |
| 8   | Has the knowledge of questioning the game designs with an analytic and critical perspective.  |   | X |   |   |   |
| 9   | Has knowledge about media literacy.   |   |   | X |   |   |
| 10  | Has the competence to prepare projects based on ethical principles in game development processes.   |   |   |   |   | X |
| 11  | Has the competence to evaluate games as an art form.  |   |   |   | X |   |
| 12  | Has the competence to use game design concepts and methods in related fields such as design, software development and media.                      |   |   |   |   | X |
| 13  | Has the competence to take part and responsibility in game development teams.   |   |   | X |   |   |
| 14  | Has the competence to collect, analyse and interpret analytical data about games and players.   |   | X |   |   |   |

|    |  |  |  |   |   |
|----|--|--|--|---|---|
| 15 | Has the competence to develop and present a digital game project by using game design practices effectively.   |  |  | X |   |
| 16 | Evaluates artificial intelligence applications in their studies with a critical approach in terms of aesthetics and originality, and uses them in accordance with ethical rules. |  |  |   | X |



| ECTS / STUDENT WORKLOAD                             |        |      |      |                  |
|---|--------|------|------|------------------|
| ACTIVITIES  | NUMBER | UNIT | HOUR | TOTAL (WORKLOAD) |
| Course Teaching Hour (X weeks * total course hours) | 15     |      | 4    | 60               |
| Preliminary Preparation and self- study             | 15     |      | 1    | 15               |
| Mid-Term  | 1      |      | 20   | 20               |
| Quiz  |        |      |      |                  |
| Assignment  |        |      |      |                  |
| Project   |        |      |      |                  |
| Field Study   |        |      |      |                  |
| Presentation / Seminar                              |        |      |      |                  |
| Studio Practice                                     |        |      |      |                  |
| Final Examination/ Final Project/ Dissertation      | 1      |      | 30   | 30               |
| Other   |        |      |      |                  |
| <b>TOTAL WORKLOAD</b>                               |        |      |      | 125              |
| <b>TOTAL WORKLOAD / 25</b>                          |        |      |      | -                |
| <b>ECTS</b>   |        |      |      | 5                |

#### ETHICAL RULES WITH REGARD TO THE COURSE

##### Plagiarism Disclaimer

Detected and undetected plagiarism is a serious offence at any time and it could have devastating effects on your degree result and future professional life.

Plagiarism is easy to avoid if you make sure you thoroughly identify and recognize your sources and do not copy from visual examples, designs or notes taken directly from your sources word for word. The maximum citation limit cannot exceed 20%. Artificial intelligence citations are also considered within this scope. If proven otherwise, the student will fail the course.

|   |  |   |
|---|--|---|
|    | SDG 1: No Poverty                              |   |
|    | SDG 2: Zero Hunger                             |   |
|    | SDG 3: Good Health and Well-Being              |   |
|    | SDG 4: Quality Education                       |   |
|    | SDG 5: Gender Equality                         |   |
|    | SDG 6: Clean Water and Sanitation              |   |
|    | SDG 7: Affordable and Clean Energy             |   |
|    | SDG 8: Decent Work and Economic Growth         | X |
|   | SDG 9: Industry, Innovation and Infrastructure | X |
|  | SDG 10: Reduced Inequalities                   |   |
|  | SDG 11: Sustainable Cities and Communities     |   |
|  | SDG 12: Responsible Consumption and Production |   |
|  | SDG 13: Climate Action                         |   |
|  | SDG 14: Life Below Water                       |   |
|  | SDG 15: Life on Land                           |   |
|  | SDG 16: Peace, Justice and Strong Institutions |   |
|  | SDG 17: Partnership for the Goals              |   |

**ASSESSMENT DETAILS AND EVALUATION CRITERIA:**

Final Grades will be determined according to the Course Learning Activities and Final Examination/ Project/ Dissertation Assessment Details as below, and comply with the Education and Examination Regulation set forth by the University.

During the class sessions, participation is a very important input for the learning process for the students. It is also vital to understand the effect of creativity input on the production process of advertisement.

70% attendance to courses is compulsory. Health reports belong to 30% absenteeism right.

|                    |                                   |
|--------------------|-----------------------------------|
| <b>PREPARED BY</b> | Danish Craig                      |
| <b>UPDATED</b>     | 20/02/2026                        |
| <b>APPROVED</b>    | Assist. Prof. Dr. Yunus Luckinger |