



**TURKISH REPUBLIC**  
**FIRAT UNIVERSITY**  
**COLLEGE OF TECHNOLOGY**  
**DEPARTMENT OF SOFTWARE ENGINEERING**

**COURSE SYLLABUS**  
**SENG 561 Computer Graphics and Animation**

**Location:** Lecture and Lab: Software Engineering Building

<b>Class meeting times:</b>	<b>Lab meeting time:</b>	<b>Instructor:</b>	<b>Teaching Assistant</b>
		Prof. Abdulkadir ŞENGÜR	

**Office hours:** Please see the notice board outside each faculty member's office.

**Course description:** This course takes a look at computer graphics and animation from a programmer's perspective. It will investigate the theory, algorithms and techniques for describing and programming motion for virtual 3D worlds. Approaches that will be explored include key-framing systems; kinematics, motion of articulated figures, procedural and behavioral systems, and the use of motion capture data.

**Course objectives:** After taking this course, students will have the following knowledge:

- Introduction: Creating Animations,
- Animation Basics: Position and Orientation,
- Basic and advanced mesh modeling,
- Materials and lighting,
- Texture mapping,
- Character animation,
- Key-frame based animation,
- Motion capture based animation,
- Deformable models,
- Motion tracking.

**IDEA objectives:** Gaining factual knowledge (terminology, classifications, methods, trends).  
Learning to apply course material (to improve thinking, problem solving, and decision).



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**Prerequisite:** Preferably students should have already taken all programming language courses.

**Textbook:** Computer Animation: Algorithms and Techniques, 3rd Edition, by Rick Parent (Morgan Kaufmann, 2012), ISBN: 0124158420

**Course requirements:**

**Assignments:** Students will be required to complete three assignments. Students will be given three weeks to complete each assignment. One of the assignments will count towards the final grade, giving student the option to drop their lowest graded assignment.

**Exams:** Two exams, including the final exam, will be given. Students will be given at least one week notice of the exam dates. All examinations are written examinations and students are required to provide their own answer sheets for each exam. There are no make-up examinations available for any student except the regulation rules.

Grading plan: Assignments	20%
First exam	30%
Final exam	50%

$\geq 90$	$\Rightarrow$	A
$\geq 80$ but $< 90$	$\Rightarrow$	B
$\geq 70$ but $< 80$	$\Rightarrow$	C
$\geq 60$ but $< 70$	$\Rightarrow$	D
$< 60$	$\Rightarrow$	F

**Class participation**

In accordance with University Policy, regular attendance is required; however, no points will be awarded or subtracted based on your attendance. You are responsible for all material



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covered in every class, regardless of whether you attended or not. It is your responsibility to obtain notes, assignments, etc., from fellow class members if you miss a class.

**Academic dishonesty**

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The university and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. No cheating on an examination or assignments is allowed. A score of zero will be given to the student if such a case occurred.

**Rules of conduct**

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Please turn off or mute your cellular phone and/or pager before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking among each other at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a, minimally, a directive to leave class or being reported to the Dean of Students for disciplinary action in accordance with university policy.

**Visitors in the classroom**

Occasion visiting of classes by responsible persons is allowed with prior arrangement with the instructor, as long as it does not interfere with the registered members of the class or the educational process.