

**Arab Academy for Science and Technology and Maritime Transport
Computer Science Curriculum
Course Syllabus**

Course Code: GM311	Course Title: Introduction to Multimedia	Classification: R	Coordinator: Prof. Dr. Osama Badawy Lecturer: Dr. Tamer Fathy Dr. Ahmed Sedky	Credit Hours: 3
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Pre-requisites: CS111	Co-requisites: None	Schedule: Lecture: 2 hours Tutorial: 2 hours		
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Office Hours: (Room 405)

Tuesday 8:30 a.m. -10:30 a.m.

Course Description:

This course is an introduction to multimedia and explores the use of different types of media components: text, images, sound, animation and video. This course teaches multimedia terms, definitions, and possible applications. The course aims to give students a broad background in issues surrounding multimedia, including the role of and design of multimedia systems which incorporate digital audio, graphics and video. This course covers the underlying concepts and representations of sound, pictures and video, data compression and transmission, integration of media, multimedia authoring, and delivery of multimedia.

Textbook:

Nigel Chapman and Jenny Chapman, Digital Multimedia, Wiley.

References:

- Tay Vaughan, Multimedia: Making It Work, McGraw-Hill Osborne Media.
- Parag Havaldar and Gerard Medioni, Multimedia Systems, Algorithms, Standards and Industry Practice, Course Technology, Cengage Learning.

Course Objective/Course Learning Outcome:**Contribution to Program Student Outcomes:**

1. Be aware of factors involved in multimedia systems design, performance, integration and evaluation.

(SO-2) Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

2. Describe the multimedia elements: text, images, animation, audio, and video and how to use them as means of communication.

(SO-3) Communicate effectively in a variety of professional contexts.

3. Understand multimedia terms, definitions, possible applications, and advantages and disadvantages of using multimedia.

(SO-4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

4. Employ appropriate software in a team setting to create graphics, animation, movies, and web sites.

(SO-5) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

Course Outline:

Week 1. Fundamentals of Multimedia

Week 2. Vector Graphics

Week 3. Bitmapped Images

Week 4. Color

Week 5. Video

Week 6. Animation

Week 7. 7th Week Exam

Week 8. Sound

Week 9. Text & Typography

Week 10. Hypermedia & Interactivity

Week 11. Design Principles

Week 12. 12th Week Exam

Week 13. Accessibility

Week 14. Multimedia & Networks

Week 15. Revision

Week 16. Final Exam

Grade Distribution:**7th Week Assessment (30%):**

Exam (20%) + Homework Assignments 10%

12th Week Assessment (20%):

Project (15%) + Assignments 5%

Year Work (10%):

Presentation and Discussion (5%) + Attendance (5%)

Final Exam (40%)**Policies:****Attendance:**

AASTMT Education and Study Regulations (available at aast.edu)

Academic Honesty:

AASTMT Education and Study Regulations (available at aast.edu)

Late Submission:

Late submissions are graded out of 75% (1 week late), 50% (2 weeks late), 25% (3 weeks late), 0% (more than 3 weeks late)