

# Меѓународен Универзитет Визион - International Vision University Universiteti Ndërkombëtar Vizion - Uluslararası Vizyon Üniversitesi

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# **SYLLABUS**

| COURSE NAME | COURSE<br>CODE | SEMESTER | COURSE LOAD | ECTS |
|-------------|----------------|----------|-------------|------|
| MULTIMEDIA  | 4038           | 7        | 180         | 6    |

| Prerequisite(s)                      | None   |  |  |
|--------------------------------------|--|--|--|
|                                      |  |  |  |
| Course Language                      | Turkish  |  |  |
| Course Type                          | Elective   |  |  |
| Course Level                         | First Cycle  |  |  |
| Course Lecturer                      |  |  |  |
| <b>Course Assistants</b>             |  |  |  |
| Classroom                            |  |  |  |
| Extra-Curricular<br>Office Hours and | Meeting:<br>Consultancy:   |  |  |
| Location                             | Consultancy.   |  |  |
|                                      |  |  |  |
| Course Objectives                    | Multimedia data has become an indispensable part of our daily life and modern computer technology. Multimedia hardware and software, issues in effectively representing, processing and transmitting multimedia data topics will be introduced in multimedia systems design. |  |  |
| Course Learning<br>Outcomes          | The students who complete the course successfully;   |  |  |
|                                      | Develop problem-solving skills in digital media design at a specific time.   |  |  |
|                                      | Will be able to decide about creative thoughts and ideas on how to transfer the  |  |  |
|                                      | application. A project which is able to design process from idea to final execution.   |  |  |
|                                      | Will be able to evaluate the issue of how to use the Moving and interactive media  |  |  |
|                                      | attention and basic animation and interaction techniques.  |  |  |
| <b>Course Contents</b>               | This course will give information about principles and current technologies of multimedia systems. Representing, processing, and retrieving multimedia data such as sound, music, image, animation, video and graphics will be discussed.                                    |  |  |

# WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

| Week | Subjects  | Related Preparation                |
|------|---|------------------------------------|
| 1    | Introduction to Multimedia Systems                              | Related Chapters of Course Sources |
| 2    | Multimedia Tools and Libraries (Matlab, SDL, OpenCV and Others) | Related Chapters of Course Sources |
| 3    | Information Theory and Transmission                             | Related Chapters of Course Sources |
| 4    | Lossless Compression  | Related Chapters of Course Sources |
| 5    | Lossless Compression  | Related Chapters of Course Sources |
| 6    | Image Processing and Analysis in Multimedia<br>Applications     | Related Chapters of Course Sources |
| 7    | Mid-term Exam   | Related Chapters of Course Sources |
| 8    | Audio Analysis, Compression and Standards                       | Related Chapters of Course Sources |
| 9    | Motion and Video Compression                                    | Related Chapters of Course Sources |
| 10   | Content based Multimedia Retrieval                              | Related Chapters of Course Sources |
| 11   | Animation   | Related Chapters of Course Sources |
| 12   | Project Presentation-1  | Related Chapters of Course Sources |
| 13   | Project Presentation-2  | Related Chapters of Course Sources |
| 14   | Project Presentation-3  | Related Chapters of Course Sources |
| 15   | Final Exam  | Related Chapters of Course Sources |

#### ECTS / WORKLOAD TABLE

| Presentation / Seminar                                  |    |    |    |
|---|----|----|----|
| Hours for off-the-classroom study (Pre-study, practice) | 14 | 3  | 42 |
| Midterm Exam  | 1  | 12 | 12 |
| Final examination                                       | 1  | 14 | 14 |
| Total Work Load   |    |    |    |
| ECTS  | 6  |    |    |

#### GENERAL PRINCIPLE RELATED WITH COURSE

Dear students,

In order to be included, learn and achieve full success that you deserve in the courses you need to come well prepared by reading the basic and secondary textbooks. We are expecting from you carefully to obey to the course hours, not to interrupt the lessons unless is very indispensable, to be an active participant on the courses, easily to communicate with the other professor and classmates, and to be interactive by participating to the class discussions. In case of unethical behavior both in courses or on exams, will be acting in framework of the relevant regulations. The attendance of the students will be checked in the beginning, in the middle or at the end of the lessons. Throughout the semester the students who attend to all lectures will be given 15 activity-attendance points in addition to their exam grades.

#### **SOURCES**

|    | COMPULSORY LITERATURE   |  |  |  |
|----|---|--|--|--|
| No | Name of the book  | Author's Name, Publishing House, Publication Year          |  |  |
| 1  | Multimedya ve Görsel Tasarım                                    | Ayten Öztürk , Dr. Serkan Perkmen, Profil Yayıncılık, 2009 |  |  |
| 2  | Multimedia Fundamentals: Media<br>Coding and Content Processing | Ralf Steinmetz, Klara Nahrstedt                            |  |  |
| 3  |   |  |  |  |

| ADDITIONAL LITERATURE |   |                                   |  |
|-----------------------|---|-----------------------------------|--|
| No                    | No Name of the book Author's Name, Publishing House, Publication Year |                                   |  |
| 1                     | Multimedya Öğreniyorum  | William D. Harrel, Alfa Yayınları |  |
| 2                     | Multimedia Systems  | Ralf Steinmetz, Klara Nahrsted    |  |
| 3                     |   |                                   |  |

### **EVALUATION SYSTEM**

| Underlying the Assessment Studies | NUMBER | PERCENTAGE<br>OF GRADE |
|-----------------------------------|--------|------------------------|
| Attendance/Participation          | 15     | %10                    |
| Project / Event                   | 1      | %20                    |
| Mid-Term Exam                     | 1      | %35                    |
| Final Exam                        | 1      | %35                    |
| TOTAL                             | 17     | %100                   |

# ETHICAL CODE OF THE UNIVERSITY

In case of the students are cheating or attempt to cheat on exams, and in the case of not to reference the sources used in seminar studies, assignments, projects and presentations, in accordance to the legislations of the Ministry of Education and Science of Republic of Macedonia and International Vision University, will be applied the relevant disciplinary rules. International Vision University students are expected never to attempt to this kind of behavior.