Course Description Form

1. Course Name:
Audio and Video Computing
2. Course Code:
Comp*61
3. Semester / Year:
First Semester/ Fourth year
4. Description Preparation Date:
1/9/2025
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
45 Theoretical hours per week
7. Course administrator's name (mention all, if more than one name)
Name: Prof.Dr. Mohammed Sahib Mahdi Altaei Email: mohammed.sahibmahdi@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	▪ Introduction- Basics in audio and video ▪ Programming the audio and video. ▪ computing the audio and video.
9. Teaching and Learning Strategies	
Strategy	▪ Lectures ▪ Problem classes ▪ Home work ▪ And, different contributions.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	Theory and Examples.	Introduction to multimed	Formal Lectures	Class Activ and Quiz
2	3	Theory and Examples.	Sound terminology	Formal Lectures	Class Activ and Quiz
3	3	Theory and Examples.	Digital audio	Formal Lectures	Class Activ and Quiz
4	3	Theory and	Digital speech	Formal Lectures	Class Activ

		Examples.			and Quiz
5	3	Theory and Examples.	Introduction speech/speaker recogniti	Formal Lectures	Class Activ and Quiz
6	3	Theory and Examples.	Analog and Digital vi transmission.	Formal Lectures	Class Activ and Quiz
7	3	Theory and Examples.	Transmission stan systems (NTSC, PAL, SECAM).	Formal Lectures	Class Activ and Quiz
8	3	Theory and Examples.	Composite and compon video.	Formal Lectures	Class Activ and Quiz
9	3	Theory and Examples.	High-Definition (video.	Formal Lectures	Class Activ and Quiz
10	3	Theory and Examples.	Video compression.	Formal Lectures	Class Activ and Quiz
11	3	Theory and Examples.	Motion compensation.	Formal Lectures	Class Activ and Quiz
12	3	Theory and Examples.	Optimal search Meth Distance-diluted Method	Formal Lectures	Class Activ and Quiz
13	3	Theory and Examples.	One-at-time method	Formal Lectures	Class Activ and Quiz
14	3	Theory and Examples.	Logarithmic search Meth	Formal Lectures	Class Activ and Quiz
15	3	Theory and Examples.	MPEG. And H261	Formal Lectures	Class Activ and Quiz

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Salamon D., "Data Comperession", edition, Prentice Hall,2000.
Main references (sources)	Halverson G. “Video Processing, T Master Reference”, Welly Printice C 2007.
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	