TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al-Nahrain University/ College of Science
2. University Department/Centre	Computer Science department
3. Course title/code	Audio and Video Computing/ Comp*61
4. Modes of Attendance offered	Full Time
5. Semester/Year	First Semester
6. Number of hours tuition (total)	45 Theory
7. Date of production/revision of this specification	1/9/2022
8. Aims of the Course	
Introduction- Basics in audio and video, Programming and computing the audio and video.	

10· Learning Outcomes, Teaching ,Learning and Assessment Method

A- Knowledge and Understanding

A1. Basic knowledge about Audio and video

A2. Focus on learning programming and computing audio and video

A3. Comparing between digital and analog videos.

B. Subject-specific skills

B1. The ability to use visual basic language, and applying the theory fundamentals and its use in different algorithms.

B2. Improve the student's analysis and conclusion capabilities.

Teaching and Learning Methods

Lectures, problem classes, Home work, and different contributions.

Assessment methods

Exam, Test

C. Thinking Skills

C1. Asking: Seeking new information

C2. Deduce and Conclude.

C3. Compare.

C4. Classify

Teaching and Learning Methods

Lectures, problem classes

Assessment methods

Exam, Test, Discussions, Homework, and class contribution.

D. General and Transferable Skills (other skills relevant to employability and personaldevelopment)

D1. Follow up on scientific development by following the educational programs of international universities via the Internet.

D2. Participation in scientific conferences inside and outside Iraq.

D3. Participation in workshops and scientific symposia inside and outside Iraq.

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory + Examples.	3	Introduction to multimedia	Formal Lectures	Class Activity and Quiz
2	=	3	Sound terminology	=	=
3	=	3	Digital audio	=	=
4	=	3	Digital speech	=	=
5	=	3	Introduction to speech/speaker recognition	=	=
6	=	3	Analog and Digital videos transmission.	=	=
7	=	3	Transmission standard systems (NTSC, PAL, and SECAM).	=	=
8	=	3	Composite and components video.	=	=
9	=	3	High-Definition (HD) video.	=	=
10	=	3	Video compression.	=	=
11	=	3	Motion compensation.	=	=
12	=	3	Optimal search Methods: Distance-diluted Method	=	=
13	=	3	One-at-time method	=	=
14	=	3	Logarithmic search Method	=	=
15	=	3	MPEG.	=	=

11. Infrastructure	
1. Books Required reading:	➢ Text Book: Salamon D., "Data Comperession", 2nd edition, Prentice Hall,2000.
2. Main references (sources)	➢ Supplementary Books: Halverson G. "Video Processing, The Master Reference", Welly Printice Co., 2007.
A- Recommended books and references (scientific journals, reports…).	
B-Electronic references, Internet sites…	

12. The development of the curriculum plan
Additional examples related to the development in the applied field of the curriculum have been added