Course Specifications

Institution:	College of Science at Az Zulfi
Academic Department :	Computer Science and Information
Programme :	Computer Science and Information
Course :	Digital Photography
Course Coordinator :	Dr. Hammad A. Qureshi
Programme Coordinator :	Assoc. Prof. Yosry Azzam
Course Specification Approved Date :	22 / 12 / 1435 H

A. Course Identification and General Information

1 - Course title : Digital Photography	Course Code: CSI 530
2. Credit hours : 3 (2 lec + 2 lab)	
3 - Program(s) in which the course is offered: Computer Science and Information	
4 – Course Language : English	
5 - Name of faculty member responsible for the course: Dr. Hammad A. Qureshi	
6 - Level/year at which this course is offered : 10th Level (Elective)	
7 - Pre-requisites for this course (if any) : Math 220	
8 - Co-requisites for this course (if any) : N/A	
9 - Location if not on main campus : College of Science at Az Zulfi	

10 - Mode of Instruction (mark all that apply)

A - Traditional classroom	√	What percentage?	**80 %**
B - Blended (traditional and online)	√	What percentage?	**10%**
D - e-learning	√	What percentage?	**10%**
E - Correspondence		What percentage?	…. %
F - Other		What percentage?	…. %

Comments :

B Objectives

What is the main purpose for this course?

This course is intended to introduce students to the basic concerns in digital photography as a fine art medium, and the computer as a darkroom. Includes digital imaging techniques of scanning, color correction, retouching, composition, content and more. Hardware, image input and output processes, and software are also discussed

As such, after completing this course:

The student should demonstrate a basic knowledge of fundamental digital photographic theory and make images which correspond to basic photographic design and communication principles.

Students will also demonstrate proficiency in the use of image manipulation software and digital imaging applications in addition to utilizing major computer hardware components and accessories, including scanners, printers, CD recorders and storage devices while managing the color digital workflow through all production stages from image capture to final output. Students will also be able to demonstrate an awareness of contemporary aesthetic, legal and ethical considerations in digital imaging.

Briefly describe any plans for developing and improving the course that are being implemented :

1. Using object oriented programming language to develop small and large programs for digital photography.
2. Updating the study material of the course in order to incorporate the new research in the field.
3. Use online resources and animations to help students to enhance knowledge about the topics that are presented in the course.

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Introduction to Digital Photography: Image formation, History of Photography, sampling and pixels	2	6
Introduction to Digital Cameras: choosing a camera, in-camera image processing, composing good photographs	2	6
Introduction to Software for Digital Photography: Photoshop image basics, image enhancement, image combination	1	3
Introduction to Light: Light & reflection, photographic lighting,	2	6
Introduction to Exposure: Photons & sensors, autofocus, exposure metering	2	6
Introduction to Optics: Lenses & apertures, practical photographic lenses.	2	6
Histograms and Software Tools: Thresholding, gamma curve,	2	6
Color and Artifacts: Trichromatic theory, noise & ISO, noise removal	3	9

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	-	30	-	-	60
Credit	30	-	15	-	-	45

3. Additional private study/learning hours expected for students per week.

5 Hours

The private self-study of my student is crucial for this course. It includes:
- reading carefully the topics in the textbook or reference book,
- browsing the websites concerned with the course,
- solving the exercises that are assigned in each chapter,
- discussing the course topics with the instructor in his office hours,
- watching the online video lectures of other instructors who have presented related topics worldwide.

The total workload of the student in this course is then: 60 + 5 * 15 = 135 work hours.

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Understand the main abstract concepts related to the field of Digital Photography	Lectures. Lab demonstrations. Case studies. Individual presentations.	Written Exam Homework assignments Class Activities Quizzes
1.2	Students will develop an understanding of the core concepts of digital photography such as Histogram and color processing		
1.3	Explain the technology now incorporated in to		

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	digital cameras.		
2.0	**Cognitive Skills**		
2.1	Analyze and implement the main algorithms to acquire better photographs	Lectures. Lab demonstrations. Case studies. Individual presentations. Brainstorming.	Written Exam Homework assignments Class Activities Quizzes
2.2	Compare the different pictures produced by different cameras and also evaluate the performance of different algorithms		
3.0	**Interpersonal Skills & Responsibility**		
3.1	Work in a group and learn time management.	Small group discussions. Whole group discussions. Brainstorming. Presentations.	Written Exam Homework assignments Class Activities Quizzes
3.2	Learn how to search for information through library and internet.		
4.0	**Communication, Information Technology, Numerical**		
4.1	Communicate with teacher, ask questions, solve problems, and use computers.	Small group discussions. Whole group discussions. Brainstorming. Presentations.	Written Exam Homework assignments Class Activities Quizzes
5.0	**Psychomotor**		
5.1	....	....	....

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	First written mid-term exam	6	20%
2	Second written mid-term exam	12	20%

3	Presentation, class activities, and group discussion	Every week	10%
4	Homework assignments	After every chapter	10%
6	Final written exam	16	40%
	Total		100%

D. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

1. A total of 6 office hours per week in the lecturer schedule in order to facilitate the student.
2. Contacting students using e-mail , mobile, office telephone and website.

E. Learning Resources

1. List Required Textbooks :

- Introduction to Digital Photography – Joseph Ciaglia

2. List Essential References Materials :

- Real World Digital Photography, 2nd edition, Eismann, Duggan, Grey, ISBN 01-22372-321-
- Photography 8th edition, London/Upton/Kobre/Brill, Prentice Hall (2002).

3. List Recommended Textbooks and Reference Material :

4. List Electronic Materials :

- https://www.coursera.org/

5. Other learning material :

- Video and presentations that are available with the instructor

F. Facilities Required

1. Accommodation
- Classrooms and,
- Library, as those that are available at the college of science at AzZulfi

2. Computing resources
- Smart Board

3. Other resources
- N/A

G. Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:
- Analysis of students' results.
- Observation during class work.
- Students' evaluations.
- Colleagues' evaluations.
- Evaluation questionnaire filled by the students.

- Interview a sample of students enrolled in the course to take their opinions.

2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :
- Self-assessment.
- External evaluation.
- Periodic review of course (the Commission of study plans).

3 Processes for Improvement of Teaching :
- Taking into account the recommendations yielded from the internal review of the course.
- Guidelines pertaining the teaching of the course provided by the study plans commission.
- Department Guidelines pertaining the performance of the faculty by direct observation.
- Training and development.
- Workshops to improve the educational process.

4. Processes for Verifying Standards of Student Achievement
- Instructors of the course may discuss the course and its conduct in order to put in place a unique process for the evaluation of students.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :
- Comparison of the course to its counterparts offered in similar departments.
- Periodic revision of course description by faculty member.
- Periodic revision of course description by the study plans and schedules commission.
- Update learning resources related to the course to ensure that the course is kept up with developments in the field.
- Make use of the statistical results of course evaluation made by students to improve and develop the course.
- Giving the opportunity for students to express their opinions about what is taught and receive suggestions and study their effectiveness.

Course Specification Approved

Department Official Meeting No (6) Date 22 / 12 / 1435 *H*

Course's Coordinator	**Department Head**
Name : Hammad A. Qureshi	*Name :* Associate Prof. Yosry Azzam
Signature :	*Signature :* ....
Date : 22/ 12 / 1435 *H*	*Date :* 22/ 12 / 1435 *H*