Cover Sheet: Request 13732

DIG2XXX Introduction to Digital Technologies

Info

Process	Course|New|Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Phillip Klepacki pklepacki@arts.ufl.edu
Created	3/7/2019 2:15:35 PM
Updated	3/22/2019 1:51:52 PM
Description of request	Creation of a new course that offers a comprehensive introduction to fundamental digital technologies and computing concepts.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CFA - Digital Worlds 015851001	James Oliverio		3/7/2019
DIG2XXX_Intro_Digital_Tech_V2_KB.docx					3/7/2019
College	Approved	CFA - College of Fine Arts	Jennifer Setlow		3/22/2019
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			3/22/2019
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 13732

Info

Request: DIG2XXX Introduction to Digital Technologies
Description of request: Creation of a new course that offers a comprehensive introduction to fundamental digital technologies and computing concepts.
Submitter: Phillip Klepacki pklepacki@arts.ufl.edu
Created: 3/7/2019 1:39:46 PM
Form version: 1

Responses

Recommended Prefix DIG
Course Level 2
Number XXX
Category of Instruction Introductory
Lab Code None
Course Title Introduction to Digital Technologies
Transcript Title INTRO TO DIGITAL TECH
Degree Type Baccalaureate

Delivery Method(s) On-Campus, Online
Co-Listing No
Co-Listing Explanation N/A
Effective Term Fall
Effective Year 2019
Rotating Topic? No
Repeatable Credit? No

Amount of Credit 3

S/U Only? No
Contact Type Regularly Scheduled
Weekly Contact Hours 3
Course Description This course offers a comprehensive introduction to fundamental digital technologies and computing concepts. The topics to be covered are history of computing, binary arithmetic, Boolean logic, file formats, computer architecture, databases, networking, security/privacy, and ethics.
Prerequisites N/A
Co-requisites N/A
Rationale and Placement in Curriculum A large portion of the students who are enrolled in the Digital Arts and Sciences major lack the basic understanding of several of the essential technologies that are used in our curriculum. This introductory course fills this gap by providing to the students a necessary foundation and knowledge that will be used throughout our curriculum.
Course Objectives The students will be able to:
1) recognize names of historical figures who pioneered in computing and describe their achievements
2) make calculations in binary system and convert between binary, decimal, and hexadecimal systems
3) read and write logical statements in Boolean expressions
4) recognize popular file formats and understand their internal structure
5) understand the main components of hardware and describe their operation
6) understand database systems and compose database queries
7) understand principles of networking protocols.
Course Textbook(s) and/or Other Assigned Reading Computer Fundamentals by Anita Goel, 2010, ISBN: 978-8131733097
Weekly Schedule of Topics Week1: History of Copmuting - Quiz 1
Week2: Binary Systems - Quiz 2
Week3: Boolean Logic - Quiz 3
Week4: Data Structures - Quiz 4
Week5: File Formats - Quiz 5

Week6: Computer Architecture - Quiz 6
Week7: Programming Languages - Quiz 7
Week8: Programming Languages Cont. - Midterm Exam
Week9: Databases and mySQL - Quiz 8
Week10: Databases and mySQL - Quiz 9
Week11: Networking Protocols - Quiz 10
Week12: Internet and Cloud Systems - Quiz 11
Week13: Privacy, Authentication, and Security protocols - Quiz 12
Week14: Integrated Development Environments, Collaborating, and Project Management Tools - Quiz 13
Week15: Ethics and the Future of Computing - Final Exam
Links and Policies All required links and policies are included in the syllabus uploaded to this submission.
Grading Scheme Midterm Exam (30%)
Weekly Quizzes (40%)
Final Exam (30%)
Instructor(s) To be determined

INTRODUCTION TO DIGITAL TECHNOLOGIES

COURSE NUMBER: DIG2XXX	**CREDIT HOURS: 3.0**
SEMESTER/YEAR: FALL 2019	**CLASS LOCATION: TBD**
CONTACT PHONE: (352) 294-2000	**CLASS MEETING TIME(S): TBD**
INSTRUCTOR: TBD	**OFFICE LOCATION/HOURS: TBD**
COURSE COMMUNICATION: UF E-LEARNING	**CONTACT EMAIL:TBD**

COURSE DESCRIPTION

This course offers a comprehensive introduction to fundamental concepts in digital technology and computing. The topics to be covered are history of computing, binary arithmetic, Boolean logic, file formats, computer architecture, databases, networking, security/privacy, and ethics.

PREREQUISITE KNOWLEDGE AND SKILLS

None

PURPOSE OF COURSE

Despite overly-optimistic claims about students' digital literacies, many students (including those enrolled in the Digital Arts and Science major) lack basic understandings of essential technologies that are used in our curriculum and beyond. Therefore, the purpose of this introductory course is to fill this gap by providing to the students with an introduction to and a necessary foundation in these technologies.

COURSE GOALS AND/OR OBJECTIVES: By the end of this course the students will be able to:

- Analyze impacts of historical figures who pioneered in computing and their achievements
- Calculate in binary system and convert between binary, decimal, and hexadecimal systems
- Read and write logical statements in Boolean expressions
- Examine popular file formats and understand their internal structure
- Describe the main components of hardware and describe their operation
- Describe database systems and compose database queries
- Apply principles of networking protocols

COURSE SCHEDULE:

This course has a final exam and a midterm exam. The final exam time scheduled for this course will be announced in advance of each semester by the University of Florida Registrar's Office at http://www.registrar.ufl.edu/soc/

Week	Topic	Assignments/Quizzes
1	History of Computing	Quiz 1 (Topics: Analog computers, Eniac, Turing, Babbage, Boole, etc.)
2	Binary Arithmetic	Quiz 2 (Topics: Binary to digital, digital to binary, hexadecimal, signed/unsigned integers)

3	Boolean Logic	Quiz 3 (Topics: logical operators: and, or not, xor, syntax, problem solving, etc.)
4	Data Structures	Quiz 4 (Topics: float numbers, color encoding, text encoding, custom objects, etc.)
5	File Formats	Quiz 5 (Topics: formats for text, audio, video, 3d model, etc.)
6	Computer Architecture	Quiz 6 (Topics: CPU components, hard drives, memory, GPU operation, etc.)
7	Programming Languages	Quiz 7 (Topics: History of languages, types of languages, syntax, etc.)
8	Programming Languages	Midterm Exam (all topics covered in weeks 1-8).
9	Databases and mySQL queries	Quiz 8 (Topics: Database structures, creation of databases and queries.)
10	Databases and mySQL queries cont.	Quiz 9 (Topics: mySQL installation, design of tables, and query composition.)
11	Networking Protocols	Quiz 10 (Topics: sockets, handshaking, http, ftp, websockets, etc.)
12	Internet and Cloud Systems	Quiz 11 (Topics: WWW vs Internet, Peer-to-Peer, IoT, cloud computing, etc.)
13	Privacy, Authentication, and Security protocols	Quiz 12 (Topics: Data encryption, SSL, Keychains, etc.)
14	Integrated Development Environments, Collaborating, and Project Management Tools	Quiz 13 (Topics: Visual Studio, Eclipse, Git, Slack, Trello, etc.)

15	Ethics and the Future of Computing	Review and preparation for Final Exam

REQUIRED TEXTBOOKS AND SOFTWARE:

1. Computer Fundamentals by Anita Goel, 2010, ISBN: 978-8131733097

COURSE FEES:

Course fees are assessed for certain courses to offset the cost of materials or supply items consumed in the course of instruction. A list of approved courses and fees is published in the Schedule of Courses each semester. (UF-3.0374 Regulations of the University of Florida).

Material and supply and equipment use fee information is available from the academic departments or from the schedule of courses (Florida Statutes 1009.24). The total course fee for this class is **$0.00**

The total course fee for each course is listed on the UF Schedule of Courses. (https://registrar.ufl.edu/soc/).

EVALUATION OF GRADES

Assignment	Total Points	Percentage of Grade
Weekly Quizzes	260 / 20 each	***40%***
Midterm Exam	100	***30%***
Final Exam	100	***30%***

GRADING SCALE:

Letter Grade	% Equivalency	GPA Equivalency
A	94 – 100%	4.0
A-	90 – 93%	3.67
B+	87 – 89%	3.33
B	84 – 86%	3.00
B-	80 – 83%	2.67
C+	77 – 79%	2.33
C	74 – 76%	2.00
C-	70 – 73%	1.67
D+	67 – 69%	1.33
D	64 – 66%	1.00
D-	60 – 63%	.67
E, I, NG, S-U, WF	0 – 59%	0.00

More information on grades and grading policies is here: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

COURSE POLICIES:

PARTICIPATION / ATTENDANCE
We value participation more than mere attendance. Each instructor is responsible for communicating the specific details of what percentage of your grade (if any) will be assigned to participation, and how class participation will be measured and graded.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

MAKE-UP POLICY
Unless discussed at least 72 hours in advance of the deadline, late assignments will not be accepted. Excluded from this policy are any assignments missed due to medical emergencies.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

COURSE TECHNOLOGY
The University of Florida and Digital Worlds requires that students have access to and on-going use of a laptop/mobile computer for DIG courses in order to be able to function in the current learning environment. Students are required to access electronic forms of information, submit assignments and communicate with other students and faculty electronically. DW requires each student's mobile computer to meet certain minimum specs for heavy graphics use; the requirements documented at http://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/new-student-buyers-guide/ must be met.

COURSE COMMUNICATIONS
Students can communicate directly with the instructor regarding the course material through UF e-Learning. http://elearning.ufl.edu/

COURSE TECHNOLOGY SUPPORT:

The Technology Support Center provides computer support for Digital Worlds students who access Visimeet, lecture recordings, student equipment, facilities and other technology-based resources. http://digitalworlds.ufl.edu/support

For computer assistance related to Visimeet, lecture recordings, student equipment, and facilities request please Submit a Help Ticket or email support@digitalworlds.ufl.edu.

For support related to account services, technical consulting, mobile device services, software services, administrative support, application support center, and learning support services, please contact the UF Computing Help Desk available 24 hours a day, 7 days a week at 352-392-4357 or helpdesk@ufl.edu.

UF POLICIES:

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge that states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CLASS DEMEANOR

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

STUDENTS REQUIRING ACCOMMODATIONS

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

NETIQUETTE COMMUNICATION COURTESY

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats, more information can be found at: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

ONLINE COURSE EVALUATIONS

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations. Evaluations are typically open during the last two or three weeks of the semester,

but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

CAMPUS RESOURCES

HEALTH AND WELLNESS

U Matter, We Care

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392- 1575 so that a team member can reach out to the student.

Counseling and Wellness Center
https://counseling.ufl.edu/, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies). http://www.police.ufl.edu/

ACADEMIC RESOURCES

E-learning technical support, 352-392-4357 (select option 2) or e-mail to learning-support@ufl.edu. http://elearning.ufl.edu/.

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. https://career.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio, 2215 Turlington Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Student Complaints Campus:
http://regulations.ufl.edu/wp-content/uploads/2012/09/1.0063.pdf

On-Line Students Complaints:
http://www.distance.ufl.edu/student-complaint-process

Disclaimer: This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.