

Course information:

Copy and paste current course information from Class Search/Course Catalog.

Academic Unit Herberger I	nstitute	Department	School of Film, Dance	e, & Theatre
Subject FMP Number	255	TitleMedia Authorship in	n the Information Age	Units: <u>3</u>
Is this a cross-listed course? If yes, please identify course(s)	No			
Is this a shared course? Course description:	No	If so, list all academic uni	ts offering this course	

Requested designation: Mathematical Studies-CS

Note- a separate proposal is required for each designation requested

Eligibility:

Permanent numbered courses must have completed the university's review and approval process. For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965–0739.

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:

Complete and attach the appropriate checklist

- Literacy and Critical Inquiry core courses (L)
- Mathematics core courses (MA)
- Computer/statistics/quantitative applications core courses (CS)
- Humanities, Fine Arts and Design core courses (HU)
- Social and Behavioral Sciences core courses (SB)
- Natural Sciences core courses (SQ/SG)
- Global Awareness courses (G)
- Historical Awareness courses (H)
- Cultural Diversity in the United States courses (C)

A complete proposal should include:

- \boxtimes Signed General Studies Program Course Proposal Cover Form
- $\overline{\boxtimes}$ Criteria Checklist for the area
- \boxtimes **Course Syllabus**
- Table of Contents from the textbook, and/or lists of course materials

Contact information:

Jacob Pinholster Phone Name 480-965-9547 Mail code 2002 E-mail: jpinhold@asu.edu Department Chair/Director approval: (Required) Chair/Director name (Typed): Jacob Pinholster Date: 7/3/13

Chair/Director (Signature):

Arizona State University Criteria Checklist for

MATHEMATICAL STUDIES [CS]

Rationale and Objectives

The **Mathematical Studies** requirement is intended to ensure that students have skill in basic mathematics, can use mathematical analysis in their chosen fields, and can understand how computers can make mathematical analysis more powerful and efficient. The **Mathematical Studies** requirement is completed by satisfying both the **Mathematics [MA]** requirement and the **Computer/Statistics/Quantitative Applications [CS]** requirement explained below.

The **Mathematics** [**MA**] requirement, which ensures the acquisition of essential skill in basic mathematics, requires the student to complete a course in College Mathematics, College Algebra, or Precalculus, or demonstrate a higher level of skill by completing a mathematics course for which any of the first three courses in a prerequisite.

The **Computer/Statistics/Quantitative Applications [CS]** requirement, which ensures skill in real world problem solving and analysis, requires the student to complete a course that uses some combination of computers, statistics, and mathematics.

Approved: Feb. 2000

Proposer:	Please complet	te the following section	and attach appropriate docu	mentation.
I Toposer.	i icase compre	ie me tonowing section	i and adach appi opi late docu	mentation.

		ASU[CS] CRITERIA	
	A CO	OMPUTER/STATISTICS/QUANTITATIVE APPLICATIONS MUST SATISFY ONE OF THE FOLLOWING CRITERIA: 1	
YES	NO		Identify Documentation Submitted
	ſ	1. Computer applications*: courses must satisfy both a and b :	
		a. Course involves the use of computer programming languages or software programs for quantitative analysis, modeling, simulation, animation, or statistics.	Course Module Design (i.e., syllabus, assignments), Textbook table of contents (TOC), Addendum to Application (AA)
		b. Course requires students to analyze and implement procedures that are applicable to at least one of the following problem domains (check those applicable):	
	\square	i. Spreadsheet analysis, systems analysis and design, and decision support systems.	
\square		ii. Graphic/artistic design using computers.	Course Module Design, TOC, AA
\square		iii. Music design using computer software.	Course Module Design, TOC, AA
\square		iv. Modeling, making extensive use of computer simulation.	Course Module Design, TOC, AA
	\boxtimes	v. Statistics studies stressing the use of computer software.	
restric compu- the us accept princi	ted prin iter soft e of a able, pr ples en ment p	ter applications requirement cannot be satisfied by a course, marily to word processing or report preparation skills; learning a ware package; or the study of the social impact of computers. computer software package or the learning of a computer prog rovided that students are required to understand, at an appropriat mbodied in the operation of the software and are required rocedures that use the software to accomplish tasks in the	computer language or a Courses that emphasize gramming language are te level, the theoretical to construct, test, and
		2. Statistical applications: courses must satisfy both a and b .	
	\boxtimes	a. Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Precalculus, or a course already approved as satisfying the MA requirement.	

		ASU[CS] CRITERIA	
	\square	b. The course must be focused principally on developing knowledge in statistical inference and include coverage of all of the following:	
YES	NO		Identify Documentation Submitted
		i. Design of a statistical study.	
		ii. Summarization and interpretation of data.	
	\square	iii. Methods of sampling.	
		iv. Standard probability models.	
	\square	v. Statistical estimation	
	\square	vi. Hypothesis testing.	
		vii. Regression or correlation analysis.	
		 3. Quantitative applications: courses must satisfy both a and b. a. Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Precalculus, or a course already approved as satisfying the MA requirement. 	
		 b. The course must be focused principally on the use of mathematical models in quantitative analysis and design making. Examples of such models are: 	
		i. Linear programming.	
		ii. Goal programming.	

		ASU[CS] CRITERIA	
	\boxtimes	iii. Integer programming.	
YES	NO		Identify Documentation Submitted
	\boxtimes	iv. Inventory models.	
	\ge	v. Decision theory.	
	\square	vi. Simulation and Monte Carlo methods.	
		vii. Other (explanation must be attached)	

Course Prefix	Number	Title	Designation
FMP	255	Media Authorship	CS

Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
Course involves the use of computer programming languages or software programs for quantitative analysis, modeling, simulation, animation, or statistics.	The primary focus of Media Authorship is on the application of narrative theory and compositional technique in the form of digital content created with various kinds of animation and simulation software.	Students in this course will gain theoretical and practical knowledge of software for modeling (SketchUP), animation (SketchUp and AfterEffects), non-linear editing (iMovie, Lightworks) and audio processing, editing and encoding (Audacity). In addition, course will feature a section on understanding Search Engine Optimization (SEO). Please see syllabus Units 4-6 and attached addendum.
Graphic/artistic design using computers.	Computer aided graphic design is understood as more than simply a visual design implemented by computers, but is instead understood as a design that lives within computers and presented on screens. As such the computer is not only the tool of creation but is also the canvas and the means of distribution.	Course includes instruction and practical application work in a variety of different software applications for the creation of still and motion graphics using softare for image manipulation/illustration (GIMP), motion graphics (AfterEffects), 3D modeling and animation (Blender) and non- linear editing of video (Lightworks/iMovie). See syllabus for software information and descriptions of project as well as addendum.
Music design using computer software.	Creating sound digitally is drastically different from anlogue creation. In this course students are taught the basics of how sound is digitally sampled, and how the sampled sounds can be processed to make beats, rythms, change pitch, etc	Course includes instruction and practical application work for using digital audio (music and vocal recordings) with and without synced video. See syllabus for: Audio pressure project, podcast project, final project, and addendum.



Syllabus

Instructor

Boyd Branch Herberger Institute of Design and the Arts Arizona State University

Contact Information

Office Hours By Appointment Contact Form <u>http://tinyurl.com/FMP294</u> Email Address <u>fmp294@gmail.com</u> Technical Support for the Course Website <u>https://herbergeronline.asu.edu/help</u>

Communicating With the Instructors

This course uses a **"Four Before"** policy in regards to student-to-faculty communications. When questions arise during the course of this class, please remember to check these four sources for an answer before asking me to reply to your individual questions:

- 1. Course syllabus
- 2. Announcements in Herberger Online
- 3. The "Water Cooler" discussion board
- 4. Google

This policy will help you in potentially identifying answers before we can get back to you and it also helps your instructor from answering similar questions or concerns multiple times.

If you cannot find an answer to your question, please first post your question to the "Water Cooler" discussion board. Here your question can be answered to the benefit of all students by either your fellow students who know the answer to your question or the instructor. You are encouraged to answer questions from other students in the discussion forum when you know the answer to a question in order to help provide timely assistance.

If you have questions of a personal nature such as relating a personal emergency, questioning a grade on an assignment, or something else that needs to be communicated privately, you are welcome to contact us via contact form or email. Our preference is that you will use the contact form first. We will usually respond to form and email messages from 8am to 5pm on weekdays, please allow 24 hours for us to respond.

If you have a question about the technology being used in the course, please contact the UTO Help Desk for assistance (contact information is listed below).

Course Description

This is an introductory course surveying the manipulation, editing, compression, encoding, and search engine optimization of digital sound and video media.

Course Objectives

At the completion of this course students will be able to:

- 1. Identify, interpret, and use relevant terms and concepts related to digital media; including digital audio, video, and still images.
- 2. Navigate and utilize the current legal landscape governing digital media to author legally distributable content.
- 3. Evaluate and compare various formats and encoding schemes for digital audio, digital images, and video with an understanding of their underlying functions.
- 4. Build introductory competence in the use of basic software/tools for media creation and editing.
- 5. Author communicative/expressive media utilizing best practices for online development and distribution.
- 6. Explore self-directed and autonomous forms of learning by using e-learning methodologies.

Unit Objectives

Unit I: Self-Directed Learning

- Describe self directed learning goals
- Identify how media authorship can advance personal career goals
- · Critique relationship between media authorship goals and target audience

Unit II: Web-Based Portfolio

- Describe purpose of web portfolio
- Organize content of web site to maximize impact for target audience

Unit III: Digital Images

- Define and use appropriate technical language related to digital image optimization, creation, and editing
- Demonstrate how to properly crop and compress image asset
- Demonstrate how to properly color correct image asset
- Demonstrate how to effectively edit images into into meaningful compositions

• Demonstrate how to properly encode and wrap image files for web distribution

Unit IV: Digital Audio

- Define and use appropriate technical language related to digital audio optimization, creation, and editing
- Demonstrate how to properly compress audio file
- Demonstrate how to properly equalize audio file
- Demonstrate how to effectively edit audio into meaningful compositions
- Demonstrate how to properly encode and wrap audio files for web distribution

Unit V: Digital Video

- Define and use appropriate technical language related to digital video optimization, creation, and editing
- Demonstrate how to properly compress video asset
- Demonstrate how to properly color correct video asset
- Demonstrate how to effectively edit video into meaningful compositions
- Demonstrate how to properly encode and wrap video files for web distribution

Unit VI: Animation

- Define and use appropriate technical language related to animation.
- Demonstrate how to extrude text in three dimensions
- Demonstrate how manipulate virtual cameras for fluid movement
- Demonstrate how to manipulate quality of movement to convey meaning
- Demonstrate how to properly encode and wrap animation files for further video editing

Unit VII: Integration

• Demonstrate how to combine audio, video, and animation into a cohesive meaningful presentation

Course Requirements

Online Course

This is an online course and therefore there will not be any face-to-face class sessions. All assignments and course interactions will utilize Internet technologies.

This course uses Herberger Online for the facilitation of communications between faculty and students, submission of assignments, and posting of grades. Lectures and online tutorials of the various applications used in this class will also be presented on the course website. The Herberger Online Course Site can be accessed at https://herbergeronline2.asu.edu/mediaauthorship

Computer Requirements

This course requires that you have access to a computer that can access the Internet. You will need to

have access to, and be able to use, the following software packages:

- A web browser (Internet Explorer or Mozilla Firefox) the most current version
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microsoft Word
- Gimp
- Audacity
- iMovie or Windows Media Maker
- Google SketchUp

You are responsible for having a reliable computer and Internet connection throughout the course. Computer failure and/or problems connecting to the Internet are not acceptable excuses for tardy assignments or missing exams. Do not ask for extensions or make-ups due to your unreliable computer or internet problems.

Email and Internet

You must have an active ASU e-mail account and access to the Internet. All instructor correspondence will be sent to your ASU e-mail account. Please plan on checking your ASU email account regularly for course related messages.

Campus Network or Herberger Online Outage

When access to Herberger Online is not available for an extended period of time (greater than one entire evening - 6pm till 11pm) you can reasonably expect that the due date for assignments will be changed to the next day (assignment still due by midnight).

Attendance/Participation

Preparation for class means reading the assigned readings & reviewing all information required for that week. Attendance in an online course means logging into the Herberger Online course on a regular basis and participating in the all of activities that are posted in the course.

Studying and Preparation Time

The course requires you to spend time preparing and completing assignments. A three-credit course requires 135 hours of student work. Therefore expect to spend approximately 20 hours a week preparing for and actively participating in this course.

Late or Missed Projects/Assignments

All assignments must be finished and turned in to complete the course. Assignments will be lowered a letter grade for each day late if they are submitted after the posted deadline. All assignments turned in after 48 hours of the posted deadline will receive a 0.

In the case of a technical difficulty, each student may make ONE late submission request for a missed exam or assignment. The request must be submitted within 24 hours of the due date.

Early Submission

Students may submit their assignments ahead of their due date, but they will not necessarily be graded prior to the assignment deadline. Submitting Assignments All assignments, unless otherwise announced by the instructor, MUST be submitted via Herberger Online. Each assignment will have a designated place to submit the assignment.

Exam/Quiz Policies

You are encouraged to use a reliable wired Internet connection to complete the assessments in this course. Using a wireless connection or mobile device to complete an Exam/Quiz is strongly discouraged.

Do not navigate away from an Exam/Quiz while you are taking it. Do not open any additional tabs/windows on your Internet browser. Do not reload/refresh the page while completing an Exam or Quiz. Do not log into or out of any other ASU page (myASU, etc.) while completing an Exam/Quiz. These behaviors can cause your exam session to become corrupt, which can make your submission of the Exam/Quiz unsuccessful. Unsuccessful submissions cannot be graded.

Exam/Quiz Resets

If you encounter technical difficulties with an Exam/Quiz, you can reset the Exam/Quiz in order to access it again. To do so, close out of the active Exam/Quiz and return to the course website. Once there, follow the directions to reset the Exam/Quiz and log out of the course website. Once you log back into the course website, you will be able to access the Exam/Quiz again.

If you are unsure of how to correct the problem that caused the technical difficulties with your first attempt, please contact Herberger Online Help Desk at https://herbergeronline.asu.edu/help with a detailed description of the problem.

Note: You are only allowed to reset an Exam/Quiz once, and you only have two resets available during the entire course.

Drop and Add Dates

If you feel it is necessary to withdraw from the course, please see<u>http://students.asu.edu/drop-add</u> for full details on the types of withdrawals that are available and their procedures.

Subject to Change Notice

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Academic Integrity

ASU expects and requires all its students to act with honesty and integrity, and respect the rights of others in carrying out all academic assignments. For more information on academic integrity, including the policy and appeal procedures, please visit <u>http://provost.asu.edu/academicintegrity</u> and the Student Conduct Statement below.

Submitting Your Video Projects

All the video projects in this class will be posted on Vimeo and submitted through Herberger Online. You will need to set up a Vimeo membership according to the following instructions:

- 1. Visit <u>www.vimeo.com</u> and create a new membership using your ASU email address.
- 2. Use the same full name that is on the roster for this class as the name on your profile.

- 3. Attach a recognizable picture of yourself to the profile.
- 4. Set the "Location" field on your profile to "ASU."
- 5. Find the group "**FMP 294 (43886)**" (shortcut: https://vimeo.com/groups/196036) and submit a request to join the group. One of the instructors will approve your membership
- 6. When you upload your projects, you must title the video as per the instructions in the project assignment sheet, upload them to Vimeo, and then add them to the FMP 294 group.
- 7. Post a link to your video in the appropriate section of the Projects area of the course website.
- 8. You and your classmates will then respond to each other's work on the course website.

Titling Your Projects

For every project use the following titling language:

LastName_TitleOfProject_Assignment.

Example: Branch_BirdsOfTempe_AudioPressureProject1, or Branch_MyWebsiteLogo_LogoGraphicProject.

Required Materials

Textbook

Harrington, Richard and Weisner, Mark. Professional Web Video. Focal Press, 2010.

Software

Software for this course is available for free or inexpensive download. You may choose to use either a Windows-based or Mac OS X-based computer

Cross-platform

GNU Image Manipulation Program (GIMP): <u>http://www.gimp.org</u> Audacity (audio editing program): <u>http://audacity.sourceforge.net</u> MPEG Stream Clip: <u>http://www.squared5.com</u>

Windows only

Windows Movie Maker

Mac OS X only

iMovie (non-linear editing program): available for download from the Apple App Store for \$14.99

Hardware

Required:

Personal computer

You are required to have access to a personal computer for completion of the online component of this course. This computer must have high-speed Internet access as well as be able to run all the cross-platform software above and one of the non-linear editing applications (either Windows Movie Maker on a Windows machine or iMovie on an Apple machine).

Headphones with 1/8" stereo connector

Highly recommended:

Video camera. In the absence of more expensive models, a Flip camera (www.theflip.com) or similar OR current generation iPhone or iPod will serve adequately.

Audio recorder or **USB Microphone**. We recommend the Zoom H2 portable recorder (\$129) or the Blue Snowball USB microphone (\$80). You can also use your iPod/iPhone or computer internal mic, but these will improve your quality immensely.

Computer Application Descriptions / Information

GNU Image Manipulation Program (GIMP)

GIMP is a free software raster graphics editor. It is primarily employed as an image retouching and editing tool and is freely available in versions tailored for most popular operating systems including Microsoft Windows, Apple Mac OS X, and GNU/Linux. In addition to detailed image retouching and free-form drawing, GIMP can accomplish essential image editing tasks such as resizing, editing, and cropping photos, photomontages combining multiple images, and converting between different image formats. GIMP can also be used to create basic animated images in the GIF format.

Audacity

Audacity is a free software, cross-platform digital audio editor and recording application. It is available for Windows, Mac OS X, Linux and BSD. Audacity can also be used for post-processing of all types of audio, including podcasts by adding effects such as normalization, trimming, and fading in and out. Audacity has also been used to record and mix entire albums.

iMovie

iMovie is a proprietary video editing software application which allows Mac, iPod Touch 4th generation, iPhone 4 and iPad 2 users to edit their own home movies. It was originally released byApple in 1999 as a Mac OS 8 application bundled with the first FireWire-enabled consumer Apple model – iMac DV. Since version 3, iMovie has been a Mac OS X only application bundled in the iLife suite of Macintosh applications.

Windows Movie Maker (WMM)

WMM is a free video editing software package that is provided as part of the Windows XP and Windows 7 operating systems. The most up-to-date version of WMM can be downloaded from Microsoft's website at http://explore.live.com/windows-live-movie-maker.

Google Sketchup

Sketchup is a free open source 3D graphics application from Google.

Projects and Assignments

Portfolio Purpose Project

For this project, you will identify the purpose and intended audience for your online portfolio. During this course you will be applying the skills you learn related to digital media authorship to create a media rich online portfolio. Your portfolio will live as a web page accessible to your future employers,

clients, or other targeted audience. Each assignment will provide a template for the creation of various digital media assets that you will customize to suit your individual interests and goals. It is important that you decide upfront what the purpose of your portfolio site is, and who you would like to view it.

Competencies/concepts explored:

- Critical thinking
- Constructive feedback
- Career planning

Google Site/Portfolio Assignment

For this project, students will create a simple portfolio page to showcase their coursework. For this assignment, students will use Google Sites, a free and easy tool for sharing content on the web.

Competencies/concepts explored:

- Using templates when creating websites
- Navigation structures
- Personal presentation on the web.

Photo Optimization Assignment

Students will use some simple techniques to explore how to optimize a photo for distribution over the web.

Competencies/concepts explored:

- issues of resolution
- image value controls: brightness, contrast, levels
- image encoding: compression, image modes, working with layers and channels including alphas, editing raster imagery.

Header/Banner Project

For this project, we will use the creation of a logo or graphic identity as an exploration of the principles behind image creation, editing and encoding. Using the techniques explored with GIMP, create a banner that will appear at the top of all of your portfolio pages.

Competencies/concepts explored:

- raster vs. vector graphics
- image encoding
- compression, image modes, working with layers and channels including alphas, editing raster imagery.

Podcast Project

Create a 30-60 second podcast for your home page that introduces you to your audience, describes your unique interests, skills, experience, and/or perspective about your chosen subject, and demonstrates your audio optimization and editing skills.

Competencies/concepts explored: Understanding key concepts behind a time-based medium: narrative sensibilities, pacing, keeping a specific target audience interested; Technical skills: EQing and dynamics for voice and music, volume automation, making it easy to listen to. You will be delivering a 30-60 second podcast that is engaging and entertaining.

Competencies/concepts explored:

- Digital sound encoding
- Equalization
- Filtering noise
- Multi-track editing
- Transitions/fades
- Audio web standards
- Audio compression

Video Introduction Project

Utilizing both existing video assets you have the rights to as well as original video assets captured for this assignment, edit video to accompany your podcast. Your video must have a consistent color palette and general aesthetic, smoothly transition between assets, and be optimized for uninterrupted playback at the designated video size.

Competencies/concepts explored:

- Video codecs/wrappers
- video bit rate
- non-linear editing
- composition
- montage
- filtering and effects
- color correction

Animation Project

In this project, students you will use Google Sketchup for a brief introduction to 3D animation. Students will create a 3D object, and adjust the object and environmental settings. You will then create animation by setting camera paths. Finally you will learn to export the animation as a movie file and add it into their final project. Competencies/concepts explored: keyframe animation concepts ("tweening"), compositing, layers and channels in animation.

Competencies/concepts explored:

- 3d environments
- Virtual camera manipulation

- Animation compression best practices
- Frame rate

Final Project

For the final project, you will be uniting all the skills acquired in previous units to create a video that presents or showcases one or more of your relevant skills. Each student will create a 2-3 minute composition in one of the following formats:

- 1. promotional video for event or organization
- 2. pitch video for business or entrepreneurial venture
- 3. music video or short creative film
- 4. Demo reel

Competencies/concepts explored:

• Audio, video, still image integration

Comments on Forum

Viewing and responding to the work of your peers is a critical learning strategy for this class, as well as an important skill in and of itself. For the Portfolio Purpose Project, Photo Optimization Assignment, Header/Banner Project, Podcast Project, Video introduction Project, and the Animation Project, each student will need to comment on the work of at least two of their peers in the Project areas set up for each student's submission. These comments should be substantive and detailed. Nonsubstantive assessments like "I liked this" or "it was good" will NOT receive credit. Each statement must be backed up with your reasoning, preferably utilizing the vocabulary we share in the course content. A total of 24 comments will be made throughout the semester, make sure to complete them within <u>1 week</u> of the submission deadline.

Resource Index (weekly assignment)

You are required to post links to a total of 5 outside resources you have found useful for each major course assignments. You must post at least one new resource by the end of the weeks designated below. The end of the week means Friday by midnight. You may post additional resources for a single week, but you are still required to post a new resource on the appropriate subject for subsequent weeks. In other words you cannot simply post 5 resources for one week and get full credit for the assignment.

Tutorial Quizzes

After most of the online video tutorial for the various applications utilized in this class, students will be asked to take a short quiz on the course website to evaluate their understanding/retention of the tutorial material. Competencies/concepts explored: understanding of interface/workflow of each application.

Grading

Item	Points	Date
Projects		
Portfolio Purpose	25	Week 1
Google Site/Portfolio	25	Week 1
Photo Optimization	50	Week 1
Header/Banner	75	Week 2
Podcast	75	Week 3
Video Introduction	100	Week 4
Animation	75	Week 6
Final Project	195	Week 7
Assignments		
Project Feedback	25 (12 @ 2 points each +1pt)	Weekly
Resource Index	25 (5 @ 5 points each)	Weekly
Exams		
Quizzes	80 (8 @ 10 points each)	
Midterm	100	
Final	150	

Grading Scale

Google Spreadsheet "What's my Grade" Template

View a tutorial video on how to calculate your grade

Points	Percentage	Letter Grade
980-1000	98-100	A+
920-979	92-98	Α
900-919	90-92	A-
880-899	88-90	B+
820-879	82-88	В
800-819	80-82	В-
780-799	78-80	C+
700-779	70-78	С
600-699	60-70	D
<599	<60	E

Plagiarism Policy

Though there are few opportunities for cheating in a class that is built to evaluate your ideas and skills, nevertheless the possibility for plagiarism exists. Plagiarism or intellectual property theft will result in an immediate loss of all points on the assignment. Plagiarism is defined in ASU's Student Academic Integrity Policy. Examples relating to this class:

- Appropriating or copying all or part of an existing work from online or other sources in a manner not explicitly permitted by the project descriptions.
- Collaboration or "splitting" of work with other students in a manner not explicitly permitted by the project description.

All necessary and appropriate sanctions will be issued to all parties involved with plagiarizing any and all course work. Plagiarism and any other form of academic dishonesty that is in violation with the Student Code of Conduct will not be tolerated. For more information, please see the ASU Student Academic Integrity Policy: <u>http://provost.asu.edu/academicintegrity</u>

Special Accommodations

To request academic accommodations due to a disability, please contact the ASU Disability Resource Center (<u>http://www.asu.edu/studentaffairs/ed/drc/#</u>; Phone: (480) 965-1234; TDD: (480) 965-9000). This is a very important step as accommodations may be difficult to make retroactively. If you have a letter from their office indicating that you have a disability which requires academic accommodations, in order to assure that you receive your accommodations in a timely manner, please present this documentation to the course instructor(s) no later than the end of the first week of the semester so that your needs can be addressed effectively.

Honors Contract Option

There is an option in this course to do an Honors Contract. According to the Barrett Honors College, Honors Contract options provide an advanced curriculum for courses offered by colleges other than The Barrett Honors College. Students may receive honors credit in FMP 294 by receiving the approval of the instructor to complete an honors option, and by having an individual student-professor contract in place within the first 4 weeks of the semester. The extra work required to fulfill the contract will be negotiated with the instructors on a case-by-case basis related to the student's area(s) of interest.

Syllabus is subject to change, please keep updated through the Announcements area of the course website.

Please contact your instructors if you have any questions about this document.

FMP 255 – Media Authorship in the Information Age

Addendum to General Studies Application

Overview

FMP 255 engages students with the tools, procedures, methodologies, and best practices of creating digital media for the web. The principle focus of the course is developing an appreciation for the unique structure and encoding of digital media files as they relate to the representation of their analogue counterparts. More than simply learning how a specific piece of software allows a user to manipulate images, sound, and video, students are taught the basic computer science of digital content creation.

Starting with digital imagery students are shown the difference between raster and vector graphics and tasked with making both for various web applications. The audio unit begins by looking at how sound is digitally sampled and the students survey and apply various standard filtering algorithms for optimizing playback. When we look at video for the web students are taught how and why video files must be compressed and wrapped for optimal computer playback and desired resolutions, and how editing and animation software execute commands for the interpolation of keyframes that allow computers to the heavy lifting of motion 'tweening.'

Learning about the special qualities of digital media creation prepares the students for understanding how different kinds of data can be stored in various files that make them better suited for various web applications. Authoring digital media is understood as more than making media; it is understood as making media distributed on the web. To that end students learn how to optimize their content with metadata that optimizes the search-ability of their content and select the appropriate codecs, wrappers, and size of their media to reach a desired audience. Below is a selection of quiz questions and subjects taken from course modules.

Sample quiz questions and areas of exploration

1. Images

- a. Raster vs. vector image types
- b. How are raster images constructed and stored?
 - i. "What is the difference between 8-bit and 16-bit imagery?"
 - ii. "(In RGB) what would the coordinates (255,255,0) represent?"
- c. Image modes and encoders
 - i. RGB vs. CMYK vs. HSV
 - 1. "When are each of these formats most commonly used?"
 - ii. Encoders and compressors
 - 1. "At what point in workflow should compression be applied?"
- d. Image editing
 - i. "What is an alpha channel? How does that relate to image modes?"
 - ii. "How do filters/effects work? Describe the basic computational function of a box blur?"
 - iii. Using levels adjustments and understanding histograms.
- 2. Audio media
 - a. Analog and digital audio

- i. "How is audio translated from analog oscillations to digital samples?"
- b. Understanding sampling rates and audio quality
- c. Compression and encoders
 - i. "Why is MP3 such a popular format? What characteristics does it have that make it useful in the applications in which it is used?"
- 3. Video media
 - a. Formats
 - i. "Describe the difference between 1080i and 1080p (interlaced vs. progressive)?"
 - ii. "What do the following acronyms mean and what is their significance?
 - 1. VGA
 - 2. NTSC
 - 3. PAL"
 - b. Compression and encoders
 - i. "Describe 'lossless' compression. Where is its use important? How does it differ from 'uncompressed'?"
 - ii. "What is the difference between intraframe and interframe compression? Name an example of each (codec)? Which is more frequently used in web distribution?"
 - iii. "We speak of H.264 having 'flavors' what does that mean? What are the most prominent current 'flavors' and what are their appropriate applications?"
- 4. Animation
 - a. Tweening/Interpolation/Keyframing
 - i. "Describe, in principle, the basic operation that the software application is performing as it transitions between two 'keyframes'?"
 - b. Raster animation and "compositing"
 - i. "Describe the basic principle behind the chroma-keying process ('green screening')."
 - ii. "How is the use of 'effects' in video compositing similar to 'filters' in image editing programs?"
- 5. Finishing and publishing
 - a. Hosting and embedding
 - i. "What are the respective advantages and disadvantages to hosting video on your own server vs. embedding video hosted on Vimeo/YouTube/etc.?"
 - b. Intellectual property management
 - i. "When does a work enter copyright (since 1977)? How is that different from 'registering' a copyright?"
 - ii. "What are the benefits to you and to society of Creative Commons licensing vs. normal copyright?"
 - c. Search Engine Optimization (SEO)
 - i. "Describe at least two known factors that Google incorporates into PageRank."
 - ii. "Define the following techniques for increasing your page's prominence in search results:
 - 1. Cross-linking
 - 2. URL normalization"

FMP 255: Media Authorship in the Information Age Course Schedule

This schedule provides an outline for the pace of this course, as well as the order in which you should access the course material and complete the quizzes, exams, and projects. It is very important that you adhere to this order, as some tasks rely on the completion of previous tasks.

UNIT 1: Creating a digital presence and image optimization

Week 1:

- Introduction Survey (located on the Exams/Quizzes page)
- Lecture: Course Introduction
- Lecture 1: What Is a Web Media Author?
- Reading: "Work of Art in the Age of Digital Reproduction"
- Watch: Butterflies
- **Project:** Portfolio Purpose Project
- Reading: How to Create a Vimeo Account
- Quiz: Vimeo Quiz
- Project: Google Site/Portfolio Assignment
- Tutorial: Installing GIMP
- Tutorial: Simple Name Tag in GIMP
- Quiz: GIMP Quiz 1
- Reading: Becoming a Digital Designer
- Links: Makeup Geek, Ed and Moe, The Fine Brothers, How Stuff Works
- Project: Photo Optimization Assignment

<u>Week 2:</u>

- Lecture 2: Working With Image Editors
- Lecture 3: Making Web Content
- Tutorial: Making a Logo/Header in GIMP
- Quiz: GIMP Quiz 2
- Tutorial: Compositing in GIMP
- Project: Website Banner/ Header

UNIT 2: Audio, Media Sources, and Copyright

<u>Week 3:</u>

- Lecture 1: Equipment and Terminology
- **Tutorial:** Introduction to Audacity
- Quiz: Audacity Quiz 1
- Lecture 2: Media Sources
- **Reading:** "Music, Money, Internet, Mobile Phone, Apps and New Media," Chapter 13 (pg 397 408) Todd and Jeff Braebec
- Lecture 3: Audio Compression, Exporting, and Hosting
- Tutorial: Mix and Balance in Audacity
- **Quiz:** Audacity Quiz 2
- Lecture 4: Introduction to Digital Audio
- Project: Podcast Project

UNIT 3: Non-Linear Video Editing, Workflow, Codecs, and Compression

Week 4:

- Reading: Bound By Law
- Reading: Chapter 7 in Professional Web Video
- Watch: BBC's "The Essential Guide to Video Editing"
- Lecture 1: Video Editing and Tools
- Lecture 2: Workflow
- Tutorial: Encoding With MPEG Streamclip
- Tutorial: Introduction to iMovie
- Tutorial: Introduction to Windows Live Movie Maker
- Quiz: Video Quiz 1
- Video Survey
- Midterm Exam
- Reading: Chapter 8 in Professional Web Video
- Lecture 3: Video Encoding
- Lecture 4: Optical Media
- Tutorial: iMovie Advanced
- Quiz: Video Quiz 2
- **Project:** Video Introduction

UNIT 4: Animation and Web Video

Week 5:

- Lecture 1: Introduction to Animation
- Tutorial: Introduction to SketchUp
- Lecture 2: Animation Terms and Software
- Quiz: Animation Quiz
- **Project:** Animation Project
- Watch: Procrastination

UNIT 5: Search Engine Optimization and Distribution

Week 6:

- Lecture 1: Search Engine Optimization and Web Marketing
- Reading: Chapter 11, Chapter 12, and Chapter 13 in Professional Web Video
- Project: Final Project
- Final Exam



Plan, Produce, Distribute, Promote and Monetize Quality Video

> Richard Harrington Mark Weiser with RHED Pixel



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