SECTION: 19
DATE:
April 22, 2016

BOARD OF REGENTS

EASTERN MICHIGAN UNIVERSITY

RECOMMENDATION

NEW ACADEMIC PROGRAMS

ACTION REQUESTED

It is recommended that the Board of Regents receive and place on file this notification of a New Academic Program: Simulation, Animation, and Gaming Minor

SUMMARY

The SAG minor is a multidisciplinary area of study, combining traditional art mediums, programming, creative writing, and story development with coursework focusing on modeling, rigging, animation, lighting, and camera work in 3D. The program gives students a variety of experiences in their course of study, which provides a competitive advantage over many other programs that are local, national and international.

FISCAL IMPLICATIONS

None

ADMINISTRATIVE RECOMMENDATION

The proposed Board action has been reviewed and is recommended for Board approval.

[redacted]

University Executive Officer

3/31/16

Date

EASTERN MICHIGAN UNIVERSITY

DIVISION OF ACADEMIC AND STUDENT AFFAIRS
OFFICE OF THE ASSOCIATE VICE-PRESIDENT FOR ACADEMIC PROGRAMMING AND SERVICES
INTER OFFICE MEMORANDUM

TO: Chris Shell, Registrar
Deborah deLaski-Smith, Director, School of Visual and Built Environments

FROM: Rhonda Longworth, Associate Vice-President for Academic Programming and Services

SUBJECT: **Simulation, Animation, and Gaming Minor (new undergraduate program)**

DATE: November 13, 2015

The attached request from the School of Visual and Built Environments and the College of Technology for a new undergraduate program, **Simulation, Animation, and Gaming Minor**, is approved, effective Fall 2016.

If you have any questions, please contact Evan Finley, Course and Program Development Associate (487-8954, efinley2@emich.edu).

Attachment: New Program Proposal

cc:
Kim Schatzel, Provost and Vice-President of Academic and Student Affairs
Mohamad Qatu, Dean, College of Technology
Sandy Norton, President, Faculty Senate
Calvin McFarland, Director, Academic and Career Planning
Julie Knutson, Director, Extended Programs
John Feldkamp, Assistant Director, Honors College
Ramona Milligan, Coordinator, Registration
Carol Evans, Transfer Equivalency Coordinator, Records & Registration
Ann Richards, Assistant Director, Admissions Processing
Mary Butkovich, Halle Library
Bin Ning, Assistant Vice President and Executive Director, IRIM
Pat Cygnar, Director, Community College Relations
Pam Speelman, School of Visual and Built Environments
Original, Catalog Office

Please Note: After receiving input from another college, School of Visual and Built Environments faculty approved swapping *SAG 235 – Flash 1* with *SAG 165 – Introduction to Game Design*.

Eastern Michigan University

2016-2017 Undergraduate Catalog (Working Draft)

Simulation, Animation and Gaming Minor

New Minor, effective Fall 2016

Admission:

Admission to the SAG Minor will require **(1)** a meeting with the SAG faculty advisor in charge of the SAG minor, and **(2)** a review of the student's prior course work (if any), and the student's declared major.

School Information:

School of Visual and Built Environments - College of Technology

Deb deLaski-Smith, Ph.D.
Director

206 Roosevelt
(734) 487-2490
ddelaski@emich.edu

Advisor Information:

Contact department for advisor information.

Minor Requirements: 21 hours

- CMT 205 - Digital Photo-Technology 3 hrs
- CMT 421 - Web Publishing Technology 3 hrs
- SAG 165 - Introduction to Game Design 3 hrs
- SAG 175 - Graphics for Simulation I 3 hrs
- SAG 225 - Graphics for Simulation II 3 hrs
- SAG 285 - Studio I Simulation 3 hrs
- SAG 305 - Environment Design 3 hrs

Critical Graduation Information:

The following are minimum requirements for all bachelor's degrees awarded by Eastern Michigan University. Some majors and minors require more than the minimum in one or more of the areas below; students are urged to consult the on-line catalog for the requirements of their particular programs.

- Earn a minimum total of 124 credits at the ***100-level and above.*** **Courses with numbers below 100 will not be counted toward this degree requirement. At most 8 credit hours of physical education (PEGN) activity courses will be counted toward this requirement.** A Bachelor of Arts degree requires completion of one year of college credit in a world language.
- Meet the requirements of the General Education program (see information below).
- Complete a Writing Intensive (WI) Course in your major.
- Earn a minimum of 60 credits from a four-year college or university; **courses taken at community colleges cannot be used to meet this requirement.** (Some formal program-to-program articulation agreements modify this requirement. See specific agreements for details.)
- Earn a minimum of 30 credits from courses taken at EMU.
- Complete 10 of the last 30 hours for the degree from courses taken at EMU.
- Have a minimum of 30 ***unique*** credit hours in their major and 20 ***unique*** credit hours in their minor for a total of at least 50 unique credit hours between them. Some majors that require 50 or more hours themselves do not require a minor; students should check requirements of the selected major in the undergraduate catalog to see if a minor is required.
- Earn no more than 60 credit hours in one subject area (prefix). Credits in excess of the 60 maximum will not be counted toward the minimum of 124 credits required for a bachelor's degree.
- Earn the minimum number of credits in 300-level and above courses in each major and minor as specified below - these credits must be earned in distinct courses; that is, no course can be used to fulfill this requirement in more that one major or minor.
    - Earn a minimum of 6 credits in 300-level or higher courses at EMU in each minor
    - Earn a minimum of 9 credits in 300-level or higher courses at EMU in each major that requires a minor.
    - Earn a minimum of 15 credits in 300-level or higher courses at EMU in each major that does not require a minor
- Transfer credit will be awarded for courses taken at colleges and universities that are accredited by one of the recognized regional accrediting bodies only if the courses are college-level (equated to 100-level or above at EMU) and the student earned a "C" (or 2.0 on a 4 point scale) or better. Transfer credit may be awarded on a case-by-case basis for college-level courses in which a "C" (2.0) or better was earned at institutions outside the U.S. or at non-accredited U.S. institutions; the internal review of such courses is conducted by individual departments/schools within EMU, and additional documentation may be required. *Please note:* EMU awards only credits for transferred courses; grades are not used in the calculation of an EMU GPA.
- Earn a minimum cumulative GPA of 2.0 in courses taken at EMU in order to graduate. In addition, a minimum cumulative GPA of 2.0 must be reached in each major and minor. Only courses taken at EMU and those applied to a student's major or minor, will be used in the calculation of their major and minor cumulative GPAs. (Note: some programs may require a higher GPA - check with your program advisor.)

General Education Requirements:

EMU's General Education Program requires students to choose from a menu of approved courses in several different areas; do not assume that other courses in the same department or with similar names will fulfill these requirements. A detailed description of General Education requirements is available on the General Education section of the catalog: General Education

Students who transferred to EMU may have modified general education requirements based on Michigan Transfer Agreement (MTA) or articulation agreements; consult your academic advisor for additional information.

EASTERN MICHIGAN UNIVERSITY
DIVISION OF ACADEMIC AFFAIRS

OUTLINE FOR SUBMITTING PROPOSALS FOR NEW DEGREE PROGRAMS

Use this outline to prepare proposals for new programs, including undergraduate majors and minors and graduate majors. Proposals should be submitted in narrative form, organized according to the following outline. Guidelines for submitting such proposals are on the following pages.

PROPOSED PROGRAM NAME: SIMULATION, ANIMATION, AND GAMING MINOR

DEGREE: NONE **REQUESTED START DATE** WINTER 2015

DEPARTMENT(S)/SCHOOL(S): VISUAL AND BUILT ENVIRONMENTS **COLLEGE(S):** TECHNOLOGY

CONTACT PERSON: PAM SPEELMAN **CONTACT PHONE:** 7-8254

CONTACT EMAIL: PSPEELMAN@EMICH.EDU

I. Description:

A. Goals, Objectives, Student Learning Outcomes

The goals of the Simulation, Animation, and Gaming (SAG) Minor are the same as that of the SAG program:

1) Increase the opportunities for SAG learning for students
2) Provide collaborative SAG interdisciplinary experiences for students
3) Prepare graduates ready to begin or advance their SAG professional careers
4) Enhance student learning through a SAG student organization

The objectives of the SAG Minor are the same as that of the SAG program:

1) Provide several hands-on learning experiences through course-based projects
2) Offer collaborative, interdisciplinary courses for students
3) Assess student abilities in the Minor program, and recommend course of action for the student to meet career goals
4) Supervise students in engaging SAG student organization

The Student Learning Outcomes for the SAG Minor are the same as that of the SAG program:

1) Student work/performance will be evaluated over time. This will be achieved either by (1) using individual instructor's grading criteria or rubrics followed by the instructor's report on rubric scores or lists of strengths and weaknesses in his/her students' work, OR, (2) engaging faculty in reading students' work from across-program courses using a common criteria or common rubric to score student work in a given program. The readers then submit a table of rubric scores or summaries of strengths and weaknesses in student work as a whole.

B. Program

The Simulation, Animation, and Gaming (SAG) program faculty are proposing a 21-credit minor in SAG. The SAG Minor at Eastern Michigan University, within the College of Technology, will offer a person the ability to take courses in Simulation, Animation, and Gaming that will complement their major. Those students who decide they are not meant for the SAG program, but who enjoyed the SAG classes, may apply the courses they took in the SAG program to the SAG minor.

The minor in SAG is a multidisciplinary area of study, combining traditional art mediums, programming, creative writing, and story development with coursework focusing on modeling, rigging, animation, lighting, and camera work in 3D. The program gives students a variety of experiences in their course of study, which provides a competitive advantage over many other programs that are local, national and international.

Below is a list of the courses included in the SAG minor:

Required courses:

SAG 175 Graphics for Simulation I	3 Credits
CMT 205 Digital Photo-Technology	3 Credits
SAG 225 Graphics for Simulation II	3 Credits
SAG 235 Flash I	3 Credits
SAG 285 Studio I Simulation	3 Credits
SAG 305 Environment Design	3 Credits
CMT 421 Web Publishing Technology	3 Credits
	21 Credits

C. Admission

Admission to the SAG minor will require 1) a meeting with the SAG faculty advisor in charge of the SAG minor, and 2) a review of the student's prior course work (if any), and the student's declared major.

D. Projections

It is estimated that the SAG minor will grow quickly, since there have been several faculty of programs inside and outside the College of Technology who have expressed an interest in having their students take a SAG minor.

II. Justification/Rationale

Although there are many students in the SAG program who really like the content and the work, some of the students are not able to successfully complete the coursework at the advanced levels. These students usually change programs, and they want to use their SAG coursework that they completed for something toward their graduation. The SAG minor will allow students to do this.

III. Preparedness

The courses for the minor are ready to go. No preparation is necessary.

IV. Assessment/Evaluation

Assessment and evaluation of the minor will be done as per the existing assessment and evaluation of the SAG program.

V. Program Costs

None

VI. Action of the Department/College

1. Department/School (Include the faculty votes signatures from all submitting departments/schools.)

Vote of faculty: For 12 Against 0 Abstentions 0
(Enter the number of votes cast in each category.)

I support this proposal. The proposed program can ✓ cannot _____ be implemented without additional College or University resources.

[redacted] 11/14/14
Department Head/School Director Signature Date

2. College/Graduate School (Include signatures from the deans of all submitting colleges.)

A. College.

I support this proposal. The proposed program can X cannot _____ be implemented within the affected College without additional University resources.

[redacted] 12/15/14
College Dean Signature Date

B. Graduate School (new graduate programs ONLY)

_____ _____
Graduate Dean Signature Date

VII. Appro[redacted]

_____ 11/13/15
Associate Vice-President for Academic Programming Signature Date

---

VIII. Appendices

EASTERN MICHIGAN UNIVERSITY
DIVISION OF ACADEMIC AFFAIRS

GUIDELINES FOR SUBMITTING PROPOSALS FOR NEW PROGRAMS

Note: Departments intending to submit proposals for new programs are encouraged to consult with the Course and Program Development Office and, if appropriate, the Graduate School prior to submitting such proposals.

I. Description. This section is designed to provide information regarding the proposed program. Any pertinent information beyond that covered in the following should also be included.

A. Goals, Objectives, Student Learning Outcomes

1. State the general philosophy and intent of the proposed program.
2. List the goals, objectives, and student learning outcomes as specifically as possible. These should be stated in such a way as to facilitate assessment of whether or not they are being met.
3. How do stated goals, objectives, and student learning outcomes reflect current departmental/school, college and divisional goals and university strategic planning directions?

B. Program

1. List all current courses included in the program, and indicate whether they will be required, restricted electives or electives. Include syllabi for all such courses as an appendix.. All courses should implement program goals, objectives, and student learning outcomes.
2. List all new and revised courses that will be needed for the program. A Request for a New Course or Request for Course Revision form should be completed for each one and included as an appendix. All courses should implement program goals, objectives, and student learning outcomes.
3. Describe the Program Delivery Plan, i.e. whether it will be offered on or off campus, on line, evenings and/or Saturdays. If courses are to be offered on Saturday, on line or off campus, include evidence of support from Continuing Education as an appendix.
4. Outline a typical program of study a student would follow in completing the program.

Interdisciplinary programs only:

5. In which department/school or college will the program be administered? If more than one department/school or college will be participating in the program, provide evidence of support from all participating departments/schools and/or colleges.

Undergraduate programs only:

6. Indicate the minimum number of total credit hours that students completing the program should have taken by the time they graduate.

Graduate programs only:

7. Indicate how the proposed program will assure graduate-level study (utilization of seminars, thesis, independent study, courses open only to graduate students, etc.).
8. How will the program incorporate an adequate emphasis on research?

C. Admission

Undergraduate programs only:

1. Will there be admission requirements to the program beyond those required for admission to the University? If so, what are they (e.g., admission to the College of Education or Business, GPA, national examinations, interviews, letters of recommendation, etc.)?

2. Will there be conditional admission to the program? If so, what requirements will be established that are different from those of regular admission?

Graduate programs only:

1. What admission requirements will be established for the program (GPA, national examinations, interviews, letters of recommendation, etc.)?
2. Will there be conditional admission to the program? If so, what requirements will be established that are different from those of regular admission?

D. Projections

1. Project the number of students at initial enrollment, average number of students enrolled within three years, average number of graduates per year once program is established, etc.
3. .Project scheduling needs and patterns for the next three to five years.

E. Other Pertinent Information

II. Justification/Rationale. This section is included to assure an adequate rationale for the proposed program. Any additional justification for the program beyond that covered in the following items should also be included.

A. Present evidence that there is a demand for the proposed program. This should include an indication of professional and societal need, as well as student interest. (Include any market analysis and/or needs assessment as an appendix.)
B. Indicate whether there any similar programs in Michigan. If so, how is the proposed program unique? Why is there a need for an additional program in the field?
C. Present evidence of support for the proposed program from within and outside the University. (Letters and other supporting documents should be included as an appendix.)
D. Additional justification (if appropriate).

III. Preparedness. This section attempts to determine the institution's ability to mount a program of the type proposed. Any information beyond that covered by the following questions should also be included.

A. Describe the qualifications of the faculty who will be involved in the proposed program. (Proposals for new graduate majors should include an abbreviated faculty vita for each individual as an appendix.)
B. **(Note: Proposals for new programs must include this information.)** Describe current library resources and analyze the adequacy of these resources for the proposed program. Include such items as books, journals, indexes, electronic resources (databases, etc.), multimedia (instructional videos, CDs, etc.) and microforms. If additional library holdings will be needed in the next three to five years, provide a plan for acquiring them.
C. Analyze the adequacy of existing facilities, laboratories, or other physical equipment applicable to the proposed program.
D. Determine the adequacy of supportive courses, faculty, and equipment outside of the department that may be important to the program (e.g., cognate courses, research assistance, computer services, facilities controlled by other departments/schools or colleges, etc.).
E. Outline a plan for marketing the proposed program and recruiting students into it.
F. Additional information (if appropriate).

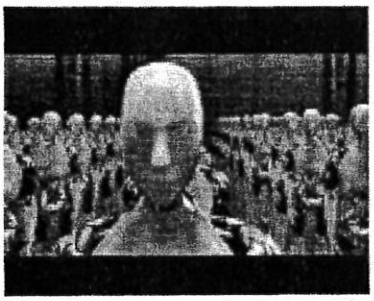
IV. Assessment. Provide a plan for assessing the quality of the program, and a schedule for this assessment. The plan should assure the inclusion of objective data to determine the degree of success in reaching stated goals, objectives, and student learning outcomes..

V. Program Costs. This section attempts to establish the extent of additional funding required if the program is approved.

A. Faculty, lecturers or supportive staff required (type, level, and approximate cost).
B. Space or facilities required (type and approximate cost).
C. Equipment required (type and approximate cost).
D. Assistantships/fellowships required (number and approximate cost).
E. Library resources required (type and approximate cost of both minimal and appropriate library resources).
F. Marketing and recruiting costs
G. Other costs not covered above (type and approximate cost).

H. Total of all financial requirements for implementation of proposed degree.
I. Percentage of total cost to be borne by Continuing Education. (Provide evidence of Continuing Education's willingness to bear these costs).

SAG-175 - Graphics for Simulation I
Syllabus



Term: **Winter 2014**
Professor: **Phillip L. Cardon, Ph.D.**
Telephone: **(734) 487-4330**
Office: **111 Sill Hall**
Email: **pcardon@emich.edu**

SAG at EMU Mission Statement

The Simulation, Animation and Gaming program is a multidisciplinary approach serving undergraduate students seeking knowledge, training and experience in the development of creative aspects, or computer programming, related to simulation, animation and gaming. Students completing the program earn a B.S. degree.

Catalog Description: This course is an introduction to the development of graphics for simulation. Students will develop skills involved in the principle of realistic graphics from a variety of views. The main focus will be on the comprehension and creation of accurate 2-dimensional graphics for use and development of 3-dimensional models.

Prerequisites: None

Textbook: Gladfelter, D. (2013). AutoCAD 2014 and AutoCAD LT 2014. Indianapolis, Indiana: John Wiley & Son, ISBN: 978-1-118-57510-9.

Course Objectives: Upon completion of the course the student will be able to:

a. Describe 10-13 design paradigms while providing a familiar example of each.
b. Explain 5-8 application areas for 3D models and their use in each application area.
c. Use drawings (hand or computer generated) as a tool to show basic structure of natural and built devices.
d. Create 3D models using 2D techniques and maneuver about in a 3D space.
e. Verbally identify the differences between wireframe, surface and solid models.
f. Build and modify simple 3D wireframe models.
g. Make basic surface models, and improve surface

shapes.

h. Construct 3D solid primitives using precise dimensions.
i. Create complex solid models using Boolean operations to merge or change basic geometric objects.
j. Generate 2D printouts of 3D models.
k. Apply various rendering elements and parameters to generate a variety of realistic output types.
l. Design, develop and construct a personal simulation project.

Course Format:

EXAMPLE: Lectures, discussion, exercises and computer/Internet retrieval of information will be the pedagogical tools in this course. Lectures provide an overview of topics and emphasize the theoretical and functional aspects of SAG. Numerous exercises will be assigned during class sessions. Often these will be as part of a group. Group interaction and dynamics are an integral part of the preparation of any simulation, animation or game. The viewing of simulations and animations as well as game play will also be required using a standalone computer or via the Internet.

You will be required to read the assigned chapters in the text(s) as well as any handouts and materials referenced on the Internet. There will be one short assignment each week and five major written assignments throughout the course. You will be required to participate actively in class discussions. Research materials are available beyond the required reading and lectures. You will be expected to find and explore additional sources of information to complete the assignments for the course

Grading Policy:

EXAMPLE: **All assignments and tests MUST be completed in order to receive a grade for the course.** This course is a part of a sequence of classes and thus is not subject to the discretion of the student to opt out of assignments on the basis of having earned sufficient points to receive a desired grade. The competencies covered in this class are fundamental to subsequent classes and therefore all content must be studied and all assignments completed.

Makeup Policy:

No late assignments, laboratories, or drawings will be allowed. **No one will be allowed to take a late examination or quiz (written or laboratory).** All of the class work must be done at the time scheduled.

Grading Criteria:

Final grades for this class will be based on the following criteria:

Assignment	Percentage of total
Attendance	10%
Class Assignments	30%
Mid-Term Exam	10%
Final Exam	20%
Final project	30%
Total	100%

Grading Scale

Cumulative Points/Letter Grade Scale

Percentage	Percentage
93 – 100 % = A	74 – 76.9 % = C
90 – 92.9 % = A-	70 – 73.9 % = C-
87 – 89.9 % = B+	67 – 69.9 % = D+
84 – 86.9 % = B	64 – 66.9 % = D
80 – 83.9 % = B-	60 – 63.9 % = D-
77 – 79.9 % = C+	Below 60 % = E

Without a CD submitted containing all work = E

See the following website http://www.emich.edu/cot/sag/

SAG Class/Program Policies:

Class Civility:

Although spirited discussions are encouraged in this class, personal attacks will not be tolerated. If you have a problem with another person in the class, contact the instructor rather than confronting him or her in front of the entire class. Repeated and flagrant conduct of this nature will be grounds for a lowered grade (up to one letter grade) or dismissal from the class.

Social Justice:

Eastern Michigan University is committed to social justice. We strive to maintain a positive learning environment based upon open communication, mutual respect and non-discrimination. EMU does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin.

University Policies:

EXAMPLE: Students enrolled in this course are subject to rules, regulations and standards set by Eastern Michigan University. For policies concerning credit/no credit, drops and withdrawals, incompletes, student conduct and grievance, and academic dismissal please refer to the Undergraduate Catalog.

EMU Academic Honesty Policy. Education involves the search for truth. Therefore, honesty and personal integrity are values highly esteemed by the academic

community. They are the ingredients essential to the cooperation and communication among students and faculty. The following honest policy is intended to clarify the University's expectations from its students and to provide guidance in specific situations.

Penalty for Cheating. The cheating may result in receiving an E grade for the course in which the cheating occurred. The professor may also report the incident to the Dean of Students for possible further action including suspension or dismissal from the University. In situations where cheating incidents are also referred to the Department and Dean of Students for possible disciplinary action, all proceedings and appeals shall be conducted in accordance with Eastern Michigan University Conduct Code and Judicial Structure for Students and Organizations, which appears in the undergraduate catalog.

WEEK	TOPICS	ASSIGNMENT	ITEMS DUE
1 1/7-1/9	D1 – Course Introduction, Overview, SAG Products, Types of Simulation D2 – Ch. 1 - Introduction	D1 – Read Chapter 1; Practice basic Techniques D1 – Read Chap. 2	D2 – Read Chap. 1
2 1/14-1/16	D1 – Ch. 2 – Basic Commands D2 – Ch. 2	D2 – Fig. 2-1	
3 1/21-1/23	D1 – Ch. 2 Cont. D2 – Ch. 3 – Setting up drawing	D1– Fig. 2-37	D1 – D2 – Fig. 2-1
4 1/28-1/30	D1 – Ch. 4 – Drawings, Fillets, Rounds, Chamfers D2 – Ch. 4 Cont.	D1 – Fig. 4-1 D2 –	D1 – Fig. 2-37 D2 –
5 2/4-2/6	D1 – Ch. 4 Cont. D2 – Ch. 5 – Drawing Strategies	D1 – D2 – Fig. 5.2	D1 – D2 – Fig. 4-1
6 2/11-2/13	D1 – Ch. 5 Cont. D2 – Ch. 5 Cont.	D1 – D2 – Fig. 5.74	D1 – D2 –
7 2/18-2/20	D1 – Ch. 6 – Using Layers D2 – Ch. 6 Cont.	D1 – Fig. 6.47 D2 –	D1 – Fig. 5.2 D2 – Fig. 5.74
8 2/25-2/27	D1 – Spring Break D2 – No Classes!		
9 3/4-3/6	D1 – Ch. 12 – Dimensions (Radial, Diameter, arc, aligned, and angular D2 – Ch. 7 –	D1 – Fig. 12.31 D2 – Fig. 7.32, 7.68	D1 – D2 – Fig. 6.47

	Blocks		
10 3/11-313	D1 — Ch. 8 - Text D2 – Ch. 8 Cont.	D1 – Fig. 8.70 D2 –	D1 – Fig. 12.31 D2 –
11 3/18-3/20	D1 – Ch. 9 – Dynamic Blocks & Tables D2 – Ch. 9 Cont.	D1 – D2 – Fig. 9.82	D1 – Fig. 7.32, 7.68 D2 –
12 3/25-3/27	D1 – Ch. 10 - Elevations D2 – Ch. 10 Cont.	D1 – Fig. 10.17, 10.54	D1 – Fig. 8.70 D2 –
13 4/1-4/3	D1 – Final Project Discussed D2 – Final Project	D1 – Final Project	D1 – Fig. 9.82 D2 –
14 4/8-4/10	D1 – Final Project D2 – Final Project	D1 – D2 –	D1 – D2 – Fig. 10.17, 10.54
15 4/15-4/17	D1 – Final Project D2 – Presentations	D1 –	D1 – Final Project
4/22-4/24	D2 – Final Exam – 11:00-12:30		

SAG-175 - Graphics for Simulation I
References

Ashby, M & Johnson, K. (2002). *Materials and Design: The Art and Science of Material Selection in Product Design.* Butterworth- Heinemann. ISBN: 0750655542

Gladfelter, D. (2013). AutoCAD 2014 and AutoCAD LT 2014. Indianapolis, Indiana: John Wiley & Son, ISBN: 978-1-118-57510-9.

Haller, L & Cullen, C. (2006). *Design Secrets: Products 2: 50 Real Life Product Design Projects.* Rockport Publishers. ISBN: 1592532926

Hannah, G. (2002).*Elements of Design: Rowena Reed Kostelow and the Structure of Visual Relationships.* Princeton Architectural Press. ISBN: 1568983298

Industrial Designers Society of America. (2003). *Design Secrets: Products.* Rockport Publishers. ISBN: 1564964760

Sortby, S. (2002). *Introduction to 3D Spatial Visualization.* Clifton Park, NY: Cengage Delmar Learning. ISBN: 1401813895

Digital Photo Technology
CMT 205

CMT 205
T & TH 12:00 – 2:40
Summer 1 2014--3 credit
CRN# 54555
Pmajeske@emich.edu

Professor Paul Majeske
208 Sill Hall. 487-3554
Office Hours:
T 11:00 – 12:00
Friday by appointment

Online Course Supplement: http://emuonline.edu

Description
In this course we will embrace digital photo technology to create and edit full color images using pixel-based software (Adobe Photoshop). This course will also cover color space theory and pixel-based concepts.

Objectives:
Upon completion of this course, the student will:
1. Describe the process of digital image manipulation.
2. Be able to use the Photoshop application to electronically manipulate and create original images.
3. Be familiar with, and be able to describe, the various file formats associated with digital photography and imaging.
4. Be able to identify and know the advantages and disadvantages of the various image compression formats.
5. Demonstrate knowledge of the difference between computer (RGB), print (CMYK) and capture (RAW) modes to compare how they are related.
6. Be able to perform both color correction and image enhancement operations.
7. Be introduced to the legal and ethical issues related to digital imaging and enhancement.
8. Display competence in developing visual media for print and display for web or online, electronic delivery.
9. Develop an understanding of pixel-based image software and how it is used in the production cycle of television, gaming, multimedia and other convergent industries.

Attendance:
Students are urged to attend each regularly scheduled class period for maximum information. Excessive absence will not be tolerated. 1 unexcused absence will be available for your use; others must have a documented reason (strictly enforced). Students are responsible for knowing all material, regardless of origin, covered during the lecture period. Unfortunate, uncontrollable circumstances affecting student attendance will, of course, receive special attention. This course is listed as a hybrid, but has all the required number of hours posted to be Face to Face (we may choose to have virtual class days)

Online Course Component:
You will be notified via email when the course shell is operational and will also be given your login and password information. Please login and run through the online interface to get familiar with the function. If you have any questions, bring them to class or email me immediately.

Assignments:
Several course assignments or activities will be given during the term. Late assignments will be accepted with a penalty - 5% reduction for each day up to 5 days. Some of the assignments will be delivered via the online website. The exams and some assignments will be delivered and returned via the online website. **No assignments will be accepted for credit after 1 week from the due date. All assignments MUST be turned in to receive a passing grade.**

Text:
Adobe Photoshop CS6 Classroom in a Book
Publisher: Adobe Press
ISBN: 978-0321827333

Reference Text:
The Pocket Guide to Color with Digital Applications. Shildgen, T.
ISBN 0827372981
This book could be purchased. However it is officially out of print. It can still be found online and at some local stores. I have rendered a PDF file for your use if you can not borrow, own or find a copy. Many of the early lectures refer to the material in this book.

There will also be several websites used for reference purposes during the course—you will be responsible for the content from these websites.

Evaluation:

Final course grade will be based on the total point value of the following:

4 projects @ 100 points each		=	400
1 topic paper (policy/legal/ethics)		=	50
**2 Online assignments (2 @ 25)		=	50
1 test		=	75
Self selected learning modules	(10 @ 10)	=	100
Total Possible Points		=	675

Final grades will be determined by the following:

Grade	Percentage
A	94 -100%
A-	91- 93%
B+	89 - 90%
B	84 - 88%
B-	81 - 83%
C+	79 - 80%
C	74 - 78%
C-	71 - 73%
D+	67 - 70%
D-	64 - 66%

Lab Assignments

- Color Correction (balancing, color space, file type)
- Image Adjustment/Photo Retouching (repair old torn, faded or otherwise damaged photos)
- Montage (Concept/Perception/Abstract using multiple images)
- Webpage/Electronic Display/Portal/Control Panel/Game Interface (Original composition Homepage/menu/banners/interface)

**** Be prepared for class! Start looking for old photos of family and friends that are in need of repair (torn, stains, color shifts, exposure errors, etc...). Also, locate pictures that you want to edit (removal of old boy/girl friends, etc...). If you have a digital camera, bring it with you to class at least one day per week.**

Self Selected Learning Modules:

This assessment can be accomplished a few different ways:

1.) You can turn in chapter assignments in the required book or another book
2.) You can find tutorials from an online resource and complete those based on your interests.
3.) Provide details (to me) of something you would like to work on which I approve
4.) Any combination of the above.

Content Outline

I. Basic Concepts
   - A. Factors of Color
   - B. Resolution
   - C. Color Basics

II. File Types and uses of Digital Color
   - A. Files
   - B. Print vs. Online
   - C. Existing Images/Rendering new Files
   - D. Original Image Creation
   - E. Shooting in RAW/Color Space

III. Selections
   - A. Making selections
   - B. Smoothing a selection(s)
   - C. Alternative methods/combined tools
   - D. Floating selections
   - E. Matting selections

IV. Paths
   - A. Creating paths
   - B. Filling and stroking paths
   - C. Converting paths and selections
   - D. Converting paths

V. Tools
   - A. Selection
   - B. Pixel
   - C. Vector/Type
   - D. Management/Measurement

VI. Colors
   - A. Eyedropper
   - B. Picker
   - C. Swatch palette
   - D. Custom color palette
   - E. Spot color

VII. Layers
   - A. Creating
   - B. Editing

C. Viewing
D. Moving
E. Grouping
F. Layer masks

VIII. Channels and Masks
A. Showing and hiding channels
B. Editing channels
C. Changing the order of channels
D. Using masks with layers

IX. Filters
A. Using
B. Types

X. Resizing and Resolution
A. Image resolution
B. Cropping
C. Image size
D. Canvas size

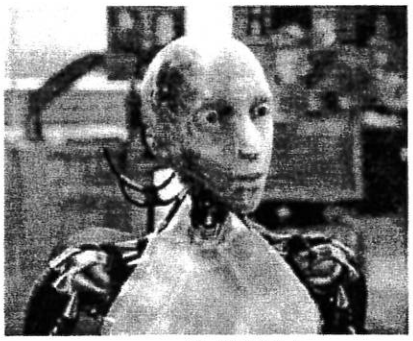
XI. Color Correction
A. Balance – CMYK - RGB – HLS - LAB
B. Displaying histograms
C. Color Changes using complex tools
D. Curves

XII. Converting Images
A. RGB and CMYK images
B. Converting to Bitmap, Grayscale
C. Constraining bit depth with index mode
D. Monotones, duotones, tritones, quadtones

Schedule: (initial printing 5/6/14 – may be amended)

We will follow the following schedule as close as possible. Some units/areas may take a bit longer than planned or sometimes less time as planned. Changes will be announced or discussed when needed. Some assignments are delivered within the online course component via emuonline.edu.

Weeks	Lecture, reading assignments, due dates and labs.
1 May 6 - 8	Course introduction and student profiles. Introduction to color theory - PPT: 205 Lecture1.ppt (available on: class drive, course web site, within the online component)
2 May 13 - 15	Photoshop Interface and Palettes Reviewed/Introduced. Adjustments, Color Balancing and other image corrections. Color Correction Demonstration. *Begin Lab # 1 – Color Correction and Adjustment of existing Images Rendering various file types.*
3 May 20- 22	Getting to know the tools in Photoshop. Selection Methods: Marquee, Lasso, Magic tools, Combination Tricks Demonstration and Exercise ***22th – Online Component (no class in room 209 Sill):*** Go to the tab in the online course website labeled Schildgen Do the assignments covering Physiological and Psychological factors of color and color theory. Definitions: RGB, CMYK, HLS. File formats introduced. Multiple websites are referenced and should be visited—take notes. Color Theory Exercise. Work in your textbook – Classroom in Book – Work through chapters 1 – 5 and save files as required or suggested. Bring files to class on a storage device for validation on 5/27.
4 May 27 - 29	*Begin Work on Lab # 2 – Content Correction, Modification and Transformation* Grouping Selections, Pen tool. Definitions: File types, Resolution, Bit Depth, Reproduction of Color, Capture Devices Multiple websites are referenced and should be visited. Online/Book Tutorials: Complete 3 – 5 tutorials and save .psd file to flash drive or CD. ***29th – Online Exam – emuonline.edu***
5 June 3- 5	More Tools: The Vector Group, Advanced Layer control, Combining multiple images, Layer Modifications (modes, control palette). Demonstration and Discussion. **Finish and turn in Lab # 1 & Lab # 2** *Begin work on Lab # 3. – Montage/ Image construction* ***5th - Online Component:– emuonline.edu*** Writing Assignment - Tutorials
6 June 10- 12	More Demonstration: Filters, Text control. *Begin work on Lab # 4. – Web site /Game/Training interface: creating original content* ***12th - Online Component:– emuonline.edu*** Online Tutorials: Complete 5 – 7 tutorials and save .psd file to flash drive or CD.
7 June 17 - 19	More Tools: Gradient, Masking, Channel Modifications. Demonstration and Discussion. **Finish and turn in Lab # 3 & Lab # 4**
8	**Final turn-in day** is Thursday June 26th - Delivery method TBD



SAG-225 Graphics for Simulation II Syllabus

Term: **Fall 2014**
Professor: **Phillip L. Cardon, Ph.D.**
Telephone: **734.487.4330**
Office: **111 Sill Hall**
Email: **pcardon@emich.edu**
Fax: **(734) 487 - 7690**

SAG at EMU Mission Statement

The Simulation, Animation and Gaming program is a multidisciplinary approach serving undergraduate students seeking knowledge, training and experience in the development of creative aspects, or computer programming, related to simulation, animation and gaming. Students completing the program earn a B.S. degree.

Catalog Description: In this course, students continue their application of graphics for construction and refinement of 3-dimensional models to develop a variety of high quality 3-dimensional objects. Students will develop a number of computer simulation applications using 3-dimensional graphic and beginning multimedia software.

Prerequisites: SAG-175 Graphics for Simulation I

Textbook: Shih, R. H. (2015). Learning Autodesk Inventor 2015: Modeling, Assembly and Analysis. Mission, KS: SDC Publications. ISBN: 978-1-58503-879-4.

Course Objectives: Upon completion of the course the student will be able to:

a. Utilize the 3D workspace to create 2D drawings and 3D models.
b. Build wireframe simulation models using 2D objects in 3D space.
c. Demonstrate the use of tools such as Shell, Rib, Split, Loft, Sweep and Coil in the development of 3D models
d. Explain and use work points, work axes, and work planes.
e. Create orthographic views from 3D models

f. Create assembly drawings and presentations.
g. Work with catalogs for standard parts.
h. Understand and apply dimensions appropriate to a drawing.
i. Develop skills to accurate draw spring and understand spring nomenclature.
j. Draw gears for use in assemblies.
k. Create sheet metal parts.

Course Format:

EXAMPLE: Lectures, discussion, exercises and computer/Internet retrieval of information will be the pedagogical tools in this course. Lectures provide an overview of topics and emphasize the theoretical and functional aspects of SAG. Numerous exercises will be assigned during class sessions. Often these will be as part of a group. Group interaction and dynamics are an integral part of the preparation of any simulation, animation or game. The viewing of simulations and animations as well as game play will also be required using a standalone computer or via the Internet.

You will be required to read the assigned chapters in the text(s) as well as any handouts and materials referenced on the Internet. There will be one short assignment each week and five major written assignments throughout the course. You will be required to participate actively in class discussions. Research materials are available beyond the required reading and lectures. You will be expected to find and explore additional sources of information to complete the assignments for the course

Grading Policy:

EXAMPLE: **All assignments and tests MUST be completed in order to receive a grade for the course.** This course is a part of a sequence of classes and thus is not subject to the discretion of the student to opt out of assignments on the basis of having earned sufficient points to receive a desired grade. The competencies covered in this class are fundamental to subsequent classes and therefore all content must be studied and all assignments completed.

Makeup Policy:

No late assignments, laboratories, or drawings will be allowed. **No one will be allowed to take a late examination or quiz (written or laboratory).** All of the class work must be done at the time scheduled.

Grading Criteria:

Final grades for this class will be based on the following criteria:

Assignment	Percentage of total
Attendance	10%
Class Assignments	20%
Quizzes	10%
Mid-Term Exam	10%
Final Exam	20%
Final project	30%
Total	100%

Grading Scale

Cumulative Points/Letter Grade Scale

Percentage	Percentage
93 – 100 % = A	74 – 76.9 % = C
90 – 92.9 % = A-	70 – 73.9 % = C-
87 – 89.9 % = B+	67 – 69.9 % = D+
84 – 86.9 % = B	64 – 66.9 % = D
80 – 83.9 % = B-	60 – 63.9 % = D-
77 – 79.9 % = C+	Below 60 % = E

Without a CD submitted containing all work = E

NOTE: Any final grade score resulting in a .5 or above will be rounded up to the next whole number. However, any final grade score resulting in .49999 or below will remain as the whole number with which it is associated.

SAG Class/Program Policies:

See the following website http://www.emich.edu/cot/sag/

Class Civility:

Although spirited discussions are encouraged in this class, personal attacks will not be tolerated. If you have a problem with another person in the class, contact the instructor rather than confronting him or her in front of the entire class. Repeated and flagrant conduct of this nature will be grounds for a lowered grade (up to one letter grade) or dismissal from the class.

Social Justice:

Eastern Michigan University is committed to social justice. We strive to maintain a positive learning environment based upon open communication, mutual respect and non-discrimination. EMU does not discriminate on the basis of race, sex, age, disability, veteran status,

religion, sexual orientation, color or national origin.

University Policies:

EXAMPLE: Students enrolled in this course are subject to rules, regulations and standards set by Eastern Michigan University. For policies concerning credit/no credit, drops and withdrawals, incompletes, student conduct and grievance, and academic dismissal please refer to the Undergraduate Catalog.

EMU Academic Honesty Policy. Education involves the search for truth. Therefore, honesty and personal integrity are values highly esteemed by the academic community. They are the ingredients essential to the cooperation and communication among students and faculty. The following honest policy is intended to clarify the University's expectations from its students and to provide guidance in specific situations.

Penalty for Cheating. The cheating may result in receiving an E grade for the course in which the cheating occurred. The professor may also report the incident to the Dean of Students for possible further action including suspension or dismissal from the University. In situations where cheating incidents are also referred to the Department and Dean of Students for possible disciplinary action, all proceedings and appeals shall be conducted in accordance with Eastern Michigan University Conduct Code and Judicial Structure for Students and Organizations, which appears in the undergraduate catalog.

WEEK	TOPICS	ASSIGNMENT	ITEMS DUE
1 9/3	D2 – Course Introduction, Overview, SAG Products, Types of Simulation, Ch. 1	D2 – Read Chapter 1; Practice basic techniques	D1 – None D2 – Read Shih Chapter 1
2 9/8-9/10	D1 – Shih Ch. 2: D2 – Shih Ch. 2 Cont.	D1 – Read Shih Chapter 2 & try techniques D2 – Shih Tiger Head, Ex. 2-1, 2-4	D2 – Quiz 1
3 9/15-9/17	D1 – Shih Ch. 2 Cont. D2 – Shih Ch. 3. Tree	D1 – D2 – Shih A-6 Knee Part (Ch. 3), Ex. 3-2, 3-3	D1 – D2 – Shih Tiger Head, Ex. 2-1, 2-4
4 9/22-9/24	D1 – Shih Ch. 3 D2 – EDG Ch. 2 Arrays	D1 – D2 – EDG p2-8, p2-11, p2-28	D1 – D2 –
5	D1 – Shih Ch. 4	D1 – Shih Plate	D1 – Shih A-6

9/29-10/1	D2 – Shih Ch. 4 Cont., EDG Ch. 3 Revolution, Planes, Loft, Sweep, Coils	Model (Ch. 4), Ex. 4-3, 4-4 D2 – EDG Ex. 3-27, p3-9, EDG Fig. 3-60 Coil	Knee Part, Ex. 3-2, 3-3 D2 – EDG p2-8, p2-11, p2-28
6 10/6-10/8	D1 – Shih Ch. 5 D2 – Shih Ch. 5 Cont.	D1 – Shih Ex. Iso 5-1 p. 5-9, Own choice	D1 – Shih Ex. 4-3, 4-4 D2 – EDG Ex. 3-27, p3-9, EDG Fig. 3-60
7 10/13-10/15	D1 – Shih Ch. 6 D2 – Shih Ch. 6	D1 – Shih A12 Rear Axle Support Design (Ch. 6), Ex. 6-2, 6-3	D1 – Shih Ex. Iso 5-1, Own choice
8 10/20-10/22	D1 – Shih Ch. 6 Cont. D2 – Shih Ch. 6 Cont.		
9 10/27-10/29	D1 – EDG Ch. 3 Revolution D2 – EDG Ch. 3 Loft, Sweep, ESS Ch. 7	D1 – Candlestick, Razor D2 – Hammer head, Hammer handle, Assembly, & Presentation	D1 – Shih Ex. 6-2, 6-3
10 11/3-11/5	D1 – Shih Ch. 9, Final Project D2 – Final Project	D1 – Shih linkage rod (p. 9-28), Paperclip, Pencil, Assembly, & Presentation D2 – Final Project	D1 – Candlestick D2 – Hammer head, Hammer handle, Hammer Assembly, & Presentation
11 11/10-11/12	D1 – Final Project D2 – Final Project	D1 – TBD	D1 – Razor, Paperclip, Pencil, Assembly D2 – Shih p. 9-28
12 11/17-11/19	D1 – Final Project D2 – Final Project		
13 11/24-11/26	D1 – Final Project D2 – Thnksgvg Break		
14 12/1-12/3	D1 – Final Project D2 – Final		

	Project		
15 12/8-12/10	D1 – Final Project D2 – Presentations		D2 – Final Project
16 12/15-12/17	D1 – Presentations D2 – Final Exam		

References

Banach, D. T., & Jones, T. (2001). *Autodesk Inventor From The Top.* Autodesk Press. ISBN-10: 0766843580

Banach, D. T., Jones, T., & Kalameja, A. (2007). *Autodesk Inventor 2008 Essentials Plus.* Autodesk Press. ISBN-10: 1428311645

Bethune, J. D. (2007). *Engineering Design and Graphics with Autodesk Inventor 2008.* Upper Saddle River, New Jersey: Prentice Hall. ISBN-10: 0131592254

Bethune, J. D. (2012). *Engineering Design Graphics with Autodesk Inventor 2011.* Upper Saddle River, New Jersey: Prentice Hall. ISBN: 0-13-273594-6

Hansen, PH. D. L. S. (2007). *Learning and Applying AutoDesk Inventor 2008 Step-by-Step.* Industrial Press, Inc. ISBN-10: 0831133406

Moss, E. (2007). *The Power of Design; An Introduction to Autodesk Inventor 2008.* Mission, Kansas: Schroff Development Corporation. ISBN-10: 1585033723

Shih, R. H. (2012). *Learning Autodesk Inventor 2013.* Mission, Kansas: Schroff Development Corporation. ISBN: 978-1-58503-727-8

Tickoo, S. (2007). *Autodesk Inventor 2008 for Designers.* CADCIM Technologies. ISBN-10: 1932709231

SAG-285 Studio I Simulation Syllabus

Term: **Fall 2014**
Instructor: **Pamela K. Speelman, Ph.D.**
Assistant: **Mark Kenworthy**
Office: **15 Sill Hall**
Email: **pspeelman@emich.edu**

SAG at EMU Mission Statement

The Simulation, Animation and Gaming program is a multidisciplinary approach serving undergraduate students seeking knowledge, training and experience in the development of creative aspects, or computer programming, related to simulation, animation and gaming. Students completing the program earn a B.S. degree.

Catalog Description: This course is a practical survey covering the principles of simulation. Multimedia exercises are explored and students learn to use a variety of techniques to produce games and simulation situations using software, such as, 3-D Max. Students will use their graphics skills to build 3-dimensional models and simulate them in different settings.

Prerequisites: SAG-225 Graphics for Simulation II

Textbook: *3ds Max 2013 Bible,* by Kelly L. Murdock, Wiley Publish Inc., Indianapolis, IN. ISBN: 978-1-118-32832-3.

Course Objectives: Upon completion of the course the student will be able to:

a. Customize the interface and work with viewports.
b. Work with objects including meshes, cameras, and lights along with modifying the objects.
c. Use advanced modeling techniques such as polys, patches and NURBS.
d. Apply various materials, maps and parameters to create realism.
e. Develop advanced lighting and camera controls.
f. Animate scenes along with modifying and editing.
g. Appropriately render the scene along with adding environments and rendering effects to still and movies.

Course Format:

Lectures, discussion, exercises and computer/Internet retrieval of information will be the pedagogical tools in this course. Lectures provide an overview of topics and emphasize the theoretical and functional aspects of SAG. Numerous exercises will be assigned during class sessions. Often these will be as part of a group. Group interaction and dynamics are an integral part of the preparation of any simulation, animation or game. The viewing of simulations and animations as well as game play will also be required using a standalone computer or via the Internet.

You will be required to read the assigned chapters in the text(s) as well as any handouts and materials referenced on the Internet. There will be one short assignment each week and five major written assignments throughout the course. You will be required to participate actively in class discussions. Research materials are available beyond the required reading and lectures. You will be expected to find and explore additional sources of information to complete the assignments for the course

Grading Policy:

All assignments and tests MUST be completed in order to receive a grade for the course. This course is a part of a sequence of classes and thus is not subject to the discretion of the student to opt out of assignments on the basis of having earned sufficient points to receive a desired grade. The competencies covered in this class are fundamental to subsequent classes and therefore all content must be studied and all assignments completed.

Makeup Policy:

No late assignments, laboratories, or drawings will be allowed. **No one will be allowed to take a late examination or quiz (written or laboratory).** All of the class work must be done at the time scheduled

Grading Criteria:

Final grades for this class will be based on the following criteria:

Final course grade will be based on the total point value of the following along with SAG course policies:

Assignment	Percentage of total
Class Assignments	40%
Quizzes, tests, or exams	20%

Attendance	10%
Final project	20%
Portfolio	10%
Total	100%

SAG Policies See additional grading policies at http://www.emich.edu/cot/sag/courses.html

Grading Scale: Percentage/Letter Grade Scale

Percentage	Percentage
93 – 100 % = A	74 – 76.9 % = C
90 – 92.9 % = A-	70 – 73.9 % = C-
87 – 89.9 % = B+	67 – 69.9 % = D+
84 – 86.9 % = B	64 – 66.9 % = D
80 – 83.9 % = B-	60 – 63.9 % = D-
77 – 79.9 % = C+	Below 60 % = E

Class Civility: Although spirited discussions are encouraged in this class, personal attacks will not be tolerated. If you have a problem with another person in the class, contact the instructor rather than confronting him or her in front of the entire class. Repeated and flagrant conduct of this nature will be grounds for a lowered grade (up to one letter grade) or dismissal from the class.

Social Justice:

Eastern Michigan University is committed to social justice. We strive to maintain a positive learning environment based upon open communication, mutual respect and non-discrimination. EMU does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin.

University Policies: Students enrolled in this course are subject to rules, regulations and standards set by Eastern Michigan University. For policies concerning credit/no credit, drops and withdrawals, incompletes, student conduct and grievance, and academic dismissal please refer to the Undergraduate Catalog.

EMU Academic Honesty Policy. Education involves the search for truth. Therefore, honesty and personal integrity are values highly esteemed by the academic community. They are the ingredients

essential to the cooperation and communication among students and faculty. The following honest policy is intended to clarify the University's expectations from its students and to provide guidance in specific situations.

Penalty for Cheating. The cheating may result in receiving an E grade for the course in which cheating has occurred. The professor may also report the incident to the Dean of Students for possible further action including suspension or dismissal from the University. In situations where cheating incidents are also referred to the Department and Dean of Students for possible disciplinary action, all proceedings and appeals shall be conducted in accordance with Eastern Michigan University Conduct Code and Judicial Structure for Students and Organizations, which appears in the undergraduate catalog.

SAG-285 Studio I Simulation
References

Boardmen, T. (2006). *3ds Max 8 Fundamentals.* New Riders, ISBN-10: 0321412532

Kulagin, B. (2005). *3ds Max 7.5 Projects: Helping Designers Do more with Less.* A-list, LLC, ISBN-10: 1931769435

Robinson, J. (2006). *Essentials 3ds Max 8.* WorldWare Publishing, ISBN-10: 1556224850

Bonney, S. (2003). *Inside 3ds Max 7.* New Riders Press, ISBN-10: 0735713871

Till, S. & O'Connel, J. (2005.) *Exploring 3D Modeling with 3ds Max 7.* Cengage Delmar Learning, ISBN-10: 1401871097

Autodesk. (2005). 3ds Max 8 Essentials: Autodesk Media and Entertainment Courseware. Focal Press, ISBN-10: 0240807901

Autodesk (2007). Learning 3ds Max 2008 Foundation. Elsevier Science & Technology Books, ISBN-10: 0240809270

SAG-305 Environment Design Syllabus

Term: **Fall 2014**
Professor: **Pamela K. Speelman, Ph.D.**
Assistant: **Mark Kenworthy**
Telephone: **734.487.2490**
Office: **15 Sill Hall**
Email: **pspeelman@emich.edu**

SAG at EMU Mission Statement

The Simulation, Animation and Gaming program is a multidisciplinary approach serving undergraduate students seeking knowledge, training and experience in the development of creative aspects, or computer programming, related to simulation, animation and gaming. Students completing the program earn a B.S. degree.

Catalog Description: This course focuses on the creation of the virtual spaces and environments that you move through in games or simulations. Through instruction and tutorials this course introduces the techniques used for creating detailed interiors, landscapes, and cityscapes and natural assets for those environments.

Prerequisites: SAG-285 Studio I

Textbook: *3ds Max Design Architectural Visualization For Intermediate Users,* by Brian L. Smith, Focus Press ISBN: 978-0-240-82107-8. Along with supplemental handouts and website URLs. Files for the class are located at www.thecgschool.com/books look for the book from Focal Press. You must open the .pdf to find access to files.

Course Objectives: Upon completion of the course the student will be able to:

a. Understand Architectural Drawings
b. Prepare AutoCAD Linework for 3ds Max
c. Create Building Elements
    a. Walls, Windows, and Doors
    b. Roofs
    c. Furniture
d. Create Site Elements
    a. 2D Sites
    b. 3D Sites
    c. Backgrounds
    d. Vegetation
e. Apply different types of illumination

f. Discuss the animation processes
g. Render complex scenes

Course Format:

Lectures, discussion, exercises and computer/Internet retrieval of information will be the pedagogical tools in this course. Lectures provide an overview of topics and emphasize the theoretical and functional aspects of SAG. Numerous exercises will be assigned during class sessions. Often these will be as part of a group. Group interaction and dynamics are an integral part of the preparation of any simulation, animation or game. The viewing of simulations and animations as well as game play will also be required using a standalone computer or via the Internet.

You will be required to read the assigned chapters in the text(s) as well as any handouts and materials referenced on the Internet. You will be required to participate actively in class discussions. Research materials are available beyond the required reading and lectures. You will be expected to find and explore additional sources of information to complete the assignments for the course

Grading Policy:

All assignments and tests MUST be completed in order to receive a grade for the course. This course is a part of a sequence of classes and thus is not subject to the discretion of the student to opt out of assignments on the basis of having earned sufficient points to receive a desired grade. The competencies covered in this class are fundamental to subsequent classes and therefore all content must be studied and all assignments completed.

Makeup Policy:

No late assignments, laboratories, or drawings will be allowed. **No one will be allowed to take a late examination or quiz (written or laboratory).** All of the class work must be done at the time scheduled.

SAG Policies

See additional grading and attendance policies at:
http://www.emich.edu/cot/sag/courses.html

Grading Scale:

Percentage/Letter Grade Scale

Percentage	Percentage
93 – 100 % = A	74 – 76.9 % = C
90 – 92.9 % = A-	70 – 73.9 % = C-

87 – 89.9 % = B+	67 – 69.9 % = D+
84 – 86.9 % = B	64 – 66.9 % = D
80 – 83.9 % = B-	60 – 63.9 % = D-
77 – 79.9 % = C+	Below 60 % = E

Class Civility:

Although spirited discussions are encouraged in this class, personal attacks will not be tolerated. If you have a problem with another person in the class, contact the instructor rather than confronting him or her in front of the entire class. Repeated and flagrant conduct of this nature will be grounds for a lowered grade (up to one letter grade) or dismissal from the class.

Social Justice:

Eastern Michigan University is committed to social justice. We strive to maintain a positive learning environment based upon open communication, mutual respect and non-discrimination. EMU does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin.

University Policies:

Students enrolled in this course are subject to rules, regulations and standards set by Eastern Michigan University. For policies concerning credit/no credit, drops and withdrawals, incompletes, student conduct and grievance, and academic dismissal please refer to the Undergraduate Catalog.

EMU Academic Honesty Policy. Education involves the search for truth. Therefore, honesty and personal integrity are values highly esteemed by the academic community. They are the ingredients essential to the cooperation and communication among students and faculty. The following honest policy is intended to clarify the University's expectations from its students and to provide guidance in specific situations.

Penalty for Cheating. The cheating may result in receiving an E grade for the course in which the cheating occurred. The professor may also report the incident to the Dean of Students for possible further action including suspension or dismissal from the University. In situations where cheating incidents are also referred to the Department and Dean of Students for possible disciplinary action, all proceedings and appeals shall be conducted in accordance with Eastern Michigan University Conduct Code and Judicial Structure for Students and Organizations, which appears in the undergraduate catalog.

SAG-305 Environment Design
Course Calendar

BOOK: *3ds Max Design Architectural Visualization For Intermediate Users,* by Brian L. Smith, Focus Press ISBN: 978-0-240-82107-8. Along with supplemental handouts and website URLs.

1st Month

Week 1

Week 2

Week 3

Week 4

2nd Month

Week 5

Week 6

Week 7

Week 8

Week 9

3rd Month

Week 10

Week 11

Week 12

Week 13

4th Month

Week 14 Project Development/Portfolio Due

Week 15 Test/Demonstration

SAG-305 Environment Design
References

Ching, D. K. (2002). Architectural Graphics. Wiley, ISBN-10: 0471209066

Doyle, M.E. (2006). Color drawing; design drawing skills and techniques for architects, landscape architects, and interior designers. Wiley, ISBN: 0471741906

Jefferis, A. Madsen, D.A. (2004) Architectural Drafting and Design. CENGAGE Delmar Learning, ISBN-10: 1401867154

Lockard, W. K. (2000). Design Drawing 2000 Edition. W. W. Norton & Company, ISBN-10: 0471225525

Mitten, M. (2003). Interior Design Visual Presentation: A Guide to Graphics, Models & Presentation Techniques, Second Edition. Wiley, ISBN-10: 0471225525

Smith, B. L. (2006) Foundation 3ds Max 8 Architectural Visualization. friends of ED, ISBN-10: 1590595572

Website: http://www.3das.com/

Website: www.interovisuals.com

CMT 421 -- Web Publishing Technology
CRN# 12308

Fall 2014 TR 11:00a – 1:20p
Room 209 Sill Hall
3 Credit Hours
Email: pmajeske@emich.edu
Supporting LMS: http://emuonline.edu
grade book, content, quizzes, tests and course files

Professor Paul Majeske
208 Sill Hall – 487-3554
M, W 11:30a – 2:30p

Friday by appointment/online

Description:
This course offers an introduction to HTML and CSS; web page design and development; web development software; graphics and scripting. Also included will be an introduction to online services, servers, Internet Service Providers (ISP's) and ongoing maintenance of the web site.

Course Objectives:

Demonstrate proper use of the fundamental core of web page development and design - HTML

- Text
- Graphics
- Links
- Frames, Forms, Tables
- Styles (CSS)
- Multiple Windows
- Scripting

Be aware of and explore many of the popular web development tools, such as:

- Microsoft Expression Series
- Corel Web Graphics Suite
- Net Objects Fusion
- Adobe Dreamweaver
- Web-based tools (Coffee cup, Word Press, WIX, etc..)
- Adobe Photoshop/Illustrator

Understand the interactive components that lead to greater functionality

- Needs Analysis
- User Interface Theory
- Interactive Forms
- Color Theory and Scheme Development

Attendance:
Students are urged to attend each regularly scheduled class period for maximum information. Excessive absence will not be tolerated. 2 unexcused absences will be accepted, others must have a documented reason in order to avoid a penalty. Students are responsible for knowing all material, regardless of origin, covered during the lecture period. Unfortunate, uncontrollable circumstances affecting student attendance will, of course, receive special attention.

Online Course Component:
You will be notified via email when the course shell is operational and will also be given your login and password information. Please login and run through the online interface to get familiar with the function. If you have any questions, bring them to class or email me immediately.

Assignments:
Several course assignments or activities will be given during the term. Late assignments will be accepted with a penalty - 5% reduction for each day up to 5 days. The exams and some assignments will be delivered and returned via the online shell. **No assignments will be accepted for credit after 1 week from the due date. All assignments MUST be turned in to receive a passing grade.**

Text:
HTML5 and CSS3, Visual Quickstart Guide (7th). Castro, E.
ISBN 978-0321719614

Dreamweaver CS6– Visual Quickstart Guide for Windows and Macintosh. Negrino, T.; Smith. D.
ISBN 978-0321822529

Additional Responsibilities:
To complete the final lab (Professional Website) you will be required to secure a domain name and a hosting solution for your client. I can provide temporary hosting for the purposes of completing the course, but long term solutions should be sought out so the client can continue the financial obligation. The domain name should also be secured or paid for by the client. In some cases, you may have to assume the cost of the domain, which is currently @ $12.00 per year. In addition, I encourage all students in this course to seriously consider obtaining a domain name for personal use and professional development (like securing your name for example). A domain that is hosted on a server will give you the opportunity to continue your web development skills and give the optimal experience during the course.

There will also be several websites and original instructional videos used for reference purposes during the course—you are responsible for the content from these sources.

Evaluation:
Final course grade will be based on the total point value of the following:

3 projects (2 @ 50 & 1 @ 100) **	=	200
1 Take home assignment	=	50
2 tests (1 @75 & 1 @25)	=	100
Tutorials and/or in class assignments (5 @ 20) (From book, websites, videos and in- class)	=	100
Total Possible Points	=	450

Final grades will be determined by the following.

Grade	Percentage
A	94 -100%
A-	91- 93%
B+	89 - 90%
B	84 - 88%
B-	81 - 83%
C+	79 - 80%
C	74 - 78%
C-	71 - 73%
D+	67 - 70%
D-	64 - 66%

Lab Assignments

- Getting Started – Hobby/Friend/Family/Surfing (a collection of "pages") – HTML/Text Editor (some of these pages will be created in class while following along with demonstration)
- Personal/Resume/Portfolio Site (could include portions of "Getting Started") – CSS/Dreamweaver/FTP and posting to Server
- Business or Professional Site – File Management/FTP/Web Server/Domain Names/Hosting

** Be prepared for class! Start collecting information, identifying websites & selecting favorite color schemes.

Schedule: (tentative and subject to change—printed 09/3/14)

We will follow the following schedule as close as possible. Some units/areas may take a bit longer than planned or sometimes less time as planned. Changes will be announced or discussed when needed. Some assignments are delivered within the online course component via emuonline.edu.

Weeks	Lecture, reading assignments, due dates and labs.
1 September 4	Course introduction and student profiles. Introduction to the Internet.
2 September 9 - 11	Web Page and Web Site fundamentals - PPT: 421htm-1.ppt (available on: class drive, course web site, within the online component). Page Design Basics. Using an editor and a browser to create and interpret HTML. Web page creation Demonstration. In class assignment (save for credit) *Begin Assignment # 1 – Getting Started: A collection of individual/personal pages.*
3 September 16 - 18	Discussion covering HTML and it's development. (chapter 1 in Castro and other) Assignments covering chapters 2 – 6 in Castro. Multiple websites are referenced and should be visited—take notes.

	Finish up HTML tags, values , attributes (Castro). Connecting pages into sites. *Continue Lab 1.*
4 September 23 - 25	Image creation and handling. File type lecture. Demonstration and Exercise on Tables (save for credit) Discuss Web site/Lab #2. Begin to define content. Web Site structure lecture. ***Emuonline Component - TBD***
5 Sep. – Oct. 30 - 2	**Turn in lab #1.** Definitions: File types, CSS, Coding parameters/standards, World Wide Web Consortium (WC3). Selecting colors (Software demonstration). Online Tutorials: Complete for credit.
6 October 7 - 9	Frames, Tables, Div Tags and iframes. The search for the best layout. ***Emuonline Component - TBD*** Online Tutorials:
7 October 14 - 16	More on Frames and Intro to CSS Practice with CSS (Chapters in Castro and online)
8 October 21 – 23	Putting HTML and CSS together. The BOX MODEL Class activity (save for credit).
9 October 28 – 30	Dreamweaver Introduction and interface overview. **Continue Lab # 2,** *Serious planning work on Lab # 3. A Business Web Site* Color theory and selection. Midterm Exam (3 - 6) Questions and a hands-on exercise.
10 November 4 – 6	**Determine Stakeholder for Lab # 3** Writing Assignment description– Tutorials from Dreamweaver Text Work week. Dreamweaver in action. Site Creation and modification
11 November 11– 13	More Tools and tips. Web Hosting, Domain Name Registration. FTP, Maintenance Issues. *Work on Lab # 3. – A Business Web Site* **Turn in Lab #2**
12 November 18 – 20	Work week. Content ordering and advanced site planning.
13 November 25	Forms and data collection. Classroom activity (Practice with PHP—save for credit) NO CLASS on NOVEMBER 27th.
14 December 2 – 4	**Review Lab #3 Progress – Tutorial Completion**
15 December 9 - 11	**Finish and turn in Lab # 3** **Lab # 3 will be posted to a running server by 5:00 pm December 13th (Friday) to be considered for full points.**
Final	**Final Exam Period is Tuesday December 16th from 11:00 -- 12:30 pm.** Exam delivery method -- TBD