COLORADO MESA
UNIVERSITY

AY 2014 – 2015
Program Review

Visual Communications

Western Colorado Community College
Internal Program Review
Visual Communications

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Index, Visual Communications Internal Review —

Department Profile

The Visual Communications program includes two distinct technical areas:

1. 3D Animation concentration
2. Digital Design high school program

The program offers an Associate of Applied Science degree in one area of concentration:

1. Visual Communications – Animation Technology

The program offers a Technical Certificate in one area of concentration:

1. Visual Communications – Animation Technology

The two-year high school Digital Design program acts as a feeder for the WCCC 3D Animation program by offering college credit that can be applied to both the Certificate and AAS degree.

Program History –

The Visual Communications program has been offered by Colorado Mesa University – Western Colorado Community College since 2008. The WCCC program structure was established in response to a perceived demand for the skills required in the region.

The program began as an offshoot of Computer Aided Design; the curriculum included a unit on 3D animation. As the popularity of 3D animation grew with the students, the CAD program began to offer additional 3D animation courses.

Initially on the high school side, 3D Animation, Graphic Communications, and Media Technology (video production) were their own separate programs. In 2012, all three concentrations merged into a single Digital Design program. Here, high school students are exposed to all three disciplines – graphic design, 3D animation, and video production – as an integrated course. Combined attendance on the high school side has shown a slow but steady growth and is now the third most popular high school program at WCCC coming behind Medical Preparation and Automotive Technology.

From the college program's inception in 2008 until the spring of 2014, one faculty member, who also oversaw the high school program, led the Visual Communications department. Part-time instructors taught all of the college courses. When the three high school design programs were merged in 2011 to form the new Digital Design program, the high school program consisted of two full-time instructors and one part-time instructor. Three part-time instructors taught on the college side. In 2013, one of the full-time positions was split between high school and college classes. This left one full-time instructor to oversee the entire college and high school programs. This year, 2014,

the school is trying one full-time instructor and two part-time instructors for the high school program, and one full-time instructor and three part-time instructors for the college program.

The one full-time faculty member of the high school program is responsible for overseeing the part-time faculty of both programs and maintaining high learning standards for beginning, second-, third-, and fourth-year high school students, as well maintain the role of overall Program lead. The full-time college faculty member is teaching additional college courses lessening the need for part-time faculty, taking over college advising duties, creating additional program concentrations, and assisting in program administrative duties.

The curriculum in each of the Visual Communication areas is updated to not only reflect changes the program's local advisory board has determined, but reflect changes in the national and international visual communications industry. The biggest change came with the integration of the high school programs to reflect what was happening in the industry as a whole. The program has achieved this by utilizing businesses that aren't looking for specialists; they are looking for people who are exposed to the many aspects of the industry. This industrial employee model is being looked at to enhance the college program as well.

Strategic Direction

"Colorado Mesa University shall maintain a community college role and mission, including vocational and technical programs as 'Western Colorado Community College.' Colorado Mesa University shall receive resident credit for two-year course offerings in its commission-approved service area."

Program Goals –
The overall program goals for the Visual Communications program at WCCC are:

- Provide students with the skills and knowledge to be productive citizens and excel in their chosen fields.
- Work with business and industry stakeholders to continually enhance the quality and timeliness of technical content.

Program Objectives –
The program objectives for the Visual Communications program at WCCC are aligned with the role and mission of Colorado Mesa University that allows students and faculty to:

- Demonstrate an understanding and appreciation of the liberal arts including the humanities, social sciences, and mathematical and natural sciences.
- Practice a commitment to student learning and achievement, including, but not limited to, applying basic- through advanced-technology theory, demonstrating hands-on skills, problem-solving techniques, critical thinking, and using multiple strategies.

- Demonstrate subject matter knowledge and pedagogy, including, but not limited to, creating effective learning environments, practicing teaching both as a science, and providing contextual learning activities.
- Manage and monitor student learning, based upon best practice including, but not limited to, using a variety of teaching methodologies, involving support personnel, parents and community members to maximize student success, and following ethical responsibilities of teaching.
- Organize teaching practices and learn from experiences including, but not limited to, current research to improve practice, accept teaching as a lifelong learning process, and interact with various education personnel and professional associations.
- Participate in learning communities, including but not limited to using the community to enhance programs; interact with parents, business, and industry to maximize learning; and participate in local, state, and national professional associations.
- Use technology and concepts to enhance learning and personal/professional productivity including, but no limited to, implementing curriculum that includes technology-enhanced methods and strategies, and applying technology to a variety of assessment strategies.
- Colorado Mesa University values teaching, learning, and student/faculty interaction. Students are given expanded opportunities to participate in research and active hands-on learning as a supplement to the classroom. Colorado Mesa University is dedicated to assisting students achieve their goals and dreams.

Analysis of Need for the Program

- College Enrollment Rates
  - Associate degree rates have been steadily rising over the past five years with a small dip in enrollment in 2012. This was partially offset the same year by an increase in certificate enrollments.
  - Most students enrolled in the program are considered traditional.
    - Only three non-traditional students are enrolled in the program at this time.

Table 1. Visual Communication Degrees and Certificates Enrollment Trend

Program	Degree	CIP Code	Major	2009	2010	2011	2012	2013
Visual Comm	AAS	10.0304	Animation Technology	14	20	21	15	24
	Cert	10.0304	Animation Technology	1	1	4	7	2
****Totals**				**15**	**21**	**25**	**22**	**26**

Source: CMU Institutional Research

- High School Enrollment Rates
  - The rates shown only indicate the enrollment for the Digital Design program. The 2012-2013 column is when the three separate high school programs – Graphic Communications, 3D Animation, and Media Technology – were integrated. A dip in enrollment 2013-14 came as a result of transition issues with returning second-year students.

Table 2. Visual Communications High School Enrollment Trend

Program	2011-2012	2012-2013	2013-2014	2014-2015
3D Animation Tech (ANT)	33	N/A	N/A	N/A
Graphic Comm (GC)	19	N/A	N/A	N/A
Media Technology (MT)	31	N/A	N/A	N/A
*Digital Design (DD)	N/A	79	75	77
**Totals	83	79	75	77

*ANT, GC and MT were merged into Digital Design starting with the 2012-2013 school year.
**Start of school year census
Source: WCCC High School Student Services

It should be noted that with the combined enrollment between the college and high school programs, more than 100 students use the facilities and staff of the Visual Communications department. This is greater than nearly half of the baccalaureate programs on the CMU campus. This is greater than the Hospitality Management, Physics, Geophysics, Chemistry, and Computer Information Systems bachelor's degree programs combined.

Local, National and International Changes –
While the high school program has been relatively easy to change in needs of curriculum, the college Visual Communications program has not adapted to the rapidly changing demands of the field. 3D Animation was in high demand five years ago, but it is not today.

According to the Bureau of Labor Statistics, Multimedia Artists and Designers jobs, in which 3D animators are considered to be a part of, are only expected to grow at a 6%-rate through 2022.

Table 3. Multimedia Artists and Animators – National

2012 Median Pay	$61,370 per year $29.50 per hour
Entry-Level Education	Bachelor's Degree
Work Experience in a Related Occupation	None
On-the-job Training	Moderate-term on-the-job training
Number of Jobs, 2012	68,900
Job Outlook, 2012-22	6% (Slower than average)
Employment Change, 2012-22	4,300

Source: Bureau of Labor Statistics Occupational Outlook Handbook

For Colorado, the number of animators is fairly small with an estimated 340 people employed as animators in the entire state. This number may not be accurate because of the relatively high Employment RSE given to the estimate by the Bureau of Labor Statistics.

Table 4. Multimedia Artists and Animators – Colorado

2013 Median Pay	$65,130 per year $31.31 per hour
Employment	340
Employment RSE	18.2% (+/- 61.9 jobs)
Employment per 1,000 jobs	0.150

Source: Bureau of Labor Statistics

According to a 2011 article on the website AnimationCareerReview.com, the majority of these positions are located on Colorado's Front Range – Ft Collins, Boulder, Denver and Colorado Springs. Not one city on the Western Slope was listed in the article.

Two careers which are in high demand now that include elements of graphic design, animation and video are Web Designers and Software Developers. Fields such as video gaming fall into this latter heading.

Table 5. Web Design – National

2012 Median Pay	$62,500 per year $30.05 per hour
Entry-Level Education	Associate's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2012	141,400
Job Outlook, 2012-22	20% (Faster than average)
Employment Change, 2012-22	28,500

Source: Bureau of Labor Statistics Occupational Outlook Handbook

Table 6. Software Developers – National

2012 Median Pay	$93,350 per year $44.88 per hour
Entry-Level Education	Bachelor's Degree
Work Experience in a Related Occupation	None
On-the-job Training	Moderate-term on-the-job training
Number of Jobs, 2012	1,018,000
Job Outlook, 2012-22	22% (Much faster than average)
Employment Change, 2012-22	222,600

Source: Bureau of Labor Statistics Occupational Outlook Handbook

It is believed that with the addition of a full-time faculty member on the college side, the creation and staffing of two additional degree programs can be addressed.

Consistently, in casual talks with Digital Design high school seniors, game development and graphic design are programs they wished WCCC would offer. This is also being indicated in our middle school summer camps. In 2014, only one gaming camp was

initially offered, and it filled up even before it was advertised. Two additional camps were created. Also popular in the summer camps were 3D Animation, web design, comic book drawing and photography.

Table 7. WCCC Middle School Summer Camp Attendance – Visual Communications

Camp	2013	2014
Video Game Design	Not offered	36
3D Animation & Virtual World	10	14
Basic Web Design	Not Offered	9
Digital Photography/Photoshop	5	9
Video Storytelling	7	7
Comic Book Creation	9	5
Craft of Creative Writing	Not Offered	4

Source: WCCC Community Education Center

As a side note, the Video Game Design instructor for the summer camp was a former high school student from the Digital Design program. He had graduated a month before he taught the summer camp. During his last semester in the high school program, he took it upon himself to learn game design programing as an independent study.

This student highlights one of many questions in regards to the quality of the department.

- Why is the high school program more flexible with curriculum needs than the college program?
- Why hasn't the college program added additional concentrations to satisfy the demands of incoming students?
- What will happen to the program if additional college concentrations are created?
- If additional concentrations are added on the college level, will these concentrations have to be reflected on the high school level?
- Is there a fine line between offering high school students college credit at the expense of fewer students attending first-year core classes at the college AAS degree and certificate level?
- With so many students at the high school level using classroom space, computers, and other equipment for the majority of the day, is there a way to offer college courses that require computers and equipment during late morning and early afternoon hours without interfering with the high school classes?
- Would it benefit the program to change the name from "Visual Communications" to another industry-standard title, such as Digital Design?
- How can we make the program as appealing to the college students as we do the high school students?

One thing is clear – the college program must offer more concentrations that are relevant to the goals of the students. With the addition of a full-time faculty member dedicated to the college side of the program, this should be easier to accomplish.

Currently, there are preliminary plans to add a Web Design concentration. This needs to be completed as soon as possible in order to meet the high demand expected in the next eight years.

After that, a concentration on gaming will be looked at. However appealing the degree may be to many students, it may be more advantageous to create a concentration in mobile application programming and design.

With just these two degrees, many in the department believe that enrollment on the college side will pick up substantially, and not be subjected to the roller coaster student interest of 3D animation just by itself.

Web design will also use previously created courses that are already being offered to 3D animation students. These courses include Digital Image Editing, Digital Vector Image Editing, video editing, and digital compositing. Like the 3D animation program, additional courses would be taught with part-time faculty.

Articulation agreements with similar courses on CMU are virtually non-existent. This has more to do with the way courses are set up between the two schools. CMU Fine Arts and Mass Communication core classes are consistently created for 300- and 400-level students, even though WCCC offers many almost identical curriculum, such as video editing, at the 100- and 200-levels.

As another example, CMU's Fine Arts program is offering a 300-level Adobe After Effects class. Half of that class time is used to create a storyboard for what appears to be only one project. At WCCC, the 100-level Digital Compositing class has completed the equivalent of the university's course in the first month, adding additional skills such as video tracking, using green screen, adjusting 3D render passes, and working with a client. This information comes from a WCCC animation student who inadvertently signed up for the CMU class and found himself inadequately prepared for the capstone project.

Excellence in Scholarship and Creativity

On the high school side, many times a non-profit organization will come in and ask for a logo or poster for an event.

On the college side, opportunities have been rare. Recently, the Digital Compositing class completed a collaborative effort with the Colorado Mesa University Theatre Program to create videos for one of their stage productions. The class also created two 30-second blood draw public service announcements for the Mesa County Health Department's yearly health fair.

Last year, a Visual Communications student took first place in her category at CMU's annual Student Showcase.

High school students will be participating in the Colorado Creative Careers festival. College students can participate in SkillsUSA.

Quite a few of the program's high school students have become members of the National Technical Honor Society. The local chapter of Altrusa has honored many of our high school special needs and low-income students.

Currently there are no student-run clubs for the Visual Communications that fall under CMU student organization guidelines. Clubs have been formed in the past, but ultimately have failed because of lack of participation.

National School Comparisons—
As a division of CMU, there are required general education courses that must be taken to satisfy the liberal arts mission of the university. Compared to many of the top private schools in the country, such as Full Sail University and the Digital Animation and Visual Effects (DAVE) school, both in Florida, the 3D animation program here lacks the industry-driven courses and time requirements these private schools can offer. Also, both schools are located in a state where the demand for these services is high.

One factor the WCCC course has going for it is affordable tuition. For both of the private schools, tuition runs from $40,000 to $60,000 per semester. The quality of work produced by our college graduates is steadily improving. This may be because of the quality of the high school students being fed into the college program has improved substantially over the last two years. Ultimately, however, it doesn't matter what school a student graduates from as long as they have a demonstration reel that impresses a potential client or employer.

Student Success—
College
Logan Watkins – Attended 2009-2010

- Chief Rotoscope Artist, Los Angeles-based Pixel Magic's branch office in Louisiana
- Rotoscope Artist, Scanline VFX, Vancouver, BC
    - Has worked on major motion pictures and TV series including "Captain America: The Winter Soldier," "300: Rise of an Empire," "Divergent," and "Game of Thrones."

Corey DeVore – Attended 2010-2012

- One of four WCCC graduates who have teamed up to form Ventur:frame, a local stop-motion animation company.
- Freelance 3D game modeler
    - Creates intricate 3D models for use in video games and Role Playing Games
- Works full-time in the Commercial Production department at KKCO-TV in Grand Junction.

Tyrel Grattan – Attended 2011-2013
Katelyn Copeland – Attended 2011-2013
Alex Duletsky – 2011-2013

- Founding members of a local stop-motion animation company called Ventur:frame

Jesse Hagerman – Attended 2010-2013

- Jesse and Shane Daniels, a fellow computer programmer, have teamed up to create a Fruita-based mobile gaming company. The game will be
- Shane and Jesse also attended the high school Media Technology program in 2006-07 And the Animation Technology program in 2007-08.
    - The Apple App Store recently approved their first game.
    - *Cosmic Crux* was available for download and purchase in November 2014.

Jacob Cone – Attended 2012-2013

- Bungee Gaming

Josh Ducray – Attended 2011-2013

- Walt Disney Design

High School
Vinnie Castellini – attended 2010-2012

- Attending the film school at Emerson College in Boston, MA
    - The school is one of the top five film schools in the United States.
        - Interned with Blumhouse Production breaking down scripts and writing coverage.
        - Post-Production Intern at "Show Me the F$#!king Money" TV

Travis Liden – attended 2010

- Attending the Screenwriters Program at the University of Southern California
    - USC is the top film school in the world.
    - One of only 10 students selected worldwide to attend the program for 2013-2014.

Visual Communications Advisory Board—
The department conducts two advisory board meeting a year, usually one per semester, as required by state and federal mandates.

The board consists of the following members as of October 24, 2014:

Ryan Stringfellow (Chair)
KRMJ Regional director Western Colorado
970-245-1818
ryanstringfellow@rmpbs.org

Ryan Quintana
Impact Promotions Production Manager
970-241-7611
ryan@gravixworld.com

Paul Cruz
Neon Artist
985-2536

Scott Folsom
Scott Folsom Inc.
creativetinkering@mac.com

Dylan Hardy
Creative Services Manager
KKCO/KJCT
dylan.hardy@kjct8.com

Ross Deardorff
Neon Desert Design
ross@neondesertdesign

Masato Nakai
masato.nakai@trizetto.com
970-216-2036

Corey DeVore
Freelance 3D modeler/Co-founder Ventur:frame
970-234-0368

Dan Ryan
Ryan/Sawyer Marketing
President/Creative Director
dan@ryansawyermarketing.com
970-241-4773

These board members cover the spectrum from freelance positions to a head of a local marketing firm and cover all media from signage to television to print and web. Each of these board members have committed to helping students in the college and high school programs.

Board diversity makeup—

- Two Latino members
- One Japanese member
- Six white members
- No women
- Four members own, or are partners in, their own business

The board has had women on the board before—including a past chair. Efforts are continuously being made to diversify the board when current board members resign.

Board member have acted as judges for the department's annual student showcase, and they have been guest speakers to classes on the college level.

Faculty Excellence

The Visual Communications department currently uses two full-time instructors and five part-time instructors.

- Full-time faculty consists of one female and one male.
  - Both full-time instructors are white.
  - One instructor teaches high school while the other teaches college.
- Part-time college faculty consists of one female and two males.
  - All instructors are white.
- Part-time high school faculty consists of two males
  - One instructor is white.
  - One instructor is Latino.

It should be noted that it is extremely difficult to find any instructor in the local area who can teach 3D animation.

Full-Time Instructors—
The full-time faculty members come from industry and have diverse educational and real-world experiences.

See Appendix D for full-time instructor curriculum vitae

Part-time Instructors—
Our part-time instructors come from a diverse business world background including:

- A production manager for a local television station (No degree)
- A high school and college drawing instructor (MFA in Education Administration)
- A former animation studio owner (Pursuing a Bachelor's degree)
- A part-time production videographer and current part-time business instructor at CMU (BFA)
- A freelance commercial artist (BFA in Digital Design)

Instructor Assessment—
All full-time faculty are assessed yearly though several steps.

- A self-evaluation
  - Instructors must fill out a specific form highlighting predetermined categories for instructor effectiveness.
- Classroom observation
  - Department head will conduct at least two per year
- Student feedback
- The department head writes an official evaluation.
- Evaluation is reviewed by the head of WCCC
- Evaluation is reviewed by CMU
- A one-on-one meeting with the instructor and department head.
  - Instructor agrees or disagrees with the evaluation
    - If there is disagreement, then instructor submits rebuttal
    - Rebuttal undergoes review

Instructor Collaboration—
Because of the relative small size of the department, instructors collaborate and communicate continuously. Both full-time instructors meet daily to check status of students, voice concerns, and come up with solutions and ideas.

The high school full-time instructor meets with the high school part-time faculty several times a week as part of her mentor responsibilities. Besides training, the part-time instructors are encouraged to voice concerns, go over issues with students, and suggest curriculum ideas and how to implement them.

The college full-time instructor meets on an as-needed basis with the college part-time instructors throughout the semester. These instructors meet with both full-time instructors at the beginning of each semester to go through brief instruction in teaching styles, school policy changes and updates on returning students.

Instructor Retirements & New Hires—
Currently there are no plans for retirement for the full-time instructors. Both instructors have at least 15 years before reaching retirement age. On the college side, all three part-time instructors expect to work for at least another year. Of those three, one instructor is already retired and teaches drawing part-time at WCCC as well as Mesa County School District 51's Opportunity Center. Another college part-time instructor is pursuing a bachelor's degree in radiology at CMU.

As new concentrations are formed for the college program, and unless student demand is exceptionally high, course instructor positions will continue to be filled by part-time individuals.

The department has fallen short on both gender and racial diversity. Of the seven instructors, only two are women. Racially it is even more problematic—Six of the seven instructors are white. As individuals move on and/or positions are created, the

department must make a concerted effort to balance the diversity of the instructors with the diversity of the students.

Educational Excellence

Visual Communications instructors are assigned courses mainly through the skills and knowledge they've previously obtained through education and/or real-world experience.

- Four of the seven instructors have 3D animation mastery.
- All seven have an art background ranging from entry-level to mastery.
- Two of seven have mastery of video production. Additionally, four have experience at entry-level to intermediate.

Neither full-time instructor has tenure because they do not have master's degrees.

Only one current full-time instructor has been promoted in the last five years.

Learning Outcomes—
Visual Communications students are expected to have entry-level knowledge when they graduate with the AAS degree. At this point, they may try to be hired, or go freelance, or continue their education.

The Colorado Community College System sets outcome standards. Even though Western Colorado Community College is not a part of this statewide system, the college uses guidelines and standards established by CCCS. This is useful for instructor credentialing with the state department of education for both college and high school levels.

These standardized course outlines are printed on all syllabi given to all Visual Communication students and include Course Objectives and Competencies. Besides physical and electronic versions of the syllabi given to students, copies of all syllabi are stored electronically to WCCC share folders accessible to any WCCC or CMU student. Syllabi are also posted on online course listings through the CMU Registar's office by some of the instructors. Additionally, syllabi and rubrics are available on the high school side.

Assessments—
The high school side has pioneered the use of Project-based Learning within the department. Students are given a project, and are allowed to complete it by researching the topic as well as researching which tools to use to effectively complete the tasks. In Project-based Learning, students are not taught the software, but instead are taught the concepts needed to complete the assignment. On the college side, Project-based learning was introduced in 2014 into all core courses.

Besides projects, students are also given quizzes or exams. Most students must show their knowledge of techniques by demonstrating in front of class members.

Because of the way Project-based Learning works, if students have problems they have several options they must take before consulting the instructor.

1. They must research the problem and see how others have solved the issue.
    a. Much of the research is done online through tutorials and user forums.
2. They must consult with other classmates.
    a. Classmates must assist each other.
3. If the issue cannot be resolved, the instructor still does not give the answer, but guides the student through other options to solve the issue.
    a. On some issues, the instructor may not know the answer, but will help the student solve the problem.

As the students go though courses using Project-based learning, outcomes can easily be examined by the quality of the work exhibited by the student. In most instances, quality of work improves and knowledge of the subject matter is retained through additional projects—When the student takes charge of his or her education, retention can't help but improve.

This, combined with regular meetings between instructors, highlights shortfalls between core courses. As an example, it was discovered that a technique for compositing used for the Animation Production (Capstone) class [MGDA 257] was not taught in the Digital Compositing class [MGDA 165]. Because an assessment highlighted the fact students were not taught the technique in the Capstone project, it was implemented in both the Digital Compositing and Advanced Animation classes the following year.

Educational Innovation Support—
Every semester, CMU offers service learning for all faculty, including those at CMU. These are usually offered just before fall and spring semesters begin. For college instructors, these times are ideal. For high school faculty, this is problematic because the school district semesters begin two weeks before the college's do. The district does offer in-service days as well as instructor workdays. Instructors from the school district usually fill these days with various subjects relevant to secondary education. Industry workshops are conducted yearly, but budget constraints and sessions during instruction time make instructor attendance inconvenient.

Student Success and Retention—
For the last five years, completion rates have been comparable to the same CIP statewide.

Table 8. Five-Year Completion Rate Trends for CIP 100304

School Year	Status	Number enrolled	Number of Completers	Completion Rate	State # of enrolled	State # of Completers	Completion rate
12	New	21	4	19%	478	89	19%
11	New	29	4	14%	438	65	15%
10	New	8	0	0%	337	56	17%
09	N/A	27	6	22%	282	63	22%
08	N/A	0	0	0%	134	49	37%

Source: CMU Institutional Research

CMU has provided an extensive network designed to support students and their needs.

This includes, but not necessarily limited to:

- An Early Alert system that identifies students who are not showing up for class or are not maintaining their grades.
    - Students are assessed at two-, six-, and eight-week increments.
        - Assessments are E-mailed to the student and the student's advisor.
- First-year students must see their advisor before registering for courses.
- Instructors and administration at all levels have open door policies to allow students and staff enormous amounts of communications to resolve problems.
- Students are told about the chain of command to resolve issues
    - Instructor
    - Advisor
    - Program Lead
    - Department Head
    - Vice President, WCCC
    - President of University
- Office hours for college and high school full-time and part-time instructors
- Educational Access Services (EAS)
    - Allows reasonable accommodations for qualified students with disabilities.
- A military veteran's affairs office
- Tutorial Services
- Library Services
- Full-meal and snack services.

WCCC provides:

- On-site student services such as class registration
- Open Computer Labs
    - General
    - Visual Communications Labs
- Transportation between CMU's main campus and the WCCC campus
- Free Parking
- Snack bar
    - 8am to 1:30pm
    - Accepts meal plan
- Student-run restaurant
    - 11:30am to 1:30pm
    - Does NOT accept meal plan

Student Advising Outcomes—
Currently only the college full-time instructor advises incoming and current college students. Besides recommending classes to register for the upcoming semester, the advisor makes students aware of the various services WCCC and CMU offer.

Right now there is no permanent assessment of the effectiveness of the Visual Communication department's advising other than if students enroll or return in the program. This could be remedied in the future with further research, assessment of need and implementation of a policy.

On the high school side, seniors are registered for free at the end of the first semester. Technical Scholar Credits are earned and transferred if the student enrolls in the Visual Communications program. Advice on other CMU programs as well as other colleges, universities, and military services are offered.

Excellence in Public Engagement

Full-time faculty are involved with many public activities. Daniel McClintock has for the past four years produced video public service announcements for the annual Mesa County Health Fair. He is also active in shooting, documenting and publicizing the Annual Mesa County Fair and the annual Colorado Rodeo Championships. He tries to promote a different non-profit organization by producing a PSA. In the past that has included spots for the Western Colorado AIDS Program and the school district Backpack Program.

Melanie Snyder has recently obtained her bachelor's degree. During her schooling she had to cut back on her public engagement. Before she attended school, she and her high school classes helped to create exterior CAD plans for the design of a School District 51 school. She is also the organizer for the Visual Communications department's annual Summer Camp for local middle school students.

Currently the Visual Communications Advisory Board is studying the possibility of internships for WCCC animation students.

Conclusions

The Visual Communications program is at the cusp of great things. The personnel, from instructors to administration involved are high caliber. Many students graduating from the animation degree are furthering their education, finding jobs in their selected fields, or creating their own.

There are challenges ahead for the department, including adding relevant and nationally needed concentrations such as web design and computer app graphic design and programming. These are student-demanded concentrations that should take a minimum of investment by CMU and, now that a full-time instructor has been assigned to the college program, should be created as soon as possible.

Overall, the program is meeting minimum expectations, but the opportunities are there to affect students from middle school to college, and create what may be considered one of the best programs that WCCC offers.

Appendix A

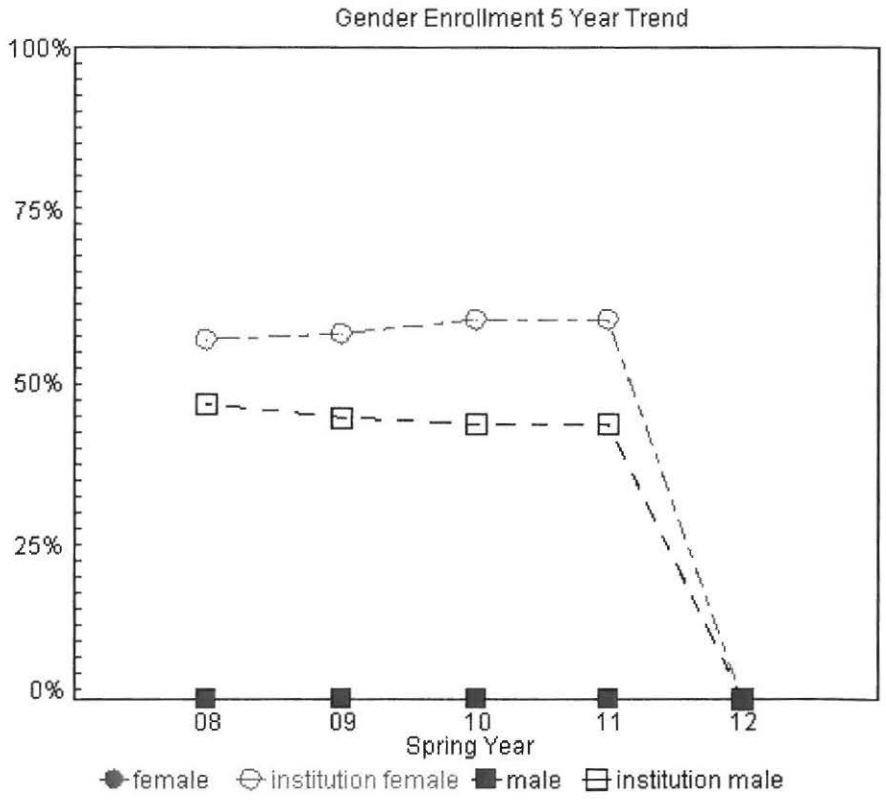
Program Statistics

5-Year Demographic Trends

School	WESTERN COLORADO COMMUNITY COLLEGE	School Code/Suffix	327
Program	VISUAL COMMUNICATIONS	Level	Postsecondary
Program ID	76966	CIP ID	100304
Program Request ID	5910	Non Trad	No
Approval Date	09/24/2014	Expiration Date	09/24/2019
Status	Active		

5-Year Demographic Trends

			Program at WESTERN COLORADO COMMUNITY COLLEGE							This District/College						
School Year	Status	Total Enroll	Male	Female	Ethnic Minrty	Disadv	Disab	Limited English	Total Enroll	Male	Female	Ethnic Minrty	Disadv	Disab	Limited English
12	New	21	H	H	H	H	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			H	H	H	H	0%	0%		N/A	N/A	N/A	N/A	N/A	N/A
11	New	29	H	H	H	H	0	0	2643	1109	1534	459	1303	H	H
			H	H	H	H	0%	0%		42%	58%	17%	49%	H	H
10	New	8	H	H	0	H	H	0	2349	983	1367	362	980	43	H
			H	H	0%	H	H	0%		42%	58%	15%	42%	2%	H
09	N/A	27	H	H	H	H	H	H	1189	517	671	198	594	43	H
			H	H	H	H	H	H		43%	56%	17%	50%	4%	H
08	N/A	0	0	0	0	0	0	0	2994	1349	1642	472	533	55	0
			0%	0%	0%	0%	0%	0%		45%	55%	16%	18%	2%	0%
5-Yr Avg †		19.3	15.7	3.7	2.0	13.7	0.3	0.0	2496.0	1046.0	1450.5	410.5	1141.5	35.0	1.0
5-Yr Avg			81%	19%	10%	71%	2%	0%		42%	58%	16%	46%	1%	0%
									Statewide Average for CIP ID 100304 at Postsecondary Level						
5-Yr Avg †									417.7	241.7	176.0	95.0	170.0	15.3	4.0
5-Yr Avg										58%	42%	23%	41%	4%	1%



5-Year Completion Rate Trends

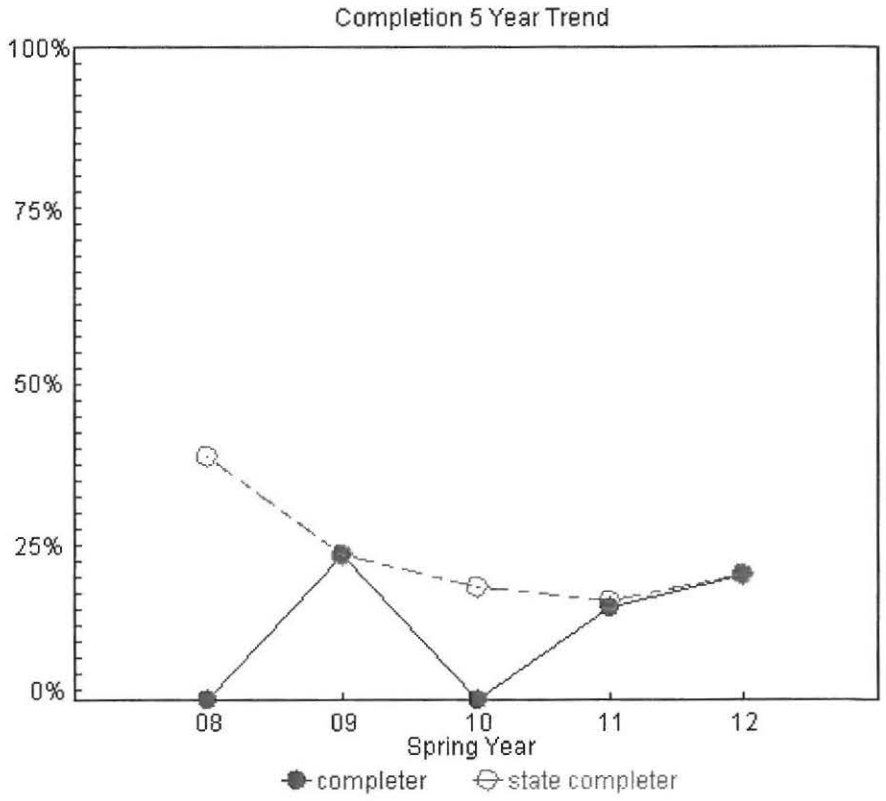
School	WESTERN COLORADO COMMUNITY COLLEGE	School Code/Suffix	327
Program	VISUAL COMMUNICATIONS	Level	Postsecondary
Program ID	76966	CIP ID	100304
Program Request ID	5910	Non Trad	No
Approval Date	09/24/2014	Expiration Date	09/24/2019
Status	Active		

5-Year Completion Rate Trends

		Program at WESTERN COLORADO COMMUNITY COLLEGE			This CIP Statewide		
School Year	Status	Number Enrolled	Number of Completers	Completion Rate	Number Enrolled	Number of Completers	Completion Rate
12	New	21	4	19%	478	89	19%
11	New	29	4	14%	438	65	15%
10	New	8	0	0%	337	56	17%
09	N/A	27	6	22%	282	63	22%

08	N/A	0	0	0%	134	49	37%

5-Yr Avg †	19.3	2.7	14%	417.7	70.0	17%
Male	15.7	2.3	15%	241.7	39.3	16%
Female	3.7	0.3	8%	176.0	30.7	17%
Ethnic Minority	2.0	0.0	0%	95.0	14.7	15%
Disadv	13.7	1.3	9%	170.0	29.3	17%
Disab	0.3	0.0	0%	15.3	2.3	15%
Limited English	0.0	0.0	0%	4.0	0.0	0%



5-Year Placement Trends - Follow Up Students

School	WESTERN COLORADO COMMUNITY COLLEGE	School Code/Suffix	327
Program	VISUAL COMMUNICATIONS	Level	Postsecondary
Program ID	76966	CIP ID	100304
Program Request ID	5910	Non Trad	No
Approval Date	09/24/2014	Expiration Date	09/24/2019
Status	Active		

5-Year Placement Trends - Follow Up Students

		Program at WESTERN COLORADO COMMUNITY COLLEGE							This CIP Statewide						
Yr	Status	Comp	Empl R	Empl U	UnEmpl	Cont	TPP	R	Comp	Empl R	Empl U	UnEmpl	Cont	TPP	R
12	New	4	2	1	0	0	3	3	89	26	8	5	18	43	50
			67%	33%	0%	0%	100%	75%		52%	16%	10%	36%	96%	56%
11	New	4	1	0	0	0	1	1	65	12	14	1	12	29	30
			100%	0%	0%	0%	100%	25%		40%	47%	3%	40%	97%	46%
10	New	0	0	0	0	0	0	0	56	14	9	4	15	29	32
			0%	0%	0%	0%	0%	0%		44%	28%	13%	47%	94%	57%
09	N/A	6	1	0	0	4	2	4	63	6	12	7	21	30	38
			25%	0%	0%	100%	100%	67%		16%	32%	18%	55%	91%	60%
08	N/A	0	0	0	0	0	0	0	49	18	6	2	8	27	30
			0%	0%	0%	0%	0%	0%		60%	20%	7%	27%	93%	61%
5 Yr Avg †		2.7	1.0	0.3	0.0	0.0	1.3	1.3	70.0	17.3	10.3	3.3	15.0	33.7	37.3
5 Yr Avg **			77%	23%	0%	0%	100%	48%		46%	28%	9%	40%	90%	53%
Diff			31	-5	-9	-40	10	-5							

** The 5 year average percentage for all columns is based on respondents except for the respondent (R) rate (click on the ? in the Key below for definitions).

Appendix B

Finance & Budget

Account/Description	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Supplies/Mat-Graphic Comm	2,179	2313	1429	623	20	313	82		
Supplies/Mat-Media Tech	1955	2322	2539	1732	3342	2457	726		
Supplies/Mat-Visual Comm.				1551	577	1886	4958	2891	2800

Appendix C

Library Assessment

Library Program Assessment
John U. Tomlinson Library
Colorado Mesa University

Date of Assessment: September 2014
Purpose of Assessment: Program Review
Program under review: Visual Communication
Program Level/s: Technical Certificate; AAS
Liaison Signature: Courtney Bruch and Anne Bledsoe prepared this review

1. Collection Assessment

For this assessment the following Library of Congress subject headings were examined in the area of Visual Communications:

Image Processing-Digital Techniques, Computer Animation, Visual Communication and Computer Graphics

An examination of the subject headings listed above indicates that there are approximately 890 titles and conference proceedings in the collection.

a. Reference Support

The reference collection has a few important resources covering animation and graphics related topics. These include specialized dictionaries, handbooks, and encyclopedias: *The Dictionary of Graphic Design and Designers* (2003); *The Anime Encyclopedia* (2006); *The Encyclopedia of Cartoons* (1999); and the *Artist's & Graphic Designer's Market* (updated regularly).

b. Monographic Sources

Age Analysis of the 890 titles at the discretion of the Liaison:

54% published since 2010
31% published 2000-2009
9 % published 1990 – 1999
4% published 1990 – 1989

c. Periodicals via Electronic Resources

There are few electronic resources specifically focused on graphic design and animation. Tomlinson Library maintains a subscription to Academic Search Complete, which includes full-text access to the periodicals *Design Issues*, *Image Processing, IET*, and *Computer Graphics World*. Another database, Omnifile Full Text includes full-text access to *Animation Magazine.* The Wiley Online Library database provides full-text access to the periodicals *Computer Animation and Virtual Worlds* and *Computer Graphics Forum*. Science Direct includes full-text access to the *Journal of Visual Communication and Image Representation.* The library also provides full-text access to the journal

Animation through the Sage Premier Collection. Additionally, the library's link resolver provides article-level linking to two open access journals: *Animation Studies* and *IPOL Journal: Image Processing On Line*.

2. Evaluation of the total collection and library support for this program

a. Strengths

A number of the books published since 2010 are available electronically from vendors whose books are simple to access. With remote authentication in place, CMU students, faculty and staff can access these materials 24 hours a day. The WCCC librarian liaison recently reviewed the monograph collection and removed dated materials from the collection.

A robust Interlibrary Loan service provides timely access to materials not available in full text through Tomlinson Library. The average fill time for journal article requests is 10.9 hours. Hardcopy materials can usually be obtained from other libraries within 3-5 working days.

The library also provides research assistance through chat and face-to-face consultations with reference librarians.

b. Weaknesses

No faculty recommendations from WCCC last year included monographs for this area.

3. Recommendations

The library has fairly strong print and online collections to support the Visual Communications program. The WCCC librarian liaison should work in collaboration with faculty to ensure the monograph collection remains current and relevant. Additionally, the library liaison should make sure WCCC faculty are aware of and know how to access the periodicals available via databases.

The library can also provide instruction and online research guides to identify relevant research tools and effective search strategies and to address the evaluation and ethical use of information. (An example guide can be found at http://libguides.coloradomesa.edu/ECE). The library is interested in investigating possibilities with faculty for providing instruction (either in-person or via electronic guides) in order to further facilitate student learning.

Library Director: Sylvia Rael Date: September 2, 2014

Appendix D

Full-Time Instructor Curriculum Vitae

Melanie Syder's Curriculum Vitae

Melanie Snyder is currently an Assistant Technical Professor with primary teaching duties on the high school side. She teaches script writing, storyboarding, job skills, digital image editing, 3D animation, video editing, basic sound design, and digital video compositing. She is also program lead and is responsible for the department's part-time faculty.

Professional Preparation

Rasmussen College
Bachelor of Science - Graphic Design Animation (2011-2014)

Colorado State University
Professional Teacher License (License 2003)

Colorado Mesa University
Associates of Science Computer Aided Design Technology (2001-2003)

Van Nuys College of Business
Drafting Certificate (1988)

Appointments

Colorado Mesa University/Western Colorado Community College, Grand Junction, CO
Assistant Technical Professor - Digital Design and Visual Communications; Program Lead; (2009-Present)

- Extensive experience developing curriculum and teaching technical subject across several disciplines including; 3D Animation, Photography, Photoshop, Video Editing, Graphic Design, Video Compositing, Story development, Storyboarding, Character Development, Character Rigging, and high-school Animation Creative Writing, high-school Digital Design Fine Arts, high-school Computer Applications.
- Continual curriculum improvement to keep pace with current technology.
- External and internal program renewals within the CC system.
- Program lead for the Animation Technology program.
- Scheduling, part-time faculty hiring, and staff development.
- All courses are taught at the secondary and post-secondary level.
- Develop curriculum, lesson plans, assessments, course syllabi.
- Teach multiple levels of content.
- Teach diversity in the classroom.
- Math-in-CTE coach and facilitator.
- Lead and Coach in Academic Crosswalks.
- Teacher mentor for new faculty.
- Hold positions on several committees.

Mesa State College/ Western Colorado Community College, Grand Junction, CO
Faculty; Instructor; Computer Aided Design (2003-2010)

- Teaching within the Computer Aided Design discipline.
- Extensive experience developing curriculum and teaching technical subject across several disciplines including AutoCAD, Computer Animation, Blueprint Reading, Geometric Tolerancing, and high-school CAD math.

MKK Consulting Engineers Grand Junction, CO
Lead Draftsman; (2002-2003)

- Assist mechanical designers and engineers in generating HVAC and plumbing blueprints.

Applied Earth Science Grand Junction, CO
Survey Draftsman; (2001-2002)

- Design and drafting of survey projects.
- Field survey.
- Project file coordination and maintenance.

Superior Design/Walt Disney Imagineering Glendale, CA
Lead special Effects Documentation Designer (1996-2000)

- Supervisor for Computer Aided Design team for Disney's California Adventure Special Effects.
- Managed Special Effects CAD projects for over 180 special effects.
- Mechanical design/drafting for Special Effects components for Disney's California Adventure, Walt Disney's Animal Kingdom, Tokyo Disney Seas, and Disneyland.

CAD-N-Stuff Craig, CO
Owner/Operator Drafter (1993-1996)

- Mine survey drafter for Cypress Coal Company.
- Drafter for various small architectural structural projects.

Studer Engineering Steamboat Springs, CO
Architectural Structural Draftsman (1993-1995)

- Lead CAD Designer for Structural Engineering Firm.

Walt Disney Imagineering, Glendale, CA
Rockwork Designer (1989-1993)

- Assisted in design of proprietary Rockwork computer system.
- Generated construction, detail, and assembly drawings using 3D and 2D digitizers.
- Responsible for quality assurance.
- CAD Lead of several project teams.
- Supervisor of Computer Aided Design team for all Rockwork Projects.

Professional Credentials

State of Colorado
Professional Teacher License (2003 – present)

- Public Districts Secondary Level

State of Colorado Board
Credential Career and Technical Education (2003 – present)

- Community Colleges and Occupational Education.

Professional Organizations

- Colorado Creative Careers (2011-present)
- Women in Animation (2013-present)
- National Art Education Association (2010-2012)
- Colorado Association of Career and Technical Education (2009 – 2012)
- SkillsUSA Professional Member (2003-2012)

Service Activities

Digital Design Summer Camp
Coordinator, Instructor and counselor (2013-2014)

- Developed multi-curriculum and taught summer camp for students from middle school to adults.
- Curriculum includes Photoshop, Comic Book creation, 3D Animation, Video Editing, Video Compositing.

Animation Summer Camp
Instructor and counselor (June 2009, June 2010, June 2011, June 2012)

- Developed curriculum and taught summer camp for students from middle school to adults.

SkillsUSA
Lead Advisor (2003 – 2012)

- Assisted in developing and overseeing district competition for all traveling school on the Western Slope.
- Travel & advised students at Front Range state competition/conference
- Travel & advised students at Kansas City national competition/ conference.

ProtoCamp
Instructor and counselor (June 2009 and June-2010)

- Assisted in developing and instructing engineering summer camp for middle school students.

Awards

Colorado Mesa University	Exemplary Faculty Award	June 8, 2012
Chamber of Commerce	Educator of the Year Award	2006 - 2007
SkillsUSA	Advisor of the Year	2005 - 2006
Who's Who	Teacher Award	2004 – 2005

Daniel McClintock's Curriculum Vitae

Daniel McClintock is currently a Technical Instructor with primary duties on the college side. He teaches script writing, storyboarding, freelancing, vector image editing, digital image editing, video editing, sound design, and digital video compositing. He is also primary advisor for the department's college students and assists in department administrative duties.

Education

Bachelors of Art
Colorado Mesa University, Grand Junction, CO — May 2004
Majored in Theatre-Acting/Directing

Additional Classes at CMU required for high school certification
Digital Video Editing — Fall 2011
CTE Academic Instruction — Fall 2011

Professional Training

State of Colorado Board
Credential Career and Technical Education (2011 – present)

- Community Colleges and Occupational Education.

Certifications
FXPhd, April 2011
Three10-week on-line courses

- Mathematics for Media
- Physics for Media
- Scripted High Definition Digital Single-Lens Reflex (HDSLR) Camera storytelling

Certifications
FXPhd, April 2010
Three 10-week on-line courses

- Guerrilla After Effects
- Directing for HDSLR
- Crafting the Scene with Editing

Colorado Association of Career and Technical Education Summer Conference
Career and Technical Education (CTE) Workshop, Ft Collins, CO, July 2008
This was a conference to further CTE instructor knowledge regarding techniques and policies.

United States Air Forces in Europe (USAFE) Newspaper Editor's Workshop
USAFE Conference, Berlin, West Germany, June 1985

This was a workshop to update participants on new USAFE newspaper editing and layout techniques.

Certification
Defense Information School, August 1984
Graduated as an Air Force Photojournalist

Certification
Defense Information School, January 1982
Graduated as an Air Force Public Affairs Specialist
Emphasis in Print Journalism

Teaching Experience

- Teaching Digital Design-oriented courses for college students. These courses introduce students to script writing, storyboarding, video production, postproduction, graphics, music, freelancing, and animation history.
- Teaching emphasis on student-lead discovery and research, creation and execution.
- Teach high school classes on an as-need basis.
- Currently developing courses for program including Freelancing for Creatives, web design, and commercial image design and layout.
- Catalyst in the creation of alignment of academic credit to CTE curriculum for first year high school students aligned to state and federal curriculum guidelines.
- Rejuvenated the current curriculum changing the emphasis from news to narrative story telling. Increased student enrollment and retention 10% as a result.
- Developed and instituted new team projects, quizzes, exams, and homework.
- Revised the syllabus to meet state and federal accreditation and skill standards.
- Introduced and refined multimedia presentations in lecture.
- Worked with a team to merge the three high school programs – Media Technology, Animation Technology, and Graphic Communications – into one program called Digital Design.

Professional Service
Mr. Mac Productions, LLC
Owner/Operator
Creating 4K Western Colorado travel videos
August 2014-Present

WCCC Library Committee Representative
2013 - Present

WCCC Joint Advisory Committee
Multimedia Graphics Co-Chair, 2009 - Present

Colorado Mesa University Marketing
Theatre Department Photographer, 2004-2009, November 2011 – May 2012

Cawley Entertainment Company and Retro Film Studios, New York
Volunteer crewmember/standby video editor for web series "Star Trek: Phase II," 2010-2012

WCCC Curriculum Committee
Member, 2010-2011

Mesa State College Filmmaker's Society
Faculty Advisor, 2009-2010

WCCC Marketing Committee
Member, 2008-2009

Rocky Mountain PBS, Denver/Grand Junction
Volunteer videographer/editor/graphic artist, 2000 - Present

KJCT TV-8, Grand Junction
Production Manager, 1996 – 1999
Commercial Producer, 1994 – 1996
Photojournalist, 1989 – 1994
News Videographer, 1987 – 1989

Professional Affiliations
Member, American Film Institute, 2010-Present

Member, National Press Photographers Association, 1995-2006

Community Service
Volunteer, Grand Valley Film Festival, 2015

Video Publicity, Grand Valley Health Fair, 2010-Present

Publicity Videographer, Mesa County Fair, Grand Junction, July 2010-Present

Avalon Theatre Association, Board Member, Grand Junction, May-Sept 2009

Honors and Awards
Heartland Emmy Awards 2011
Contributed to a Rocky Mountain PBS documentary on the Colorado National Monument

Nominated for CMU Instructor of the Year 2011

"The Laramie Project" 2004
Mesa State College Theatre Special Recognition for Production

"Thunderbirds" 1990
Special recognition from US Air Force for 30-minute video documentary

Colorado Broadcasters Association 1988-2004
Numerous awards for journalism, videography and commercial production

US Air Forces in Europe (USAFE) 1986
Journalistic Achievement Award for Air Force Family special insert into base newspaper

Volunteer Video/Theatre Projects

"Avenue Q" 2014
Helped coordinate video production for several portions in the show.

Grand Valley Health Fair 2011 to Present
30-second Public Service Announcement (PSA)
All local TV stations and Bresnan cable

Mesa County Fair 2011 to Present
30-second PSA, all local TV stations and Bresnan cable

Kid's Aid Colorado "Kid's Backpack" July-August 2010
30-second PSA, all local TV stations and Bresnan cable

Western Colorado AIDS Project "Teens" January-April 2009
30-second PSA, all local TV stations and Bresnan cable

"Biggest Thief in Town" July 2005
Directed a full-length play by Dalton Trumbo
The play was part of a weeklong citywide celebration of Hollywood screenwriter and Grand Junction resident Dalton Trumbo's birthday.

"The Laramie Project"
Directed a full-length play by Moises Kaufmann, April 2004
The play was the first major student-directed play in Colorado Mesa's new Black Box Theatre. It was the first student-directed play to be sponsored and supported by local and state organizations.

Appendix E

Program Sheets

WESTERN COLORADO COMMUNITY COLLEGE
A Division of Colorado Mesa University

2014-2015 PETITION/PROGRAM SHEET
Degree: Associate of Applied Science
Major: Visual Communications
Emphasis: Animation Technology

About This Emphasis . . .

The Animation Technology emphasis prepares students to work in digital 3D animation modeling environments. 3D Digital Animation is all about the art of visual storytelling. During this program, you'll cover the in-depth fundamentals of classical animation based on the 12 Principals of Animation, as well as character development and rigging. You'll also study life drawing, layout and design, computer illustration, storytelling and storyboarding. The student gains experience using industry standard software to produce animations and portfolios. Students combine traditional artistic skills of drawing, design and sculpture with a touch of video, lighting and special effects training. The student combines these skills with their expertise in object modeling and computer generated animation techniques to produce complex 3D animation projects. Students develop skills for entry-level jobs in the fields of movie animation, gaming animation, and animation for commercials and presentations.

For more information on what you can do with this major, go to http://www.coloradomesa.edu/wccc/programs.html

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic and work place responsibility as part of professional behavior. (Specialized Knowledge)

NAME: _____ **STUDENT ID #** _____

LOCAL ADDRESS AND PHONE NUMBER: _____

_____ ( ) _____

I, (Signature)_____, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

_____ _____ 20_____
Signature of Advisor — Date

_____ _____ 20_____
Signature of Department Head — Date

_____ _____ 20_____
Signature of Registrar — Date

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degree Requirements:

- Minimum of 60 semester hours total (A minimum of 16 taken at CMU in no fewer than two semesters)
- 2.00 cumulative GPA or higher in all CMU coursework
- A grade of "C" or higher must be achieved in coursework toward the major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (Minimum 15 semester hours) See the current catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course No	Title	Sem.hrs	Grade	Term/Trns
English (6 semester hours)				
ENGL 111	English Composition	3	____	_____
ENGL 112	English Composition	3	____	_____
-OR-				
ENGL 111	English Composition and	3	____	_____
SPCH 101	Interpersonal Communication or	3	____	_____
SPCH 102	Speechmaking	3	____	_____

Mathematics : **MATH 108** or higher (Minimum 3 semester hours)
MATH 1___ _____ 3* ____ _____
*3 credits apply to the General Ed requirements and 1 credit applies to Electives if, 4 credits of higher Math are taken.

Course No	Title	Sem.hrs	Grade	Term/Trns
Social Sciences, Natural Science, Fine Arts, or Humanities or Selected Applied Studies Courses* (Minimum 6 semester hours)				
____	___ _____	3	____	_____
____	___ _____	3	____	_____

OTHER LOWER DIVISION REQUIREMENTS

Wellness (2 semester hours)				
KINE 100	Health and Wellness	1	____	_____
KINA 1___	_____	1	____	_____

ASSOCIATE OF APPLIED SCIENCE: VISUAL COMMUNICATIONS- ANIMATION TECHNOLOGY COURSE REQUIREMENTS
(43 semester hours)

MGDA 129	History of Animation	3	____	_____
MGDA 111	Digital Image Editing	3	____	_____
MGDA 152	Animatics & Storyboarding	3	____	_____
MGDA 153	Beginning 3D Animation	3	____	_____
MGDA 164	Digital Video Editing I	3	____	_____
MGDA 253	3D Animation Character Design	3	____	_____
MGDA 257	Animation Production	3	____	_____
MGDA 220	3D Anim. Character Rigging	3	____	_____
MGDA 270	Advanced 3D Animation	3	____	_____
MGDA 149	Animation Drawing/Design	3	____	_____
ARTE 102	Three-Dimensional Design	3	____	_____
MGDA 165	Digital Compositing	3	____	_____

Electives (7 semester hours)
(With instructor's advisement)

____	___ _____	___	____	_____
____	___ _____	___	____	_____

*Please see your instructor for program specific requirements.

**This program has an articulation agreement with the B.F.A. in Graphic Design-Animation program. For more information, contact an academic advisor.

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE IN VISUAL COMMUNICATIONS WITH AN EMPHASIS IN ANIMATION TECHNOLOGY

FRESHMAN YEAR

First Semester		Hours
ENGL 111	English Composition	3
MGDA 111	Digital Image Editing	3
MGDA 152	Animatics & Storyboarding	3
MGDA 149	Animation Drawing/Design	3
MGDA 153	Beginning 3D Animation	3
		15

Second Semester		Hours
ARTE 102	Three-Dimensional Design	3
ENGL 112	English Composition or SPCH 101/102	3
MGDA 129	History of Animation	3
MGDA 164	Digital Video Editing I	3
MGDA 253	3D Animation Character Design	3
		15

SOPHOMORE YEAR

Third Semester		Hours
* Social Sciences, Natural Science, Fine Arts, Humanities or Selected Applied Studies Courses		3
MATH 108	Technical Mathematics	4
MGDA 165	Digital Compositing	3
MGDA 220	3D Animation Character Rigging	3
MGDA 270	Advanced 3D Animation	3
		16

Fourth Semester		Hours
* Social Sciences, Natural Science, Fine Arts, Humanities or Selected Applied Studies Courses		3
KINE 100	Health and Wellness	1
KINA*	Aerobic and Fitness Activity	1
MGDA 257	Animation Production	3
*Elective		3
* Elective		3
		14

POLICIES:

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).

WESTERN COLORADO COMMUNITY COLLEGE
A Division of Colorado Mesa University

2014-2015 PETITION/PROGRAM SHEET
Award: Technical Certificate
Program of Study: Visual Communications
Specialization: Animation Technology

About This Certificate . . .

The Animation Technology certificate prepares students for 3D Animation production work. 3D Digital Animation is all about the art of visual storytelling. During this program, you'll cover the in-depth fundamentals of classical animation based on the 12 Principals of Animation, as well as character development and rigging. The Student gains experience using industry standard software to produce animations and portfolios. Students develop skills for entry-level jobs in the fields of TV and movie production as well as presentation design.

For more information on what you can do with this major, go to http://www.coloradomesa.edu/wccc/programs.html

All CMU certificate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic and work place responsibility as part of professional behavior. (Specialized Knowledge)

NAME: _____ STUDENT ID # _____

LOCAL ADDRESS AND PHONE NUMBER: _____

_____ ( ) _____

I, (Signature)_____, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

_____ _____ 20_____
Signature of Advisor Date

_____ _____ 20_____
Signature of the Department Head Date

_____ _____ 20_____
Signature of Registrar Date

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degree Requirements:

- 2.00 cumulative GPA or higher in all CMU coursework and a "C" or better must be achieved in major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the catalog for additional graduation information.

TECHNICAL CERTIFICATE: VISUAL COMMUNICATIONS – ANIMATION TECHNOLOGY (31 semester hours)

Course No	Title	Sem.hrs	Grade	Term/Trns
Core Classes				
MGDA 111	Digital Image Editing	3	____	_____
MGDA 152	Animatics & Storyboarding	3	____	_____
MGDA 153	Beginning 3D Animation	3	____	_____
MGDA 164	Digital Video Editing I	3	____	_____
MGDA 129	History of Animation	3	____	_____
MGDA 253	3D Animation Character Design	3	____	_____
MGDA 149	Animation Drawing/Design	3	____	_____
ARTE 102	Three-Dimensional Design	3	____	_____
MATH 108	Technical Mathematics	4	____	_____
*	Technical Elective	3	____	_____

SUGGESTED COURSE SEQUENCING FOR THE TECHNICAL CERTIFICATE IN VISUAL COMMUNICATIONS WITH A SPECIALIZATION IN ANIMATION TECHNOLOGY

First Semester		Hours
MATH 108	Technical Mathematics	4
MGDA 111	Digital Image Editing	3
MGDA 149	Animation Drawing/Design	3
MGDA 152	Animatics & Storyboarding	3
MGDA 153	Beginning 3D Animation	3
		16

Second Semester		Hours
ARTE 102	Three-Dimensional Design	3
MGDA 129	History of Animation	3
MGDA 164	Digital Video Editing I	3
MGDA 253	3D Animation Character Design	3
*	Technical Elective	3
		15

POLICIES:

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the Catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December**.
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the semester prior to the semester of **graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).

Appendix F

Class Syllabi

Course Title: Digital Image Editing
Course Number/Section: MGDA 111 - 001
CRN#: 24291/Fall 2014
Credit Hours: 3
Class Times: 3 - 4:30pm MWF
Instructor: Dan McClintock
Office Hours: 2-3pm M-F (Rm BB159)
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Students concentrate on the high-end capabilities of raster photo-editing software as an illustration, design and photo-retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. In addition, students will become familiar with basic photographic skills.

Competencies:

- Examine the digital image editing application and determine its relationship with other multimedia applications.
- Use the software to generate computer graphics.
- Combine graphic techniques.
- Demonstrate use of design principles by applying them in their arrangement of graphic and text elements.
- Use a scanner, digital camera, and CD stock images to import images into the Photoshop application.
- Make selections with selection tools.
- Create effective composites.
- Create basic shapes and designs and then color them using a variety of methods.
- Paint and fill images with color.
- Organize artwork in each file.
- Set-up and use layers and palettes.
- Measuring image and objects using the ruler and guides.
- Comprehend basic functions of masks and channels.
- Observe basic functions of exporting to various multimedia programs.

Course Objectives:

I. Basics of Photography
- a. Lenses
- b. Exposure
- c. Depth of field

II. Importing Imagery
- a. Scanner
- b. Digital Camera
- c. Stock Images
- d. Size versus Resolution
- e. Copyright/Chain of Title

III. Raster vs. Vector Files
- a. Formats

IV. Tools and Desktop
- a. Selection
- b. Editing
- c. Filling

V. Layers and Palettes

VI. Transformations
- a. Destructive/Non-destructive

VII. Color
- a. Fill
- b. Stroke
- c. Blending
- d. Color Space
  - i. Bit depth
  - ii. Dpi
  - iii. Video vs. Cinema vs. Print

VIII. Text and Type Effects
- a. Tracking, leading, baseline, alignment
- b. Vertical and Horizontal
- c. Type Mask

IX. Visual Elements
- a. Line
- b. Shape Value
- c. Texture
- d. Color
- e. Space

X. Principles of Design
- a. Balance
- b. Scale
- c. Proportion
- d. Movement
- e. Dominance
- f. Harmony-Rhythm and Repetition
- g. Unity and Variety

XI. Pen tool and Paths
- a. Saved Paths
- b. Clipping Paths
- c. Stroking and Filling Paths
- d. Layer Masks and Channels

XII. Textures
- a. Texture Tiling
- b. Depth Mapping
- c. Cloning/Patching/Content Aware Fill
- d. Safe Areas
- e. Alpha Channels
- f. UV Overlays

XIII. Output
- a. Print
- b. Web
- c. Video
- d. Digital Cinema

Materials Required:
- Flash Drive (1 GB recommended)
- Headphones or ear buds
- Cell Phone, Point-and-Shoot, or DSLR Camera and their connecting cables.
- Camera SDI Card (depending on your camera)

Software/Hardware Used:
- Adobe Photoshop CC 2014
- Wacom Tablet
- Online Storage
- Behance

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	50%
Quizzes	25%
Final Project	25%

Software and Hardware –

The software on WCCC computers is considered some of the most popular in the world. While this class shows you basic techniques, in order to master any piece of software, students must continue training on their own. Because of that, hundreds of tutorials can easily be found online to augment your training. Lab hours are extensive and designed to be flexible with your time schedule. If you have an external hard drive or flash drive, you may use any open computer after 2:15pm in any of our three lab spaces to work on projects. If a college class is going on you may have to inform the instructor you are working and won't interfere with their class. Do not interrupt any high school classes. You may use open source software, but be aware that you will still have to demonstrate your knowledge of the competencies listed in this syllabus. Also know that CMU IT personnel neither install nor optimize personal software nor repair private hardware. While there is some space in our labs you can use for personal laptops, there is no guarantee of external power or Internet wifi access.

Attendance –

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. "Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class. (See page 37 of CMU Catalog 2014-2015.) All classes start on time. If a student is more than 20 minutes tardy, they will be asked to leave. Two tardies equals an absence. If a student is tardy, they are responsible to catch up on any notes from other classmates. Most quizzes are done in the first 10 minutes of class. If you miss them because you're tardy, you will not be able to make them up.

Cell Phones/Personal Media Players –

This classroom represents a professional environment. During class hours, all phone calls and texts must be taken in the hallway. Personal media players must be put away during lectures. All ear buds must be taken out during lectures. If you

Course Title: Adobe Illustrator I
Course Number/Section: MGDA 112-002
CRN#: 25356/Fall 2014
Credit Hours: 3
Class Times: 3-5:14pm TR
Instructor: Dan McClintock
Office Hours: 2-3pm M-F (Rm BB159)
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Acquaints students with the processes of a vector-based drawing program on the computer. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design.

Competencies:
- Use vector design software to generate computer graphics.
- Combine graphic techniques.
- Examine the software application and determine relationships with other multimedia applications.
- Demonstrate a basic knowledge of vocabulary, skills and the technology required to design and use the design software with emphasis upon the drawing tools.
- Demonstrate usage of design principles by applying them in their arrangement of text elements.
- Create computer-generated art that demonstrates a basic knowledge of computer design principles and processes for output.
- Identify and apply visual elements to computer-generated art problems.
- Assemble projects for discussion and presentation that demonstrate professionalism.
- Understanding copyright.
- Understanding output

Course Objectives:
I. **Tools**
   a. Pen
   b. Strokes and Brushes
   c. Primitive Shapes
II. **Layers and Palettes**
III. **Transformations**
   a. Scale
   b. Rotate
   c. Perspective
IV. **Color**
   a. Fill
   b. Stroke
V. **Text And Type Effects**
VI. **Vector Files**
   a. Formats
VII. **Paths**
   a. Clipping Paths
   b. Pathfinder Palette
   c. Combining Paths
VIII. **Visual Elements**
   a. Line
   b. Shape
   c. Value
   d. Texture
   e. Color
   f. Space
IX. **Principles of Design**
   a. Balance
   b. Scale
   c. Proportion
   d. Movement
   e. Dominance
   f. Harmony-Rhythm and Repetition
   g. Unity and Variety
X. **Copyright**
XI. **Output**
   a. Print
   b. Web
   c. Video
   d. Digital Cinema

Materials Required:
- *Flash Drive (1 GB recommended)*
- *Headphones or ear buds*

Software/Hardware Used:
- *Adobe Illustrator CS6*
- *Wacom Tablet*
- *Dropbox or Google Drive*

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	50%
Quizzes	25%
Final Project	25%

Software and Hardware –

The software on WCCC computers is considered some of the most popular in the world. While this class shows you basic techniques, in order to master any piece of software, students must continue training on their own. Because of that, hundreds of tutorials can easily be found online to augment your training. Lab hours are extensive and designed to be flexible with your time schedule. If you have an external hard drive or flash drive, you may use any open computer after 2:15pm in any of our three lab spaces to work on projects. If a college class is going on you may have to inform the instructor you are working and won't interfere with their class. Do not interrupt any high school classes. You may use open source software, but be aware that you will still have to demonstrate your knowledge of the competencies listed in this syllabus. Also know that CMU IT personnel neither install nor optimize personal software nor repair private hardware. While there is some space in our labs you can use for personal laptops, there is no guarantee of external power or Internet wifi access.

Attendance –

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. "Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class. (See page 37 of CMU Catalog 2014-2015.) All classes start on time. If a student is more than 20 minutes tardy, they will be asked to leave. Two tardies equals an absence. If a student is tardy, they are responsible to catch up on any notes from other classmates. Most quizzes are done in the first 10 minutes of class. If you miss them because you're tardy, you will not be able to make them up.

Cell Phones/Personal Media Players –

This classroom represents a professional environment. During class hours, all phone calls and texts must be taken in the hallway. Personal media players must be put away during lectures. All ear buds must be taken out during lectures. If you are just using a lab, all phone calls must be taken in the hall.

Student Expectations:

Classrooms and Labs –

No food, candy or soft drinks are allowed in the labs. The only drink allowed is water in twist-cap or rubber-stopped clear water bottles only. Bottled soda and wrapped food may be kept in closed backpacks, but must be consumed in the hall. Occasionally the instructor may have you clean your screen, keyboard, mouse, and work area.

Please note that WCCC facilities and equipment are for current student use only and cannot be used for outside projects not associated with either WCCC or CMU. School software and equipment may be used for assignments with other CMU or WCCC classes, however they can only be worked on outside of class time.

Educational Access Services –

In coordination with Educational Access Services, reasonable accommodations will be provided for qualified students with disabilities. Students must register with the EAS office to receive assistance. Please meet with the instructor the first week of class for information and/or contact Dana VandeBurgt, the Coordinator of Educational Access Services, directly by phone at 970-248-1801, or in person in Houston Hall, Suite 108.

Course Title: History of Animation
Course Number/Section: MGDA 129 - 001
CRN#: 24292/Fall 2014
Credit Hours: 3
Class Times: 12-12:50pm MWF
Instructor: Dan McClintock
Office Hours: 2-3pm M-F (Rm BB159)
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Presents students with a descriptive overview of the advent and evolution of American cinema animation from its earliest origins through the present day. Students examine important individuals and studios in the animation field. Students view, analyze and peer critique animation examples in film and media. Social, cultural, artistic movements, and influences on contemporary animation styles and animation technique are examined..

Competencies:
- Understand the basic physics and theory of animation.
- Understand a variety of techniques and technological applications relevant to animation.
- Recognize important historical figures in animation.
- Recognize and analyze important historical film/ visual examples of animation.
- Identify significant trends and styles in the animation field.
- Identify current threads of influence in animation.
- Create effective composites.
- Refine research skills.
- Produce professional presentations.

Course Objectives:

I. Research Skills
- a. Online Search Engines
- b. Library Indexes
- c. Attribution

II. Presentation Skills
- a. Structure
- b. Tone, Pitch & Volume
- c. Working the Audience
- d. Visual Aids
- e. Focus and Energy

III. Origins
- a. Toys and Technology
- b. Extending Popular Culture
- c. Experimentation
- d. Early Examples

IV. Birth of an Industry
- a. First Industrial Applications
- b. Growth & Development of Art & Technique

V. Fleisher Studios
- a. Abandoning the Naturalistic
- b. Rotoscoping

VI. Disney's Golden Era
- a. Fast Track to Success
- b. Major Contributing Animators
- c. The Animated Feature

VII. Warner Bros.
- a. Major Contributing Directors

VIII. UPA
- a. Influence of Jazz & Modern Art
- b. Destruction by HUAC

IX. Model & Clay Animation
- a. Earliest Examples
- b. Lead Animators

X. TV Animation
- a. Limited Animation
- b. Hanna-Barbera
- c. Economics of Saturday Morning
- d. Cable & Internet

XI. The Current Era
- a. Computer Revolution
- b. Animation & Games
- c. Hybridization of 2D/3D
- d. Foreign Influence

Book Required:
The World History of Animation
Stephen Cavalier
ISBN-10: 0520261127
ISBN-13: 978-0520261129

Materials Used:
- *During this course you will be asked to create various projects that require paper, pencils, erasers, cameras (cell phones are alright.)*

Many of the cartoons you are about to see in this class are products of their time. They may depict some of the ethnic and racial prejudices that were commonplace in American society. These depictions were wrong then and are wrong today. While such stories do not represent the Western Colorado Community College and Colorado Mesa University views of today's society, these cartoons are being presented as they were originally created, because to do so otherwise would be the same as claiming these prejuices never existed.

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	60%
Quizzes	20%
Final Project	20%

Software and Hardware –

The software on WCCC computers is considered some of the most popular in the world. While this class shows you basic techniques, in order to master any piece of software, students must continue training on their own. Because of that, hundreds of tutorials can easily be found online to augment your training. Lab hours are extensive and designed to be flexible with your time schedule. If you have an external hard drive or flash drive, you may use any open computer after 2:15pm in any of our three lab spaces to work on projects. If a college class is going on you may have to inform the instructor you are working and won't interfere with their class. Do not interrupt any high school classes. You may use open source software, but be aware that you will still have to demonstrate your knowledge of the competencies listed in this syllabus. Also know that CMU IT personnel neither install nor optimize personal software nor repair private hardware. While there is some space in our labs you can use for personal laptops, there is no guarantee of external power or Internet wifi access.

Attendance –

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. "Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class. (See page 37 of CMU Catalog 2014-2015.) All classes start on time. If a student is more than 20 minutes tardy, they will be asked to leave. Two tardies equals an absence. If a student is tardy, they are responsible to catch up on any notes from other classmates. Most quizzes are done in the first 10 minutes of class. If you miss them because you're tardy, you will not be able to make them up.

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Student Expectations:

Classrooms and Labs –

No food, candy or soft drinks are allowed in the labs. The only drink allowed is water in twist-cap or rubber-stopped clear water bottles only. Bottled soda and wrapped food may be kept in closed backpacks, but must be consumed in the hall. Occasionally the instructor may have you clean your screen, keyboard, mouse, and work area.

Please note that WCCC facilities and equipment are for current student use only and cannot be used for outside projects not associated with either WCCC or CMU. School software and equipment may be used for assignments with other CMU or WCCC classes, however they can only be worked on outside of class time.

Educational Access Services –

In coordination with Educational Access Services, reasonable accommodations will be provided for qualified students with disabilities. Students must register with the EAS office to receive assistance. Please meet with the instructor the first week of

Course Title: Animation Drawing and Design
Course Number/Section: MGDA 149 - 001
CRN#: 24293/Fall 2014
Credit Hours: 3
Class Times: 12 - 2:15pm TR
Instructor: Vera Mulder
Office Hours: By Appointment
Contact Information: TBA

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Students learn the foundational skills necessary to create characters for use in computer based animation courses. Students learn to draw human and animal forms using pencil and paper. Character development, anatomy, dynamic movement and action, and scenery are emphasized.

Competencies:
- Demonstrate drawing techniques
- Draw human and animal forms
- Analyze and develop character movement
- Research and develop a character
- Create a model sheet for a character
- Design a scene with a character

Course Objectives:
I. Drawing human forms
  a. Structure
  b. Surfaces, features, details
II. Drawing animal forms
  a. Structure
  b. Surfaces, features, details
III. Movement
  a. Types of movement
  b. Direction
IV. Point of View
V. Characterization
  a. Historic and Literary
  b. Archetypes
  c. Movement, Structure
  d. Personality, demeanor
  e. Clothing, accessories
VI. Model Sheet
VII. Location
  a. Perspective/Architecture
  b. Natural Settings
VIII. Lighting and Mood

Materials Required:
- Drawing Book
- Drawing Pencils
- Eraser

Textbook:
- None Required

Course Expectations:
Assignments –
Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	50%
Quizzes	25%
Final Project	25%

Software and Hardware –
The software on WCCC computers is considered some of the most popular in the world. While this class shows you

Course Title: Animatics and Storyboarding
Course Number/Section: MGDA 152-001
CRN#: 24294/Fall 2014
Credit Hours: 3
Class Times: 9:30am-11:45pm TR
Instructor: Dan McClintock
Office Hours: 2-3pm M-F (Rm BB159)
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Introduces the steps followed by professional filmmakers, producers, advertisers, animators, and game designers for producing media in a digital environment. Students learn the foundational skills of planning, organizing, storyboarding and pre-visualization techniques necessary to create marketable stories.

Competencies:
- Understand how to write a story visually.
- Compare and contrast animation techniques.
- Analyze storyboarding techniques used in animated environments.
- Experiment with camera view techniques.
- Explore timing movements of objects for an animation sequence.
- Articulate image and sound synchronization
- Compose and design characters and scenes using visual design techniques.
- Understanding copyright.

Textbook (Required):
Title: *Directing the Story*
Author: *Francis Glebas*
Publisher: *Focal Press*
ISBN-10: *0240810767*

Additional Textbook (Not Required but Useful):
Title: *Setting Up Your Shots*
Author: *Jeremy Vineyard*
Publisher: *Michael Wiese Productions*
ISBN-10: *1932907424*

Materials Required:
- *Flash Drive (1 GB recommended)*
- *Sketchbook and Notebook*
- *Drawing Pencils*
- *PaperMate Pink Pearl Erasers*
- *Headphones or Ear Buds*
- *5x7-inch Camping Mirror w/Stand*

Software/Hardware Used:
- *Celtx*
- *Wacom Tablet*
- *HP Scan*
- *Krita Desktop, BlackMagic Resolve, Adobe Audition CC*
- *Microsoft PowerPoint*

I. **Storyboarding & Story Scripting Principles**
   a. Telling the story
   b. Adaptation from script
   c. Thinking visually
   d. Shot list
   e. Diagramming
   f. Treatment

II. **Scene and Design**
   a. Balance
   b. Scale
   c. Proportion
   d. Movement
   e. Dominance
   f. Harmony, rhythm, and repetition
   g. Unity and variety

III. **Perspective**
   a. Vanishing point
   b. Depth of field

IV. **Aspect Ratios**
   a. What are aspect ratios
   b. History of aspect ratios
   c. Common formats of aspect ratios

V. **View Techniques**
   a. Shot descriptions
   b. Pans
   c. Zooms
   d. Upshots, down shots, wide shots
   e. Camera perspectives

f. Lenses

VI. Principles of Animation
- a. Squash and Stretch
- b. Anticipation
- c. Staging
- d. Straight ahead and pose to pose
- e. Follow-through and overlap
- f. Slow out slow in
- g. Arcs
- h. Secondary action
- i. Timing
- j. Exaggeration
- k. Solid drawing
- l. Appeal

VII. Posing exercises
- a. Relaxed
- b. Gestures
- c. Walks, runs, jumps and skips
- d. Staggers, wave and whip

VIII. Continuity
- a. Basic principles of continuity
- b. Drawing for dialogue

IX. Lighting
- a. Emotion and color
- b. Design for animation
- c. Light quality
- d. Direction of light

X. Animatics
- a. Drawing for animatics
- b. Importance of timing

XI. Track and Timeline
- a. Frames per second
- b. Easing in and out
- c. Axis of picture plane

XII. Dialogue
- a. Picture & sound sync
- b. Attitude

XIII. Copyright

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	60%
Quizzes	15%
Final Project	25%

This class teaches concepts – not the software. Students will extensively use vector-based and raster-based software, as well as drawing skills. Though you can complete this course without that knowledge going in, it will be demanding and you will have to dedicate time out of class to succeed. If you are currently taking, or have taken, Digital Image Editing, or Illustrator I, or Animation Drawing/Design, or have previous experience, you will have no issues with this class.

Software and Hardware –

The software on WCCC computers is considered some of the most popular in the world. While this class shows you basic techniques, in order to master any piece of software, students must continue training on their own. Because of that, hundreds of tutorials can easily be found online to augment your training. Lab hours are extensive and designed to be flexible with your time schedule. If you have an external hard drive or flash drive, you may use any open computer after 2:15pm in any of our three lab spaces to work on projects. If a college class is going on you may have to inform the instructor you are working and won't interfere with their class. Do not interrupt any high school classes. You may use open source software, but be aware that you will still have to demonstrate your knowledge of the competencies listed in this syllabus. Also know that CMU IT personnel neither install nor optimize personal software nor repair private hardware. While there is some space in our labs you can use for personal laptops, there is no guarantee of external power or Internet wifi access.

Attendance –

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. "Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class. (See page 37 of CMU Catalog 2014-2015.) All classes start on time. If a student is more than 20 minutes tardy, they

Course Title: Beginning 3D **Animation**
Course Number/Section: MGDA 153 / 001
CRN#/Semester/MOD: 24069/Fall 2014
Credit Hours: 3
Class Times: MWF 5:00 pm to 6:30 pm. Lecture/Lab
Instructor(s): Arn McConnell
Office Hours: By request
Contact Information: Email: amcconne@coloradomesa.edu

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Introduces basic concepts used by professional animators for producing scenes. Focusing on multiple modeling techniques, basic materials, key framing, lighting, and cameras

Text Book and Materials:
If you are an animation major, it is highly recommended you have an external drive. You will need the drive for more than just this class. Drive specifications: No less than 500 gigabytes in size, FireWire 400 ***and*** USB 2.0 connectors, 7200 rpm with a 32mb cache minimum. *If you use a previously owned drive, be aware that it will be reformatted to include Windows and Mac partitions.*

I. Introduction to 3D theory and Animation theory and design as well as theories on design.
II. The Plan
III. Project Management
    a. Files and file types
    b. Storage
IV. Pre-production basics
    a. Sketching for modeling
V. User interface
VI. Modeling for animation
    a. Nurbs modeling
    b. Spline modeling
    c. poligon subdivision modeling
VII. Modifiers
    a. Types
    b. Parameters
VIII. Camera skills
    a. Types of Cameras
    b. FOV
    c. Focal Length
IX. Animation skills
    a. Path animation
    b. Use of actions
X. Lighting skills
XI. Types of lights and uses

a. Real world lighting vs. digital lighting
b. Shadows

XII. Texture mapping and Materials
a. File considerations
b. Surface and properties
c. Procedural mapping
d. Decals and signage

XIII. Rendering and final output
a. Ray tracing
b. Format options

Grading:

70% projects, 10% quizzes, 20% final project.

Course Expectations:

Attendance

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. ("Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class.) (See page 36 CMU Catalog 2012-2013)

Cell Phones/Personal Media Players/Tablets/Laptop Computers:

This classroom represents a professional environment. During class hours, all personal phone calls and texts must be taken in the hallway. Personal media players must be put away during lectures. All ear buds must be taken out during lectures. *Laptops and tablets can be used for taking notes only.*

Assignments:

If you have an external drive, you may take the media (not software) home to work on the project. However, you will still need to use the class software and computers during tests and certifications. If you have an external drive you may use any available computers during the high school classes to work on projects.

Students will be responsible for all homework assignments. Late work will not be counted but I will give you ample to time to complete each assignment. Students will comply with MSC handbook.

Student Expectations:

Classroom and Labs

Course Title: Digital Video Editing I
Course Number/Section: MGDA 164-001
CRN#: ?????/Spring 2015
Credit Hours: 3
Class Times: ??:??pm TR
Instructor: Dan McClintock
Office Hours: 2:30pm MTW; 11am TR
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO
COMMUNITY COLLEGE
A Division of Colorado Mesa University

Course Description:
Introduces the student to digital non-linear video editing. Students will edit, manipulate and compress/export video using a personal computer. Assembly techniques including media management, editing tools, titles, and motion control; transitions and filters, and special effects are explored.

Competencies:

- Create content for editing through scriptwriting, basic storyboarding and shooting.
- Compose video content through input of digital video.
- Use editing techniques to tell the story.
- Produce video output to various formats
- Configure computer for non-linear editing
- Create a digital video
- Apply video effects and digital compositing
- Understand principles of audio
- Record and edit audio to video.
- Understand principles behind color correction.
- Develop and produce digital video assests for multimedia.
- Understanding copyright.

Course Objectives:

I. File Management, Tools and Display
II. Script Analysis for Editing
III. Video Input/Output
  a. Interlace/Progressive
  b. NTSC/PAL
  c. Web
  d. Mobile
  e. Digital Cinema
  f. Render and Compression
  g. Codecs
IV. Editing Techniques
  a. Trim
  b. Split
  c. Rolling
  d. Ripple
  e. Transitions
  f. Timecode
V. Graphic, Text, Visual Elements and Principles
VI. Effects
VII. Keyframes
VIII. Audio
  a. Mixing
  b. Editing to Video
  c. Foley
IX. Camera Work
  a. Composition
  b. 180 Rule
  c. Shooting for the Editor
  d. Capturing Audio for the Editor
X. Color Correction/Grading
XI. Copyright

Materials Required:

- *7200 RPM External Hard Drive*
- *Headphones or ear buds*

Software/Hardware Used:

- *Adobe Premiere Pro CC 2014*
- *Adobe Speedgrade CC 2014*
- *Adobe Photoshop CC 2014*

Schedule:

Week 1:
- January 21: Introductions to Course; Workflow; Preparing Your Workspace; Begin Principles of Editing
- January 23: Principles of Editing (Cont.); Telling the Story

Week 2:
- January 28: Principles of Editing (Cont.); Telling the Story
- January 30: **Begin "Grand Junction: The Movie" Project**

Week 3:
- February 4: "Grand Junction: The Movie (cont.); Editing Project
- February 6: "Grand Junction: The Movie (cont.): Editing Project

Week 4:
- February 11: **"Grand Junction: The Movie" project due at beginning of class.** Export via web. Begin learning camera.
- February 13: **Beginning "Commercial" Project.** Writing the commercial script, creating thumbnails

Week 5:
- February 18: Shooting the commericials
- February 20: Finish shooting

Week 6:
- February 25: First cut of commercial due at end of class. Cutting to exact time.
- February 27: Graphics, text and music

Week 7:
- March 8: **"Commercial" project due at end of class. Export to smart phone/tablet**
- Marh 10: Class critiques of "Grand Junction: The Movie" and "Commercial" edits.

Week 8:
- March 15: **Begin Foley Project**
- March 22: Foley Project (Cont.)

Week 9:
- March 29: Foley Project (Cont.)
- March 31: **Foley Project due at beginning of class.** Critique Foley work.

Week 10:
- March 24-28: SPRING BREAK: NO CLASSES

Week 11:
- April 8: "Crossing the Lake" Color Correction project begins
- April 10: "Crossing the Lake" (Cont.)

Week 12:
- April 15: ""Crossing the Lake" due at end of class.
- April 17: Critique "Crossing the Lake"

Week 13:
- April 22: **FINAL PROJECT: BEGIN**
- April 24: Final Project (Cont.)

Week 14:
- April 29: Final Project (Cont.)
- May 1: Final Project (Cont.)

Week 15:
- May 6: Final Project (Cont.)
- May 8: **Final Project Due**

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be counted unless arraignments have been previously made with the instructor. Lab computers are available from 7:30am to 7pm Monday-Friday, and 9am-2pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your

Grading:

Assignments	60%
Participation	15%
Final Project	25%

Course Title: Digital Compositing
Course Number/Section: MGDA 165-001
CRN#: 25354/Fall 2014
Credit Hours: 3
Class Times: 5:30-7:45pm TR
Instructor: Dan McClintock
Office Hours: 2-3pm M-F
Contact Information: 970-255-2649 or dmcclint@coloradomesa.edu

WESTERN COLORADO
COMMUNITY COLLEGE
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Course Description:
Provides the fundamental techniques for creating digital motion graphics such as 2D animations, animated logos, video graphics, etc. Classes cover relevant tools and techniques as well as industry standards, delivery methods and output.

Competencies:

- Create and combine storyboarding and scriptwriting.
- Compose video content through input of digital video.
- Produce video output to various formats.
- Create a digital video.
- Creating and moving keyframes.
- Apply effects and create motion through interpolation.
- Target and apply masks.
- Create playbacks and previews.
- Apply filters, mattes, composite, and overlay modes.
- Demonstrate usage of design principles by applying them in their arrangement of graphic and text elements for video and moving content.
- Analyze design elements and principles.
- Develop and produce digital video assets for multimedia.
- Understanding copyright.

Course Objectives:

I. Software Concepts
  a. Compatibility features
  b. Software environment
II. Workflow and managing footage
  a. Moving images
  b. Typography
  c. Layout
  d. Photography and digital imaging
  e. Digital video
  f. Audio editing.
III. Tools and Desktop
IV. Compositions
V. Storyboarding and Scriptwriting
VI. Video Considerations/Standards
  a. Render and Compression
  b. Video
  c. Web
  d. Digital Cinema
  e. YouTube/Vimeo
  f. Social Site Embedding
VII. Bins, Sequences, and Canvas
VIII. Viewer, Timeline for edit Management
IX. Media Management and Preferences
X. Layers
  a. Editing
  b. Nesting
  c. 3D Multipass Renders
XI. Properties and Keyframes
XII. Playback, Previews, and RAM
XIII. Effects Fundamentals
XIV. Standard Effects in Action
  a. Basic
  b. Color Correction/Grading
  c. Greenscreen
XV. 3D Space
XVI. Mask Essentials
XVII. Copyright

Materials Required:

- *Animation Majors — External Drive (500 GB minimum, 7200 RPM, USB 3.0/2.0)*
- *Non-Animation Majors — Flash Drive (1 GB recommended)*
- *Headphones or ear buds*

Software/Hardware Used:

- *Adobe After Effects CC 2014*
- *Adobe Photoshop CC 2014*
- *Adobe Premiere Pro CC 2014*
- *Adobe Illustrator CC 2014*
- *3D program*

Course Expectations:

Assignments –

Students are responsible for the completion of all homework assignments. Late work will not be accepted unless arraignments have been previously made with the instructor. Lab computers are available from 2:15pm to 7pm Monday-Friday, and 10am-4pm Saturday (Depending on lab assistant availability). If you have an external drive, you may take the media (not software) home to work on the project. If you use your own hardware, be advised that if it fails, you are still responsible to have your assignments completed on time. While in class, students are expected to work on assignments for that class. If they do not, they will be asked to leave. Students will comply with guidelines in the CMU handbook.

Grading:	
Assignments	50%
Quizzes	25%
Final Project	25%

Software and Hardware –

The software on WCCC computers is considered some of the most popular in the world. While this class shows you basic techniques, in order to master any piece of software, students must continue training on their own. Because of that, hundreds of tutorials can easily be found online to augment your training. Lab hours are extensive and designed to be flexible with your time schedule. If you have an external hard drive or flash drive, you may use any open computer after 2:15pm in any of our three lab spaces to work on projects. If a college class is going on you may have to inform the instructor you are working and won't interfere with their class. Do not interrupt any high school classes. You may use open source software, but be aware that you will still have to demonstrate your knowledge of the competencies listed in this syllabus. Also know that CMU IT personnel neither install nor optimize personal software nor repair private hardware. While there is some space in our labs you can use for personal laptops, there is no guarantee of external power or Internet wifi access.

Attendance –

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. "Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class. (See page 37 of CMU Catalog 2014-2015.) All classes start on time. If a student is more than 20 minutes tardy, they will be asked to leave. Two tardies equals an absence. If a student is tardy, they are responsible to catch up on any notes from other classmates. Most quizzes are done in the first 10 minutes of class. If you miss them because you're tardy, you will not be able to make them up.

Cell Phones/Personal Media Players –

This classroom represents a professional environment. During class hours, all phone calls and texts must be taken in the hallway. Personal media players must be put away during lectures. All ear buds must be taken out during lectures. If you are just using a lab, all phone calls must be taken in the hall.

Student Expectations:

Classrooms and Labs –

No food, candy or soft drinks are allowed in the labs. The only drink allowed is water in twist-cap or rubber-stopped clear water bottles only. Bottled soda and wrapped food may be kept in closed backpacks, but must be consumed in the hall. Occasionally the instructor may have you clean your screen, keyboard, mouse, and work area.

Please note that WCCC facilities and equipment are for current student use only and cannot be used for outside projects not associated with either WCCC or CMU. School software and equipment may be used for assignments with other CMU or WCCC classes, however they can only be worked on outside of class time.

Educational Access Services –

In coordination with Educational Access Services, reasonable accommodations will be provided for qualified students with disabilities. Students must register with the EAS office to receive assistance. Please meet with the instructor the first week of class for information and/or contact Dana VandeBurgt, the Coordinator of Educational Access Services, directly by phone at 970-248-1801, or in person in Houston Hall, Suite 108.

Course Title: Advanced Character Rigging
Course Number/Section: MGDA 220-001
CRN#/Semester/MOD: 24295 /Fall 2014
Credit Hours: 3
Class Times: MWF 3:00 pm to **4**:30pm
Instructor(s): Daniele Balsamo
Office Hours: Instructor available by appointment. The lab is open after hours by request.
Contact Information: email: dbalsamo@mac.com

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Course Description: Explores advanced character rigging features of a specific 3D modeling and animation software in depth. Students will understand working with joints, forward kinematic (FK) and inverse kinematic (IK) blending and adding controls. Students create spines using nested constraints and expressions to subdivide vertebra poses. Students create spine inverse kinematic curves, rig body movements and characteristics, blending specific joints or movement of bone using FK, IK, pivots, switching and bonesets. Students create facial control systems based on phonemes (visual unit of sound in spoken language), morphing, and creation of eye movement. Students create muscle systems, bind and paint skin, and test a final animated character.

Text Book and Materials:
Book: 3ds Max Animation with Biped by Michele Bousquet and Michael McCarthy
ISBN: 0-321-37572-6
1- Jump drive 1 GB
1- earphones
1-Hand Held Face Mirror

Course Objectives:
I. Advanced Character Creation:
   A. Modeling using advanced Polygon techniques
II. Rigging:
   A. Working with joints (Pivot Points
   B. Understanding FK and IK
   C. FK/IK blending
   D. Constraints and broken rigs
   E. Adding and understanding controls
III. Torso Rigging:
   A. Root Controls
   B. Building a classic body root
   C. Isner Spine
   D. Basic spine
   E. Creating a Spine IK Curve
   F. Adding Stretch to the chain
   G. Solving Rotation Dilemna (Spine Wave Setup)
   H. Compressible Spine and Double Wave Compressible Spine
IV. Pelvis Rigging:
   A. Rigid Hips Technique
   B. Adding the Hip to the Spine Wave Ring

C. Rigging for Ambulation
D. Rigging for Flight

V. Arms:
  A. Rigging the Shoulder
    1. Creating a simple Shoulder setup
    2. Creating a Clavicle Shoulder setup
  B. Rigging the Arm
    1. Forearm rotation
    2. FK/IK Switch

VI. Legs and Feet:
  A. General Planning
  B. Understanding Pivots
  C. Leg IK Handles
  D. FK/IK Switch

VII. Hand Rigging:
  A. General Planning
  B. Orientation
  C. Single Boneset and Palm Boneset Setup
  D. Set-Driven
  E. Set-Driven Keys
  F. Enabling Bend/Lift, Spread, and Palm Bend Controls
  G. Constraining a Hand to a World Object

VIII. Head Rigging:
  A. Eye and Jaw Rigging
  B. Jointed Jaw and Non-Jointed Jaw Rigging
    1. Morphing Open Mouth Poses
    2. Lips and Mouth Depth
    3. Teeth and Jaw Rigging
    4. Lip Parting
  C. Eye Connection and Rotation
  D. Head Controls
  E. Realistic Eyes with Lacrimal In-Out and Lacrimal Out-In
  F. Facial Movement
    1. Creating and Using Viseme References
  G. Facial Expressions
    1. Morphs and Deformers
    2. Planning Deformation Control Systems
    3. Joints, Influence Objects, and Morphs
    4. Facial Representation
    5. Attribute Controls
  H. Creating Facial Control Systems
    1. Facial Control Positioning
      a. Deforming and Organizing your Rig
    2. Stretchy IK
    3. Influence Objects for the Brow, Eye Lid, and Mouth

IX. Muscle Systems

A. Creating a Muscle System
B. Basic Muscle Theory

X Animation and Testing
A. Bomb proofing your Rig
B. Binding the Skin
C. Painting Skin Weights
D. Final Animation Testing and Rendering

Grading: 60% projects, 10% quizzes, 10% participation and 20% final project.

Course Expectations: Meet and maintain the minimum conditions of the student handbook for Colorado Mesa University.

Attendance:

Attendance as per the student handbook for Colorado Mesa University students:
http://www.coloradomesa.edu/academics/policies/attendance.html
"Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. ("Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class.)

Attendance during the first two class periods is required. Any instructor has the option of dropping any student who fails to attend the first two class meetings so that other students may enroll. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will result in an automatic drop from a class.

It is the responsibility of the student to arrange in advance with instructors for making up missed classwork, assignments or tests incurred because of a student's participation in required field trips, intercollegiate sports, or other trips. The coach, instructor, or other official whose activities require students to be absent from classes should give each participating student an "official" roster and schedule of events for the semester or other appropriate time span which may result in classes being missed. The student is responsible for contacting the instructor of each of his/her classes affected at least 24 hours in advance of each class that will be missed.

Absences due to serious illness or strictly unavoidable circumstances may be excused if the instructor in charge of the course is satisfied as to the cause. In the case of an emergency, the student may contact the Office of the Vice President for Student Services and Outreach, and that office will contact the student's instructors to inform them of the emergency.

Being excused for an absence in no way relieves the student of responsibility for completing all work associated with the course to the satisfaction of the instructor.
Being late to a class or leaving a class early is disruptive and is not acceptable except in extreme circumstances or with prior approval of the instructor. Prior approval is also required of the instructor if a student wishes to bring a guest (or a child) to class.

Course Title: 3D Animation Production
Course Number/Section: MGDA 257 / 001
CRN#: 46560/Spring 2014
Credit Hours: 3
Class Times: Lab M,W 5:30 pm to 7:45 pm.
Instructor(s): Arn McConnell
Office Hours: By request.
Contact Information: Email: amcconne@mesastate.edu

WESTERN COLORADO
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A Division of Colorado Mesa University

Course Description:
Examines development of 3D animation from a production standpoint. The process of transforming conceptual designs into actual projects is explored. Students study the management function of those tasks associated with the business end of development. The student will produce a 3D animation project

Text Book and Materials:
1- Jump drive 1 GB
1- earphones

Book:
TBD

Course Objectives:

I. Planning and organization breakdown of animation project
   a. Script
   b. Storyboard and character development and design
   c. Animatic
   d. Rough 3D modeling
   e. Detailed modeling
   f. Animating characters
   g. Scene Layout
II. Texturing
   a. Integrate graphics
III. Lighting
IV. Composition and special f/x
V. Rendering
VI. Production of demo reel

Grading:
Final Project 25%
Assignments 50%
Quizzes 25%

Course Expectations:

Attendance: Any day missed over four days will result in a grade loss of 1% for each day. Three tardies equals one absence. A note from a healthcare professional required if ill for more than two class periods.

Cell Phones/Personal Media Players/Tablets/Laptop Computers: This classroom represents a professional environment. During class hours, all personal phone calls and texts must be taken in the hallway. Personal media players must be put away during lectures. All ear buds must be taken out during lectures. *Laptops and tablets can be used for taking notes only.*

Homework: If you have an external drive, you may take the media home to work on the project. However, you will still need to use the class software and computers during tests and certifications. If you have an external drive you may use any available computers during the high school classes to work on projects.

Course Requirements:
This course is a lecture/Lab course requiring 45 contact hours per semester. There are four requirments of the course:
1.) Participation: Participation in every scheduled class is expected. Participation will be graded either orally or by way of written or created work.
2.) Assignments: Problems will be assigned frequently throughout the course. It is the students' responsibility to ensure that each problem in the assignment is completed and understood. Material covered by the problem is eligible quiz material.
3.) Quizzes: Quizzes MAY be given on every chapter. Quizzes will only be given on material which has been discussed in class and/or provided in the reading assignments. There will be no make-up quizzes.
4.) Final Project: A comprehensive final project will be created at the end of the year. The final will include a presentation to the class. There will be no maike-ups on the project without prior notification. If you cannot attend class on the presentation date, the instructor must be notified BEFORE the presentation time.

5.) Assesments: Assesments will be made on material in various forms. Projects, hands on work, written descriptions, verbal descriptions.

Non-Discrimination Statement—

- This class follows both Mesa State College and Colorado State policy in regards to discrimination.
    - Will not discriminate because of race, color, religion, creed, sex, gender (including pregnancy), age, national origin, veteran status, ancestry, disability, marital status and sexual orientation.
- Slurs, derogatory statements, jokes, stereotyping and other demeaning or adverse treatment are examples of conduct that will not be welcomed.

Other—
No food is allowed in the lab. Any drinks must be in a twist-cap container or rubber-stopped water bottle only. Since many people use these computers, please wipe or clean the keyboard, mouse and glass monitor screen at the end of each class.

External Program Review

Visual Communications Program

- Associate of Applied Science Degree
- Technical Certificate
- Digital Design High School Program

Western Colorado Community College
Colorado Mesa University

Submitted by:
Marcia Reifman
Chair, Media Arts Department
Santa Fe Community College
Santa Fe NM 87508
505-428-1517
marcia.reifman@sfcc.edu

Submitted to:
Dr. Steven Werman
Assistant Vice president, Academic Affairs
Colorado Mesa University
Site Visit Conducted: April 17, 2015

The reviewer received the following documents before and during the onsite visit on April 17, 2015:

- Visual Communications Internal Program Review (2013-2014)
- Program Reviewer Information
- Executive Summary Table
- Onsite Schedule for Reviewer
- Program Outcome and Assessment Plan (2014)
- Self-Assessment and Peer Review Feedback Form for Annual Assessment Reports and Plans (2013-2014)
- Library Program Assessment (September 2014)

An onsite visit to Western Colorado Community College and Colorado Mesa University was conducted on April 17, 2015 and began with interview sessions on the Colorado Mesa University campus. The reviewer met with the following very gracious people:

- Krystyn Rose, Distance Education
- Jeremy Brown, Director of IT
- Tim Foster, President
- Steve Werman, Assistant VP Academic Affairs
- Silvia Rael, Library Director
- Laureen Cantwell, Reference and Distance Services Librarian
- Bette Schans, Director of Assessment
- Suzanne Lay, Assessment Coordinator

The visit was followed by an onsite tour of the Visual Communications Program facilities at Western Colorado Community College. This included informative meetings with the following:

- Brigitte Sundermann, VP Community College Affairs
- John Sluder, Department Head
- Dan McClintock, Faculty

- Corey DeVore, Adjunct Instructor and WCCC graduate
- Three Visual Communications Students
- Advisory Board Member

The day concluded in meetings with President Tim Foster and Assistant Vice President of Academic Affairs Steve Werman.

Overall, both campuses are very impressive and growth appears to be ongoing. The President is very supportive of Western Colorado Community College and expressed an interest in having it become a stand-alone Community College; presently it is a division of Western Mesa University (although it is called a Community College.) The reviewer found mixed responses from the people interviewed. Generally, those on the Colorado Mesa University campus did not seem to think it was important to change WCCC to a stand-alone community college due to concerns about duplication of general education classes and whether the local area was large enough to support two stand-alone colleges. Those interviewed at WCCC were more supportive of having separate colleges because they believed it would result in a separate identity for the community college and the ability to expand programs would increase. However, they also expressed concerns about the financial feasibility of the change.

This report is based on the comprehensive internal program review, program outcome and assessment plan, and interviews with faculty, students, administrators, staff, and a member of the advisory board. The Visual Communications program is continually improving and doing well. To better meet student and industry needs, it is time to begin an expansion of concentrations within the Associate of Applied Science degree and additional certificates within the program. This will require careful planning within the Visual Communications program and cooperation and collaboration with related programs at Colorado Mesa University.

Table 3. Executive Summary Template for External Reviewer's Observations

Program Review Element	Check the appropriate selection				Provide explanation if not agree with element and/or why unable to evaluate
	Agree	Not Agree	Unable to Evaluate	Not Applicable	
The program's self-study is a realistic and accurate appraisal of the program.	X				
The program's mission and its contributions are consistent with the institution's role and mission and its strategic goals.	X				
The program's goals are being met.	X				
The curriculum is appropriate to the breadth, depth, and level of the discipline.	X				
The curriculum is current, follows best practices, and/or adheres to the professional standards of the discipline.	X				
Student demand/enrollment is at an expected level in the context of the institution and program's role and mission.	X				
The program's teaching-learning environment fosters success of the program's students.	X				
Program faculty members are appropriately credentialed.	X				
Program faculty members actively contribute to scholarship, service and advising.	X				
Campus facilities meet the program's needs.		X			Another lab is needed that would be dedicated to the high school program so that college scheduling is not secondary to high school scheduling.
Equipment meets the program's needs.		X			Current R & R is on a 6-year cycle. Due to how fast industry technology changes the cycle should be shortened to 3-4 yrs. so that students are adequately prepared for employment.
Instructional technology meets the program's needs.	X				
Current library resources meet the program's needs.	X				
Student learning outcomes are appropriate to the discipline, clearly stated, measurable, and assessed.	X				
Program faculty members are involved in on-going assessment efforts.	X				
Program faculty members analyze student learning outcome data and program effectiveness to foster continuous improvement.	X				
The program's articulation of its strengths and challenges is accurate/ appropriate and integral to its future planning.	X				

A) RECOMMENDATIONS

1. Curriculum Development

Create and implement a timeline for revision of existing Associate of Applied Science Degree to progressively create separate concentrations and certificates in 3D Animation, Web, Gaming and Mobile App Design, Commercial Photography, Media Production to satisfy demands of current and incoming students.

- Retain current General Education and Lower Division requirements (17 cr.)
- Create separate Visual Communications Core Requirements using selected common courses from the existing requirements (12 – 24 cr.)
- Create separate concentrations from which students may choose to pursue a specific area within Visual Communications (17 – 31 cr., including electives.)
- Add courses pertaining to new concentrations (from existing and new classes.)
- Add a full-time faculty member on the college side to address creation and staffing of expanded degrees and certificates.
- Increase input, clarity, and communication between the WCCC Visual Communications program and Colorado Mesa University Graphics Arts program (ART department) and similar programs in Mass Communication.

2. Facilities and Equipment

- Begin plans to add a separate lab to accommodate high school classes so that scheduling and curriculum can be expanded for college students
- Shorten the R & R cycle for hardware from 6 years to 3-4 years for better alignment with rapidly changing industry standards and student needs.

3. Advising

- Establish better clarification and communication between the college and high school counselors. After speaking with faculty, an advisory board member, and college adviser, it is suggested that advisory board members would be great candidates for this purpose.

B) EXEMPLARY ELEMENT OF PROGRAM

Well-articulated curriculum combined with engaged and enthusiastic faculty and students.

- Degree and certificate plans clearly articulate what is needed to graduate with requisite skills for entry-level jobs in the animation and related industries.
- Syllabi reflect the breadth of curriculum offered in this program and reflects well-organized courses.
- Students were proud to show what they were working on and spoke enthusiastically about what and how they learned.
- Instructors emphasized the importance of project-based learning and how well it has been implemented on the college side of the program. It was evident from the students' responses that it worked well.
- Excellent integration of high school and college programs.
- Documented success of graduates of the program in related careers and further education.

C) MOST IMPORTANT REALISTIC IMPROVEMENT

Shortening the cycle for updating hardware in the labs

- Currently, the cycle is six years. This is much longer than cycles in comparable labs in similar community college programs. The reviewer suggests shortening the time to three or four years to keep up with rapidly changing software and industry needs. As software is updated, newer hardware and OS systems are required to adequately run the software. If the labs are not up-to-date students will not receive the necessary education to easily segue them into jobs and further education.
- Shortening the cycle seems realistic, even if it starts one lab at a time.
- This improvement would greatly enhance the process of expanding the program concentrations and growth.

Program Excellence/Strengths

- Committed and knowledgeable faculty.
- Excellent department leadership.
- Excellent student reviews, enthusiasm, and support.
- Flourishing Digital Design high school program.
- Steady increase in associate degree rates.
- Demonstrated improvement of quality of student work.
- Affordable tuition compared to private schools with similar curriculum areas.
- Functioning Advisory Board.
- Project-based learning introduced in 2014 into all core classes.
- Middle school summer camps in Gaming, 3D Animation, Web design, photography, and comic book drawing.
- The program is well organized and articulated as reflected in the internal program review. Assessment has begun successfully and received positive comments. Relevant recommendations were made by the assessment review committee.

Program Challenges/Weaknesses

- Students voiced a need for more in-depth animation classes, a community college level entrepreneur class, and expanded concentration areas such as web and mobile app design.
- Although the program is successful, justifying expansion is difficult because of the external emphasis on creating classes that show direct benefit to the local community. Currently, most students become freelancers. Ironically, the popular Digital Design high school program already offers a broader range of curriculum areas than the college. Also, the advisory board identified the need of local businesses for people who are exposed to many aspects of the visual communications industry rather than specialists, which supports the newly identified industrial employee model.

- Because the high school students use the classroom space, computers, and other equipment for most of the day, college courses cannot be offered during late morning and early afternoon.
- Making the Visual Communications program as appealing to the college student as it is to high school students. It is perceived that high school counselors are reluctant to advise students to attend the community college and tend to point them in the direction of CMU or other four year colleges.
- Articulation agreements with similar courses on CMU are virtually non-existent.
- Expansion is necessary to grow the program beyond its current evolution. Adding relevant and nationally needed concentrations are needed now to create what could become one of WCCC's best programs.

Mission and Strategic Direction

- The Visual Communications program goals and objectives align with the role and mission of Colorado Mesa University, providing students with updated curriculum that reflects both an understanding and appreciation of the liberal arts and changes in the visual communications industry as articulated by the advisory board.

Program Health

- Associate degree rates have risen steadily over the past five years.
- The Visual Communications program has an active and diverse advisory board that meets twice a year. Currently, there are no women on the board.
- The program has suffered from the loss of two key instructors due to illness. Full time and part time instructors have diverse educational and real-world experience and are engaged and committed to serving students to the best of their ability. They meet daily for this purpose.
- The introduction of Project-based Learning to the college side of the program has resulted in students' self-reliance and improvement in retention of material. This was evidenced by the enthusiasm of, and corroboration by, the three

students who met with the reviewer.

- The high school Digital Design program appears to be the backbone of the program and serves the needs of a diverse range of students.

Assessment Plan/Best Practices

- Program Outcome and Assessment Plan has been completed for 2013-2014
- The Feedback form reflects Learning Outcomes and Assessment Activities/ Methods/Time Frame are rated at Level 2: Meets expectations.
- Further assessment activity as commented upon in the feedback form show that the number of outcomes needs to be reduced to three or four, and rubrics need to be developed if not already in place.

Funding/Resources

- The Visual Communications program, which includes the Digital Design high school program, jointly uses the labs.
- WCCC college instructors teach both programs and this is especially useful in fostering seamless and clear curriculum. Students are bussed in daily to the college, which further enhances clarity and collaboration.
- Colorado Mesa University and the public school districts fund the Visual Communications program. Both funding streams are crucial to the wellbeing of the program. WCCC is very fortunate to have the support and be closely aligned with the public schools.
- It will take an increase in funding and resources to further the growth of this program to meet student and industry needs. As stated in the conclusion of the internal program review, "These are student-demanded concentrations that should take a minimum of investment by CMU and, now that a full time instructor has been assigned to the college program, should be created as soon as possible."
- The value of investing in the growth of this program resonates with similar programs in comparable community colleges, including the reviewer's.

Learning Environment

The reviewer was given a tour of the labs, but due to time restraints, direct class observation did not occur.

- The existing labs appear to be well cared for and are up to date with software and offer an environment conducive to accomplishing assignments and projects.
- The reviewer observed a very collegial and relaxed atmosphere between faculty and faculty and students, as well as support and enthusiasm among the students. The students interviewed were eager to show and talk about what they were working on. They also expressed an appreciation for the way in which classes were taught and a strong desire for more.

Recruiting/Retention

- Associate degree rates have risen steadily and the five-year completion rate trends are in alignment with the CIP level statewide.
- Based on conversations with faculty and students, additional concentrations would attract more students to the program.
- According to faculty and students, those students coming into the Visual Communications program from the Digital Design high school program are better prepared for college courses and tend to stay in school.

SUMMATION

The Visual Communications program at WCCC appears to be a valuable asset to the college and community, particularly in light of current trends in media technology. However, without expanding the current curriculum, it will most likely remain static. The world of animation, web, game and app design, video, and all aspects of what is called New Media is constantly and rapidly changing and growing. This growth offers more possibilities for students to achieve a meaningful education and career. More and more businesses are demanding multi-skilled employees in the New Media field, and not just the ones in Hollywood. Virtually all businesses (local and national) demand a web/social media presence and are in need of multi-media for other marketing aspects. The Visual Communications program at WCCC provides a great start in this direction. Growth and expansion seem to be a natural next step. The most important part is to start, even if it is a bit at a time. The recommendations made in this report were made with this concept in mind, being aware of costs for infrastructure and employees. Most of the infrastructure and curriculum are already in place and it seems feasible to begin offering new classes in Web design and then expanding into game and mobile app design.

It was a pleasure and very informative to tour the campus and I appreciate the time and energy this took from all involved. Based on meetings and observation appears to be a disconnect in the perception of the community college between CMU staff and faculty and those from WCCC. The information received about the technology (software, hardware, labs) from the IT director differed quite a bit from what actually exists in the labs. It would have been helpful to have also met with the IT person in charge of the labs at WCCC. There seemed to be a lapse in communication about whether an assessment plan had been completed by the Visual Communications program. At the beginning of the interview, the reviewer was told the assessment plan had not been done yet, but was needed and would be undertaken next year. Then, towards the end of the meeting, they discovered that the assessment plan had not only been completed, but a feedback form was on file as well.

The dedication, enthusiasm, and support of all involved in this program has achieved great results and they should be quite proud. As stated in the internal program review, the Visual Communications program is on the cusp of great things, and this reviewer is in complete agreement.

Thank you!