

Cerro Coso Community College
Web Design Program Review
2010

Compiled by:
Suzanne Ama
Digital Media Arts Faculty Chair

Part 1 – Relevance

Program Mission

The Web Design Associate of Science Degree and Certificate program prepares students for a career in the Web industry by emphasizing standards-based coding and scripting, visual design, usability, accessibility, technical communication, media production, and project management.

The Web Design program aligns closely with the College’s mission. As a Career Technical Education program, the program enhances the College’s ability to promote regional economic development in the areas of information technology, media, and communications. We use a variety of modes of delivery for instruction to meet varied needs of students, and we apply best practices in instruction for each mode. Course work is rigorous, reflecting evolving standards and practices in the Web industry and including the expectation that students think critically to solve problems. Relevance, timeliness, and excellence are ensured through regular input from the advisory committee, industry conferences, and publications. Additionally, the program has a rich diversity of students, due to its being delivered primarily online.

Statement of the Program’s Student Achievement Outcomes

The following are the program learning outcomes for the Web Design program:

- A. *Demonstrate technical and creative mastery of the creation of web media, such as graphics, motion graphics, and interactive media.*
- B. *Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of web content.*
- C. *Apply design principles to solve visual communication problems.*
- D. *Demonstrate lifelong learning skills in effective collaboration, leadership, written communication, management, and information search and retrieval.*

Catalog Description

The Web Design Associate of Science Degree and Certificate program prepares students for a career in the Web industry by emphasizing creative problem solving, standards-based coding and scripting, visual design, usability, accessibility, technical communication, media production, and project management. The curriculum has the objective of developing technical and design skills, a combination of competencies that employers and clients value. Students develop realistic expectations about work conditions through individual and collaborative work-based projects and by learning in the same technological environment in which they will eventually work.

Students earn the Certificate in Web Design by completing 34 units, including 25 units of core courses and at least 9 units among the specified electives. Students earn the Associate Degree in

Web Design by completing the certificate, as well as Cerro Coso's general education requirements (64 units).

Program Requirements

Complete all of the following courses:

<u>Course Number</u>	<u>Course Name</u>	<u>Units</u>
DMA C102	Digital Imaging with Photoshop	3.0
DMA C111	Fundamentals of Web Development	3.0
DMA C113	Accessibility and Usability	3.0
DMA C115	Interactivity and Interface Design with Flash	4.0
DMA C117	Web Design with Dreamweaver	3.0
DMA C211	Web Scripting with JavaScript	3.0
ENGL C151	Technical Communication	3.0
DMA C280	Web Production Management	3.0

Select at least 9 units from the following courses:

<u>Course Number</u>	<u>Course Name</u>	<u>Units</u>
DMA C101	Careers in Digital Media	1.0
DMA C103	Digital Photo Enhancement with Photoshop	2.0
DMA C107	Illustration and Design with Illustrator	3.0
DMA C108	Advanced Digital Imaging and Illustration	3.0
DMA C109	Graphic Design with InDesign	3.0
DMA C118	Introduction to Mobile Media	1.5
DMA C119	Design and Development for Mobile Devices	3.0
DMA C121	Principles of Animation with Flash	3.0
DMA C131	Digital Video Production	3.0
DMA C133	Motion Graphics with After Effects	3.0
DMA C139	Broadcast Media for Mobile Devices	3.0
DMA C141	Fundamentals of Game Design	3.0
DMA C213	Web Development with PHP and MySQL	3.0
DMA C215	Advanced ActionScripting with Flash	3.0

DMA C217	PHP Site Management and Theme Design	3.0
DMA C218	Advanced Mobile Web Development	3.0
ART C111	Two Dimensional Design	3.0
ART C121	Basic Drawing	3.0
BSAD C211	E-Commerce	3.0
CSCI C265	C++ Programming Language I	3.0
CSCI C267	Java Programming	3.0
<u>MUSC C183</u>	<u>Fundamentals of Sound Design for Media</u>	<u>3.0</u>

Total Units 34

Resource: Cerro Coso Community College Catalog

Part 2 – Appropriateness

Student Demand Data

Course Sections

Student demand data spans from the 2004-2005 academic year to 2009-2010 and includes all courses in the discipline. Courses were designated as Media Arts (MA) until Summer 2008 when we converted courses to the Digital Media Arts (DMA) designation so that course sequencing could be improved.

Early during the 2004-2010 period, there were two degree/certificate programs in the department: Web Design and Digital Animation. The large number of sections (52) that were offered in 2004-2005 reflects courses in both programs. The number of sections (37) offered the following year were a reflection of reduced offerings from the Digital Animation program, not the Web Design program. As the Digital Animation program declined, the Web Design program grew. Sections that were offered during the following four years held fairly steady (averaging 37 sections), even after the Digital Animation program was made inactive in 2008. Since the 2008-2009 academic year, we have dropped the number of class sections offered by 16%. This was in response to the Vice President of Academic Affairs' request that we reduce sections to improve productivity and to help the college avoid exceeding its enrollment cap.

Enrollment

There was a decline in department-wide enrollment as the Digital Animation program declined, but enrollment has increased slightly overall during the past two years, reflecting significant growth in the Web Design program compared to six years ago. Between the 2008-2009 and 2009-2010 academic years, enrollment has dropped by 4%, likely as a result of the required reduction of class sections.

Productivity

Productivity (FTES/FTEF) has averaged 12.1 during the past three years. However, the 2005-2006 and 2006-2007 academic years had low productivity (averaging 6.0), due to the State's change in how FTES was calculated for online lecture/lab courses.

Prior to Summer 2005, online classes were coded as WSCH, which the Kern Community College District found to be in conflict with Education Code. At that point, the error was corrected, and online classes began to be correctly coded as Independent Study courses. However, this had profound implications for online courses with a lab component, which is the case for almost all courses in our department. FTES is calculated for Independent Study courses by multiplying the census enrollment by the unit value by the number of weeks, divided by 525, rather than the WSCH calculation of census enrollment times total course contact hours, divided by 525. Because instructors are loaded much differently for a unit of lecture versus a unit of lab, this calculation drove our productivity value down substantially.

Fortunately, a change to Education Code was enacted to resolve this disparity. The revision states that online lectures must still be calculated the same way, but online labs can be calculated using the WSCH formula. Lecture/lab combination classes are calculated with 2 formulas, each corresponding to the appropriate component. Since this correction, our productivity values more than doubled. Additionally, our productivity increased by 28% between the 2008-2009 academic year and the 2009-2010 academic year, due to reducing sections during a trend of increased enrollment.

Resource: Program Review Data, Office of Institutional Research

Labor Market Demand

Economic Modeling Specialists, Inc. projects that 36 new positions will be created annually between 2010 and 2015 in the Cerro Coso region (Kern, Inyo, and Mono Counties) for occupations that are related to the Website Design and Development TOP Code (0614.30). This represents a 10% increase in opportunities for this occupation during the 5 year period. Median hourly earnings in 2010 are \$25.63.

Although the above data represents projected jobs for which a Bachelor's degree is expected by employers, a nationwide survey conducted by *A List Apart* indicated that 56% of web design/developers have an Associate Degree or Bachelor's degree (26,322 respondents). The survey also indicated that 20% web design/developers have completed college courses, but do not yet have a college degree of any kind. The *A List Apart* survey also inquired about how many web designer/developers work as an employee (54.5%) and how many are small business owners/partners, including independent contractors/freelancers (36.8%) (26,334 respondents). The percentage of small business owners/partners who are web professionals has grown 2.6% nationwide between 2008 and 2009 (2010 survey results are not available yet). Given the national distribution of employment versus self-employment, we conclude that there will be opportunities for as many as 24 new freelance web professionals in our service area per year. It is much easier for self-employed web professionals to be successful with an Associate Degree (as compared to a Bachelors Degree), as clients are unconcerned about degrees and are more concerned about the quality of the web professional's portfolio and the extent of work experience.

The statistical significance of self-employed web professionals is borne out in the responses of recent graduates of the Web Design program. There were 10 respondents to the survey, and 5 reported that they are self-employed.

Resource: Economic Modeling Specialists, Inc. Educational Analyst Program Report: TOP 0614.30

Resource: A List Apart: <http://aneventapart.com/alasurvey2009/>

Resource: Web Design Program Survey, 2010

Place of Program in Curriculum/Similar Programs

The Web Design program is unique to the curricula of Cerro Coso Community College, but it complements the current programmatic offerings in the Art, Computer Information Services, Music, and English discipline areas. Several courses from each of those programs are electives or required courses in the Web Design program. Additionally, several Digital Media Arts courses are electives in the Fine Arts and the Computer Information Systems degrees.

There are no similar programs offered within a 100 mile radius. Across a wider geographic area, Cerro Coso's Web Design program does not represent unnecessary duplication of training, due to its unique focus on Web standards. Cerro Coso's Web Design program was admitted as a member of the World Organization of Webmasters (WOW) Web Professional Academy. The World Organization of Webmasters is a non-profit organization that has fostered collaboration between industry and education for over a decade to advance the profession of web design and development and to identify and promote technical and professional standards. The WOW Peer Review Team evaluated Cerro Coso's Web Design curriculum and determined that it addresses essential learning outcomes and prepares students to be fully proficient in areas of XHTML/CSS validation, separation of content from presentation, development of web content for accessibility, graphic design, proficiency in common software tools, and project management. Only 8 academic programs nationwide have been accepted as a WOW Web Professional Academy member (<http://webprofessionals.org/education/academy/directory/>).

Resource: Cerro Coso Community College Catalog

Curriculum Currency

Previous Updates

The entire course inventory was updated in Spring 2008. We adopted a new discipline abbreviation (DMA) so that the courses numbering would better reflect course sequencing.

Subsequent to that, we have revised 4 courses to specify prerequisites instead of advisory requisites:

- DMA C117
- DMA C213
- DMA C217
- DMA C218

The Distance Education addendum was updated for iTV and hybrid approval for the following courses:

- DMA C102
- DMA C107
- DMA C111
- DMA C131
- DMA C135

Need for Future Updates

We have received input from our advisory committee that the names of some courses are intimidating to students. In particular, it was suggested that XHTML/CSS (DMA C111) be changed to something that is less technical. This course could easily be renamed Fundamentals of Web Development. The word “fundamentals” would convey that it is entry-level and students do not need any prior knowledge of web development. The term “development” would accurately convey that it is a coding class, rather than a design class.

Department faculty who attended the 2010 Web 2.0 Expo identified a need to integrate HTML5 content into the program. Eventually, this standard will be mainstream enough that it may appropriately reside in the “Fundamentals of Web Development” course, but at this time it is more appropriate that it reside in an advanced development course. Advisory committee input has also indicated a need to teach AJAX, which is also an advanced web development concept. Both HTML5 and AJAX could be taught in the same course, with a proposed number and name of DMA C212 Advanced Web Development.

It was also conveyed to us by advisory committee members that there is strong student interest in a “graphic design” course. DMA C109 Desktop Publishing is essentially a graphic design course, but students do not know enough about what desktop publishing is to make that correlation. Changing the course name to Graphic Design would accurately reflect the course topics and make the course more marketable.

Transfer Documentation

The Web Design program is a Career Technical Education program with the objective to provide students with short-term occupational skills. Although it would be desirable to also have a transfer program, opportunities for articulation with universities are limited. This is because web design is a unique blend of graphic design and information technology. Universities tend to have programs in both areas—traditional graphic design and traditional computer programming—but not the appropriate blend of disciplines to provide students with skills for web occupations. In addition, because we must train students for marketable skills in a much shorter period of time, the entry level courses between community colleges and universities tend not to align well.

Course Scheduling

The long term online schedule consists of offering entry level core classes DMA C102 and DMA C111 every semester, including Summer terms. These courses tend to attract non-majors, as well as degree-seeking students, resulting in greater demand. These courses also have the effect of informing students of their aptitude and interest in the program, thus narrowing the pool of

students for subsequent courses. We offer other core classes once per year, distributed between Fall the Spring terms. DMA C115 and DMA C211 are offered in the Fall, and DMA C113 and DMA C117 are offered in the Spring. Popular electives are offered once per year, and other electives are offered every other year.

The capstone course, DMA C280, is offered online every summer. This is to give students the possibility of completing the certificate in 12 months if they begin in the Fall and take a full load of classes in the Fall and Spring. In this course, students work in teams to design and develop a Web site for a local business or non-profit organization. The course duration is 8 weeks to best simulate the intensity and duration of a typical commercial project. Offering the course during a regular semester over 16 weeks would undermine this objective.

Selected entry-level courses are offered on campus, most of which are delivered as multi-site, synchronous hybrid classes. The synchronous instructional component is either delivered through iTV or through Adobe Connect Professional.

Resource: Digital Media Arts Long Term Schedules

Methods of Delivery

Both the Certificate and the Associate Degree can be completed entirely online. The online learning environment is central to the pedagogy of the program, as it is essential for students' preparation for work as a Web professional to be comfortable and competent communicating and collaborating with others who work online at remote locations. They need to acquire technological competence (proficiency with a variety of synchronous and asynchronous communications tools), and they need to be socially competent in the online environment, working well with people they have not met in person—and may never meet in person. They will likely work with clients who live and work in other cities, and they will likely collaborate with other contractors remotely. To stay current in the field once they enter the workforce, they also need to participate in communities of practice—which are online. For example, the primary method by which Web professionals, in particular, and IT professionals, in general, obtain tips when they encounter a problem is through online asynchronous discussion forums (e.g.

<http://www.webmasterworld.com/>).

Students also need to develop strong self-efficacy and lifelong learning skills to stay current with emerging and evolving technologies in the field. Certain technologies, scripting languages, and markup languages that are in common use today did not exist 10 years ago, and there will likewise be important technologies and languages 10 years from now that do not yet exist. Consequently, teaching students how to learn has as much relevance as what students learn. Students need to learn to formulate good questions to seek help from others online, and they need to develop good information competency skills, including searching and evaluating the quality of resources.

The traditional approach of guided classroom instruction maps poorly to the environment in which students will work and in which they will continue to learn, long after they graduate. Students tend to become locked into prescribed procedures and have difficulty acquiring the confidence to explore possible solutions and solve technical problems, such as coding bugs, on their own. There is also a much more visible hierarchy of authority with computer desks facing the front of the room and the instructor standing at the front to lecture or conduct a demonstration. Students tend to come in, sit down at the computer, follow instructions, and interact minimally with each other.

The online classroom is very different. The instructor still provides demonstrations (either synchronous or asynchronous), but the instructor assumes the role of being a guide and a resource to learning rather than an authoritative figure. The social structure of an online class is flatter and more democratic, and students consequently engage much more with each other. A learning community and work environment emerges that is much more similar to professional working conditions.

However, learning successfully online requires a higher level of computer competency and self-efficacy than is needed to be successful in an on-campus computer class. Not all students are ready for online learning. Additionally some students take courses in the Web Design program as general electives or for personal development, without goals of completing the Web Design Certificate or Associate Degree. We offer a regular pattern of entry-level and elective classes on campus to meet this need. Most of our campus classes are delivered in a hybrid format, which helps students to develop online learning skills and become prepared for other courses in the program that are only offered online.

We also offer many of our campus classes as synchronous multi-site classes, which enables us to deliver instruction to smaller campus sites that likely would not otherwise have sufficient enrollment to run the class. Technologies that are used for synchronous multi-site delivery are interactive television (iTV) and Adobe Connect Professional (ACP). Most of our courses require that students have access to a computer during instruction, making ACP instruction in a computer classroom the better option.

ACP provides the following features:

- Synchronous communication (chat, voice over IP audio) among all participants
- Web cam video
- Live presentations/demonstrations
- Screen sharing (both by the instructor and by students)
- Desktop control of remote computers
- White board
- Polling
- File sharing

- Breakout groups
- Recording of presentations. Recordings can be downloaded and edited using video editing software to optimize pre-recorded presentations/simulations.
- An intuitive and user-friendly interface

Resource: Course Outlines of Record

Teaching Methodologies

Most of the courses in the Web Design program are lecture/lab combinations, due to the hands-on requirement of the subject matter. Instructional content is presented via

- Textbook readings and text-based electronic resources
- Video/audio demonstrations
- Software tutorials
- Instructor and peer feedback in synchronous discussion forums and synchronous chat

Students engage in project-based learning activities that enable them to build a diverse portfolio. Learning activities are sometimes work-based projects for local businesses, civic, or non-profit organizations, such as:

- Drummond Medical Group (Ridgecrest, CA)
- Ridgecrest Regional Hospital (Ridgecrest, CA)
- Town of Mammoth Lakes (Mammoth Lakes, CA)
- Wild Iris (Bishop, CA)

Critical thinking skills are emphasized throughout the curriculum. Students analyze design problems, they apply principles of visual communication, usability, accessibility, and technical appropriateness to design solutions. They also learn to effectively critique others' and their own work and articulate how the design solution can be improved.

The field of web design and development is highly collaborative, and the curriculum emphasizes the development of online communication and social skills, team-building skills, and leadership skills. Students work in groups for several weeks in entry-level courses, which prepares them for team work in the capstone course (DMA C280). In DMA C280, students work in a team to plan, design, and develop a work-based project, and they rotate serving in the role of project manager for their team. Project management is one area of our curriculum that distinguishes the program from similar programs at other community colleges.

Resource: Course outlines of record

Student Fees

There are no fees required.

Resource: Course outlines of record

Explanation of Employer Relationship

Employers in our service area have a stake in the currency and appropriateness of the Web Design program, whether they hire graduates or contract with them as freelancers. Employer input is gathered at advisory meetings, which informs the update of curriculum topics, delivery methods, and teaching methodologies.

Advisory Committee

The membership of the Web Design program advisory committee consists of individuals who are located throughout our service area and/or are leaders in the industry. To accommodate the geographic distances of individuals, we have one virtual meeting per year, using synchronous or asynchronous communications technologies, and we have a face-to-face meeting at one of the sites. Members of the committee represent industry professionals, employers, faculty, and students. Current membership includes:

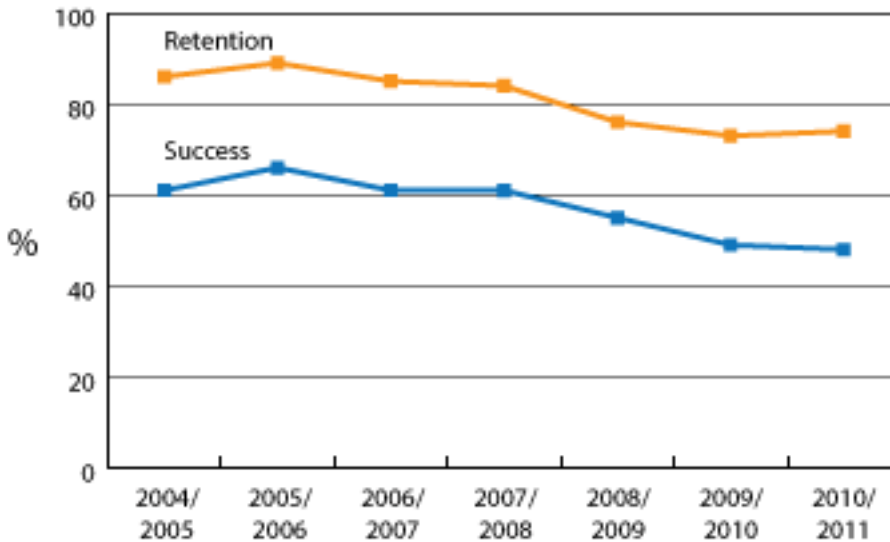
- Suzanne Ama, Professor Media Arts, Cerro Coso Community College. Ridgecrest, CA
- Deanna Campbell, Director Easter Sierra College Center, Bishop, CA
- Bill Cullifer, Director World Organization of Webmasters. Folsom, CA
- Lisa Darty, Assistant Professor, Cerro Coso Community College. Ridgecrest, CA
- Darcy Ellis, Inyo Register, Bishop, CA
- Julie Faber, Telluride Websmithing. Bishop, CA
- Gina Jones, Owens Valley Career Development Center, Bishop, CA
- Valerie Karnes, Dean Career Technical Education, Cerro Coso Community College. Ridgecrest, CA
- Cedric Knight, NDTI. Ridgecrest, CA
- Rick Knaggs, CACI. Ridgecrest, CA
- Ramona Montayne, Naval Air Warfare Center. China Lake, CA
- Jennifer Schwerin, Job Development Specialist, Cerro Coso Community College. Ridgecrest, CA
- Michelle Snoderly, Student
- Vickie Taton, Artist and Cerro Coso Adjunct Instructor. Big Pine, CA
- Tamara Tilley, Ridgecrest Regional Hospital. Ridgecrest, CA

Part 3 – Achievement of Student Learning Outcomes

Student Performance Data

Retention and Success

Student retention and success has been declining since 2006, with the fastest rate of decline since 2008.



In Summer 2009, DR(drop) grades began to be included in the retention and success calculations, leading to a higher denominator and a lower rate. DR grades did not exist prior to Summer 2008.

The downward trend since 2008 also correlates to the increased rate of unemployment as displaced workers return to college to develop additional skills or to retrain entirely. Correlating with this trend, we see significantly more students who are underprepared with respect to computer skills and self-efficacy skills.

We believe this outcome can be improved by assessing students for computer competency prior to registration and guiding them to enroll in CSCI C070 Computer Literacy if they do not meet the competency. A skills-based assessment can be developed with off-the-shelf software. If it is not feasible to require all students to complete the assessment, they can be strongly encouraged to do so, which will help them to self-determine their own readiness.

Completion and Placement

In the past 3 years, 13 Associate of Science Degrees in Web Design and 6 Certificates in Web Design have been awarded. The Web Design program is within the top one-third of Career Technical Education associate degree programs with respect to the number of graduates (ranked 6th and tied with Business Office Technology, out of 19 CTE degree programs.)

Web Design program graduates were contacted in March 2010 and were invited to complete a survey about their current employment status and about their satisfaction with the Web Design program. Ten graduates responded, and among them:

- 5 identified themselves as a self-employed Web Designer/Developer.
- 2 indicated that they are employed full time and some of their duties include web design/development.
- 2 indicated that they are currently pursuing a Bachelors Degree or higher in the field of information technology or graphic design.
- 1 indicated that he/she is currently unemployed.

Resource: ODS Data and Catalog

Resource: Web Design Program Survey, 2010

The 2010-2011 VTEA Core Indicator Report for the Media and Communications TOP Code, 0614, indicates that technical skill attainment, persistence and transfer, non-traditional participation, and non-traditional completion at Cerro Coso were above negotiated District and State levels. In particular, the levels of participation and completion of non-traditional students were both 58% above the negotiated District level.

Certificate and degree completions were 26% below the negotiated District level. We believe this is due to the fact that certificate and degree completions are not automatically recorded upon the completion of the necessary course work. Currently, completions are only recorded when a student makes a special request to receive the certificate or diploma. Not all students make this request, so the number of actual completions is under-reported. We understand that this problem will be corrected when the College implements DegreeWorks.

The 2010-2011 VTEA Core Indicator Report omitted employment data. The 2009-2010 report indicated employment at 53%. This was 27% below the negotiated District level. However, this report compares student success at the negotiated District level for the general 0614.00 TOP Code classification, which includes occupations for which traditional employment is the norm. The more narrow TOP Code classification of this particular program, 0614.30 Web Design and Development, has a different occupational pattern. Many web design/development professionals are self-employed, and graduates who follow this pattern are not captured in the core indicator data.

Resource: College Core Indicator Information by 2-Digit TOP Code (2010-2011, 2009-2010)

Achievement of Student Learning Outcomes

In 2009, the department assessed all program learning outcomes for the Web Design program:

- A. Demonstrate technical and creative mastery of the creation of web media, such as graphics, motion graphics, and interactive media.*

This was assessed with a project, scored by a rubric. Final projects in DMA C117 were assessed according to rubric criteria. Because the capstone course, DMA C280, exclusively involves collaborative work DMA C117 provides an opportunity to assess students individually in an advanced course that builds upon entry-level courses. The sample is students who completed this course.

12 out of 29 students exhibited mastery over essential Photoshop skills. 12 out of 12 students exhibited mastery over Flash skills. 7 out of 7 students exhibited mastery of Dreamweaver skills. Overall, 65% of students exhibited mastery over core software tools, which is below the target level of performance. The rubric for Photoshop was designed differently than the rubrics for Dreamweaver and Flash, the former have multiple criteria and the latter grouping multiple skills into one evaluation option. We discussed that the outcome of the Dreamweaver and Flash assessments may have been inflated due to the rubric design. We are redesigning the rubrics and will reassess at the end of this academic year. By a large margin, the Photoshop skills in which students show the most frequent deficiency are masking and selections. The department faculty also discussed the appropriateness of the 75% target level of performance. It was agreed that is too low and should be raised to 80%.

It was discussed that Photoshop masking and selection requires more instructional emphasis, as well as specific formative and summative assessments. We discussed that the recent addition of Lynda.com training videos may also improve this outcome.

Recent graduates (2007-2009) were also surveyed about the extent to which they felt equipped with respect to technical mastery of Adobe software. Of the respondents 6 (60%) felt highly equipped, and 4 (40%) felt moderately equipped.

It was our intent with this question to ascertain how effectively software skills are taught in our courses. We teach Adobe software applications in 3 of our core courses and in 7 of our electives. However, there are many Adobe applications that we do not teach at all because it is not feasible to do so. Additionally, not all of the applications are relevant to the Web Design program.

In retrospect, it is unknown whether students were evaluating their proficiency with software that was actually taught or whether they were factoring the fact that there were other software applications in the Adobe Creative Suite that were not taught in any of our courses.

B. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of web content.

This was assessed and scored with an exam. Specific questions were created for final exams in DMA C111 and DMA C113, and DMA C211. The exams were administered in each class in Fall

08 and Spring 09. The sample was students who completed all three courses in the 08-09 school year.

These results indicated that 14 out of 23 students (61%) scored 75% or higher on the final exam. This is below the target level of performance. Specifically, many students seemed to have trouble with the following concepts:

- ranking style sheet priority
- defining semantic encoding
- identifying valid type selectors
- identifying valid inline and block elements

The department faculty also discussed the appropriateness of the 90% target level of performance. It was agreed that is too high and should be lowered to 80%.

Greater instructional emphasis will be placed on the problematic concepts identified, including more formative assessment with feedback.

Recent graduates (2007-2009) were also surveyed about the extent to which they felt equipped with respect to foundation skills in XHTML/CSS markup and in web scripting. Of the respondents 9 (90%) felt highly equipped and 1 (10%) felt moderately equipped in the area of XHTML/CSS markup, and 4 (40%) felt highly equipped, 2 (20%) felt moderately equipped, and 4 (40%) felt minimally equipped in the area of web scripting.

It is possible that some of the respondents completed the program under the 2006-2008 catalog or earlier, in which the JavaScript course (Web Scripting with Javascript) was merely an elective. We believed that students were not being adequately equipped with scripting skills, and the JavaScript course was moved into the set of required courses. Additionally, the Flash course (Interactivity and Interface Design with Flash) has increased its emphasis on scripting with its native ActionScript during the past 2 years.

However, 2 respondents indicated in narrative responses, “I think the program could use more advanced classes in some of the more technical aspects of web design. I took classes in PHP and Javascript, but didn't feel like they were enough to develop confidence with my programming skills. I think a more advanced Flash class would have been helpful...,” and “As with most things, students get out of it what they put into it. I would like to see more scripting and programming classes in the program, especially more applied PHP classes. For many of the projects I have worked on after completing the program, I have found that more programming skills would have helped me.”

To some extent, we are constrained in our ability to offer advanced programming and scripting classes because of lower enrollment in those classes, but we take these comments to heart. We

have an Advanced ActionScripting course in the inventory and have plans to offer it in Spring 2011.

C. Apply design principles to solve visual communication problems.

This was assessed with a project, scored by a rubric. Final projects in DMA C117 were evaluated with a rubric to determine how successfully students implemented Gestalt principles and considered audience and purpose in the visual design. Because the capstone course, DMA C280, involves the exclusive use of group projects, DMA C117 provides an opportunity to assess students in an advanced course that builds upon entry-level courses. The sample was all students who complete the course.

8 out of 20 students (40%) exhibited the ability to apply design principles effectively. This is far below the target level of performance. We discussed what a great challenge it is to teach students to evaluate themselves and their peers accurately. While they are more objective about the quality of strangers' work, they are very soft about critically evaluating their work. The department faculty also discussed the appropriateness of the 75% target level of performance. It was agreed that is too low and should be raised to 80%.

Moodle workshops will be used extensively to help students "calibrate" their assessment criteria and learn to see their work more accurately. Workshops can be set up so the student's evaluation needs to match the instructor's evaluation as closely as possible, with points being docked for a discrepancy between the two. The students will be motivated to try to anticipate the instructor's evaluation, and this will help their evaluation skills. Greater instructional emphasis will be placed on design styles and trends. Reassessment will take place in Spring 2010.

Recent graduates (2007-2009) were also surveyed about the extent to which they felt equipped with respect to creativity and visual design skills. Of the respondents, 8 (80%) felt that they were highly equipped, and 2 (20%) felt that they were moderately equipped. We are pleased that there is a great deal of student satisfaction in this area, however, it is our goal to further raise the bar with regard to design skills. Raising this standard is reflected in the assessments that are scored by a rubric, as described above.

One respondent indicated in a narrative comment, "It would be great to add an advanced class elective for creativity and design skills, similar to the current web design/DW class but concentrating specifically on design, typography and practice."

D. Demonstrate lifelong learning skills in effective collaboration, leadership, written communication, management, and information search and retrieval.

This was assessed through instructor and peer review, scored by a rubric. In the capstone course (DMA C280), students and the instructor will use a rubric to evaluate group members according

to leadership, collaboration, communication, management, and information search and retrieval skills. The sample was all students who completed this course.

8 students completed the capstone course. 100% of the students achieved this outcome at a success rate of 85% or better. No changes to curriculum are required.

Recent graduates (2007-2009) were also surveyed about the extent to which they felt equipped with respect to collaboration and communication skills. Of the respondents, 7 (70%) felt highly equipped, and 3 (30%) felt moderately equipped.

Resource: SLO Assessment Data Plan

Data Plan

Outcome	Data Plan	Timeline
Demonstrate technical and creative mastery of the creation of web media, such as graphics, motion graphics, and interactive media.	This will be assessed with a project, scored by a rubric. Artifacts from DMA C102 (Photoshop) will be collected and assessed.	This will be reassessed at the end of Spring 2011.
Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of web content.	This will be assessed and scored with an exam. Specific questions will be used in the final exam for DMA C111.	This will be reassessed at the end of Spring 2011.
Apply design principles to solve visual communication problems.	This will be assessed with a project, scored by a rubric. Final projects in DMA C117 will be evaluated with a rubric to determine how successfully students implemented gestalt principles and considered audience and purpose in the visual design.	This will be reassessed at the end of Spring 2011.
Demonstrate lifelong learning skills in effective collaboration, leadership, written communication, management, and information search and retrieval.	This will be assessed through instructor and peer review, scored by a rubric. In the capstone course (DMA C280), students and the instructor will use a rubric to evaluate group members according to leadership, collaboration, communication, management, and information search and retrieval skills.	This will be reassessed at the end of Summer 2015.

Part 4 – Currency

Course Staffing Data

Summarize data on staffing over the prior six semester period, including full-time and adjunct FTEF, full-time and adjunct productivity. Include the full staffing data in the supporting documentation.

Term	Sections	Enrollment	FTES	FTEF	Productivity
2007 Spring	14	273	26.54	4.18	6.35
2007 Fall	19	321	50.30	3.76	13.39
2008 Spring	15	264	43.81	2.23	19.64
2008 Fall	17	365	60.89	4.56	13.36
2009 Spring	16	300	41.10	3.29	12.48
2009 Fall	15	317	52.74	3.78	13.94

There are currently 2 full-time faculty and 10 part-time faculty who support the Web Design program. In 2007, we lost a third full-time instructor who moved to another college. Since that time, enrollments during the Fall and Spring semesters have fluctuated, with a slight increase (4%) from 2007 to 2009.

Productivity has remained fairly consistent, with the exception of Spring 2007 and Spring 2008. Spring 2007 reflected the end of a period during which FTES was substantially under-represented, due to the way that online labs were being calculated. Education Code was revised to correct this calculation, but the Kern Community College District did not correct the calculation in Banner until Fall 2007.

Compared to the productivity of other programs at the College, the productivity of the Web Design program falls roughly around the median. Lacking an institutional researcher at Cerro Coso, we are unclear about the meaning of the productivity value or what our target should actually be.

While the department is researching the feasibility of adding a Digital Cinematography program, which would necessitate hiring a new full-time instructor, the Web Design program itself does not require additional full-time faculty.

Resource: Program Review Database, Staffing

Facilities Currency

The Web Design program is primarily taught online, however, several entry-level courses are offered regularly on campus. Classes are delivered in computer lab classrooms and iTV classrooms. These classrooms are safe for students and are adequate spaces for instruction.

Equipment Currency

While most courses in the Web Design program are offered online, we support a long term schedule of entry-level courses that are offered at the Indian Wells Valley, Kern River Valley, Eastern Sierra College Center Bishop, and Eastern Sierra College Center Mammoth campuses. Maintaining the currency of computer equipment is an on-going challenge, as software companies release substantially new versions every 18-24 months. System requirements for new versions are not published until after the software is released. Computer lab classrooms and open computer labs are shared with other disciplines, and the Information Technology (IT) department is responsible for maintaining and upgrading shared equipment.

The current hardware configurations for the labs consist of the following:

Indian Wells Valley Campus

Base Unit: Optiplex 980

Processor: Intel Core i5 Dual Core Processor 650 with VT

RAM: 1GB

Video Card: 256MB ATI RADEON HD 3450 Graphics Dual DVI and TV Out

Sound Card: No Eco Kit Option, Dell OptiPlex 980

Hard Drive: 160GB SATA 3.0Gb/s and 8MB Data Burst Cache

Upgrade Date: The above configuration reflects the Summer 2010 upgrade.

Kern River Valley Campus

Base Unit: Dell OptiPlex 960

Processor: Intel Core 2 Duo

RAM: 4GB

Video Card: 256 MB

Sound Card: ??

Hard Drive: 80 GB HDD

Upgrade Date: 2014

Eastern Sierra College Center Bishop

Base Unit: Optiplex 740

Processor: AMD Dual Processor

RAM: 2GB

Hard Drive: 160GB HDD

Upgrade Date: The above configuration reflects a 2008 upgrade. The next scheduled upgrade is Fall 2012.

Eastern Sierra College Center Mammoth

Base Unit: Gateway 2610D

Processor: Core 2 Dual

RAM: 2GB

Hard Drive: 80 GB HDD

Upgrade Date: The above configuration reflects a 2008 upgrade. The next scheduled upgrade is Fall 2012.

We need a terabyte hard drive to store video resource files and student video files for digital video courses.

Cost of the Program

Please see the Web Design VTEA plan in the Appendix.

Reference: College Budget

Part 5 – Future Needs and Plans

Program Strengths

The Web Design program is strongly aligned with web industry standards. A number of students come to the program after having received a Bachelor Degree in graphic design or information technology, indicating that their university course work did not adequately prepare them for working as a web professional. Our program provides the specialized skills that university programs omit, while providing students with necessary breadth.

In particular, these skills and concepts include:

- XHTML and CSS markup that separates content from presentation.
- Visual design and layout skills
- Accessibility and usability
- User interaction design
- Web scripting
- Production management
- Technical skills in popular software applications
- Several niche areas of design offered through course electives

The curriculum content, delivery methodologies, and teaching methodologies set the Web Design program at Cerro Coso apart from similar programs at other colleges. In December 2009, the World Organization of Webmasters Peer Review Team evaluated Cerro Coso's Web Design program and admitted the program into the World Organization of Webmasters Web Professional Academy (<http://webprofessionals.org/education/academy/directory/>). Only 8 web design/development programs nationwide have been given this distinction. In addition to the exposure this provides us, it affirms that the program reflects a high level of rigor and relevance.

Improvements Needed

1. Student retention and success needs to be increased by at least 15 percentage points to restore values to that of 2006. Ideally, success rates should be even higher.
2. Increase degree and certificate completions, as captured in Core Indicator data.
3. Student learning outcomes need to be improved in the areas of applying aesthetic design skills, executing specific Photoshop skills, and accurately describing core XHTML/CSS concepts.
4. Update curriculum to reflect evolving standards and technologies in the field.
5. Update names of two courses to describe the course in plain language, rather than technical language.

Five-Year Program Plan

1. Improve retention by 15 percentage points and success by 25 percentage points.
2. Increase completion core indicators 26 percentage points.

3. Implement instructional practices so that 80% of students attain program outcomes A, B, and C.
4. Update course outlines for DMA C111 and DMA C109 to reflect course name changes.

Relation of the Five-Year Plan to College Mission

Our Five-Year Program Plan supports the College Mission by making a Career Technical Education program more relevant to our clients and communities and by innovating our instructional practices to improve student learning and success.

Strategies for Achieving the Plan

- Develop skills-based assessment of computer competency to better inform students of their readiness for DMA courses.
- Place greater emphasis upon clearing rosters of students who have not attended class or do not participate prior to census.
- Place greater emphasis on providing formative assessment so instructors and students can respond more quickly when a student struggles with a concept or skill.
- Direct students to our supplemental instructor for further assistance in developing learning strategies.
- Provide more professional development to full time and part time instructors—especially in the areas of best practices in student success and retention.
- Apply advisory committee input about all aspects of curriculum quality and relevance.

Part 6 – Supporting Documentation



CTE 2 YEAR PROGRAM REVIEW: Web Design

Using EMSI / Educational Analyst / Programs / Program Report

What TOP code(s) are you using for this report?

0614.00 Digital Media Arts

Occupations shown in the above program report include:

- 43-9031 Desktop publishers
- 27-4011 Audio and video equipment technicians
- 51-5022 Prepress technicians
- 27-4012 Broadcast technicians

Run a historical Program Report for 2005 to 2010 to show the following data:

	CC Labor Market	Four County Region
A) number of jobs within the above occupation(s) for 2005	38	330
B) number of jobs within the above occupations(s) for 2010	34	308
C) number and percent change (2005 to 2010)	-4 (-11%)	-21 (-6%)
D) the average hourly earnings for the above occupation(s)	\$12.34	\$12.96
E) number of completions (awards) from our college 2009	15	15
F) number of completions (awards) from regional colleges 2009	0	1
G) average number of completions over last five years at Cerro Coso	9	

Then run a projection Program Report for 2010 to 2015 to show the following data:

A) number of jobs within the above occupation(s) for 2010	34	308
B) number of jobs within the above occupations(s) for 2015	36	319
C) number and percent change (2010 to 2015)	2 (6%)	10 (3%)
D) the average hourly earnings for the above occupation(s)	\$12.34	\$12.96
E) number of annual openings	2	12

Does the above program meet a documented labor market demand? Please explain.

The Web Design program meets local and regional labor market demands by equipping graduates for employment and self-employment in the field of web design/development. Employers in our labor market that hire web design graduates are primarily those in the defense industry, including the Naval Air Warfare Center (NAWC) and supporting contractors. NAWC and most of the contractors have corporate offices outside of our region, however, and the data above only captures employers with corporate offices in our region. Additionally, approximately half of our graduates become gainfully self-



CTE 2 YEAR PROGRAM REVIEW: Web Design

employed and this is not reflected in the data. Finally, of those who are not self-employed, approximately half of those who graduate continue their education in the pursuit of a Bachelors Degree or higher.



CTE 2 YEAR PROGRAM REVIEW: Web Design

Using EMSI / Career Pathways / Occupation Analysis / Occupational Programs Report

Occupations shown in the above occupational programs report include:

- 15-1099 Web developers and administrators
- 27-1014 Multi-media artists and animators
- 43-9031 Desktop publishers

Four County Region July 2010

List all related programs of study by other educational institutions in our region:

Provide the name of institution, name of program, distance to college, public/private, approx enrollment, number of completers in the last year.

1. Cerro Coso Community College, Web Design/Animation/Computer Science, produced 15 graduates in 2009.
2. Kaplan College, Computer Information Sciences, <115 miles from CC, private two year, with ~700 students in fall 2008 (based on IPEDS), produced 36 graduates in 2009.
3. Bakersfield College, Web design/Graphics/Computer Sciences, <120miles from CC, public community college, with ~18,000 students in fall 2009, produced 20 graduates in 2009.
4. CSU Bakersfield, Computer Information Sciences, <120 miles from CC, public four year university, with <7,800 students in fall 2009, produced 17 graduates in 2009.
5. San Joaquin Valley College, Computer Information Sciences, sites in Bakersfield and Visalia (between 120-190 miles from CC), private two year, with ~1,400 students in fall 2008 (based on IPEDS), produced 12 graduates in 2009.
6. College of the Sequoias, Graphic design/Computer Information Sciences, <186 miles from CC, public community college, with ~13,600 students in fall 2009, produced 3 graduates in 2009.

Does the above program represent unnecessary duplication of training programs in our area? Please explain.

Cerro Coso's Web Design program does not represent unnecessary duplication of training in our area. The regional colleges listed above are a significant distance from Cerro Coso. Additionally, the Web Design program at Cerro Coso has been vetted and endorsed by the World Organization of Webmasters as an academic program that aligns well with industry standards, collaboratively defined by industry professionals—those who would hire graduates of such programs. We are among only 8 programs nationwide that have been honored with this distinction:

<http://webprofessionals.org/education/academy/directory/>. Consequently, this program is differentiated from the programs listed above by its quality and strict adherence to industry standards.

You have a **BASIC account** | To remove the limits of a BASIC account and get unlimited questions, [upgrade now!](#)

Cerro Coso Web Design Program [Edit](#)

Default Report + Add Report

Response Summary

Total Started Survey: 10
Total Completed Survey: 10 (100%)

PAGE: DEFAULT SECTION

1. Which of the following best describes your current circumstances?

[Create Chart](#) [Download](#)

	Response Percent	Response Count
I have full time employment as a web designer/developer.	0.0%	0
I have part time employment as a web designer/developer.	0.0%	0
I am a self-employed web designer/developer.	50.0%	5
I have full time employment, but only some of my duties pertain to web design/development.	20.0%	2
I have full time employment, but none of my duties pertain to web design/development.	0.0%	0
I am currently a student pursuing a Bachelors Degree or higher in the field of Information Technology or Graphic Design.	20.0%	2
I am currently a student pursuing an unrelated discipline.	0.0%	0
I am currently unemployed.	10.0%	1
Other (please specify)		0
answered question		10
skipped question		0

2. To what extent do you feel that your course work in the Web Design Program equipped with the following:

[Create Chart](#) [Download](#)

	Highly Equipped	Moderately Equipped	Minimally Equipped	Not Equipped	Rating Average	Response Count
Technical mastery of Adobe software.	60.0% (6)	40.0% (4)	0.0% (0)	0.0% (0)	1.40	10
answered question						10
skipped question						0

2. To what extent do you feel that your course work in the Web Design Program equipped with the following:

[Create Chart](#)

[Download](#)

Foundation skills in XHTML/CSS markup.	90.0% (9)	10.0% (1)	0.0% (0)	0.0% (0)	1.10	10
Foundation skills in web scripting.	40.0% (4)	20.0% (2)	40.0% (4)	0.0% (0)	2.00	10
Creativity and visual design skills.	80.0% (8)	20.0% (2)	0.0% (0)	0.0% (0)	1.20	10
Collaboration and communication skills.	70.0% (7)	30.0% (3)	0.0% (0)	0.0% (0)	1.30	10
answered question						10
skipped question						0

3. Do you have any recommendations that would help the program better equip students for work as a web professional?

[Download](#)

	Response Count
Show Responses	7
answered question	
skipped question	
	7
	3

Digital Media Arts 3-Year Long Term Schedule - Online

	COURSE	TITLE	SP11	SU11	FA11	SP12	SU12	FA12	SP13	SU13	FA13
DMA -	C102	Digital Imaging with Photoshop	x	x	x	x	x	x	x	x	x
DMA -	C103	Digital Photo Enhancement w/Ph	x			x			x		
DMA -	C107	Illustration/Design w/Illustration			x			x			x
DMA -	C108	Adv Digital Imaging/Illustration						x			
DMA -	C109	Desktop Publishing w/InDesign			x						x
DMA -	C111	XHTML and CSS	x	x	x	x	x	x	x	x	x
DMA -	C113	Accessibility and Usability	x			x			x		
DMA -	C115	Interactivity/Interface Design			x			x			x
DMA -	C117	Web Design w/Dreamweaver	x			x			x		
DMA -	C121	Prinicples of Animation w/Flash				x					
DMA -	C130	Introduction to Podcasting		x			x			x	
DMA -	C131	Digital Video Production			x			x			x
DMA -	C133	Motion Graphics w/After Effect	x			x			x		
DMA -	C135	Digital Cinematography	x			x			x		
DMA -	C211	Web Scripting w/JavaScript			x			x			x
DMA -	C213	Web Devw/PHP & MySQL	x			x			x		
DMA -	C217	PHP Site Mangmt/Theme Design			x						
DMA -	C280	Web Production Management		x			x			x	

LONG TERM SCHEDULE
 FALL 2002 - SPRING 2003 - FALL 2003 - SPRING 2004

Digital Media Arts 3-Year Long Term Schedule - IWV									
	COURSE	TITLE	SP11	FA11	SP12	FA12	SP13	FA13	
DMA -	C102	Digital Imaging with Photoshop		SSS		SSS		SSS	
DMA -	C103	Digital Photo Enhancement w/Ph	SSS		SSS		SSS		
DMA -	C107	Illustration/Design w/Illustration	ACP				ACP		
DMA -	C109	Desktop Publishing w/InDesign			ACP				
DMA -	C111	XHTML and CSS				ACP			
DMA -	C131	Digital Video Production		ACP		ACP		ACP	
DMA -	C135	Digital Cinematography	iTV		iTV		iTV		
ACP - Adobe Connect Pro. Section taught concurrently with sections at multiple sites.									
iTV - Interactive Television. Section taught concurrently with sections at multiple sites.									
SSS - Single Site Section.									

Digital Media Arts 3-Year Long Term Schedule - ESCC Bishop

	COURSE	TITLE	SP11	FA11	SP12	FA12	SP13	FA13
DMA -	C102	Digital Imaging with Photoshop						
DMA -	C103	Digital Photo Enhancement w/Ph						
DMA -	C107	Illustration/Design w/Illustration						
DMA -	C109	Desktop Publishing w/InDesign						
DMA -	C111	XHTML and CSS				ACP		
DMA -	C131	Digital Video Production		ACP		ACP		ACP
DMA -	C135	Digital Cinematography	iTV		iTV		iTV	

ACP - Adobe Connect Pro. Section taught concurrently with sections at multiple sites.

iTV - Interactive Television. Section taught concurrently with sections at multiple sites.

SSS - Single Site Section.

Digital Media Arts 3-Year Long Term Schedule - ESCC Mammoth

	COURSE	TITLE	SP11	FA11	SP12	FA12	SP13	FA13
DMA -	C102	Digital Imaging with Photoshop		SSS				SSS
DMA -	C103	Digital Photo Enhancement w/Ph				SSS		
DMA -	C107	Illustration/Design w/Illustration	ACP				SSS	
DMA -	C109	Desktop Publishing w/InDesign			SSS			
DMA -	C111	XHTML and CSS				ACP		
DMA -	C131	Digital Video Production		ACP		ACP		ACP
DMA -	C135	Digital Cinematography	iTV		iTV		iTV	

ACP - Adobe Connect Pro. Section taught concurrently with sections at multiple sites.

iTV - Interactive Television. Section taught concurrently with sections at multiple sites.

SSS - Single Site Section.

Digital Media Arts 3-Year Long Term Schedule - KRV

	COURSE	TITLE	SP11	FA11	SP12	FA12	SP13	FA13
DMA -	C102	Digital Imaging with Photoshop						
DMA -	C103	Digital Photo Enhancement w/Ph						
DMA -	C107	Illustration/Design w/Illustration						
DMA -	C109	Desktop Publishing w/InDesign						
DMA -	C111	XHTML and CSS						
DMA -	C131	Digital Video Production		ACP		ACP		ACP
DMA -	C135	Digital Cinematography	iTV		iTV		iTV	

ACP - Adobe Connect Pro. Section taught concurrently with sections at multiple sites.

iTV - Interactive Television. Section taught concurrently with sections at multiple sites.

SSS - Single Site Section.

Program Review Data for Academic_Period BETWEEN '200450' AND '201070'

Data pulled from the ODS Feb, 24, 2011

	Sections	Enrollment	Students / Section	FTES	FTEF	Adjunct FTEF	FTES/FTEF	Total Grades	# retained	% Retained	# Succeeded	% Succeeded	
MA	-	155	2897	18.7	378.9	44.6	15.4	8.5	2651	2283	86%	1646	62%
2004-2005 -	52	830	16.0	141.3	14.6	5.7	9.7	795	680	86%	482	61%	
200450	8	59	7.4	12.6	1.9	1.3	6.8	66	62	94%	54	82%	
200470	24	377	15.7	63.9	6.4	2.1	10.0	360	288	80%	201	56%	
200530	20	394	19.7	64.8	6.4	2.3	10.1	369	330	89%	227	62%	
2005-2006 -	37	700	18.9	66.0	11.5	2.6	5.7	647	578	89%	427	66%	
200550	8	124	15.5	11.8	2.8	1.2	4.2	152	141	93%	120	79%	
200570	15	289	19.3	27.5	4.2	1.0	6.5	256	225	88%	155	61%	
200630	14	287	20.5	26.7	4.4	0.4	6.0	239	212	89%	152	64%	
2006-2007 -	35	697	19.9	70.6	11.1	2.6	6.4	616	523	85%	373	61%	
200650	6	107	17.8	11.5	1.8	0.5	6.4	104	91	88%	75	72%	
200670	15	314	20.9	32.6	4.7	1.0	6.9	272	234	86%	166	61%	
200730	14	276	19.7	26.5	4.5	1.1	5.8	240	198	83%	132	55%	
2007-2008 -	39	663	17.0	100.6	7.3	4.5	13.7	586	495	84%	358	61%	
200750	5	62	12.4	6.4	1.3	0.7	4.8	62	53	85%	44	71%	
200770	19	321	16.9	50.3	3.8	2.3	13.4	288	239	83%	160	56%	
200830	15	280	18.7	43.8	2.2	1.5	19.6	236	203	86%	154	65%	
2008-2009 -	1	7	7.0	0.5	0.1	0.0	3.7	7	7	100%	6	86%	
200850	1	7	7.0	0.5	0.1	0.0	3.7	7	7	100%	6	86%	
DMA	-	71	1548	21.8	223.3	20.8	13.0	10.8	1541	1153	75%	796	52%
2008-2009 -	37	744	20.1	115.1	11.5	7.6	10.0	737	563	76%	405	55%	
200850	4	79	19.8	13.0	1.3	1.0	9.8	82	62	76%	47	57%	
200870	17	365	21.5	60.9	4.6	2.4	13.4	358	271	76%	187	52%	
200930	16	300	18.8	41.2	5.6	4.2	7.3	297	230	77%	171	58%	
2009-2010 -	31	711	22.9	108.2	8.4	4.9	12.8	711	522	73%	349	49%	
200950	5	79	15.8	10.1	1.7	1.3	6.1	79	65	82%	47	59%	
200970	15	317	21.1	52.7	3.8	2.3	13.9	316	234	74%	160	51%	
201030	11	315	28.6	45.3	3.0	1.2	15.2	316	223	71%	142	45%	
2010-2011 -	20	336	16.80	55.09	4.13	2.30	13.34	336	250	74%	160	48%	
201050	4	93	23.3	0.0	0.8	0.5	0.0	93	68	73%	42	45%	
201070	16	243	15.19	42.06	3.30	1.80	12.76	243	182	75%	118	49%	

College Core Indicator Information by 6-Digit TOP (2010-2011)

Perkins IV, Title I, Part C Local Application

Agreement # _____ District/College: KERN/CERRO COSO

061400 - Digital Media

Instructions: Print out forms. Complete and sign bottom of page 2.

Core Indicator 1 Technical Skill Attainment			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
1 College--all CTE students	14	15	88.37	87.93	93.33	5.4
2 Non-Traditional	10	11	88.37	87.93	90.91	3.0
3 Displaced Homemaker	0	0	88.37	87.93	N/R	N/R
4 Economically Disadvantaged	10	10	88.37	87.93	100.00	12.1
5 Limited English Proficiency	0	0	88.37	87.93	N/R	N/R
6 Single Parent	1	1	88.37	87.93	100.00	N/A
7 Students with Disabilities	1	1	88.37	87.93	100.00	N/A
8 Migrant	0	0	88.37	87.93	N/R	N/R
Core Indicator 2 Completions - Credential, Certificate, Degree or Transfer Ready			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
9 College--all CTE students	3	6	81.65	76.29	50.00	N/A
10 Non-Traditional	2	5	81.65	76.29	40.00	N/A
11 Displaced Homemaker	0	0	81.65	76.29	N/R	N/R
12 Economically Disadvantaged	3	4	81.65	76.29	75.00	N/A
13 Limited English Proficiency	0	0	81.65	76.29	N/R	N/R
14 Single Parent	0	0	81.65	76.29	N/R	N/R
15 Students with Disabilities	1	1	81.65	76.29	100.00	N/A
16 Migrant	0	0	81.65	76.29	N/R	N/R
Core Indicator 3 Persistence and Transfer			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
17 College--all CTE students	13	15	85.47	83.62	86.67	3.0
18 Non-Traditional	9	11	85.47	83.62	81.82	-1.8
19 Displaced Homemaker	0	0	85.47	83.62	N/R	N/R
20 Economically Disadvantaged	9	10	85.47	83.62	90.00	6.4
21 Limited English Proficiency	0	0	85.47	83.62	N/R	N/R
22 Single Parent	1	1	85.47	83.62	100.00	N/A
23 Students with Disabilities	1	1	85.47	83.62	100.00	N/A
24 Migrant	0	0	85.47	83.62	N/R	N/R

College Core Indicator Information by 6-Digit TOP (2010-2011)

Perkins IV, Title I, Part C Local Application

Core Indicator 4 Employment			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
25 College--all CTE students	DR	DR	81.80	80.33	DR	N/A
26 Non-Traditional	DR	DR	81.80	80.33	DR	N/A
27 Displaced Homemaker	0	0	81.80	80.33	N/R	N/R
28 Economically Disadvantaged	DR	DR	81.80	80.33	DR	N/A
29 Limited English Proficiency	0	0	81.80	80.33	N/R	N/R
30 Single Parent	0	0	81.80	80.33	N/R	N/R
31 Students with Disabilities	0	0	81.80	80.33	N/R	N/R
32 Migrant	0	0	81.80	80.33	N/R	N/R
Core Indicator 5a Nontraditional Participation			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
33 College--all CTE students	11	15	20.27	14.99	73.33	58.3
Non-Traditional	11	15	20.27	14.99	73.33	58.3
Displaced Homemaker	0	0	20.27	14.99	N/R	N/R
Economically Disadvantaged	7	10	20.27	14.99	70.00	55.0
Limited English Proficiency	0	0	20.27	14.99	N/R	N/R
Single Parent	1	1	20.27	14.99	100.00	N/A
Students with Disabilities	0	1	20.27	14.99	0.00	N/A
Migrant	0	0	20.27	14.99	N/R	N/R
Core Indicator 5b Nontraditional Completions			Negotiated Level		College Performance	Percent Above or Below District* Negotiated Level
	Count	Total	State	District*		
34 College--all CTE students	3	4	21.99	17.18	75.00	N/A
Non-Traditional	3	4	21.99	17.18	75.00	N/A
Displaced Homemaker	0	0	21.99	17.18	N/R	N/R
Economically Disadvantaged	2	3	21.99	17.18	66.67	N/A
Limited English Proficiency	0	0	21.99	17.18	N/R	N/R
Single Parent	0	0	21.99	17.18	N/R	N/R
Students with Disabilities	0	1	21.99	17.18	0.00	N/A
Migrant	0	0	21.99	17.18	N/R	N/R

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed.
Note: N/A (Not Applicable) indicates denominators less than 10 or N/R (Not Reported) indicates categories where no participants were reported. These performance indicators include all vocational programs whether or not they are supported with VTEA Title IC Funds. For more detailed reports, see Core Indicators 'Summary' and 'Detail' Reports. Shaded areas are for your information and are not included as accountability measures.

By totaling each positive, negative, N/A, N/R outcome in the last column from items 1 - 34, I certify and acknowledge that performance in the 34 Core Indicator categories is as follows:

6 of the 34 are at or above the District negotiated level(s);
1 of the 34 are below the District negotiated level(s);
27 of the 34 are list as (N/A, N/R)

Department Chair (or authorized Designee) : _____

Cerro Coso Award Completion
Award Type:<All>

TOP	Major_Desc	Award_Category_Desc	Number of Students Earning Awards each Year			
			2007	2008	2009	Total
050100	Business		16	8	6	30
	Business Administration		17	10	12	39
050200	Accounting					0
050600	Business Management		18	20	12	50
	Business Mgmt/Small Business			1		1
050640	Small Business Mgmt/Entreprene				1	1
050900	Marketing					0
051400	Business Office Technology		8	4	1	13
	Office Technology					0
069900	Digital Animation		2	4	4	10
	Web Design Associate of Science		2	1	10	13
	Post Second. Cert/Dipl >1 < 2		3	2	1	6
070100	Computer Information Systems		2	1	1	4
	Computer Technology			1		1
	Computer/Information Science			1		1
070200	Computer Information Systems		1	3	2	6
083500	Physical Education		1			1
090100	Pre-engineering			1	3	4
092400	Engineering Technology					0
	Physical Sciences Technology					0
093400	Electronics Technology					0
094800	Automotive Technology		3			3
095630	Machine Tool Technology					0
095650	Welding Technology				2	2
099900	Trades Practices				1	1
100100	Fine Arts		3	1		4
100200	Art		1			1
103020	Computer Graphics/MultiMedia					0
123020	Nursing LVN			2	16	18
	Vocational Nursing					0
130500	Child Dev Assistant Teacher					0
	Child Dev Associate Teacher					0
	Child Development		13	4	10	27
	Child Development Teacher		1			1
	Child Dvlpmnt Site Supervisor					0
140200	Paralegal Studies			4	3	7
210400	Human Services					0
	Human Services Certificate					0
210500	Administration of Justice		22	13	12	47
220100	Social Science		44	34	25	103
220400	Economics					0
220500	History					0
490100	General Education		116	112	59	287
	Liberal Arts/ Science			1		1
	Liberal Arts/Social & Behvrl				29	29
490110	Liberal Arts Transfer CVHEC					0

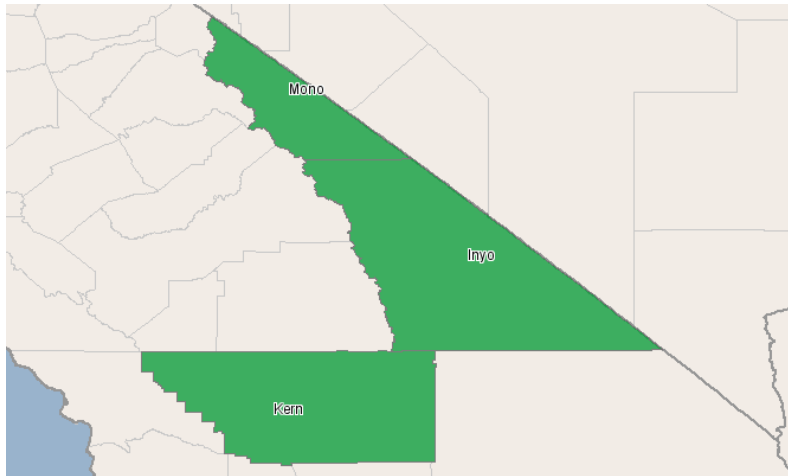
490200	General Science	2	3	1	6
	Liberal Arts/Math & Science			5	5
490300	Humanities	3	8	4	15
490310	Liberal Arts/Arts & Humanities			2	2

The crosstab shows the number of awards for each TOP code and program/major. Use the drop down menu at the page item to select each award type: AA, AS, or certificates of various length.

Cerro Coso Community College

3000 College of Heights Blvd
Ridgecrest, California 93555
760.384.6258

Program Report



Region Info

Region: Cerro Coso Region

Description: Kern, Inyo, Mono

County Areas: Inyo, California (6027), Kern, California (6029), Mono, California (6051)

Selected Program(s)

Programs
Website Design and Development (TOP 0614.30)

Filter

Condition	Value
Education Level	Associate's degree
	Bachelor's degree

Executive Summary

Program Occupations
Computer programmers (SOC 15-1021)
Multi-media artists and animators (SOC 27-1014)
Graphic designers (SOC 27-1024)

Summary	
2010 Occupational Jobs	866
2015 Occupational Jobs	950
Total Change	85
Total % Change	10%
2010 Median Hourly Earnings	\$25.63
Annual Openings	36

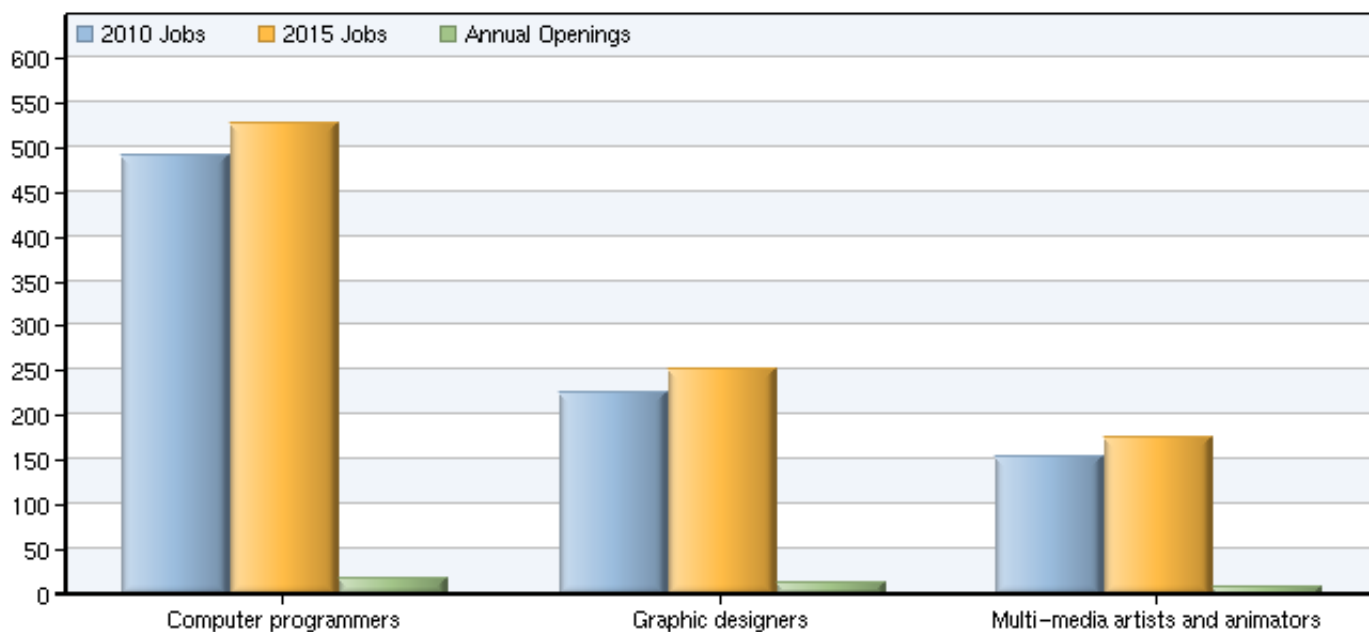
Source: EMSI Complete Employment - 3rd Quarter 2010

Completers Breakdown

TOP Code	Title	2009 Completers, Base Institution	2009 Total Completers, Region
0614.30	Website Design and Development	Program not in institution	10

Source: EMSI Complete Employment - 3rd Quarter 2010

Occupational Breakdown



SOC Code	Description	2010 Jobs	2015 Jobs	Annual Openings	2010 Hourly Earnings	Education Level
15-1021	Computer programmers	490	526	16	\$35.05	Bachelor's degree
27-1024	Graphic designers	224	251	12	\$16.05	Bachelor's degree
27-1014	Multi-media artists and animators	152	174	8	\$9.42	Bachelor's degree
	Total	866	950	36	\$25.63	

Source: EMSI Complete Employment - 3rd Quarter 2010

Data Sources and Calculations

Occupation Data

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department.