

Computer Applications/ Office Systems

Program Review
2009-2010

Narratives written by and data compiled by the CAS/OS Subject Area Committee
2009-2010

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CAS/OS Program Review

Part 1

CAS/OS Program History

A. Who We Are

The Computer Applications/Office Systems Department offers a program that educates and trains students as professional administrative assistants and web designers/developers. Our department's focus for students in our courses includes teaching software applications for mastery, problem solving, critical thinking, human relations, communications, current computer technologies, work-readiness, computer literacy, and transfer requirements.

Our courses include: Basic Computer Skills (MS Office), Keyboarding, Microsoft Word, Microsoft Excel, Microsoft Access, Microsoft Publisher, Microsoft PowerPoint, and Microsoft Outlook. Also included are courses using the Adobe Suite: InDesign, Flash, Dreamweaver, and Photoshop. The web courses include the use of JavaScript, ColdFusion, CSS, and more. Additionally, our department offers classes in office skills that integrate the use of software. These Office Systems (OS) classes include Filing and Records Management, Business Editing, 10-Key Calculators, Office Systems and Procedures, and Co-op Education. We offer our degrees and certificates for the Administrative Assistant, Virtual Assistant, Web Developer, and Web Designer. Additionally, we are a resource for the following:

- Over-the-Shoulder Training for Computer Technology for PCC staff and faculty
- Updating skills for Professional Development for the PCC Community
- Software Training and Skills Upgrades for Business Professionals
- Computer Literacy courses for other PCC Programs
- Lower Division Transfer Credits
- Distance Learning Faculty Mentoring/New Course Review
- Required/Elective Courses for other CTE Programs
- Computer Applications for Speakers of Other Languages (CASOL)
- PAVTEC (Portland Area Vocational Technical Consortium)

PCC faculty attend numerous connection meetings throughout the year as well as provide guidance for local high schools to articulate our courses. We offer articulation agreements for the following courses: CAS 103, 106, 109, 111D, 111F, 121, 121A, 133, 140, 170, 216, 216A, and OS 131.

B. CAS/OS Degrees and Certificates

When we presented our last program review, our program consisted of two degrees and two certificates. Since that time our program has grown to three associate degrees, two one-year certificates, a less than one-year certificate, and six less than one-year certificates commonly known as Career Pathway Certificates. Listed below are our current degrees and certificates:

Degrees

- Computer Applications/Office Systems: Administrative Assistant
- Administrative Office Professional (this statewide degree will replace the Computer Applications/Office Systems Administrative Assistant Office Management degree beginning Fall 2010) *
- Web Site Development & Design *

One-Year Certificates

- Computer Applications and Office Systems
- Web Site Development & Design

Less than One-Year Certificate

- Virtual Assistant *

Less than One-Year: Career Pathways Certificates *

- Basic Computer Literacy *
- Word Processing *
- Spreadsheet *
- Office Assistant *
- Web Assistant I *
- Web Assistant II *

* These are the new state-approved certificates or degrees since our last Program Review.

C. CAS/OS Student Goals

The Computer Applications/Office Systems department is unique in that we serve not only our degree and certificate students but also serve as a bridge to many different departments and disciplines with our course offerings as shown in the tables below:

PCC Programs that Require CAS Classes	
Program	Required Class
BioScience Technology	Beginning Excel (CAS 170)
Building Construction Technology	Beginning Excel (CAS 170), Basic Computer Skills (CAS 133) proficiency required to enter program
Building Inspection Technology	Beginning Word (CAS 216)
Business Administration	Microsoft Word (CAS 216), (CAS 217), Excel (CAS 170) (CAS 171) or Intermediate Excel (CAS 171), Ten-Key (OS 131), Keyboarding (CAS 121) (CAS 122) most commonly required classes
Criminal Justice	Basic Computer Skills (CAS 133)
Diesel Service Technology	Basic Computer Skills (CAS 133)
Emergency Medical Technician	Basic Computer Skills (CAS 133) or CIS 120
Emergency Telecommunicator	Keyboarding Speed & Accuracy (CAS 122), Basic Computer Skills (CAS 133) is recommended
Graphic Design	Beginning Dreamweaver (CAS 111D)
Nursing	Basic Computer Skills (CAS 133) or computer literacy test
Paralegal	Basic Computer Skills (CAS 133)

PCC Programs that have CAS Electives	
Program	Class
Aviation Science	CAS 133, 170, 171, 216, 217

Business Administration	CAS 133, CAS 109, 111D, 111F,140, 170, 170A, 171, 216, 216A, 231, 232, 246, OS 240, OS 131
Gerontology	CAS 133, 140, 170, 216, 217, 231
Multimedia	CAS 106, 109, 110, 111D, 112D, 175, 206, 208, 213

Our students come from a wide variety of backgrounds and skill levels. They have diverse goals and interests.

In the past two years, 225 students from 107 different declared majors have taken one or more CAS classes. Additionally, there were 3,407 students who had undeclared majors who have taken one or more of our CAS classes. The following graph shows the majors who have taken the most CAS classes in the past two years.

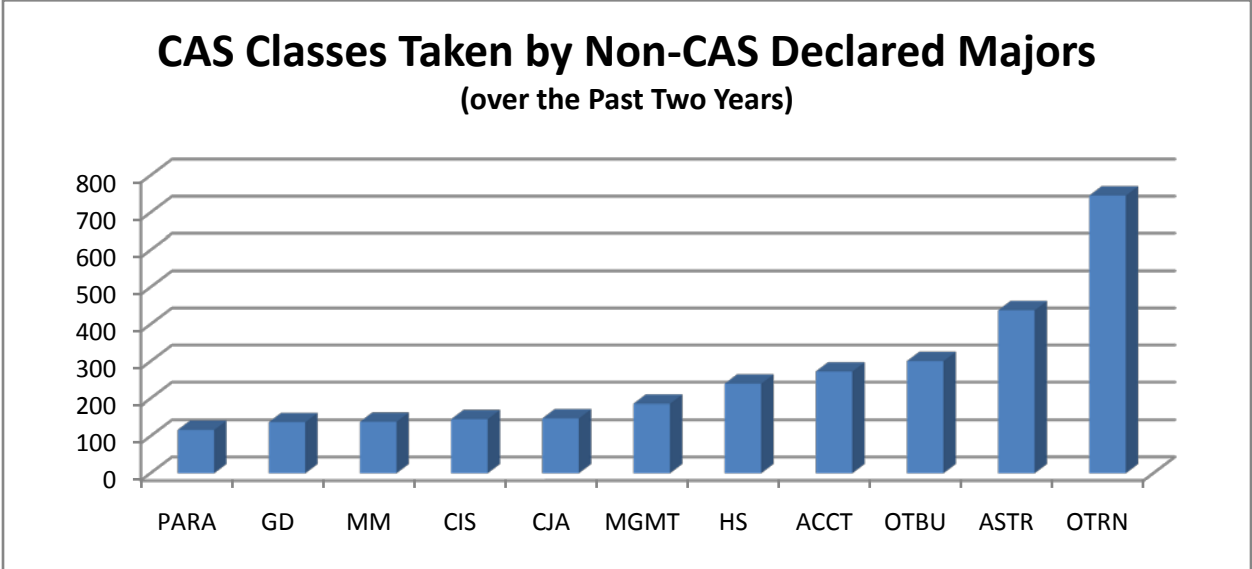


Chart 1: CAS Classes Taken by Non-CAS Declared Majors
PCC Degree, Certificate and other programs listed above include PARA (Paralegal), GD (Graphic Design), MM (Multimedia), CIS (Computer Information Systems), CJA (Criminal Justice), MGMT (Business Management), HS (High School Completion), ACCT (Accounting), OTBU (Oregon Transfer of Business for the ASORT Degree), ASTR (Transfer Program for AS degree), and OTRN (Oregon Transfer for AAORT degree).

Given the current economic conditions as of this review in 2010, we have had a large influx of students who have returned to upgrade their skills to reflect the skills required for today’s job market. They may only take a few classes and then return immediately to the workforce. Many of our courses give students the current computer technology skills necessary to perform jobs specific to their profession. Students may be currently employed and take our courses to satisfy professional development requirements from their employer or to be trained in the most current software technologies.

Additionally, we have our own program students who are seeking one or more of our Computer Applications/Office Systems certificates or degrees. Between 2007 and 2009, our program has awarded 82 certificates and degrees to our students.

See Appendix A-2 for a list of degrees and certificates students have received.

D. Instructional Delivery Method

Since our last review, the CAS/OS program has begun to offer more sections of courses by alternative delivery method. The majority of our courses continue to be offered in a computer classroom setting on campus (Campus), however distance Learning (DL) and a combination or hybrid of classroom and online delivery (CL-Web) are in demand and becoming increasingly popular.

These charts show the percentage of our total classes by each delivery method. The growth in DL and CL-Web is apparent.

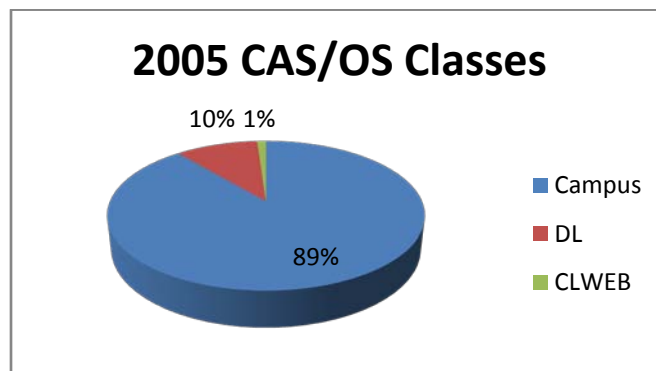


Chart 2: 2005 CAS/OS Classes by delivery method

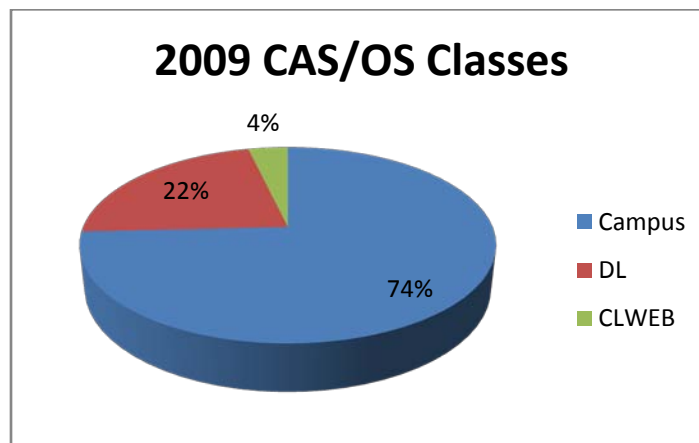


Chart 3: 2009 CAS/OS Classes by delivery method

The number of DL students from the greater Portland area and beyond has continued to rise over the past five years.

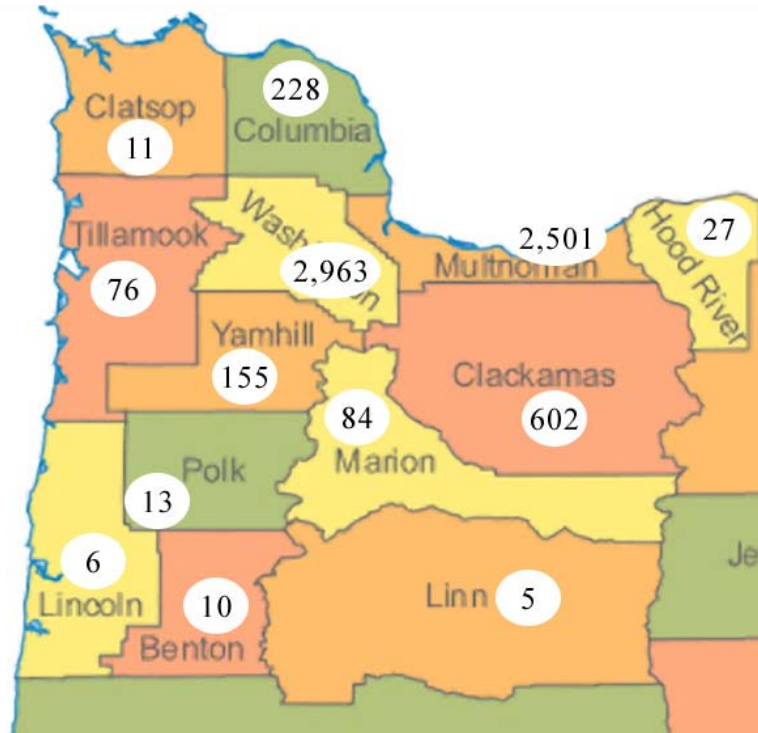


Figure 1: Distribution of CAS DL students across counties in the Northwest Oregon (last 5 years)

Students who take DL courses are not necessarily only from Oregon, either. We have had students from around the country and around the world enrolled in our DL classes.

See Appendix A-3 for data about the locations across the U.S. from where DL students have taken our courses.

The increase in the number of DL courses we offer has also created a situation in which many of our courses can be and are taken by students who have no direct contact with instructors.

E. Over-the-shoulder training for faculty and staff

The CAS/OS FT and PT faculty have always assumed the responsibility of supporting the technical needs of the PCC community. CAS/OS faculty have been the primary support for faculty and staff who need assistance with the popular business education application software. The “Over-the-shoulder” software support program has been staffed by CAS/OS FT and PT faculty for ten years. We provide one-on-one training in the office applications and other specific software applications. The one-on-one training allows faculty and staff to have a private training session in their office on specific problems that are relevant to their own work. The program is sponsored by Staff Development and has been highly successful. The program was originally started to address the needs of faculty who needed assistance

with software but did not feel comfortable or did not have time to attend workshops or training sessions. Many faculty and staff have been the recipients of this training over the last five years.

F. DL Faculty Mentoring and DL Course Review

As a new endeavor in 2009-2010, CAS/OS faculty are involved with the new DL faculty mentor program which includes reviewing DL courses. A PT CAS/OS instructor is on the team of faculty mentors to provide one-on-one assistance in DL course creation and updates as they relate to best practices of DL instruction. Our faculty regularly mentor new CAS DL instructors and CAS/OS faculty have also participated in the quality matters assessment training for DL classes.

Part 2

Our Goals for the CAS/OS Program

During our Subject Area Committee (SAC) meetings, we are often effective at meeting our goals and we routinely revisit and review our goals for relevance. The following is a current list of our goals for our program. These include an estimated completion year or are ongoing in some cases.

1. Update courses for Windows 7, Office 2010, and Adobe CS5 products. We anticipate having all changes in place for Fall 2011. This will necessitate college-wide curriculum updates for almost all CAS courses as well as some OS courses. We plan to request IIP funding as we've done in the past. (estimated completion: 2011)
2. Create Web Degree Capstone Course (estimated completion: 2011)
3. Work closely with CIS, MM and Graphic Design to avoid overlap (ongoing)
4. Share materials and resources for newly developed or changed classes (ongoing)
5. Ensure classes taught by multiple instructors district-wide include the same material (ongoing)
6. Encourage PT faculty to take part in SAC decision-making and course development (ongoing)
7. Review the Faculty Qualifications for Related Instruction in Web Certificate (estimated completion: 2010)
8. Complete the Learning Assessment Process (estimated completion: 2011)
9. Perkins Funding – no later than the beginning of the 2012-13 school year, all approved CTE Programs of Study must include technical skill assessments that are valid and reliable. For the post-secondary field, this will be completion of program assessment. (estimated completion: 2012)

Part 3

New Programs/Curriculum

A. Web Program

Although the Web program is not completely new it has had several additional certificates and a degree added. We have also seen explosive growth in this area since the last Program Review. Since the last review, we have

- added 6 new Web-related classes: CAS 180 (Search Engine Optimization), CAS 181 (Content Management Systems), CAS 208 (Beginning PhotoShop), CAS 215 (Cascading Style Sheets and DHTML), CAS 225 (Intro. to PHP), and CAS 275 (Intermediate Flash),
- created two short-term Career Pathways certificates: Web Assistant I, Web Assistant II,
- created a 2-year AAS Web Site Development and Design Degree,
- added additional web classes at the Rock Creek campus, and increased the number of Web-related classes and sections offered at the Cascade and Sylvania campuses,
- increased enrollment in the classes that existed at the time of the last Program Review,
- created a Web Advisory Committee, which currently has 12 companies/organizations represented from the Portland area, and has met once or twice a year for the past 3 years,
- and created a Web Subcommittee with representatives from the CAS/OS, CIS, and MM SAC's, which gathers together faculty teaching web-related courses to discuss and update curriculum and make recommendations to their respective SAC's.

Between 2007-2009, 29 students have completed the new and revised Web-related certificates and degree.

See Appendix A-2 for detailed data.

Distance learning classes are particularly popular for students in the Web program. In fact, quite a few of our students are earning degrees and certificates taking all of their classes online. Some of these students are completing their degrees from distant locations, including many other states and even other countries.

Web-related courses now make up a very significant proportion of the total CAS/OS FTE, which has steadily increased since the last Program Review. In 2004, there was 191.2 FTE in web-related courses, which represents 23.3% of the total FTE. By 2009, this had increased to 273.5 FTE, which represents 29% of the total FTE, and an increase of 82.3 FTE within the web-related classes alone.

See Appendix B for detailed data.

B. Career Pathway Certificates

The CAS/OS program was the first program at PCC to develop and offer the new state-approved short-term Career Pathway Certificates. We offer four certificates related to the administrative assistant program (Computer Literacy - 13 credits, Word Processing - 26 credits, Spreadsheet - 27 credits, and Office Assistant - 43 credits). We also offer two certificates related to the website design and development program (Web Assistant I - 12-14 credits and Web Assistant II - 24-26 credits).

These certificates were designed to give students short-term credentials, act as “stepping stones” or pathways to our one-year certificates and AAS degrees, and address the fact that many students take classes, leave before finishing a program, and then come back to take additional course-work at a later date. These certificates allow students to take a group of related classes and earn short-term credentials for assisting them as they attempt to enter the workforce or update their skills to advance in the workforce.

C. Computer Applications for Speakers of Other Languages (CASOL)

This is a pilot program, the purpose of which is to help non-native English speakers prepare to get an entry level job in an office. It is a collaborative effort among CAS/OS, ESOL, and Career Pathways.

Students enter the 8.5 month CASOL Program if the student wants a job in an office, wants to learn more about computers, wants to make \$9.00-\$16.00 per hour, and/or wants to earn college credit towards a Certificate or Degree from PCC.

In CASOL, students learn basic computer and computer applications skills, job preparation for an internship which is included in the program, how to create cover letters and resumes, and English language skills. The program is available to any students who are already in the ESOL program and have a high school diploma or GED from the U.S. or their country of origin.

We have had two cohorts at Rock Creek and, during 2008-2009, 12 students completed the entire program. Three of those students currently have obtained full-time positions, and the remainder are continuing their education.

D. Virtual Assistant Certificate

As the job market is changing, many more students are interested in working entirely over the Internet. This certificate is designed to provide students with the necessary skills to develop and successfully operate a virtual office that provides administrative support and technical services for the rapidly

changing global business environment. It is intended to be an extended career opportunity for those who have extensive work experience in their field of expertise.

The courses required to earn the virtual assistant certificate can be completed in two terms, and all of them may be taken online. Students in the program will be affiliated with professional virtual assistant organizations such as Alliance for Virtual Businesses, International Virtual Assistants Association, Canadian Virtual Assistant Connection and Online International Virtual Assistants Convention.

Career and Program Description

The Virtual Assistant Certificate will benefit those who want to work independently out of their own home by applying administrative, creative and/or technical services to other entrepreneurs, small businesses or corporations. This advanced certificate presumes previous administrative and office management experience as well as computer skills.

Virtual Assistant (27 credits)

An Advanced CAS/OS Certificate

Course Title		Credits
BA 205	Solving Comm. Problems w/Technology	4
CAS 111D	Beginning Dreamweaver	3
CAS 246	Integrated Computer Projects	4
OS 250	Creating a Virtual Office	4

Course Title		Credits
BA 111	Introduction to Accounting	3
OS 251	Virtual Office Concepts	4
OS 280F	Co-op Ed: Virtual Assistant	4
OS 280G	Co-op Ed: Virtual Assistant Seminar	1

- Recommended: completion of CAS 246 and 250
- A minimum of 15 credits of CAS/OS courses must be satisfactorily completed before enrolling in OS 280F. OS 280F and OS 280G must be taken concurrently

Two new courses for this certificate program include OS 250, Creating a Virtual Office, and OS 251, Virtual Office Concepts:

OS 250, Creating a Virtual Office, covers all aspects of creating an office for a virtual assistant. Students develop an individual business plan, analyze office needs for furniture and equipment, create a marketing plan, establish a fee rate range, identify software requirements, plan a company website, and create a file management system.

OS 251, Virtual Office Concepts, covers time management, business relationships, telephone techniques, telecommuting, ethics, conflicts, stress management, separating home and office life, networking with

other virtual assistants, virtual assistant associations, conducting virtual meetings, legal requirements, insurance issues, and negotiating contracts.

E. Administrative Office Professional Degree - Oregon Statewide Consortium

In the fall of 2009, Portland Community College (PCC) approved a revision of the current Computer Applications and Office Systems Administrative Assistant, Office Management AAS degree. The new degree, called Administrative Office Professional, is a statewide program that provides connected instruction and pathways for completion between participating Oregon community colleges. Students may start at any consortium college and transfer credits to any participating college.

Consortium lead members Mary Ann Lammers and Nancy Noe (Linn Benton Community College) indicated that they had attended the California Business Education State Advisory Committee (BESAC) meetings in California (prior to 2007). This Advisory Committee completed research as to how administrative office workers work and what skill sets were needed. The California group is looking into the curriculum of the administrative assistant programs and the need to incorporate those skills found in the research. California's progress has been slow due to the number of those involved. They are looking to the Oregon Consortium as a leader in this endeavor.

The goals of this statewide program were to address the following issues:

- Students who transfer from one community college to another community college are not given credit for similar classes.
- Students who are looking for job skills that are listed in the job market are not finding programs that coordinate with this.
- Students who want to further their career and transfer to a higher institution of learning are not able to transfer any of the courses they have taken in any of the administrative assistant programs.

PCC joined the consortium in its initial stage in 2007 and five CAS/OS faculty have been working with the other participating community colleges to determine requirements for this statewide degree, meeting 2-3 times per year. The core cluster and focus areas were determined by state measurement indicators and supported by an advisory committee formed by the consortium. At the November 14, 2008 meeting, the advisory committee had the opportunity to view the work to date and respond to the process thus far. Some of the advisory committee members expressed appreciation for being invited, were happy to be a part of this organizational meeting, and were glad that they could share some of the real-world skills with us educators. Most felt that we were on the right track in making sure that the basic skills were taught. Several of the advisory committee members expressed that they were glad that the administrative office profession is finally getting recognized. Some of the Consortium members felt

that the meeting validated what we have been already doing in the classroom, and others felt that the information received was insightful in changing or improving the programs.

Ron Dodge, Oregon Department of Education Educational Specialist for Business and Management, indicated that this statewide effort was among one of the most important endeavors taking place in the workforce in Oregon; i.e., preparing the best workforce. This combined effort is but one piece of the whole project in making sure that we are preparing our students for employment.

This new program is currently pending approval by the Oregon Board of Education; we do not expect any delays in approval and are hopeful this will be completed by early spring of 2010 for implementation to begin fall term 2010.

The consortium will continue to meet annually to monitor the program, discuss and adjust for any issues that arise, and plan the next step – which is to work with area four-year institutions to create a pathway for transfer options. The ultimate goal is to have a seamless transition to a four-year institution for students to earn a bachelor’s degree in management degree after completing the two-year AAS AOP degree. This, paired with the already existing articulation of high school programs (PAVTEC, 2+2, etc.), should provide more options for students in the state of Oregon.

See Appendix C - AOP AAS Degree Goals for details of the goals of the degree.

The colleges in this consortium include:

- Blue Mountain Community College
- Chemeketa Community College
- Clackamas Community College
- Clatsop Community College
- Klamath Community College
- Lane Community College
- Linn-Benton Community College
- Mt. Hood Community College
- Portland Community College
- Southwestern Community College

Part 4

Careers

The Computer Applications and Office Systems department offers courses for students who are pursuing the following career choices as named by the Bureau of Labor Statistics:

- Receptionists and information clerks
- Executive secretaries and administrative assistants
- Office clerks, general
- Word processors and typists
- Proofreaders and copy markers
- Office machine operators
- Desktop publishers
- File clerks
- Web designers
- Graphic Designers
- Web developers
- Web maintenance

Source: Bureau of Labor Statistics, Web Employment tables for Bureau of Labor Statistics National Employment Matrix.

Oregon Employment Department stated in an online article in *WorkSource*, dated November 2007, in a article "Occupations of Tomorrow" that "jobs change with technology and many other factors."

Many of tomorrow's jobs have not even been created yet. Some of today's jobs will likely be around for a long time while others won't. Included in their list of "techy" occupations that were beginning to show up in the work place were Electronic Commerce Specialist who apply knowledge of marketing and advertising to design Internet business Web pages and give content and layout specifications to webmasters who program the page.

Another newly described position that applies to our program was the Virtual World Entrepreneur. Virtual world entrepreneurs live in the real world, but they try to earn their living in the virtual world... Some people are already making real careers in these artificial worlds..."

We are teaching the skills to our students for these new "techy" occupations. We developed the Virtual Assistant certificate to help students use their skills to develop a virtual career.

According to Jennifer Kyrnin, About.com, "there are several different jobs that Web designers do." According to the U.S. Bureau of Labor Statistics, Web designers and developers are:

- Computer Scientists and Database Administrators (Web Designers, Web Developers, and Webmasters)

- Desktop Publishers (Web Publications Designers)
- Writers and Editors (Web Writers)
- Computer Programmers (Web Programmers)

Specific to the Web realm are new careers in Search Engine Optimization and Social Media Marketing that are a subset of jobs performed by Web designers and developers. These jobs have yet to find their names listed in the official governmental statistics, but we have already developed courses or lessons for individuals who are involved or want to be involved in these pursuits.

Part 5

Facilities/Support

A. Facilities

The Computer Applications/Office Systems department is a multi-campus department with a full complement of courses offered at the Cascade, Rock Creek, Sylvania Campus , and limited offerings at the Southeast Campus. Beginning Fall 2010, the CAS/OS program began offering courses at the new campus in Newberg and the Hillsboro Education Center. Plans are underway to offer classes in Columbia County.

Campus Classrooms

The Cascade Campus has two CAS computer classrooms. A third classroom is available but computers were never installed. It is on the list as a computer lab for 2011-12. There are 24 student computers in each classroom as well as an instructor's podium for a total of 50 computers. Each classroom is scheduled the majority of the day, evening, and weekend hours for each term. Other departments may schedule for any extra available times for their courses once the CAS/OS courses have been scheduled. The challenge with this system is that it is difficult to add an extra class at the last minute for the CAS/OS department and some of the users of these classrooms leave them disorganized and do not follow the computer classroom rules for no food, drink, etc.

The Rock Creek Campus has three CAS computer classrooms with 24 computers in each. The CAS department schedules the use of these classrooms first and then other departments can schedule classes as available.

The Sylvania Campus has four classrooms with a total of 95 student computers. The CAS courses are scheduled first. There is an increasing demand for use of the computer classrooms from other departments at this campus.

Computer Labs

Sylvania, Cascade and Rock Creek campuses each have one Computer Resource Center (CRC). Sylvania Campus has one student lab with CAS/OS instructor support which is offered two hours Monday through Thursday and five hours on Friday.

B. Student Support

Tutoring

As our program has grown with more students taking Distance Learning courses, the need for tutors in our subject area is increasing. Our students come from a wide geographic area in our district.

The Sylvania Campus has provided on-campus CAS tutoring in the Computer Resource Center since 2005. This service is managed by the Computer Technology Student Resource Specialist. CAS tutoring was provided approximately 16 hours a week during the Academic Year 2008-2009 (Fall 2008 through Summer 2009) on the Sylvania Campus. The total cost was \$11,603 and over 150 students used the service during that time.

The Rock Creek, Cascade, and Southeast campus currently do not offer this option unless faculty can find the time to volunteer. Cascade and Rock Creek campuses have requested funds to provide similar on-campus tutoring at their campuses as well. As the Newberg campus develops and grows, the need for tutors will be essential.

Students are best served by having tutors available at the campus where they are taking their CAS courses. Many DL students live in outlying areas and do not have the ability to come to only the Sylvania campus. Distance Learning students work at varying hours and days of the week. Having weekend tutors or evening tutors at all campuses would help to support their needs during these hours.

Advising

In addition to advising that takes place formally by full-time faculty, there are three Perkins Advisors for the CAS/OS departments.

John Whitford, Learning Skills Specialist, provides academic advising to CAS students at the Cascade Campus; Jessie Levine, Learning Skills Specialist, provides academic advising to CAS students at the Rock Creek Campus; and Michele Maxwell, Student Resource Specialist, provides academic advising for CAS students at the Sylvania Campus. In addition to meeting with prospective and current CAS students, these advisors also handle large numbers of phone and email requests from students, answer questions from CAS faculty, and give classroom presentations.

Our advisors offer the following services:

- Advise students on different CAS degrees & certificate options.
- Orient students who are new to PCC, help them become acquainted with MyPCC, basic process and procedures of college life.
- Help students create class plans from their entry point to graduation.
- Tutor degree-seeking CAS students in lower-level computer (i.e. CAS 133), writing, and math classes.

- Provide study skills tutoring when needed -- for example, helping a student learn time management techniques.
- Assist students who are using financial aid in navigating through the application process.
- Support students using third-party funding sources, such as Trade Act, by helping those students complete necessary paperwork.
- Market scholarship opportunities and help students with scholarship applications.
- Refer students to appropriate campus and community resources, such as counseling, disability services, other tutoring opportunities, etc.

Employment Services

Cascade Campus provides cooperative education services to their CAS students through their Career Services office.

Gary Coleman, Employment Specialist, advises CAS students at Rock Creek and Sylvania Campuses about career and cooperative education opportunities, and works with the CAS faculty, who mentor students in their co-op education worksites. He is an embedded Employment Specialist within the Computer Technology department at Portland Community College's Sylvania Campus and he has greatly expanded the number of employers (1400+) who participate in both job placement and in providing internships for all of our computer students. CAS students can join his list serve that distributes 500+ co-op/internship and job opportunities per month.

At the Sylvania Campus, Michele Maxwell and Gary Coleman coordinate quarterly Advising Days that allow CAS students to meet with faculty advisors, employment specialists, and transfer schools, and team-present computer careers presentations to local high schools and at risk groups.

Becky Washington provides many of these same services at Cascade Campus. Cascade Campus also hosts a Spring Job Fair that is widely attended by CAS/OS students. The Cascade Job Fair, which had 50 employers and more than 1,900 job seekers last year, is a community event. Job-seekers are mostly between the ages of 23 and 34 and are almost 18 percent African American. Out of the attendees surveyed last year, 75 percent said they were unemployed, making the job fair a worthwhile annual event.

While it is difficult to quantify how these forms of support have helped our CAS students, we believe retention of students is improved by our current advising and employment service system.

Other Services

Many CAS students use Financial Aid services. Some use Disability Services, the Women's Resource Center, and the Multicultural Center. We don't have any hard data on how many of our CAS students use these services since this information is either confidential or untracked.

CAS has made use of a program called JAWS, which converts text to spoken word. Students with low vision make use of ZoomText, which enlarges text. Both programs are provided by the Disability Services Office. In addition, Disability Services provides interpreters for deaf students. Without these services, effected students wouldn't have been able to attend classes.

Part 6

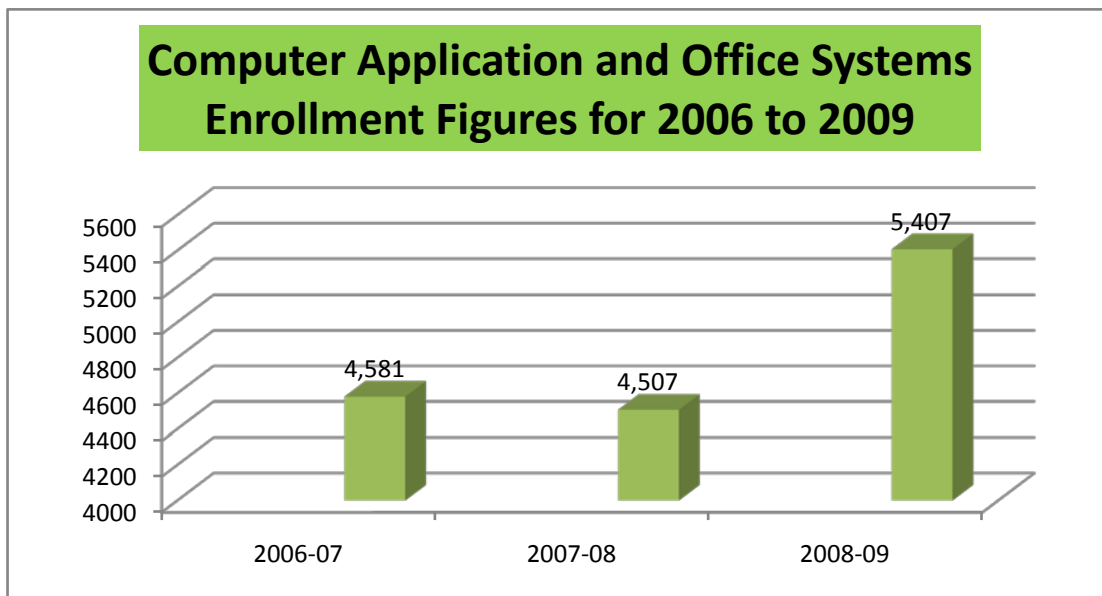
Our Students and the Community

The following data represents a snapshot of the CAS/OS program over different recent time periods since our last program review. The tables and charts in this part give a detailed picture of the types and numbers of the students who take our classes.

A. Overall CAS/OS Enrollment Data

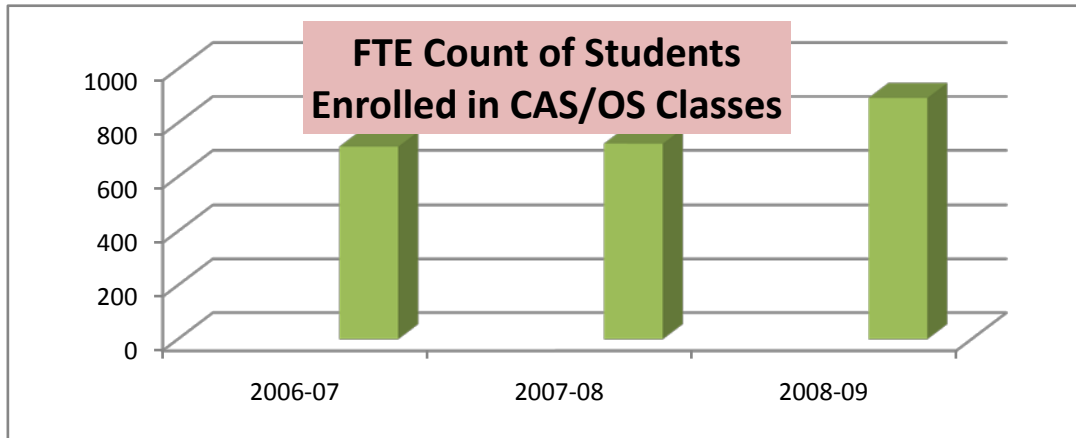
Number of Students Enrolled in Discipline (Note: Each student counted only once)	2006-07	2007-08	2008-09
Computer Application and Office Systems	4,581	4,507	5,407

Annual Percent Change in the Number of Students Enrolled the Discipline Area	05-06 to 06-07	06-07 to 07-08	07-08 to 08-09
Computer Application and Office Systems	3.3%	-1.6%	20.0%



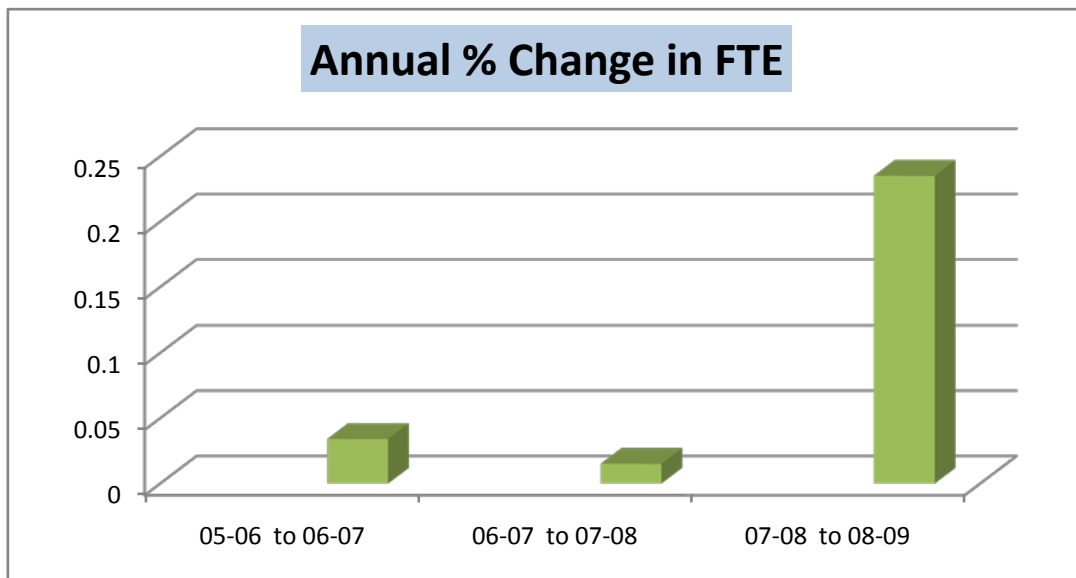
- This represents a 15% increase in enrollment college-wide over a 3-year period.

FTE Count of Students Enrolled in Discipline	2006-07	2007-08	2008-09
Computer Application and Office Systems	712.5	723.4	893.0



- This represents a 20% increase in FTE from 2006 to 2009.

Annual Percent Change in the FTE Count of Students in Discipline Area	05-06 to 06-07	06-07 to 07-08	07-08 to 08-09
Computer Application and Office Systems	3.4%	1.5%	23.5%



CAS/OS FTE by Campus 2006-2009

Full Time Equivalent (FTE) Enrollment, Collegewide	2006-07	05-06 to 06-07	Percent Change: 05-06 to 06-07	2007-08	06-07 to 07-08	Percent Change: 06-07 to 07-08	2008-09	07-08 to 08-09	Percent Change: 07-08 to 08-09
	Total	Change	%	Total	Change	%	Total	Change	%
Sylvania	262.3	-7.1	-2.6	301.4	39.1	14.9	352.9	51.5	17.1
Cascade	168.6	7.1	4.4	191.5	22.9	13.6	228.0	36.5	19.0
Rock Creek	125.4	-12.4	-9.0	124.3	-1.1	-0.9	187.5	63.1	50.8
ELC	75.1	2.3	3.2	68.4	-6.7	-8.9	58.8	-9.7	-14.1

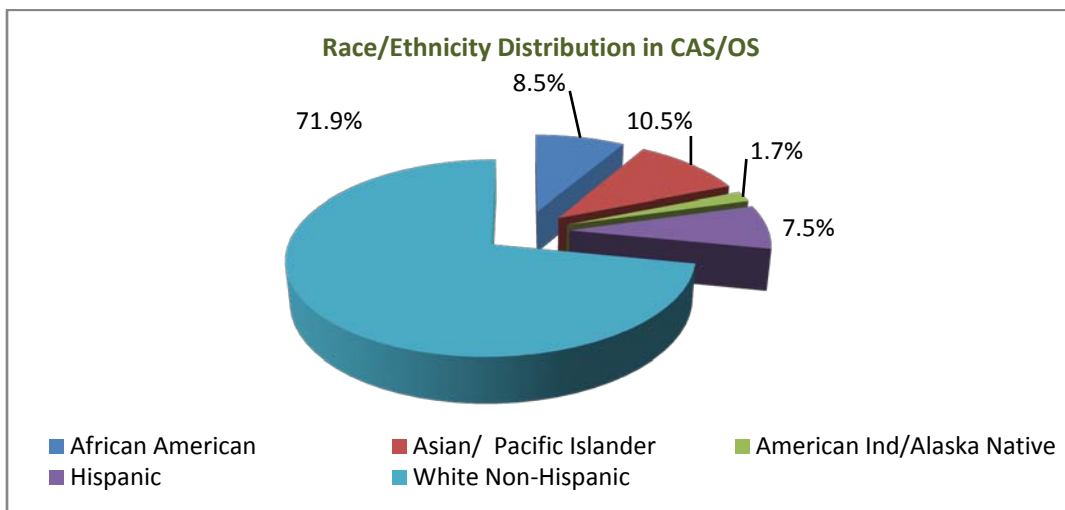
B. CAS/OS Student Demographics

The typical Computer Applications/Office Systems student is demographically similar to the overall PCC student, with 60% of our students being women, ethnically diverse with sizeable Asian and African American percentages, and ages ranging from 16 years old to over 80 years old.

See Appendix A-1 for more detailed demographic data that was used to create the charts in this part.

Race/Ethnicity Distribution

Race/Ethnicity Distribution 2008-2009	African American	Asian/Pacific Islander	American Ind/Alaska Native	Hispanic	White Non-Hispanic
Computer Application and Office Systems	8.5%	10.5%	1.7%	7.5%	71.9%

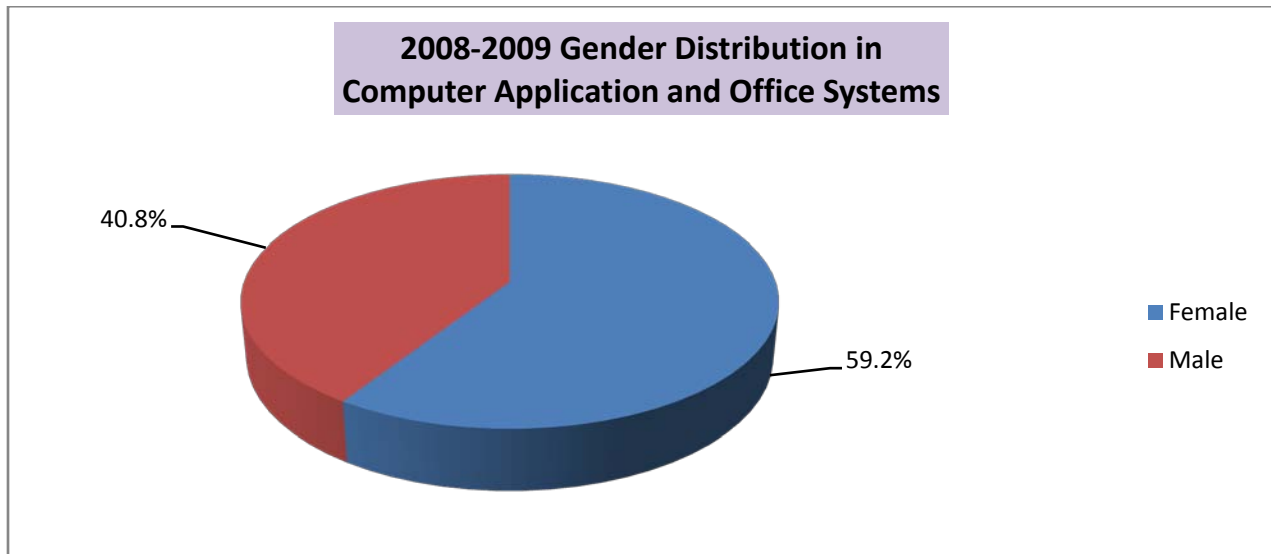


- To the extent that student demographics reflect our service area demographics
- Currently the majority of students taking our classes are White Non-Hispanic
- Percentages reflect current distribution in PCC service area (PCC: The Students We Serve data)

Gender Distribution

Gender Distribution 2008-2009	Female	Male
Computer Application and Office Systems	59.2%	40.8%

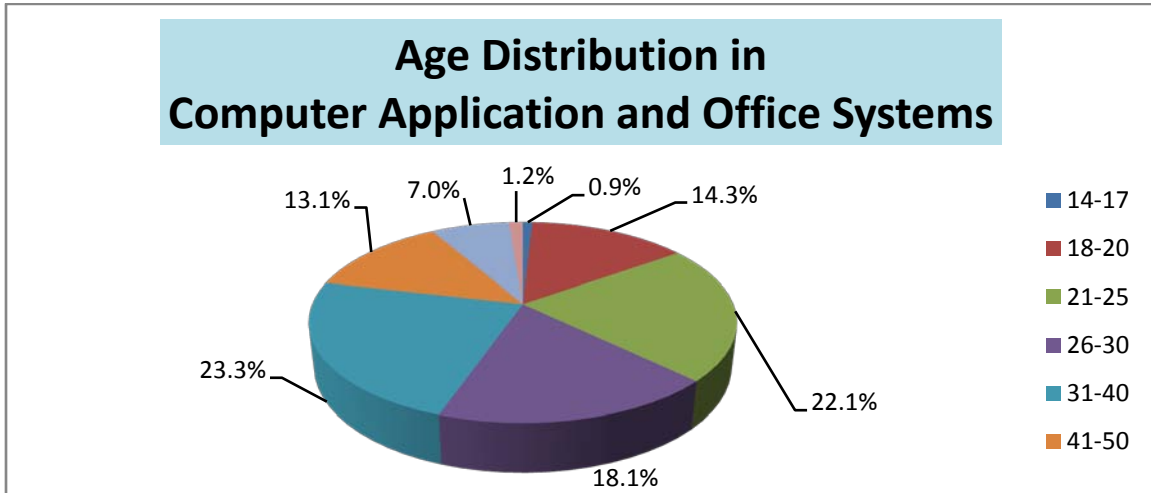
Total FTE	College-wide	Sylvania	Cascade	Rock Creek	Ext. Learning
Female	3,118 52.8%	1579 53.8%	809 53.6%	1020 50.9%	266 49.6%
Male	2,792 47.2%	1356 46.2%	700 46.4%	984 49.1%	270 50.4%



- Female students continue to outnumber males. This reflects a nationwide trend since the 1980s. (IE Diversity 2009 Report)
- The Male vs Female distribution closely aligns with the college and campus distribution as noted below.

Age Distribution

Age Distribution 2008-2009	14-17	18-20	21-25	26-30	31-40	41-50	51-60	61+
CAS/OS	0.9%	14.3%	22.1%	18.1%	23.3%	13.1%	7.0%	1.2%

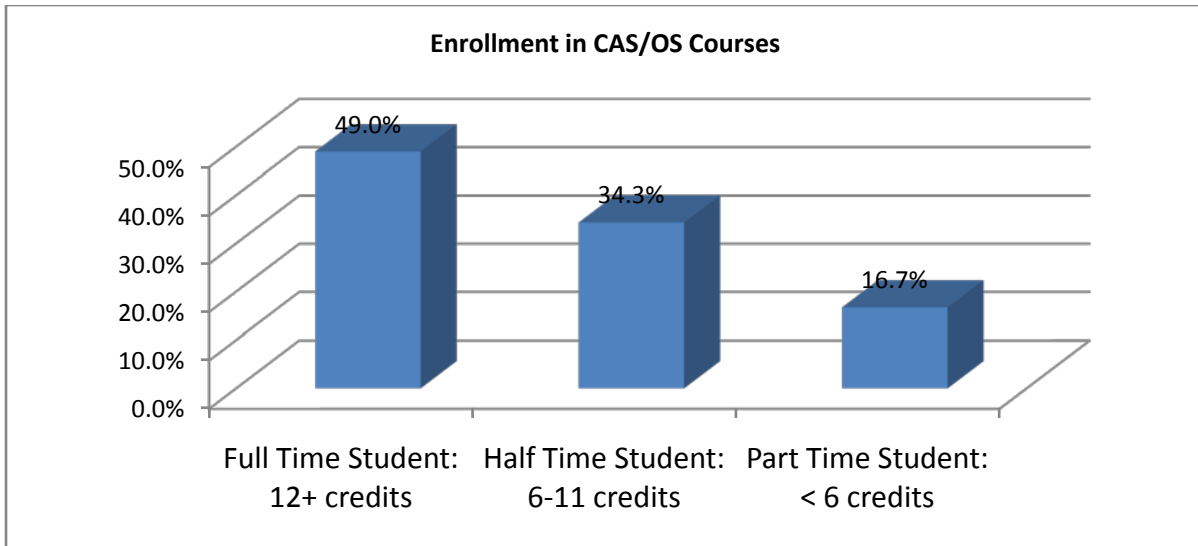


- 63.5% of CAS/OS student are between 21 and 40 years old.
- A slight majority (23.3%) of our students are between 31 and 40.
- College-wide the majority of students (29%) fall in the 21-25 age group.
- We have an older student population than the college as a whole

C. Full vs. Part Time Student Enrollment

Enrolled Number of Credits at PCC (in all coursework)*	Full Time Student: 12+ credits	Half Time Student: 6-11 credits	Part Time Student: < 6 credits
Computer Application and Office Systems	49.0%	34.3%	16.7%

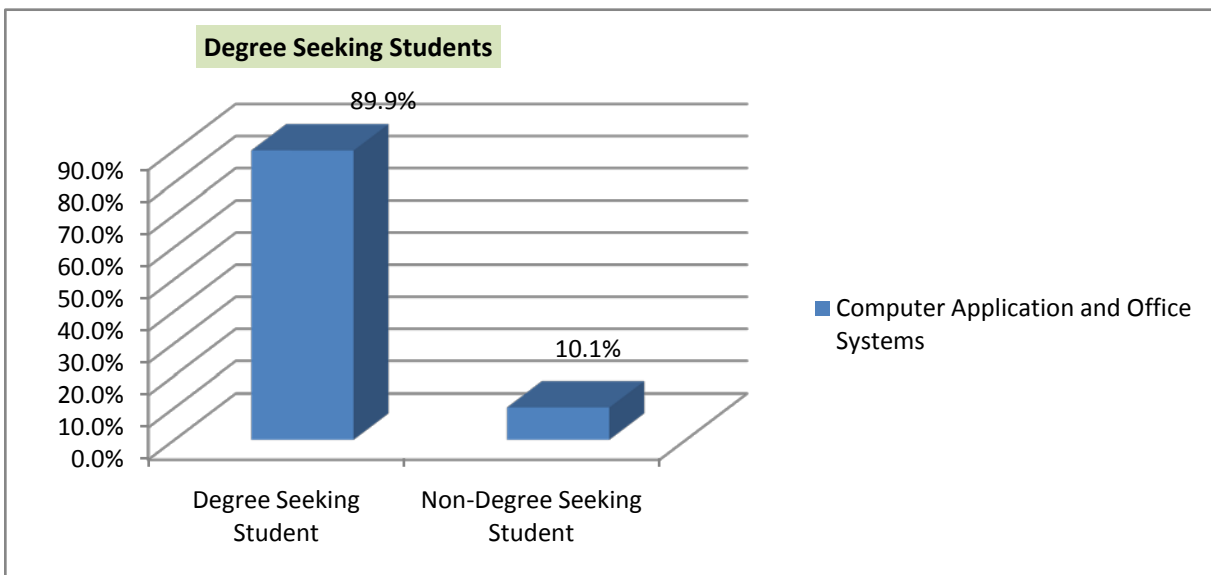
College-wide Full vs. Part Time Enrollment		
Full Time	2229	36.9%
Half Time	2009	33.3%
Part Time	1803	29.8%



- CAS/OS has higher full time student enrollment than exists college-wide
- Half time student enrollment is consistent with the college-wide enrollment
- Part time student enrollment is lower than that college-wide

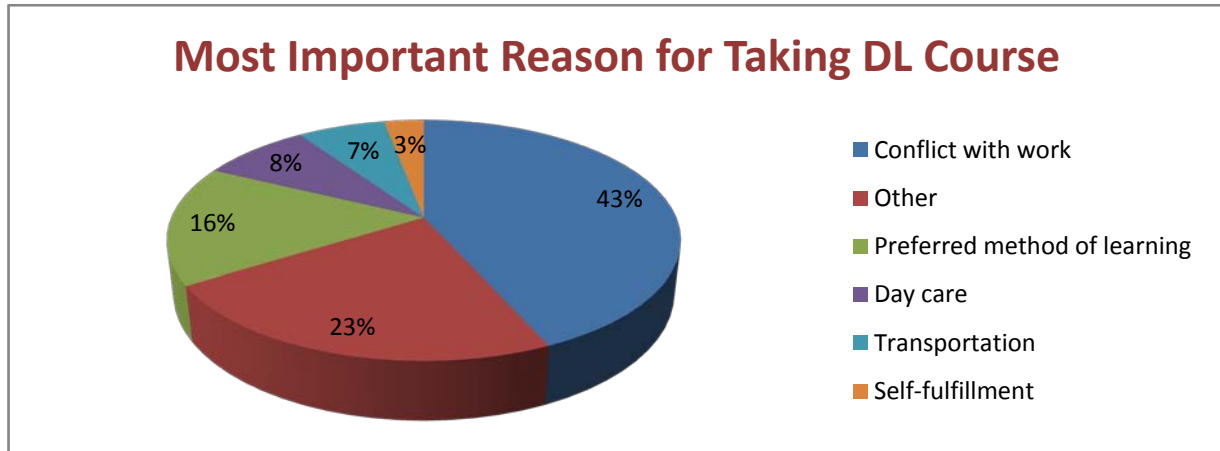
D. Degree vs. Non-Degree Seeking Students

Degree Seeking Status	Degree Seeking Student	Non-Degree Seeking Student
CAS/OS	89.9%	10.1%



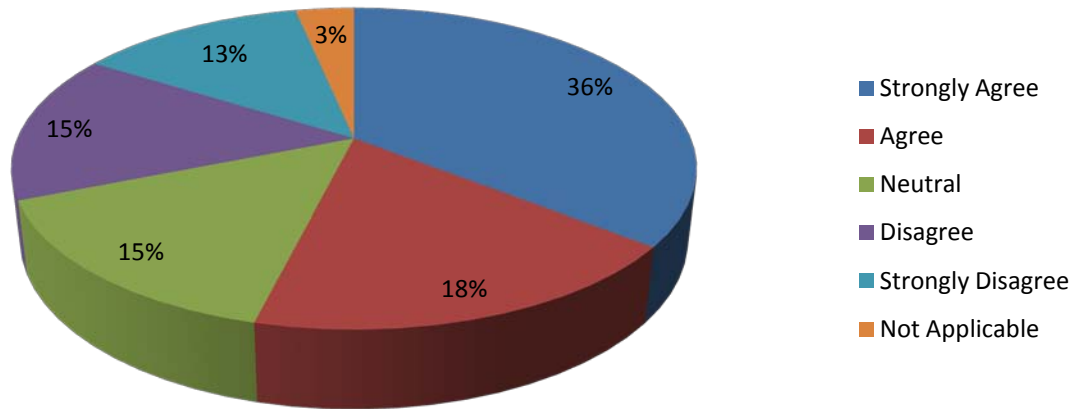
E. Distance Learning vs. Campus-Based Education

Select Your MOST important reason for enrollment in a distance learning course.		
	Counts	Percents
Conflict with work	455	43%
Other	240	23%
Preferred method of learning	169	16%
Day care	86	8%
Transportation	69	7%
Self-fulfillment	31	3%
Totals	1050	100%



I WOULD BE INTERESTED IN COMPLETING THE ENTIRE COURSEWORK FOR AN ASSOCIATESOR BACHELORS DEGREE ONLINE.		
	Counts	Percents
Strongly Agree	427	36%
Agree	219	18%
Neutral	180	15%
Disagree	180	15%
Strongly Disagree	154	13%
Not Applicable	40	3%
Totals 1200	1200	100%

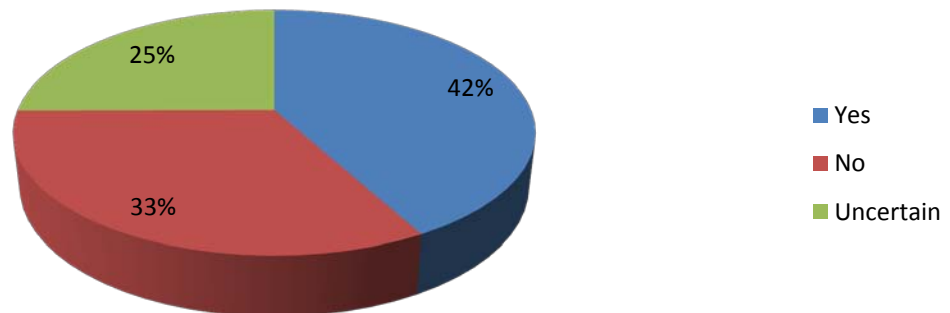
Interested in Completing Entire Degree OnLine



WOULD YOU HAVE ENROLLED IN THIS COURSE IF IT HAD NOT BEEN OFFERED ONLINE?

	Counts	Percents
Yes	512	42%
No	400	33%
Uncertain	305	25%
Totals	1217	100%

Would You Have Enrolled in This Class if It Had Not Been OnLine?



F. Computers Used by Students in Computer-related Class Work

WHAT KIND OF COMPUTER DO YOU DO MOST OF YOUR WORK ON?		
	Counts	Percents
MAC	179	16%
PC	921	83%
TOTALS	1100	99%

INDICATE THE MOST IMPORTANT SOURCE OF TECHNICAL HELP IN YOUR DISTANCE LEARNING COURSE		
	Counts	Percents
Not Applicable (No technical questions)	438	36.80%
PCC's Blackboard Helpdesk	271	23%
Online Student Orientation	163	14%
Another student	152	13%
Instructor	73	6%
Other	60	5%
Campus Computer Lab Staff	34	3%
Totals	1191	100%

WOULD YOU BE INTERESTED IN ON-LINE TUTORING		
	Counts	Percents
Yes	272	23%
No	604	51%
Not applicable	308	26%
Totals	1184	100%

DO YOU USE THE PCC COMPUTER LAB FOR YOUR DL CLASS ACCESS?		
	Counts	Percents
Yes	224	29%
No	544	71%
Totals	768	100%

Part 7

Challenges

For all the growth and changes over the last five years, there are still many challenges that must be addressed in the CAS/OS program.

A. Faculty Needs at Satellite Campuses

Southeast Center

Southeast Center has historically offered various CAS classes in both a lecture/lab modality and a self-paced lab modality. There are no Full-time CAS/OS faculty to oversee the development of curriculum and delivery of the courses at SE center. Curriculum is typically shared by the other campuses with SE Center staff in an effort to assure consistency and quality of the curriculum however questions continue to arise on the efficacy of the consistency and quality at SE Center in relation to the CAS courses taught there. For many years, one or more representatives from the SE Campus would regularly attend SAC meetings in order to stay abreast of the discussions and issues related to the CAS/OS program and curriculum. In the past 5 or 6 years, representation from SE Center at CAS SAC meetings has been sporadic at best.

Newberg Center

The Sylvania CAS/OS department will be providing faculty and oversight of all CAS courses offered at the new Newberg Center beginning Fall, 2010. Initially, part-time faculty will teach courses in Newberg. Two CAS courses will be offered the first term and additional courses are planned to be offered for subsequent terms. There will be a need for full-time faculty advising and oversight of the CAS/OS program in Newberg if our courses prove to be popular.

Hillsboro Education Center (HEC)

The CAS/OS department at Rock Creek regularly schedules classes at the Hillsboro Education Center (HEC). We offer 1-2 courses per term, usually basic classes (such as CAS 133 and CAS 121) which provide a starting point after which students could enroll at Rock Creek for higher level classes. As it currently stands, Rock Creek does not get the FTE for classes offered at HEC, nor does that number figure into the FDC compensation. Effective fall term 2010, the HEC will be moving to a new location and is seeking to grow enrollments. CAS/OS does plan to increase the number of sections and variety of courses, but feels it is important to receive the appropriate FTE and FDC compensation.

Columbia County

A new push to offer more comprehensive programs in Columbia County is also underway. While CAS/OS does not have any plans at this time to staff for classes there, we are interested and would like

to participate when necessary as long as the model is based on a plan that will compensate the appropriate campus.

B. Competition Between Campuses

Over the last five years, the pressure on each campus to maximize enrollments has brought about a negative competitive process among the three CAS/OS departments. We have currently agreed to a solution to offering DL courses and sections but the result has been continued concern from some CAS/OS SAC members. This competition has caused some full-time faculty to teach certain DL classes, even if they did not want to, only to assure that the course was not lost to another campus. We recognize this is not an isolated situation. It is our understanding that the EAC DL Task Force will attempt to recommend a solution for all multi-campus SAC's.

It also brought about a short-sighted decision to transfer a full-time faculty from Rock Creek to Cascade campus, whose SFTE ratio was disproportionate. Due to many complicated factors, the transfer ended up affecting personnel from Sylvania as well as Rock Creek and eventually was a tri-campus move. This decision caused additional hard feelings within the SAC due to the fact that FTE was at the root of the issue. Competition for FTE at each campus has become much more intense, which in turn pits each campus against each other to increase/retain a high FTE rate.

Since that transfer, due partly to the economic conditions as well as the transfer of position, Rock Creek now has a disproportionate SFTE ratio (see table below).

Student FTE	
Campus	2008-2009 (SFTE per instructor**)
Sylvania	353.5 (59)
Rock Creek	184.6 (92)
Cascade	228 (57)

**Full-time instructors per campus: Sylvania (6), Rock Creek (2), Cascade (4)

Rock Creek has secured a one-year temporary full-time position for 2010-11 and will be focusing on growth in the Web degree area as well as keeping up with the steady growth of all CAS/OS courses. Increased enrollments at Rock Creek have put a demand on the remaining two full-time faculty.

Without an additional permanent full-time position, Rock Creek will continue to have a disproportionate ratio compared to other campuses.

It is important for the SAC to address these issues and resolve them in such a way that the district-wide program can once again work together as a cohesive and congenial group.

C. Facilities

Program Growth

Our current classroom facilities are reaching capacity. As we continue to grow our program with new course offerings, new programs such as CASOL, and Computer Literacy assessment testing, we will be challenged to have available classroom space during the peak hours for on-campus courses. Other programs are competing for the same computer classroom space. Sharing classrooms creates issues on many fronts. It is difficult to add an extra class at the last minute for the CAS/OS department and some of the users of these classrooms leave them disorganized and do not follow the computer classroom rules for no food, drink, etc.

Macintosh Computers

Currently, the CAS classrooms at all campuses use only PC computers. The CAS instructors at Sylvania Campus see a growing need to accommodate those students who may be using a Mac laptop at home or at work. Some students may bring their Mac laptop to the classroom and expect to have the ability to work in the classroom using their computer. For those who do not bring their computer to the classroom or only use a Mac laptop at work, it would be advantageous to have one or two Mac laptop stations in each CAS classroom. Instructors also need access to Mac laptops for curriculum development and classroom demonstrations.

Technology Support Services (TSS)

Technology Support Services (TSS) provides oversight for all campus computer labs and the CAS/OS classrooms. This service is greatly appreciated by the CAS/OS department. Since our entire program's focus is computer technology, having functioning classrooms is a must. Each campus is challenged to maintain the same level of support for software upgrades, hardware replacement etc. in a timely fashion, due to the workload of the campus TSS specialists.

Our department strives to offer the most current technology possible but often the decision to offer this software technology is driven by TSS timeframes and network limitations. The inability to have a quick turnaround for software installation impacts our primary goal of offering students the current software technology.

D. Web Program

The three largest challenges for the Web program are growth, competition with other departments, and competition between campuses.

Growth

In any program growing as quickly as this one, there are challenges with finding enough faculty to teach all of the sections. Part-time instructors are taking part of the load, especially in the more introductory classes, but more full-time faculty will eventually be needed. Since the last program review, the Cascade and Sylvania campuses have added one web instructor position each, and the Rock Creek campus is currently hiring a one-year temporary instructor to teach web-related classes.

Another challenge is keeping up with this rapidly-changing field, including constant updating of course materials and creating new courses to keep up with new technologies. In the past, it was not unusual to get release time or the equivalent in pay for developing new courses or making major revisions to existing ones. At the present time the instructor pay is often split between all 3 campuses, resulting in only a few hundred dollars per instructor. A more equitable way of funding these time-consuming development projects needs to be found.

The process of approving new courses at the College has become increasingly cumbersome and time-consuming since the last program review. A “fast track” system needs to be found if we are to keep up with these rapidly changing technologies and compete with other public and private colleges that have a more rapid approval process.

Competition with Other Departments

The majority of web-related courses are now taught in the CAS/OS Department, but there are also offerings in CIS, and CIS would like to increase the number of Web courses taught in CIS. This has resulted in concerns about overlap of courses, competition for students, and providing a clear path for students to follow, from more basic courses to more advanced ones. We are currently in the process of defining more clearly where the greatest strengths are in the CAS/OS and CIS departments. Cooperation from the administration may be required in the future to allow the college to offer the strongest possible program in this area without worrying about which department gets the most FTE.

In addition to the CIS and CAS challenge, Multimedia and Graphic Design are offering many classes which overlap the content of the CAS/OS web classes. We have had some extended discussions with Multimedia every time we create a class that uses software which is also used in Multimedia. At the moment we have an understanding that we will teach the software and they will teach the design. This issue will come up again as increasingly sophisticated software bridges the gap between teaching the software and design.

E. Computer Literacy at PCC

The CAS/OS program has historically been viewed as the computer literacy resource for other CTE and LDC transfer programs within PCC. Our CAS 133 is recommended or required by many programs for students who do not possess basic computer literacy skills. In addition, many programs require their students to have basic knowledge of keyboarding, word processing, and/or spreadsheet skills. Our CAS 121, CAS 216, and CAS 170 classes provide those skills. Many students feel they already possess these basic skills and often attempt to challenge these courses or ask for a waiver. The CAS department feels there is a better solution to assess whether students have these skills.

The CAS department believes that in order for a student to be successful at PCC, in future jobs, and in 4-year degree programs, they need to be computer literate. Instructors across the district in departments outside of CAS expect computer literacy from their students. For example, when students take a science class, they are expected to have the ability to chart in Excel. Potential nursing students must be able to prove they are computer literate before being accepted into the PCC Nursing program.

While computer literacy is expected of our students, it is not listed among the college's core outcomes and not tested upon initial registration. It is currently up to an incoming student to gauge their computer abilities and decide if they need a basic computer literacy class to succeed in their studies at PCC and their career goals after PCC. Students often over-estimate the extent of their own computer skills.

Part 8

Recommendations

A. Computer Literacy at PCC

Our suggestion is that PCC establish a computer literacy core outcome and implement a district-wide computer literacy placement test. Those students who do not pass the test would be placed in an appropriate PCC computer basic literacy class (CAS 133, CIS 120, or BA 131). Since all PCC campus testing centers will be participating in a district bond committee for the development of centralized campus testing centers, it is the opportune time to add computer literacy placement testing to their agenda. Current testing staff agree that incoming students need this testing, as they often do not have enough computer skills to independently complete PCC's current writing, English, and math computerized placement tests.

We also recommend that a committee be formed with members representing the computer literacy instructors, as well as, testing staff, advisors, and instructors from a wide variety of disciplines who expect computer literacy in their students. This committee could conduct an initial survey about what computer literacy means to faculty and staff across the district. With this knowledge, the committee would work on developing/fine-tuning a computer literacy placement test for PCC. (CAS gave a survey to a Sylvania leadership group a few years ago. The survey results can be found in Appendix E.)

It is important to note that the standardized IC3 test has been considered as the test for computer literacy but is most likely too broad, too lengthy, and too cost-prohibitive for the needs of a PCC placement test. There are several assessment tools available that could be easily customized to develop a test that would meet PCC's needs.

B. Increase the number of computer classrooms

As more programs, like English and Math, begin to demand computer classrooms, CAS/OS will be in competition not only from within our program, but outside our program. We recognize there is a substantial cost involved with this recommendation, however, any planning for growth of the facility should take this into account and ensure that all new classrooms are computer-capable.

C. Address the competition inherent in the DL courses

A definitive response from administration regarding how we divide up FTE in DL would go a long way to reduce conflict in our SAC. Additionally, we recommend that the administration consider innovative alternatives and consider the recommendation coming from the EAC Task Force that has been looking at this issue.

D. Increase the FT to PT faculty ratio district-wide

The frequently discussed imbalance in full-time to part-time faculty at PCC is prevalent in the CAS/OS program as well. More full-time faculty offer stability to programs, and in the specific case of our program, would help relieve the burden of course creation/development and updating, which frequently occurs around software and textbook changes in our program.

See Appendix D for more detailed data regarding the ratio between FT and PT faculty.

E. Increase the number of FT faculty to correspond to enrollment growth at RC and SE

The dramatic enrollment changes at Rock Creek require another review of the full-time faculty needs at that campus. Additionally, for the sake of stability, clarity and cooperation with the rest of the SAC, it's also important to have a full-time faculty position at Southeast Center who can represent that facility and the needs of the students there.

F. Make district-wide computer and software purchases

Historically, there has been a lack of coordination regarding software and computer purchases at campuses. This has caused confusion for students (e.g., consider textbook purchasing when two different versions of the same program are used) and has complicated the SAC's efforts to maintain consistency with the way classes are taught. Along with a plan and district-wide budget for making these purchases, software licensing issues should be taken into account, and it would work to the college's advantage to do these as a large group instead of making individual smaller arrangements by campus or program.

G. Make software updates easily accessible (free) for all faculty

There has been a lack of clarity and consistency regarding how our faculty, full-time and part-time, receive versions of the software they teach. There have been varying arrangements, some of which required great effort by the faculty to get this software. Many faculty have simply purchased this software themselves. Frequent updates by Microsoft and Adobe make this a very expensive proposition.

H. Streamline Curriculum Process

Streamline (and speed up) course development curriculum process if possible and DL training requirements for those courses.

There have been several instances, mostly due to the fact that we are still passing around printed forms, that the curriculum paperwork frequently gets lost or delayed without knowledge as to who had it or where it stopped. This has led to the delay of many of our new courses. Additionally, because of how the more than six month turn-around to begin offering a course can delay getting it into the schedule, the actual time is nearly a year. For example, we approved the creation of CAS 181, Content Management Systems, at the beginning of Winter 2010 and we will not be able to offer it until Winter 2011.

We have created experimental courses since they are not required to go through the State for approval, however, the limit to the number that students can use for a degree has made our SAC unwilling to offer more of our courses in that way. Additionally, there is a maximum of three quarters in which experimental courses can be offered.

I. Increase Speed of or Alter Instructor DL/Blackboard Training Process

The process to get an instructor approved to teach a DL courses often requires a wait of two terms. With the increased enrollment demands, we often cannot wait this long to get faculty approved to teach DL courses as is the current practice. Additionally, faculty with previous training at other institutions might have this process waived or an approved over-the-shoulder type of training by another CAS/OS faculty might suffice. Particularly for the CAS/OS department, which includes faculty already skilled in the use of computer applications, this kind of intensive computer training is often unnecessary.

J. Tutors at all campuses

Much as Sylvania has done, it would be extremely beneficial to have dedicated and permanent tutors at all campuses to assist students with computer applications. This would be especially helpful to DL students in the greater Portland area who may only be able to come to campus during unusual or inconsistent hours.

K. Marketing New Degrees, Certificates and Courses

Often our new degrees, certificates and classes are missed by students who may be interested in them. More effective marketing, beyond just the brochures, would help get the word out to students about what we have to offer.

Appendices

Appendix A - Our Students

1. Demographics for CAS/OS Students Only, Tables by Gender, Ethnicity and Age

Gender Distribution Non-missing/ Reported Data Only			Female	Male
		N	%	%
College-wide				
	2006-2007	3,944	60.4	39.6
	2007-2008	4,099	59.7	40.3
	2008-2009	4,823	59.2	40.8
Sylvania	2006-2007	1,546	58.1	41.9
	2007-2008	1,721	57.0	43.0
	2008-2009	1,963	57.1	42.9
Cascade	2006-2007	1,024	62.5	37.5
	2007-2008	1,109	61.2	38.8
	2008-2009	1,213	59.9	40.1
Rock Creek	2006-2007	870	61.8	38.2
	2007-2008	840	63.5	36.5
	2008-2009	1,250	61.6	38.4
ELC	2006-2007	504	61.1	38.9
	2007-2008	429	59.7	40.3
	2008-2009	397	59.7	40.3

Race/Ethnicity Distribution Non-missing/ Reported Data Only		Total	African American	Asian/Pacific Islander	American Indian/Alaska Native	Hispanic	White Non-Hispanic
		N	%	%	%	%	%
College-wide							
	2006-2007	3,545	8.3	10.3	1.6	6.6	73.3
	2007-2008	3,569	8.1	10.6	1.6	7.1	72.6
	2008-2009	4,173	8.5	10.5	1.7	7.5	71.9
Sylvania	2006-2007	1,359	4.3	9.3	17.0	6.2	78.6
	2007-2008	1,483	3.8	10.0	0.9	6.9	78.4
	2008-2009	1,687	4.6	10.8	1.2	6.0	77.3
Cascade	2006-2007	932	16.0	8.6	2.1	5.2	68.1
	2007-2008	970	14.8	8.0	2.9	5.5	68.8
	2008-2009	1,050	15.8	6.8	2.4	5.9	69.1
Rock Creek	2006-2007	792	3.9	10.9	0.9	8.8	75.5
	2007-2008	731	4.7	12.9	1.1	10.4	71.0
	2008-2009	1,093	5.9	9.8	1.8	12.1	70.4
ELC	2006-2007	462	11.9	15.6	1.1	6.7	64.7
	2007-2008	385	13.8	15.3	2.1	5.7	63.1
	2008-2009	343	12.8	22.4	15.0	4.7	58.6

Age Distribution Non-missing/ Reported Data Only			14-17	18-20	21-25	26-30	31-40	41-50	51-60	60+
		N	%	%	%	%	%	%	%	%
College-wide										
	2006-2007	4,033	1.5	16.5	22.3	17.2	20.3	13.2	7.7	1.3
	2007-2008	4,184	1.3	14.8	22.6	16.9	22.4	12.9	7.6	1.6
	2008-2009	4,909	0.9	14.3	22.1	18.1	23.3	13.1	7.0	1.2
Sylvania	2006-2007	1,570	0.9	16.8	24.2	19.0	18.6	12.3	6.9	1.2
	2007-2008	1,743	0.9	12.8	25.3	17.6	21.7	12.2	7.5	2.1
	2008-2009	1,994	0.7	13.7	23.5	17.9	23.3	12.1	7.7	1.3
Cascade	2006-2007	1,049	1.0	14.9	21.9	17.0	22.6	12.3	9.5	0.1
	2007-2008	1,140	0.7	13.2	20.5	20.0	24.9	12.7	6.9	1.0
	2008-2009	1,240	0.9	9.8	20.9	20.5	25.4	14.6	6.9	1.0
Rock Creek	2006-2007	881	3.2	16.9	21.5	15.6	20.0	14.0	7.6	1.4
	2007-2008	848	2.6	18.2	22.2	14.0	20.2	13.1	8.1	1.7
	2008-2009	1,261	1.0	18.6	21.8	16.6	21.1	13.3	6.4	1.2
ELC	2006-2007	533	1.5	18.4	18.8	14.8	21.2	16.1	6.8	2.4
	2007-2008	453	1.5	20.1	18.1	11.9	23.0	15.2	8.8	1.3
	2008-2009	414	1.4	17.1	19.8	17.1	23.7	12.6	6.3	1.9

2. Degree and Certificates Awarded to CAS/OS Students 2007-2009

Major	Description	Degree	2007 Completers
AAOM	CAS/OS:Admin Asst:Office Mngmt	AAS	9
AS	CAS/OS: Administrative Assist	AAS	8
BCL	CAS/OS: Admin Asst:Basic Comp	ACERT	1
CAS	Comp App and Office Systems	ACERT1	10
WAI	CAS/OS: Admin Asst: Web Asst I	ACERT	1
WAI	CAS/OS: Admin Asst:Web Asst II	ACERT	2
WEBM	CAS/OS: Web Site Devel & Desig	ACERT1	4

Major	Description	Degree	2008 Completers
CAS	Comp App and Office Systems	ACERT1	10
WAI	CAS/OS: Admin Asst: Web Asst I	ACERT	1
WAI	CAS/OS: Admin Asst:Web Asst II	ACERT	2
WEBM	CAS/OS: Web Site Devel & Desig	ACERT1	4

Major	Description	Degree	2009 Completers
AAOM	CAS/OS:Admin Asst:Office Mngmt	AAS	4
AS	CAS/OS: Administrative Assist	AAS	2
BCL	CAS/OS: Admin Asst:Basic Comp	ACERT	1
CAS	Comp App and Office Systems	ACERT1	8
WAI	CAS/OS: Admin Asst: Web Asst I	ACERT	4
WAI	CAS/OS: Admin Asst:Web Asst II	ACERT	3
WDD	Web Site Develop & Design	AAS	3
WEBM	CAS/OS: Web Site Devel & Desig	ACERT1	5

3. CAS/OS DL Students in U.S. (last 5 years)

STATE	COUNTY	ZIP	Total
AK	(blank)	99824	1
	(blank) Total		1
AK Total			1
CA	(blank)	90277	1
		91377	1
		92024	1
		92252	1
		94019	1
		95060	1
		95531	1
		95692	1
		95746	1
		95825	1
(blank) Total		10	
CA Total			10
FL	(blank)	32081	1
	(blank) Total		1
FL Total			1
GA	(blank)	31047	1
	(blank) Total		1
GA Total			1
ID	(blank)	83204	1
		83626	1
		83634	1
		83642	1
		83672	1
		83687	1
		83706	2
		83854	1
(blank) Total		9	
ID Total			9
IL	(blank)	62269	1

	(blank) Total		1
IL Total			1
MI	(blank)	48197	1
	(blank) Total		1
MI Total			1
MS	(blank)	39470	1
	(blank) Total		1
MS Total			1
ND	(blank)	58703	1
	(blank) Total		1
ND Total			1
NV	(blank)	89403	1
		89802	1
	(blank) Total		2
NV Total			2
OR	Baker	97814	2
		97877	1
	Baker Total		3
	Benton - Oregon	97330	7
		97333	2
		97339	1
	Benton - Oregon Total		10
	Clackamas	97004	5
		97009	9
		97011	2
		97013	19
		97015	47
		97017	2
		97022	1
		97023	4
		97027	10
97034		59	
97035		130	
97036		2	
97038		3	
97042	2		
97045	41		

	97049	2
	97055	7
	97067	2
	97068	68
	97070	57
	97089	9
	97222	80
	97267	36
	97268	1
	97269	4
Clackamas Total		602
Clatsop	97103	1
	97110	1
	97121	1
	97138	7
	97146	1
Clatsop Total		11
Columbia - Oregon	97016	6
	97018	11
	97048	9
	97051	88
	97053	18
	97054	3
	97056	66
	97064	27
Columbia - Oregon Total		228
Coos	97420	3
	97423	1
	97459	3
Coos Total		7
Crook	97754	1
Crook Total		1
Curry	97415	1
Curry Total		1
Deschutes	97701	7
	97702	5
	97707	1
	97739	1
	97756	4
	97760	2

Deschutes Total		20
Douglas - Oregon	97457	1
	97470	2
Douglas - Oregon Total		3
Grant - Oregon	97820	1
Grant - Oregon Total		1
Harney	97720	2
Harney Total		2
Hood River	97014	2
	97031	24
	97041	1
Hood River Total		27
Jackson	97504	1
	97520	1
	97524	2
	97535	1
	97540	1
Jackson Total		6
Jefferson - Oregon	97761	1
Jefferson - Oregon Total		1
Josephine	97526	2
	97527	2
Josephine Total		4
Klamath	97601	4
	97603	6
	97624	2
Klamath Total		12
Lane	97401	7
	97402	6
	97404	3
	97405	6
	97408	3
	97424	2
	97437	1
	97440	1
	97477	3
	97478	3
97487	1	
Lane Total		36
Lincoln - Oregon	97365	1

	97367	2
	97368	1
	97380	1
	97394	1
Lincoln - Oregon Total		6
Linn	97321	2
	97355	1
	97374	1
	97446	1
Linn Total		5
Marion	97002	8
	97020	1
	97032	9
	97071	12
	97137	3
	97301	10
	97302	7
	97303	13
	97305	8
	97306	2
	97307	2
	97308	1
	97381	7
	97385	1
Marion Total		84
Multnomah	97019	1
	97024	21
	97030	30
	97060	26
	97080	33
	97201	68
	97202	182
	97203	128
	97204	10
	97205	32
	97206	212
	97207	7
	97208	12
	97209	51
97210	35	

	97211	175
	97212	108
	97213	138
	97214	123
	97215	57
	97216	46
	97217	202
	97218	58
	97219	170
	97220	97
	97221	36
	97227	30
	97228	2
	97230	63
	97231	9
	97232	64
	97233	65
	97236	68
	97238	2
	97240	1
	97242	2
	97266	107
	97280	6
	97282	2
	97283	2
	97286	3
	97290	4
	97292	5
	97293	5
	97294	1
	97296	2
Multnomah Total		2501
Polk	97304	6
	97338	2
	97351	2
	97361	2
	97371	1
Polk Total		13
Sherman	97039	2
	97050	1
	97065	2

Sherman Total		5
Tillamook	97107	3
	97112	3
	97118	1
	97122	1
	97130	3
	97131	3
	97134	1
	97136	3
	97141	57
97149	1	
Tillamook Total		76
Umatilla	97801	3
	97826	1
	97838	7
	97880	1
Umatilla Total		12
Union	97824	2
	97850	4
	97876	1
	97883	1
Union Total		8
Wasco	97021	4
	97037	1
	97040	1
	97058	40
Wasco Total		46
Washington - Oregon	97005	116
	97006	463
	97007	401
	97008	175
	97062	126
	97075	3
	97106	42
	97109	6
	97113	59
	97116	108
	97117	6
97119	20	

		97123	253
		97124	312
		97125	2
		97133	33
		97140	73
		97223	240
		97224	138
		97225	105
		97229	274
		97281	7
		97298	1
		Washington - Oregon Total	2963
	Yamhill	97101	3
		97111	7
		97115	18
		97127	7
		97128	24
		97132	81
		97148	12
		97378	1
		97396	2
		Yamhill Total	155
	(blank)	97086	26
		97226	2
		97234	1
		97235	1
		97239	40
		97252	1
		97317	3
		97322	8
		97956	1
		98682	1
		99701	1
		(blank) Total	85
OR			
Total			6934
SC	(blank)	29061	1
		(blank) Total	1
SC			
Total			1
SD	(blank)	57706	1

	(blank) Total		1
SD			
Total			1
WA	(blank)	97663	1
		98027	1
		98034	1
		98037	1
		98038	1
		98103	1
		98198	2
		98225	1
		98245	1
		98247	1
		98267	1
		98338	1
		98361	1
		98465	1
		98466	1
		98503	1
		98504	1
		98512	1
		98516	1
		98550	2
		98564	1
		98602	1
		98604	15
		98605	1
		98606	6
		98607	10
		98612	2
		98613	1
		98617	3
		98620	10
		98625	1
		98626	5
		98629	1
		98632	3
		98639	1
		98642	7
		98648	1
		98650	3

		98660	9
		98661	17
		98662	25
		98663	11
		98664	25
		98665	18
		98668	2
		98671	9
		98672	12
		98674	1
		98675	1
		98682	24
		98683	22
		98684	14
		98685	11
		98686	9
		98687	1
		98801	1
		98942	1
		98948	1
		99224	1
		99352	2
		99354	1
	(blank) Total		312
WA Total			312
(blank)	(blank)	(blank)	1
	(blank) Total		1
(blank) Total			1
Grand Total			7277

Appendix B – Web Program Data

1. FTE by Web Courses vs. Non-Web Courses

	Web Courses	Non Web Courses
2002	191.2	473.16
2003	167.46	464.87
2004	146.53	482.87
2005	152.85	492
2006	156.82	495.52
2007	156.41	486.28
2008	197.32	519.74
2009	273.52	680.97

Web Courses:

CAS: 104, 106, 110, 111, 111A, 111D, 111E, 111F, 112, 112D 113, 151, 175, 206, 208, 211D, 213, 214, 215, 225, 280W

Non-Web Courses:

CAS: 103, 109, 121, 121A, 122, 123, 133, 140, 150, 170, 171, 216, 216A, 217, 220, 230, 231, 232, 246
OS: 120, 131, 220, 240, 245, 250, 251, 280A, 280B, 280F, 280G

EXCLUDED: All 199, 299 courses

Appendix C – AOP AAS Degree Goals

Portland Community College AAS – Administrative Office Professional Program Goals

1. Produce professional, error-free, timely documents by using current and emerging software and hardware technology. Evaluate and analyze new tasks to determine what computer technology should be utilized to effectively complete the tasks.
2. Perform general office tasks: plan and participate in meetings; coordinate travel arrangements; schedule appointments; greet clients/customers; process mail; manage equipment, supplies, and other resources in a timely manner to maintain workplace efficiency.
3. Work effectively in a team and group setting by understanding roles within teams, work units, departments, and organizations. Exhibit effective people skills to deal with a variety of personalities and diverse individuals.
4. Effectively communicate creative and critical ideas; respond effectively both verbally and in written format to the spoken, written, and visual ideas of others. Collaborate with others to develop and implement company vision, goals, and tasks.
5. Analyze the effectiveness of office practices and procedures and recommend and implement necessary changes. Use planning and time management principles to accomplish workplace efficiency and achieve company objectives.
6. Use critical thinking, organization, and problem solving to effectively manage numeric, alphabetic, and digital data. Apply knowledge of basic accounting procedures to the basic record-keeping requirements of a business using applicable technology.

Appendix D – FT Faculty vs. PT Faculty (Ratio)

	all CAS/OS crns	CRNS Taught by FT Instr	% CRNs Taught by FT Faculty	% CRNs Taught by PT Faculty
College-wide				
Summer 2006	43	3	7%	93%
Fall 2006	86	34	40%	60%
Winter 2007	92	35	38%	62%
Spring 2007	87	25	29%	71%
Summer 2007	41	5	12%	88%
Fall 2007	90	35	39%	61%
Winter 2008	93	31	33%	67%
Spring 2008	95	31	33%	67%
Summer 2008	47	10	21%	79%
Fall 2008	98	39	40%	60%
Winter 2009	105	41	39%	61%
Spring 2009	112	40	36%	64%
Fall 2009	120	30	25%	75%
Sylvania				
Summer 2006	17	2	12%	88%
Fall 2006	36	17	47%	53%
Winter 2007	40	18	45%	55%
Spring 2007	38	14	37%	63%
Summer 2007	19	2	11%	89%
Fall 2007	39	19	49%	51%
Winter 2008	44	17	39%	61%
Spring 2008	42	15	36%	64%
Summer 2008	22	6	27%	73%
Fall 2008	42	18	43%	57%
Winter 2009	42	19	45%	55%
Spring 2009	43	20	47%	53%
Fall 2009	44	12	27%	73%
Cascade				
Summer 2006	10	1	10%	90%
Fall 2006	20	6	30%	70%
Winter 2007	21	6	29%	71%
Spring 2007	20	4	20%	80%



Summer 2007	7	0	0%	100%
Fall 2007	22	7	32%	68%
Winter 2008	23	5	22%	78%
Spring 2008	24	5	21%	79%
Summer 2008	10	2	20%	80%
Fall 2008	24	9	38%	62%
Winter 2009	26	9	35%	65%
Spring 2009	29	9	31%	69%
Fall 2009	29	9	31%	69%
Rock Creek				
Summer 2006	8	0	0%	100%
Fall 2006	22	11	50%	50%
Winter 2007	22	11	50%	50%
Spring 2007	21	7	33%	67%
Summer 2007	9	3	33%	67%
Fall 2007	21	9	43%	57%
Winter 2008	20	9	45%	55%
Spring 2008	23	11	48%	52%
Summer 2008	8	2	25%	75%
Fall 2008	26	12	46%	54%
Winter 2009	31	13	42%	58%
Spring 2009	34	11	32%	68%
Fall 2009	41	9	22%	78%
ELC				
Summer 2006	8	0	0%	100%
Fall 2006	8	0	0%	100%
Winter 2007	9	0	0%	100%
Spring 2007	8	0	0%	100%
Summer 2007	6	0	0%	100%
Fall 2007	8	0	0%	100%
Winter 2008	6	0	0%	100%
Spring 2008	6	0	0%	100%
Summer 2008	7	0	0%	100%
Fall 2008	6	0	0%	100%
Winter 2009	6	0	0%	100%
Spring 2009	6	0	0%	100%
Fall 2009	6	0	0%	100%



Appendix E - PCC Computer Literacy Survey







1. Name of your program/department/SAC:

#	Response
1	Nursing Claudia Michel
2	Chemistry Carol Handy
3	Building Construction Technology Rich Edwards
4	Machine Manufacturing Technology Patrick Kraft, Dept Chair
5	Microelectronics Technology Eric Kirchner
6	interior design JoAnn Thomas
7	Adult Basic Education Jenni Newby
8	Gerontology Jan Abushakrah
9	Radiography Virginia Vanderford, Program Director
10	Ophthalmic Medical Technology Joanne Harris
11	Building Construction Technology kirk garrison
12	Political Science Michael Sonnleitner
13	English/Composition Cynthia Kimball (Dept. Chair)
14	ENNL John Sparks
15	Radiography Virginia Vanderford
16	Computer Science Colin Goble
17	Video Production training program Michael Annus
18	Physics Vicki Schroeder
19	ESL Evelyn Delgado
20	ART (Art History) James Hicks

- 21 Graphic Design Cece Cutsforth
- 22 Library Pam Kessinger
- 23 Early Education and Family Studies Christyn Dundorf
- 24 Sociology Melody McMurry
- 25 Welding Technology Connie Christopher
- 26 Landscape Technology Marilyn Alexander
- 27 Journalism Doris Werkman
- 28 Speech SAC Chris Edwards

2. Type of Program:		Number of Responses	Response Ratio
Lower Division Transfer		10	40%
Professional Technical		15	60%
Total		25	100%








Does your program have a computer literacy requirement or recommendation:			Number of Responses	Response Ratio
Yes			9	35%
No			17	65%
Total			26	100%






What computer/technology-related skills do you expect your students to possess before they start your program (please check all that apply):			Number of Responses	Response Ratio
Organize Files on computer or storage device (create folders, copy, move, delete, rename files and folders)			13	62%
Send, read, forward e-mail			21	100%
Send/open attachments via e-mail			19	90%
Use a browser and search the Internet efficiently			19	90%
Create, edit, format, save, print basic word processing documents such as memos, letters, and short reports.			18	86%
Produce multi-page documents such as essays, article reviews, reports, and manuscripts with reference notations.			11	52%
Use mail merge to create numerous documents and mailing labels			0	0%

Create, edit, format, save, print spreadsheet documents with basic formulas		2	10%
Create and analyze spreadsheets containing complex formulas and functions		0	0%
Make a presentation/speech using presentation software, such as Powerpoint		3	14%
Use an existing database to gather information and enter data		1	5%
Use database software, such as Access, to create an efficient database		0	0%
Create and upload a basic web page or web site for viewing on the Internet		0	0%
Create and manage a dynamic, complex web site		0	0%
Type by touch (not looking at keys)		3	14%
Minimum Typing Speed? If so, please specify speed.		0	0%

7. What computer/technology-related skills do you expect your students to possess after they complete your program (please check all that apply):

		Number of Responses	Response Ratio
Organize Files on computer or storage device (create folders, copy, move, delete, rename files and folders)		16	64%
Send, read, forward e-mail		23	92%
Send/open attachments via e-mail		21	84%
Use a browser and search the Internet efficiently		24	96%

Create, edit, format, save, print basic word processing documents such as memos, letters, and short reports.		22	88%	
Produce multi-page documents such as essays, article reviews, reports, and manuscripts with reference notations.		19	76%	
Use mail merge to create numerous documents and mailing labels		0	0%	
Create, edit, format, save, print spreadsheet documents with basic formulas		4	16%	
Create and analyze spreadsheets containing complex formulas and functions		1	4%	
Make a presentation/speech using presentation software, such as Powerpoint		9	36%	
Use an existing database to gather information and enter data		3	12%	
Use database software, such as Access, to create an efficient database		0	0%	
Create and upload a basic web page or web site for viewing on the Internet		1	4%	
Create and manage a dynamic, complex web site		0	0%	
Type by touch (not looking at keys)		3	12%	
 Minimum Typing Speed? If so, please specify speed		25 -30	1	4%

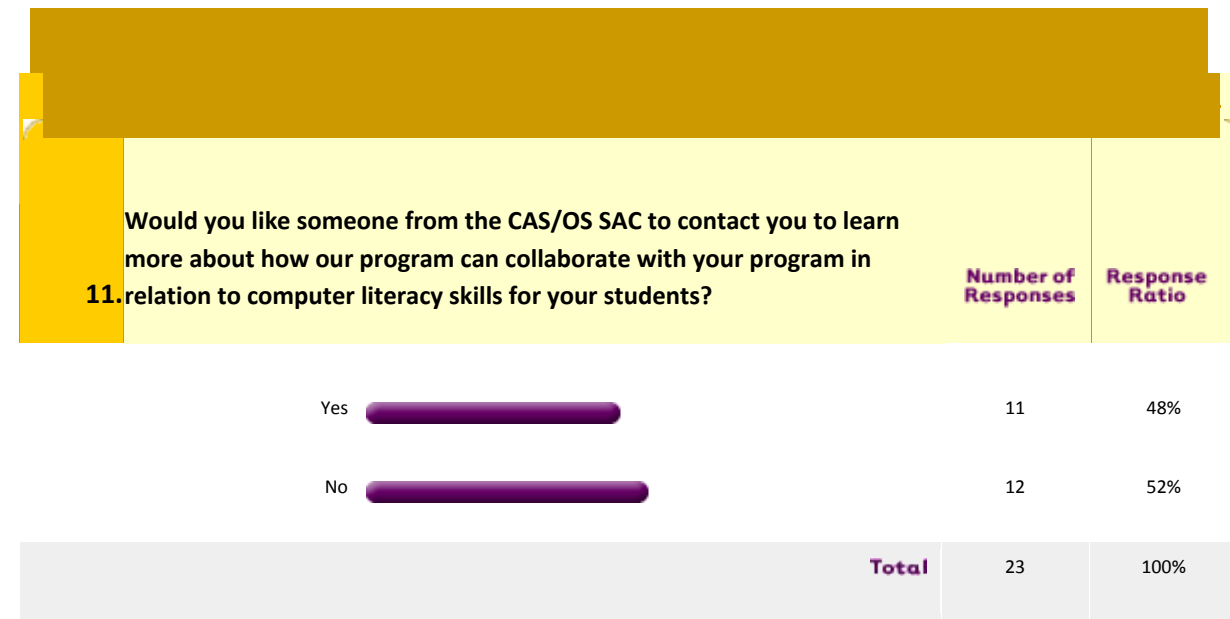
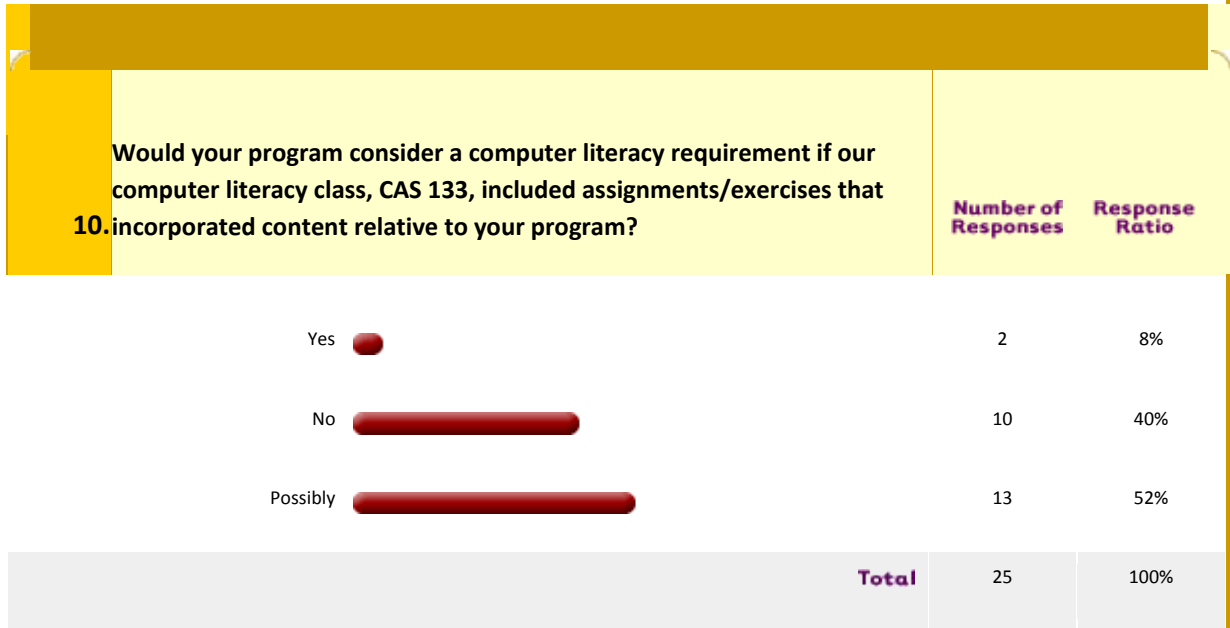
<p>If your program currently includes CAS or OS classes as required or 8. elective, please select those courses:</p>	<p>Number of Responses</p>	<p>Response Ratio</p>
CAS 103 Introduction to Windows	0	0%
CAS 104 Basic Internet Skills 	1	25%
CAS 106 Intro to HTML	0	0%
CAS 109 Beginning PowerPoint	0	0%
CAS 110 Introduction to Web Graphics: Fireworks	0	0%
CAS 111D Beginning Web Site Creation: Dreamweaver 	1	25%
CAS 111F Beginning Web Site Creation: FrontPage	0	0%
CAS 112D Intermediate Dreamweaver	0	0%
CAS 113 Enhancing Web Pages with JavaScript	0	0%
CAS 121 Beginning Keyboarding	0	0%
CAS 122 Keyboarding for Speed and Accuracy	0	0%
CAS 123 Production Keyboarding	0	0%
CAS 133 Basic Computer Skills/MS Office 	3	75%
CAS 140 Beginning Access 	1	25%
CAS 150 Intro to Speech Recognition	0	0%
CAS 170 Beginning Excel 	1	25%
CAS 171 Intermediate Excel	0	0%

CAS 175 Introduction to Flash	0	0%
CAS 206 Principles of HTML/XHTML	0	0%
CAS 208 Beginning Photoshop for the Web	0	0%
CAS 214 Beginning Cold Fusion	0	0%
CAS 216 Beginning Word	0	0%
CAS 217 Intermediate Word	0	0%
CAS 230 PageMaker	1	25%
CAS 231 MS Publisher	1	25%
CAS 246 Integrated Computer Projects	0	0%
OS 120 Business Editing Skills	0	0%
OS 131 10-Key on Calculators	0	0%
OS 240 Filing and Records Management	0	0%
OS 245 – Office Procedures	0	0%

Are there any other courses or computer-related skills that you would like to see available for your students/program. Please list:

#	Response
1	Basic startup and menu useage. We have students that eventually get into menu driven CAD coursework. Some of these have never touched a computer before.
2	File compression software such as zip.

- 3 Since our students are second language learners and many do not possess computer skills, I would like to see a basic course offered at least in Spanish for Hispanic students. Also, it would be good to offer a very basic course for the other students with different languages. The instructor would have to speak slowly and provide individual help.
- 4 gather data to properly document online sources; carefully analyze the usefulness of browser plugins; understand the difference between web sources and mediated online sources that require authentication to access; be able to maintain personal privacy when necessary when working online; able to accurately determine either the relevance or authority of online presenters (blogs, chats, listservs, news groups); be able to use advanced functions of search engines effectively.



12. Other Comments or Feedback?

#	Response
1	Thanks for doing this survey.
2	We have always required our students to take a computer class. Originally it was CIS 120, more recently CAS 133/104. In our next curriculum revision, we will drop these last 2 courses because most students come to us with these basic skills, and we need the room in our program to upgrade/advance program specific material.
3	When designing the new requirements for the Gerontology Certificate and Degree, I did consult with CAS, and we require that students take one of the courses I checked, so that they add whatever level of computer literacy they need for the career path they choose.
4	Thanks for initiating this discussion. There is often a big gap in this respect between the younger students and the older ones. It might be a good idea to consider a learning community between a CAS course and a developmental writing course--that could be a very powerful combination.
5	I'm not sure if we can come up with something that would be budgetarily acceptable for ENNL students, but I'm interested in talking about it.
6	I could see the following basic classes of use to the ESL population: 1. how to use a word document, how to save a document, and how to print a document 2. how to do a basic internet search for information; how to cut and paste information from an internet file into a word document 3. How to activate their MyPCC account 4. Basic internet protocol
7	We're developing a basic computer course on OSX focussing specifically on what graphic designers in our program need to have before getting into our graphic design computer courses. This course will deal specifically with how we want our files named, how we want them organized, how we want them to work with our server. This course will be intended to cover operating system issues and file management issues independent of the graphic design software. We need our students to learn ONE way to do things. As it is right now, they are coming in with skills that range from absolutely nothing to totally idiotic methods to advanced. We need one class that gets them all on the same page before they start taking the GD courses.
8	Obviously the library doesn't have curriculum in the same way as the other SACs-- but librarians see the need for baseline computer competencies every single day. Students can't search, download, or work effectively without such skills. I hope by replying to the survey I don't skew the results, but I wanted to be sure that these important issues were highlighted from our point of view. Information and communication technology literacy is what I am talking about. Thank you. --Pam Kessinger
9	computer skills are helpful to the student and group projects and presentations are a way these are evaluated; however, nothing is required.
10	This is a cool survey method. I love punching buttons :)
11	Thank you.