# Santa Rosa Junior College Program Resource Planning Process

# Computer Studies 2015

# 1.1a Mission

Our mission is to provide a strong foundation of knowledge and problem solving skills in computer studies to a diverse community, including Career Technical Education certificates, degree programs, and university transfer. (CS Department Meeting Feb. 2013)

# 1.1b Mission Alignment

The CS department mission aligns with the mission of the district in several ways:

- Providing lower-division academic preparation, including four transfer majors, Interactive Multimedia, Computer Science, Graphic Design, and Game Programming, as well as our Computer Literacy class, which many students take to meet general education requirements for a four-year degree.
- Delivering Career and Technical Education through certificate programs in Adobe Applications, Digital Media, Cisco Networking, IT Support, Web Programming, Web Development, Web Design, and Microsoft Office Applications.
- Aligning curriculum to support economic development and job growth.
- Continuously improving our curriculum to reflect the growth and changes in computerand technology-related fields. During the next decade millions of positions will become available that require varying types and levels of technological skills. With technology being integral to many professions, Computer Studies offers preparation and retraining in broad technology areas.
- Utilizing Student Learning Outcomes and Assessments to improve student retention and success.

# 1.1c Description

The CS department has a wide variety of clientele; there is a range in age, reason for taking a class, previous experience and basic skills level.

Program areas and the clientele they serve:

### **Computer Science/Programming:**

Courses leading to an A.S. in Computer Science and transfer, and related certificates

- Transfer students wishing to pursue a Computer Science degree
- Students pursuing programming in another area, such as web programming or game creation
- Industry professionals upgrading skills.

### **Information Technology**

Courses and certificates in networking and IT support; courses that support other areas of the department, such as database concepts and operating systems; and a UC transferrable, general education course in computer literacy.

- Students seeking entry level positions in the IT field.
- Currently employed industry professionals seeking to gain or improve existing skills

### **Office Applications:**

Courses leading to the Microsoft Office Skills certificate. These courses are also heavily used as requirements in programs across the district.

- Students pursuing certificates or degrees in other areas who need these skills as a foundation
- Students using these tools in their profession who need to update or improve their skills
- Adults planning to re-enter the workforce who need basic office skills

### Adobe Program:

Courses that lead students to Adobe Application certificates. Some courses map to Adobe industry certificates. These courses also support programs in the Graphic Design and Digital Media areas.

- Students pursuing certificates or degrees in other areas who need these skills as a foundation
- Students wishing to gain skills in order to perform freelance work
- Students pursuing a certificate or major in Graphic Design who need these skills as a foundation
- Students using these tools in their profession who need to update or improve their skills

### Digital Media/Multimedia Program:

Includes programs in game development, digital audio, 3D animation, and digital filmmaking. This is a collaborative effort with the Music, Communiation Studies, and Applied Technology Departments. CS has classes in each of these programs, and is the primary department for the game development and interactive media programs.

- Students training to enter the digital media field
- Students employed in the field desiring to update their skills with the most recent technology

### Web Program:

Includes programs in web design, web programming, and interactive multimedia. Includes a capstone class in which students work with non-profit organizations throughout the county. All programs include core courses in web development and social media.

- Students training to enter the digital media field
- Students employed in the field desiring to update their skills with the most recent technology

# 1.1d Hours of Office Operation and Service by Location

CS has a presence both at the Santa Rosa and Petaluma campuses. Classes are offered in both Petaluma and Santa Rosa from 8:00 AM until 10:00 PM, Monday through Thursday, and during the day on Friday and Saturday.

The CS office on the Santa Rosa campus is generally open from 10:30am – 2:30pm Monday, Tuesday, and Thursday. These are the only hours we have staff available to keep the office open. When instructors have office hours outside of these hours, or when no student employee is available, students must go to the back door of the office and ring a door bell to gain entrance.

The Santa Rosa lab hours are controlled by Instructional Computing. The Petaluma lab hours are controlled by Petaluma Administration.

# 1.2 Program/Unit Context and Environmental Scan

After declining rapidly for many years, the number of Computer Science majors at 4 year institutions has increased dramatically in the last few years, and enrollment in our Computer Science courses has increased commensurately.

Current technologies are, as always, changing rapidly, and Computer Studies strives to keep pace with these changes. For example, the department completely updated the curriculum in the web area. Formerly there were 11 certificates in the area; after revamping there are 4.

The labor market continues to show rapid growth in most computer related occupations, and especially in areas such as game development, multimedia, mobile application development, and video production. We are struggling to stay up-to-date with current technologies because we have no regular faculty who are experts in these fields and it is difficult to find adjuncts who can balance a demanding full-time position in the field with teaching schedules.

### 2.1a Budget Needs

### 2.1 Fiscal Year Expenditures

### Santa Rosa Campus

Expenditure Category	Unrestricted Funds	Change from 2012-13	Restricted Funds	Change from 2012-13	Total	Change from 2012-13
Faculty payroll	\$354,999.74	10.00%	\$0.00	0.00%	\$354,999.74	10.00%
Adjunct payroll	\$264,689.89	29.01%	\$17,864.08	0.00%	\$282,553.97	37.71%
Classified payroll	\$116,874.84	29.37%	\$0.00	0.00%	\$116,874.84	29.37%
STNC payroll	\$34,541.31	-19.95%	\$15,551.27	0.00%	\$50,092.58	16.10%
Student payroll	\$6,763.07	13.89%	\$0.00	0.00%	\$6,763.07	13.89%
Management payroll (and Dept Chairs)	\$40,988.26	-12.47%	\$0.00	0.00%	\$40,988.26	-12.47%
Benefits (3000's)	\$224,273.21	6.22%	\$3,290.92	0.00%	\$227,564.13	7.78%
Supplies (4000's)	\$322,673.19	3.98%	\$0.00	0.00%	\$322,673.19	3.98%

Services (5000's)	\$26,810.87	-7.93%	\$0.00	0.00%	\$26,810.87	-7.93%
Equipment (6000's)	\$7,720.59	-65.95%	\$477.23	0.00%	\$8,197.82	-63.84%
Total Expenditures	\$1,400,334.97	8.77%	\$37,183.50	0.00%	\$1,437,518.47	11.66%

#### Petaluma Campus (Includes Rohnert Park and Sonoma)

Expenditure Category	Unrestricted Funds	Change from 2012-13	Restricted Funds	Change from 2012-13	Total	Change from 2012-13
Faculty payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Adjunct payroll	\$1,509.28	5.70%	\$0.00	0.00%	\$1,509.28	5.70%
Classified payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
STNC payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Student payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Management payroll (and Dept Chairs)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Benefits (3000's)	\$92.52	-2.17%	\$0.00	0.00%	\$92.52	-2.17%
Supplies (4000's)	\$11.76	0.00%	\$0.00	0.00%	\$11.76	0.00%
Services (5000's)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Equipment (6000's)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Total Expenditures	\$1,613.56	5.99%	\$0.00	0.00%	\$1,613.56	5.99%

#### Other Locations (Includes the PSTC, Windsor, and other locations)

Expenditure Category	Unrestricted Funds	Change from 2012-13	Restricted Funds	Change from 2012-13	Total	Change from 2012-13
Faculty payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Adjunct payroll	\$5,336.63	110.28%	\$0.00	0.00%	\$5,336.63	110.28%
Classified payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
STNC payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Student payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Management payroll (and Dept Chairs)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Benefits (3000's)	\$280.96	76.64%	\$0.00	0.00%	\$280.96	76.64%
Supplies (4000's)	\$2,822.43	-26.65%	\$0.00	0.00%	\$2,822.43	-26.65%
Services (5000's)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Equipment (6000's)	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Total Expenditures	\$8,440.02	28.95%	\$0.00	0.00%	\$8,440.02	28.95%

### **Expenditure Totals**

Expenditure Category	Amount	Change from 2012-13	District Total	% of District Total
Total Expenditures	\$1,447,572.05	11.74%	\$120,253,860.49	1.20%
Total Faculty Payroll	\$644,399.62	21.16%	\$43,245,546.66	1.49%
Total Classified Payroll	\$116,874.84	29.37%	\$19,181,736.44	0.61%
Total Management Payroll	\$40,988.26	-12.47%	\$8,511,170.13	0.48%
Total Salary/Benefits Costs	\$1,087,055.98	16.95%	\$90,311,305.65	1.20%
Total Non-Personnel Costs	\$360,516.07	-1.49%	\$15,816,837.66	2.28%

### 4000's - Supplies & Graphics:

The supply budget is minimal. Our budget is below the district-wide average for a department of our size.

Purchases:

- Consumables, pens, pencils, paper, other office supplies, advertising supplies.
- Reimbursing adjunct faculty for taking Adobe certification tests and purchasing study materials for those certification tests. The recertification tests are \$90, there are about 8 adjunct faculty who recertify, occasionally in more than one test, the total is about \$1000 per year.
- Minor classroom equipment such as a multidirectional microphone for instructors teaching courses that are broadcast live to online students.

- Money transferred to Student Worker Account by being frugal with supplies money is available for student workers. This became necessary when the CS Administrative Assistant position was cut from full to half time. It is only through the expert training and use of student assistants that the tasks of our department are completed.
- Budget needs: increase in the supplies budget to provide more minor equipment such as the microphone to support instruction to online students, videos for the Computer Literacy course, and replacement power supplies and video adapters for instructor laptops, as these tend to not last for the entire life of the laptops.
- We also frequently need additional small technology purchases, such as for flash drives or iOS apps. These currently come from money we are able to shuffle from elsewhere, but an increased supply budget would help.

# 2.1b Budget Requests

Rank	Location	SP	Μ	Amount	Brief Rationale
0001	ALL	01	06	\$3,000.00	Our supplies budget is very small, and this would allow us to purchase
					larger items annually. CS is a large department with a very small budget for graphics and supplies.

# 2.2a Current Classifed Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Administrative Assistant	20.00	12.00	-Provide front-line customer service to students and
			instructors
			-Attend department meetings, take minutes.
			-Plan and coordinate annual CS Certificate
			Ceremony
			-Interview, hire, train and supervise student staff
			-Responsible for advisory committee needs
			including maintenance of membership database,
			email notifications to members, meeting room
			reservations, food service contracts, parking
			accommodations, generate member name tags,
			attend meetings and take meeting minutes.
			-Download room use reports from SIS and post
			weekly on classroom doors
			-Generate and track purchase requisitions using
			Escape software
			-Point of contact for faculty absences: Notification
			of lab staff, post signs, process NOAs
			-Collect and file course syllabi, proof syllabi for
			required content, send regular reminders to
			instructors.
			-Monitor Computer Studies and Graphic Design
			budget
			-Generate and track requisitions using Escape
			software
			-Complete Payment Request forms and submit for
			processing
			-Track and submit blanket purchase order receipts
			-Access student data in SIS
			-Maintain department course files
			-Prepare new course proposals and course revisions
			in CATS and track courses through curriculum
			process
			-Maintain various department files
			-Order and keep inventory of office supplies
			-Assist in development of scheduling proofs

# 2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
department chair	32.00	10.00	Fulfills the duties as described in the AFA contract.

Summer department chair	5.00	2.00	This is not an exhaustive list, but gives a good sense of what the job currently entails. Oversee the development of the schedule, hiring, staffing classes, evaluations, being aware of new policies and procedures, answering student questions, counseling students, interface with multiple deans and the department, oversee the budget, supervise the classified staff, prepare annual program review, oversee, develop and support curriculum through the curriculum process, participate in curriculum tech review committee, attend DCC/IM, DCC meetings, track absences/NOA forms, solicit and track CTEA funding, set up adjunct faculty meetings, communicate with the department including communicating and explaining policies, procedures, rules, regulations and requests. Organize PDA group activities. Spearhead events such as the department holiday party and retirement parties. Acknowledge classified staff during classified staff recognition week. Represent department at Public Relations events such as Day Under the Oaks, Career Day, and various meetings. Orient and evaluate new adjunct faculty. Oversee, organize and MC the certificate awards ceremony. With facilities: keep in communication with Walter Chesbro about lab usage, attend meetings about rooms, labs, other spaces that the department uses, and other departments use. Communicate with faculty from other departments about locking doors, turning off video equipment and other matters that arise. Strategic and tactical planning, writing PRPP. Time consuming and challenging - mediating between students and instructors. work with the dean especially enrollment
			management in the first weeks of the summer, answer questions, monitor absences, fill out and/or sign appropriate forms, track pending curriculum. Address any student/faculty problem Prepare for the fall semester.

# 2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Regular and FWS Student Employee	4.00	12.00	Administrative Assistant duties where student
			assistants provide support:
			Greet people entering the offices
			Answer questions
			Phones: answer questions, direct and/or guide
			students and potential students through SRJC
			website, refer to appropriate instructor, take
			messages, transfer caller to appropriate
			department/person.
			Mail - including repackaging and mailing contents
			of office mailboxes to faculty who teach off campus
			or on-line
			Contact students for class cancellations, post signs
			on classrooms
			Stock paper in machines, maintain back stock, track
			inventory
			Syllabi collection, review & filing
			Instructor office hours collection, posting, updating
			Create, update (multiple times) and post classroom use schedules
			Perform basic photocopier maintenance
			Prepare and post graphical finals schedule including
			non-CS finals using 3rd floor/Resolve any
			scheduling conflicts
			Prepare certificate brochures with inserts detailing
			each CS certificate print/cut/sort/insert and deliver
			across campus as needed

# 2.2d Adequacy and Effectiveness of Staffing

Our classified staff support is barely adequate. An increase in hours would allow us to expand our office hours and complete tasks more effectively. We are currently unable to have our department office open the number of hours it should be due to lack of staffing.

When we have a student worker, we have often used funds from other budgets to fund her, leaving us underfunded in those areas. We need to have additional funds allocated specifically for student workers.

# 2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	Μ	Current Title	Proposed Title	Туре
0001	ALL	06	06	50% administrative assistant for CS/digital media	same	Classified
0002	ALL	00	00	Student Assistant -increase hours by 572	same	Student

# 2.3a Current Contract Faculty Positions

Position	Description
Computer Science Lead (100%)	Teaches transfer Computer Science classes. Responsible for: Computer Science program, 4 year institution articulation, the Computer Science major, curriculum,
	liaison with local CSU. On sabbatical spring 2015.
Networking Lead (100%)	Teaches Cisco, Security and other Networking classes. Anchor person for relationship with Cisco. Developing all new and revised networking curriculum. Training new
	Cisco 1, 2, 3, 4 adjunct instructors.
Interactive Multimedia Lead (100%)	Teaches digital media and web classes. Coordinator for the Interactive Multimedia
	major and certificate and Multimedia courses.
Web Lead (50%)	Teaches all levels of web classes. Coordinates the web certificates, maintains strong
	connection with local web industry. Will be retiring within next two years.
Photoshop Lead (45%)	Certified in Photoshop. Teaches all levels of Photoshop and social media. Coordinates
	the Photoshop program including meeting and working with the several adjunct
	faculty who teach Photoshop classes and working with faculty to develop and update
	the Photoshop curriculum. Also is department chair.
IT Support Lead/IT/Web (90%)	Coordinates the IT Support certificate and intro IT courses. Petamula faculty.
	Teaches IT and computer literacy classes. Faculty liaison for the CS Advisory
	Committee.
Photoshop (60%)	Teaches intro Photoshop courses. Chairs the scheduling committee. Retiring end of
	spring 2015.
Literacy/Intro Programming (100%)	Teaches Intro programming in C++ and Computer Literacy
Digital Media Coordinator (100%)	Coordinates district-wide digitral media programs. Teaches Photoshop and Video
	Production
Graphic Design Lead (50%)	Coordinates Graphic Design program. Retiring end of fall 2015.

# 2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
ALL	8.1700	45.0000	10.1100	55.0000	Fall 2014

# 2.3c Faculty Within Retirement Range

For the 2015-2016 acadmic year we will have 9 full-time faculty in our department (including Graphic Design). This is down from 13 full-time faculty in the 2011 - 2012 academic year, and down from a high of 17 nineyears ago. We have had 9 retirements in the last 9 years and one new hire. There is still a critical need to replace more of our 9 retirements. Due to the high level of specialization in our field and the rapidly changing nature of the field, this reduction has impacted our ability to continue offering high quality cutting edge programs.

Of our 9 full-time faculty, 6 are 56 or older. We have two retiring at the end of fall 2015.

CS is facing major challenges and negative impacts to our programs if not enough faculty members are replaced each year in the next 3 years. We are already seeing decreases in the number of students completing some of our programs due to the lack of a full-time faculty member to coordinate, update, and market the program. In addition, we have had to cancel classes due to not having a qualified instructor. Without more full-time faculty we will have difficulty maintaining the variety and quality of curriculum areas that we currently support, let alone keeping up with the rapid advances in technology that are inherent to our field.

### 2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

### Request #1: Graphic Design/InDesign/Illustrator

Our Graphic Design program coordinator is on 50% pre-retirement reduced load and will retire at the end of fall 2015, our InDesign program coordinator has retired, and our Illustrator program coordinator has retired. These programs have been struggling due to lack of coordination, updating, and proper marketing that only a full-time faculty member can provide.

Request #2: Web/Mobile/Gaming Programmer.

Our department is falling behind the cutting edge in these rapidly evolving technologies because we have no regular faculty who are experts in these fields. Also, it is extremely difficult to find adjuct willing to teach these courses, since they are professionals in a high demand, highly compensated field. We have some curriculum developed and approved, but wedo not have the expertise within our current faculty to offer the courses or develop additional necessary curriculum.

### Request #3: Office Applications

This is one of our biggest areas in terms of FTES and number of sections. We offer about 30 sections each semester from this area, and currently they are taught exclusively by adjunct instructors. There is a need for a coordinator for the program and for coordination to keep courses up-do-date with frequent software updates.

General Information:

It is extremely difficult to recruit faculty in Computer Studies. Within Computer Studies there are diverse subject matter areas. Each of these requires specific advanced knowledge, with industry experience. In many cases, certification is required. In addition, in most cases potential

instructors can expect to be paid much more for their time in an industry position than they will be in a teaching position. There are specific examples of potential instructors who have elected not to teach for this reason. We have also been losing current adjunct faculty at the rate of 1-3 per semester - as the economy has improved, they've received better job offers in industry and have stopped teaching for us. This has caused our adjunct pool to continually shrink.

The diverse and rapidly changing nature of our department means that we need contract faculty in each area in order for that area to thrive.

The adjunct pool is opened each year but we still have difficulty staffing some classes, such as game programming, InDesign, and advanced video production. We have had the pool open continuously for the last 3 years, and have conducted interviews at least once each semester, as well as during summer and winter breaks. Durig this time, we have interviewed about 20 candidates and added about 8 to the pool. Our current pool contains fewer than 10 people.

Without new contract faculty to replace our recent and current contract faculty who are retiring at a rapid rate, as well as those we have lost over the last 8 years with no replacement, CS is facing major challenges and negative impacts on our programs.

There was a time when instructors in the department could teach any of our courses. Instructors now must have highly specialized areas of expertise. Even within an area like the Adobe program, an instructor who can teach the Photoshop classes would not be likely to have the certification, skills and industry experience to effectively teach the InDesign or Dreamweaver classes.

# 2.3e Faculty Staffing Requests

Rank	Location	SP	Μ	Discipline	SLO Assessment Rationale
0001	Santa Rosa	02	01	Graphic Design/InDesign/Illustrator	We are unable to maintain the vibrancy of the entire Graphic Design program without a new contract faculty
					member. The quantity of work and depth of knwledge necessary to maintain and improve this program is well
					beyond what our limited adjunct faculty pool can provide. Without this position, we will be unable to properly
					continue to meet the learning needs of the students in the program.
0002	Santa Rosa	02	01	Web/Mobile/Gaming Programmer	Our department is falling behind the pace of current technology in may areas. Our students, and the local job
					market, are demanding courses and programs in areas such as mobile app development and game design and
					programming. Our current faculty pool does not have the depth of knowledge in these areas in order to properly
					create and maintain these programs.
0003	Santa Rosa	02	01	Office Applications	The office applications portion of our department is large and growing, with multiple adjunct instructors teaching
					the classes. There is a strong need for a contract faculty member to coordinate the curriculum, versions being
					taught, and textbooks used in these courses. In addition, many departments across the college include our office
					application courses as part of their certificates and majors; we need someone to work with these departments to
					ensure we are providing their students the education they need.

# 2.4b Rational for Instructional and Non-Instructional Equipment, Technology, and Software

We are looking to expand into some new technology areas, such as 3D printing. In order to do this, we will need a suitable 3D printer, along with the necessary supplies. We would like a Makerbot Replicator, along with a 10-spool pack of PLA filament.

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Many of our equipment needs are taken care of through the IT department, which is responsible for the computer labs we use. However, items like extra cords for laptops, mice for laptops, and replacement power supplies for laptops are not the responsibility of Academic Computing. Since so many of our faculty use laptops for instruction, these items are required. In addition, many of our instructors are teaching applications that require higher-end equipment than that provided by Academic Computing, or require Macintosh computers, which are the standard in their field of expertise, and may have difficulty having the request for their preferred platform approved.

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One of our most-utilized computer labs, room 2920, has a long and narrow configuration, with the projection screen on one of the short ends. Students sitting at the opposite end of the room have a difficult time seeing the screen from that far away. We need to add a second projector and screen at the opposite end of the room in order to improve visiblity for the students, which will help improve student outcomes.

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### Mobile Computer Lab Proposal

Outfit a bus as a mobile computer lab/classroom. It will provide the opportunity to meet needs of high school students, college students, and adult education by bringing the classroom to remote or under-served area and populations. Needs:

- Used passenger bus (tour group or school bus)
- 20-25 laptops with DC power supplies (on cart for security)
- Solar panels to provide power when mains not available
- Cell hot spots to provide network when land feed not available
- Networking equipment
- Generator as emergency power source
- High quality alarm system

Programs involved:

- CS dept to provide courses
- Diesel to overhaul bus engine
- Welding and auto to configure interior and infrastructure
- Sustainable energy to design, install, and configure solar system
- Interior design to outfit interior attractively
- Graphic Design to design wrap graphics
- Marketing to provide press and other publicity
- Networking students to provide connectivity design and installation

Estimated costs:

- Bus 35,000
- Laptops 10000
- Solar equipment 2000
- Network equipment 2000
- Supplies for engine and interior redo 5000
- Alarm system 2000

Possible funding sources: Donations (bus, supplies, materials) Crowd sourcing Grants (HS pathways, CTEA, etc.)

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In order to create and deploy iOS application, we need an Apple developer account.

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The Pantone swatch books that Graphic Design uses are past their expiration date, and need to be replaced.

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Our Department is moving rapidly toward more instruction in design for mobile devices, particularly in our InDesign class, Graphic Design classes, and our new mobile media courses. For that reason, the Department needs Android tablets to supplement the iPads we recently received, in order to test the platforms being taught.

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In order to grow our Networking program, upgrades and additional equipment are necessary. Much of the current equipment is over ten years old, in an industry with a five-year replacement cycle. It is not anticipated that the TAA grant will cover these expenses. To better serve the students in the Networking Program on the Petaluma campus, we will make the lab equipment more accessible and secure by mounting the routers, switches and etc. in 4-5 portable rack units. The rack units will have locking doors, patch panels, power strips and other hardware to make them self-contained enabling the students to practice their lab exercises and experiment with various configurations whenever the classroom is available and not be limited to scheduled class time only. Containing the equipment thusly will also prevent damage to delicate parts and increase its longevity. Cost for this will be approximately \$4,500.

More than half the courses taught in the Department are online. Some of those courses employ CCCConfer and are recorded or broadcast real time to students via the web. Such teaching innovations require some specialized instructional equipment, such as multi/omnidirectional microphones, wireless headsets, webcams, etc. In addition, secnd monitors on the instructor workstations will better allow for interaction with synchronous online students.

Many of our office chairs are old and no longer offer the ergonomic benefits they once did.

Rank	Location	SP	Μ	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	ALL	04	01	Makerbot Replicator 3D Printer	1	\$2,899.00	\$2,899.00	Donald Laird	will vary	Donald Laird
0002	ALL	04	01	3D 10 PACK PLA and extruder for Makerbot	1	\$575.00	\$575.00	Donald Laird	will vary	Donald Laird
0003	Santa Rosa	04	01	Updated laptops for faculty	2	\$2,600.00	\$5,200.00	Donald Laird	will vary	Donald Laird
0003	ALL	04	01	HD projector for room 2920	1	\$7,000.00	\$7,000.00	Donald Laird	2920	Donald Laird
0003	ALL	01	01	Mobile computer lab	1	\$56,000.00	\$56,000.00	Donald Laird		Donald Laird
0004	Santa Rosa	04	01	Apple Developer Account	1	\$99.00	\$99.00	Dave Harden	will vary	Dave Harden
0004	Santa Rosa	04	01	Pantone swatch books	2	\$210.00	\$420.00	Donald Laird	offices	Donald Laird
0005	Santa Rosa	04	01	Android tablets for hands-on instruction	10	\$400.00	\$4,000.00	Dave Harden	will vary	Dave Harden
0006	Petaluma	04	01	rack unit for networking equipment	1	\$4,500.00	\$4,500.00	Michael	will vary	Michael
								McKeever		McKeever
0006	Petaluma	04	01	Cisco high speed WAN interface card	6	\$380.00	\$2,280.00	Michael	will vary	Michael
								McKeever		McKeever
0007	Santa Rosa	04	01	microphones and webcams for online lectures	2	\$150.00	\$300.00	Dave Harden	will vary	David Harden
0008	Santa Rosa	04	07	Replacement office chairs	6	\$400.00	\$2,400.00	Donald Laird		Donald Laird
0009	ALL	04	01	Second monitor for classroom instructor	4	\$500.00	\$2,000.00	Donald Laird	will vary	Donald Laird
				station						

# 2.4c Instructional Equipment and Software Requests

# 2.4d Non-Instructional Equipment, Software, and Technology Requests

Rank	Location	SP	Μ	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	06	07	IP phones for classroom emergency use	7	\$65.00	\$455.00	Donald Laird	Varies	Donald Laird

# 2.5a Minor Facilities Requests

Rank	Location	SP	Μ	Time Frame	Building	Room Number	Est. Cost	Description
0001	Santa Rosa	01	01	Urgent	Maggini Hall	2923	\$12,000.00	Expand 2923 to allow more classes to be taught there and normalize
								room size to other labs.
0001	Santa Rosa	01	01	Urgent	Maggini Hall	2920	\$7,000.00	Installation of ceiling-mount HD projector and screen (as requested in
								2.4c) in room 2920.

# 2.5b Analysis of Existing Facilities

The heating and cooling system on the third floor of Maggini is not adequate. The cold in the winter and heat in the summer are not conducive to student learning and make it very difficult for instructors to teach and students to focus.

In the near future we are going to face a shortage of classrooms equipped with student computer stations. Expanding room 2923 would allow the Department to increase capacity to hold a full class of students.

### 3.1 Develop Financial Resources

We will be applying for:

Digital Media gear CTEA grant Jobs Board Website CTEA grant

# 3.2 Serve our Diverse Communities

The diversity statement of each applicant applying to work in our department is read and considered as part of the paper-screening and interview process.

Each prospective instructor is asked a question that tests their sensitivity to and awareness of diversity issues during their interview.

Our department works well with students with disabilities. The department's wide variety of online courses makes college more accessible to those with limited mobility.

Several of our student assistants have been single-mothers returning to school, and we feel that they bring a degree of empathy when interacting with our students, many of whom are returning after several years hiatus from school.

# 3.3 Cultivate a Healthy Organization

We would appreciate additional funding for conference attendance, as our rapidly-changing field requires constant skill updates.

We have conducted periodic flex activities for faculty.

Our classified staff is encouraged to attend trainings and participate in professional development.

# 3.4 Safety and Emergency Preparedness

We have 2 department safety leaders, one located on the 2nd floor of Maggini and one on the 3rd floor.

# 3.5 Establish a Culture of Sustainability

Our department is nearly paperless. Almost all class materials, in face-to-face classes and online classes alike, are posted online for students. In addition, more than 50% of our sections are online, reducing the various environmental impacts of students driving to campus and parking.

# 4.1a Course Student Learning Outcomes Assessment

SLO Assessments systematic, ongoing cycle of evaluation:

We have completed SLO assessments for all course and program SLOs. We have re-mapped the 6-year evaluation dates of our courses in order to avoid a logjam in future years.

# 4.1b Program Student Learning Outcomes Assessment

program	initial	next
	assessment	assessment
Computer Science major	sp 2013	fall 2015
Adobe InDesign	sp 2013	fall 2015
Adobe Photoshop	fall 2013	fall 2015
Adobe Applications	fall 2014	fall 2016
Adobe Illustrator	fall 2014	fall 2016
Cisco Networking	fall 2014	fall 2017
IT Support	fall 2014	fall 2017
Office Applications Specialist	fall 2014	fall 2017
Graphic Design major/cert	fall 2014	fall 2018
Graphic Design Production Fundamentals	fall 2014	fall 2018
Interactive Media Developer major/cert	fall 2014	fall 2019
Web Fundamentals	fall 2014	fall 2019
Web Designer	fall 2014	fall 2019
Web Programmer	fall 2014	fall 2020
Game Programming major/cert	fall 2014	fall 2020

# 4.1c Student Learning Outcomes Reporting

Туре	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	cs 10 Intro to Programming	Spring 2009	Spring 2009	Fall 2009
Course	cs 10 Intro to Programming	Spring 2009	Spring 2009	Fall 2009
Course	cs 101a - PCs for new users	Fall 2014	Fall 2014	Fall 2014
Course	cs 101B - PC Concepts and Prac	Fall 2007	Fall 2007	Spring 2008
Course	cs 105a Intro to Mac	N/A	N/A	N/A
	cs 105b More Mac Intro	N/A N/A	N/A N/A	N/A N/A
Course				
Course	cs 11- Data Structures	Fall 2011	Fall 2011	Fall 2011
Course	cs 115.11a Robot Design & Prog	N/A	N/A	N/A
Course	cs 12 Assembly Language	N/A	N/A	N/A
Course	cs 150.21 Webpage Tips & Trick	N/A	N/A	N/A
Course	cs 160.11a Word, Level 1	N/A	N/A	N/A
Course	CS 162.7 Outlook	Spring 2009	Spring 2009	Fall 2009
Course	cs 165.31 Integration	Spring 2012	Spring 2012	Spring 2012
Course	cs 167.11 Outlook	Spring 2010	Spring 2010	Spring 2010
Course	cs 17.11 Java Programming	Fall 2013	Fall 2013	Fall 2013
Course	cs 170.11a Photoshop Elements	N/A	N/A	N/A
Course	cs 175.11 - Adobe Acrobat	N/A	N/A N/A	N/A N/A
Course	cs 175.21 Font Management	N/A	N/A	N/A
Course	cs 182.51 Cable/DSL Security	N/A	N/A	N/A
Course	cs 182.52 Sending Files by Web	N/A	N/A	N/A
Course	cs 182.53 Comp Forensics, Intr	N/A	N/A	N/A
Course	cs 19.11a Intro Visual Basic	N/A	N/A	N/A
Course	cs 19.21a - C# Intro	N/A	N/A	N/A
Course	cs 19.21B - C# Advanced	N/A	N/A	N/A
Course	cs 260.11a Self-Paced Word, 1	N/A	N/A	N/A
Course	cs 266.12 Self-Paced Windows	N/A	N/A	N/A N/A
Course	cs 5 Computer Literacy	Fall 2009	Fall 2009	Fall 2009
Course	cs 50.11a HTML and CSS 1	Fall 2011	Fall 2011	Fall 2011
Course	cs 50.11b HTML & CSS 2	N/A	N/A	N/A
Course	cs 50.11c CSS	Spring 2014	Spring 2014	Spring 2014
Course	CS 50.21 Web Design 1	Fall 2014	Fall 2014	Fall 2014
Course	cs 50.21a Web Graphics, Intro	N/A	N/A	N/A
Course	cs 50.21a Web Graphics, Intro	N/A	N/A	N/A
Course	cs 50.21a Web Graphics, Intro	N/A	N/A	N/A
Course	cs 50.21b Web Graphics, Adv	N/A	N/A	N/A
Course	cs 50.25 Electronic Portfolio	N/A	N/A	N/A
Course	CS 50.25 Electronic Fortiono CS 50.31 Web Content Developme	Fall 2014	Fall 2014	Fall 2014
Course	CS 50.32 Web Proj Mngmt	Fall 2014	Fall 2014	Fall 2014
Course	CS 50A Web Development 1	Fall 2014	Fall 2014	Fall 2014
Course	CS 50B Web Development 2	Fall 2014	Fall 2014	Fall 2014
Course	cs 53.11a Dreamweaver Intro	Fall 2011	Fall 2011	Fall 2011
Course	cs 53.11b Dreamweaver, Adv	Fall 2011	Fall 2011	Fall 2011
Course	cs 55.11 Javascript	N/A	N/A	N/A
Course	cs 55.12 ASP.NET	N/A	N/A	N/A
Course	cs 55.13 PHP	N/A	N/A	N/A
Course	CS 57.11 Intro to Social Media	Fall 2013	Fall 2013	Fall 2013
Course	cs 60.11a MS Word, Core Level	Spring 2009	Spring 2009	Fall 2009
Course	cs 60.11b MS Word, Expert Leve	Fall 2011	Fall 2011	Fall 2011
Course	cs 61.11 Microsoft Excel	Fall 2011	Fall 2011	Fall 2011
Course	cs 61.11a MS Excel, Core Level	Spring 2014	Spring 2014	Spring 2014
Course	cs 61.11b MS Excel, Expert Lev	Spring 2012	Spring 2012	Spring 2012
Course	cs 62.11a MS Powerpoint	Fall 2011	Fall 2011	Fall 2011
Course	cs 62.11b MS Powerpoint, Exper	Spring 2012	Spring 2012	Spring 2012
Course	cs 63.11 Microsoft Access	Fall 2011	Fall 2011	Fall 2011
Course	cs 63.11a MS Access, Core	Fall 2013	Fall 2013	Fall 2013
Course	cs 63.11b MS Access, Expert Le	N/A	N/A	N/A
Course	cs 63.12 MS Access, Adv	N/A	N/A	N/A N/A
	cs 65.11 MS Office Suite	Fall 2011	Fall 2011	Fall 2011
Course				
Course	cs 65.11a MS Office, Level 1	N/A	N/A	N/A
Course	cs 65.11b MS Office, Level 2	N/A	N/A	N/A
Course	cs 70.11a Adobe Photoshop 1	Spring 2011	Spring 2011	Spring 2011
Course	cs 70.11b Adobe Photoshop 2	Fall 2011	Fall 2011	Fall 2011
Course	cs 70.12 Adobe Photoshop Adva	Fall 2013	Fall 2013	Fall 2013
Course	cs 70.13 Photo Fixing Images	Fall 2013	Fall 2013	Fall 2013
Course	cs 71.11 Adobe Illustrator 1	Fall 2013	Fall 2013	Fall 2013
	cs 72.11a Adobe InDesign 1	Fall 2010	Fall 2010	Fall 2010
Course	5			
Course	cs 72.11b - Adobe InDesign 2	Fall 2010	Fall 2010	Fall 2010
Course	cs 72.11c Adobe InDesign 3	Spring 2011	Spring 2011	Spring 2011
Course	cs 72.91a MS Publisher, Lev 1	Spring 2012	Spring 2012	Spring 2012
C	cs 74.11 Intro to Digital Medi	Spring 2012	Spring 2012	Spring 2012
Course	es /4.11 lillio to Digital Medi			

Course	cs 74.21b Digital Video Prod 2	N/A	N/A	N/A
Course	cs 74.21c Digital Video Prod 3	Spring 2012	Spring 2012	Spring 2012
Course	cs 74.31a Flash Web Animation	Spring 2012	Spring 2012	Spring 2012
Course	cs 74.31b Intermed Flash	Spring 2012	Spring 2012	Spring 2012
Course	cs 80.11 Exploring Windows	Spring 2014	Spring 2014	Spring 2014
Course	cs 80.13 Windows Command Line	N/A	N/A	N/A
Course	cs 80.15 IT Essentials 1	Spring 2012	Spring 2012	Spring 2012
Course	cs 81.21 Intro to Unix	Fall 2013	Spring 2014	Spring 2014
Course	cs 81.22 Intro Linux Sys Admin	N/A	N/A	N/A
Course	cs 81.61 SQL	N/A	N/A	N/A
Course	cs 82.21a Network Fundamentals	Spring 2012	Spring 2012	Spring 2012
Course	cs 82.21a Network Fundamentals	Spring 2012	Spring 2012	Spring 2012
Course	cs 82.21b Networking Routing	Fall 2014	Fall 2014	Fall 2014
Course	cs 82.21c LAN Switching	N/A	N/A	N/A
Course	cs 82.21d Accessing the WAN	N/A	N/A	N/A
Course	cs 82.41a Telecomm 1	N/A	N/A	N/A
Course	cs 82.41b Telecomm 2	N/A	N/A	N/A
Course	cs 82.51 Virus Protection	N/A	N/A	N/A
Course	cs 82.55 Comp Security Princpl	N/A	N/A	N/A
Course	cs 82.56 Network Security	N/A	N/A	N/A
Course	cs 84.11 Supporting Windows	Spring 2012	Spring 2012	Spring 2012
Course	cs 84.13 Supporting Apps	Spring 2012	Spring 2012	Spring 2012
Course	cs 84.21 Management Info Sys	N/A	N/A	N/A
Course	Interactive Media Design Major	N/A	N/A	N/A
Certificate/Major	Adobe Applications Specialist	N/A	N/A	N/A
Certificate/Major	Adobe Illustrator Cert	N/A	N/A	N/A
Certificate/Major	Adobe InDesign Cert	Spring 2013	Spring 2013	Spring 2013
Certificate/Major	Adobe Photoshop Cert	N/A	N/A	N/A
Certificate/Major	Cisco Networking Cert	N/A	N/A	N/A
Certificate/Major	computer science	Spring 2013	Spring 2013	Spring 2013
Certificate/Major	Dreamweaver Content Developer	N/A	N/A	N/A
Certificate/Major	General Multimedia Cert	N/A	N/A	N/A
Certificate/Major	Help Desk	N/A	N/A	N/A
Certificate/Major	HTML Content Developer	N/A	N/A	N/A
Certificate/Major	Interactive Media Design Cert	N/A	N/A	N/A
Certificate/Major	IT Essentials Cert	N/A	N/A	N/A
Certificate/Major	Office Applications Specialist	N/A	N/A	N/A
Certificate/Major	PC Specialist	N/A	N/A	N/A
Certificate/Major	Web Graphic Design	N/A	N/A	N/A
Certificate/Major	Web Graphic Production	N/A	N/A	N/A
Certificate/Major	Web Project Management	N/A	N/A	N/A
Certificate/Major	Web Site Development: ASP Prog	N/A	N/A	N/A
Certificate/Major	Web Site Development: Java Pro	N/A	N/A	N/A
Certificate/Major	Web Site Development: JavaScri	N/A	N/A	N/A
Certificate/Major	Web Site Development: PHP Prog	N/A	N/A	N/A

# 4.2a Key Courses or Services that address Institutional Outcomes

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
All CS Courses		Х														
CIS 101A		Х		Х												
CS 10		Х									Х					
CS 101B		Х		Х												
CS 50.32					Х			Х	Х					Х		
CS 70.11A/B, 70.12,		Х										Х				
70.13																
CS 71.11/A/B/C		Х										Х				
CS 72.11A/B/C		Х										Х				
CS 82.21A/B/C/D		Х									Х			Х		
CS 84.11		Х						Х	Х	Х				Х		

# 4.2b Narrative (Optional)

# 5.0 Performance Measures

# 5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

When we have multiple sections of a class we offer both day and evening sections. We offer very few courses on Friday or Saturday because the demand for those times has been very low.

When we have multiple sections of a class we offer one section in Petaluma when possible. We also have some programs that are offered exclusively in Petaluma, such as Game Design, Cisco Networking, Help Desk, and IT Essentials.

We are the leading department in offering alternative delivery modes. More than 50% of our sections are offered online, and many are offered in multiple formats so the student can choose between face-to-face or online. Most of our online courses include video transmissions that can be attended live or watched later.

Some of our programs are suffering due to lack of full-time faculty to oversee them.

We offer every class that is part of a certificate at least once a year, so students are able to complete their certificates in a reasonable amount of time.

# 5.2a Enrollment Efficiency

5.2a Enrollment Efficiency The percentage of seats filled in each Discipline at first census based on class limit (not room size).

### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	88.2%	96.1%	105.7%	100.2%	98.3%	105.3%	97.2%	87.7%	89.3%
ALL Disciplines	88.2%	96.1%	105.7%	100.2%	98.3%	105.3%	97.2%	87.7%	89.3%

#### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	46.7%	107.3%	107.2%	0.0%	106.5%	92.0%	0.0%	89.8%	89.7%
ALL Disciplines	46.7%	107.3%	107.2%	0.0%	106.5%	92.0%	0.0%	89.8%	89.7%

Other Locations (Includes the PSTC, Windsor, and other locations)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	95.7%	102.4%	16.7%	0.0%	0.0%	75.0%	0.0%	93.3%	26.8%
ALL Disciplines	95.7%	102.4%	16.7%	0.0%	0.0%	75.0%	0.0%	93.3%	26.8%

ALL Locations (Combined totals from ALL locations in the District)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	92.5%	100.6%	96.6%	100.2%	99.8%	101.8%	97.2%	88.1%	85.9%
ALL Disciplines	92.5%	100.6%	96.6%	100.2%	99.8%	101.8%	97.2%	88.1%	85.9%

Our enrollment efficiency saw a significant drop in Fall 2013. It remains to be seen whether that is a new trend or a anomoly. In any case we don't believe this to be the result of scheduling practices. One possible explanation is that we struggle to find qualified instructors to teach in some specializations such as web programming and digital media. This lack of expertise makes it difficult for us to address emerging technologies and attract students.

### 5.2b Average Class Size

5.2b Average Class Size The average class size in each Discipline at first census (excludes cancelled classes).

#### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	19.4	28.9	31.8	30.6	30.1	31.5	29.5	27.1	27.4
ALL Disciplines	19.4	28.9	31.8	30.6	30.1	31.5	29.5	27.1	27.4

#### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	14.0	28.3	30.7	0.0	29.5	27.0	0.0	25.2	26.1
ALL Disciplines	14.0	28.3	30.7	0.0	29.5	27.0	0.0	25.2	26.1

#### **Other Locations** (Includes the PSTC, Windsor, and other locations)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
<b>Computer &amp; Information Sciences</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	28.7	30.5	1.9	0.0	0.0	7.5	0.0	28.0	2.7
ALL Disciplines	28.7	30.5	1.9	0.0	0.0	7.5	0.0	28.0	2.7

#### ALL Locations (Combined totals from ALL locations in the District)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	25.6	29.7	24.6	30.6	29.9	28.1	29.5	26.8	23.5
ALL Disciplines	25.6	29.7	24.6	30.6	29.9	28.1	29.5	26.8	23.5

### 5.3 Instructional Productivity

**5.3 Instructional Productivity** The ratio of Full-Time Equivalent Students (FTES) to Full-Time Equivalent Faculty (FTEF) in each Discipline at first census.

#### Santa Rosa Campus

Computer & Information Sciences		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Computer Studies		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	17.87	109.77	213.98	41.05	207.36	208.96	54.88	206.57	213.36

FTEF	0.98	6.55	12.89	2.86	13.19	12.90	3.96	14.70	14.21
Ratio	18.19	16.77	16.60	14.38	15.72	16.19	13.86	14.05	15.02

### Petaluma Campus (Includes Rohnert Park and Sonoma)

<b>Computer &amp; Information Sciences</b>		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer Studies		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	1.58	39.25	47.68	0.00	49.89	44.17	0.00	51.70	49.04
	FTEF	0.21	3.29	3.04	0.00	3.56	3.29	0.00	4.23	3.55

#### **Other Locations** (Includes the PSTC, Windsor, and other locations)

Computer & Information Sciences		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Computer Studies		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	48.68	120.57	0.00	0.00	0.00	0.00	0.00	2.80	0.00
	FTEF	3.61	8.10	0.00	0.00	0.00	0.00	0.00	0.20	0.00
	Ratio	13.49	14.89	0.00	0.00	0.00	0.00	0.00	14.00	0.00

#### ALL Locations (Combined totals from ALL locations in the District)

Computer & Information Sciences		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Computer Studies		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	68.13	269.58	261.66	41.05	257.25	253.13	54.88	261.07	262.40
	FTEF	4.80	17.94	15.94	2.86	16.75	16.19	3.96	19.13	17.76
	Ratio	14.20	15.03	16.42	14.38	15.36	15.63	13.86	13.64	14.77

Our productivity for Spring 2013 was 15.63, the second highest that it has ever been. For the last few semesters up through Spring 2013, our productivity was relatively high due to the fact that almost every one of our sections was closed with 10 students on the wait list on day one of the class. Since then we have been able to add more sections, which has resulted in a decrease in the pressure on our classes, allowing us to better meet student demand for classes.

### 5.4 Curriculum Currency

All of our courses and programs have been updated within the last 6 years.

### 5.5 Successful Program Completion

Despite the inactivation of several of our certificates, the number of certificates awarded trended up significantly in 2011-2012. There was no particular certificate that was responsible; many

certificates saw incremental improvement. None of these should be interpreted to represent a trend in a particular area, other than an overall upward trend in the number of certificates awarded.

The department actively advertises its certificates, encouraging students to complete a program of study and receive a certificate.

We have a certificate awards ceremony.

Faculty members go to high school events, the career fair, and other events to promote our certificates.

Increasing the completion rate of our certificates is a high priority for our department. We have completed updates to every certificate to bring them more in line with the latest industry standards, and these revisions were approved by CRC in Fall 2011. We are having regular discussions about how to better publicize our certificates. And we have plans to create capstone courses for many of them so that they can be automatically awarded to students who have completed them.

The Computer Science major has been under-utilized historically, but enrollments in Computer Science are increasing dramatically so we expect to see the numbers in this major increase.

	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Computer Studies: Adobe Applications Specialist	8	5	17	12	9	7	4	9
Computer Studies: Adobe Certification Training in Dreamweaver	3	6	4	6	0	5	5	3
Computer Studies: Adobe Certification Training in Illustrator	1	8	19	9	7	7	4	4
Computer Studies: Adobe Certification Training in InDesign	28	15	8	20	20	21	1	1
Computer Studies: Adobe Certification Training in Photoshop	44	27	5	15	8	9	13	16
Computer Studies: ASP Programmer	0	0	1	0	1	1	0	0
Computer Studies: Cisco Certification Training in CCNA	10	21	24	17	28	20	29	22
Computer Studies: HTML Web Content Developer	5	13	10	22	14	23	8	14
Computer Studies: IT Support	0	1	4	4	7	4	1	8
Computer Studies: Java Programmer	0	1	0	1	1	1	1	0
Computer Studies: JavaScript Programmer	0	1	0	0	1	4	2	4
Computer Studies: Microsoft Office Specialist	3	4	5	1	2	6	9	11
Computer Studies: PHP Programmer	0	1	0	2	2	3	2	0
Computer Studies: Web Graphic Designer	3	3	0	4	5	8	4	6
Computer Studies: Web Graphic Production	0	0	5	6	7	10	6	10
Computer Studies: Web Project Manager	0	1	0	1	0	3	0	1
Digital Media: General Multimedia	1	1	1	0	0	8	1	2
Digital Media: Interactive Multimedia	0	0	0	3	1	2	3	8
Graphic Design	12	10	9	16	9	15	8	13
Graphic Design Production Fundamentals	3	3	2	8	0	1	2	4
XML Web Development	1	1	0	0	1	0	0	0
Computer Science A.S.	1	0	0	1	1	4	7	9
Digital Media: Game Programming A.S.	0	0	0	0	0	0	0	1
Graphic Design A.A.	6	7	5	2	7	6	4	7
Interactive Media Design A.A.	0	0	1	1	4	3	6	1
TOTALS	129	129	120	151	135	171	120	154

5.6a Retention The percentage of students receiving a grade of A,B,C,D,CR, or I in each Discipline (duplicated headcount).

#### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	61.9%	68.4%	72.1%	72.4%	69.2%	69.4%	66.3%	66.4%	64.2%
ALL Disciplines	61.9%	68.4%	72.1%	72.4%	69.2%	69.4%	66.3%	66.4%	64.2%

#### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	85.7%	72.3%	76.4%	0.0%	72.3%	75.2%	0.0%	66.2%	80.8%
ALL Disciplines	85.7%	72.3%	76.4%	0.0%	72.3%	75.2%	0.0%	66.2%	80.8%

#### **Other Locations** (Includes the PSTC, Windsor, and other locations)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	68.6%	68.8%	100.0%	0.0%	0.0%	96.7%	0.0%	71.4%	100.0%
ALL Disciplines	68.6%	68.8%	100.0%	0.0%	0.0%	96.7%	0.0%	71.4%	100.0%

### ALL Locations (Combined totals from ALL locations in the District)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	67.0%	69.0%	73.4%	72.4%	69.8%	71.1%	66.3%	66.4%	67.2%
ALL Disciplines	67.0%	69.0%	73.4%	72.4%	69.8%	71.1%	66.3%	66.4%	67.2%

The department retention rate is lower than the campus average. Possible reasons for this are (1) many of our classes (for example, CS 10) are simply difficult classes that experience somewhat lower retention for that reason, and (2) more than half of our sections are online, and online classes generally have a somewhat lower retention rate.

The only significant differences in student outcomes when broken down by sub-group is that White and Asian students performed much better in each measure when compared to all other ethnicities. (The Filipino measures are an exception, apparently due to a small sample size.) However, this difference is reflected in the overall district outcomes as well.

**5.6b Successful Course Completion** The percentage of students receiving a grade of A,B,C, or CR in each Discipline (duplicated headcount).

#### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
<b>Computer &amp; Information Sciences</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	58.9%	65.3%	69.1%	70.4%	66.3%	66.4%	62.9%	63.2%	62.2%
ALL Disciplines	58.9%	65.3%	69.1%	70.4%	66.3%	66.4%	62.9%	63.2%	62.2%

#### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	85.7%	69.3%	72.3%	0.0%	70.5%	73.7%	0.0%	61.7%	78.3%
ALL Disciplines	85.7%	69.3%	72.3%	0.0%	70.5%	73.7%	0.0%	61.7%	78.3%

### Other Locations (Includes the PSTC, Windsor, and other locations)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	65.6%	66.4%	100.0%	0.0%	0.0%	96.7%	0.0%	64.3%	100.0%
ALL Disciplines	65.6%	66.4%	100.0%	0.0%	0.0%	96.7%	0.0%	64.3%	100.0%

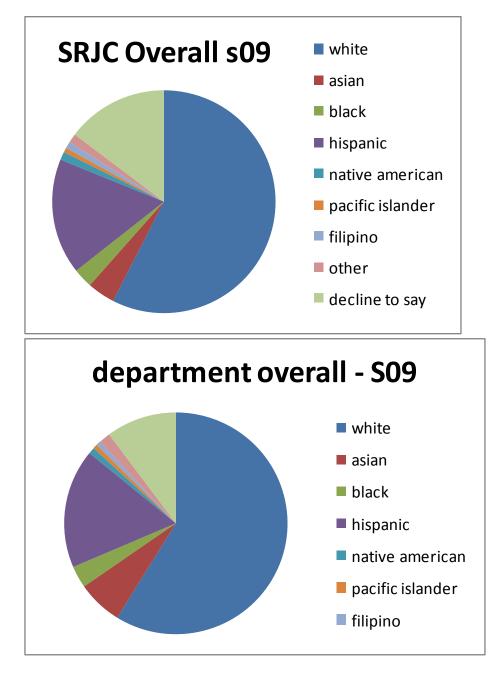
ALL Locations (Combined totals from ALL locations in the District)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014				
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
Computer Studies	64.1%	66.3%	70.2%	70.4%	67.1%	68.4%	62.9%	63.0%	65.2%				
ALL Disciplines	64.1%	66.3%	70.2%	70.4%	67.1%	68.4%	62.9%	63.0%	65.2%				

# 5.7 Student Access

### **Ethnicity:**

Looking at the overall ethnicity of the college and comparing it to the department overall, there is hardly any difference between the two. The department is as well balanced as the college.



When looking at specific classes, as representing the different aspects of the department's varied offerings, there is some variation. The programming classes tend to have more white students, the transfer classes have a significant number of black students. The introductory/basic course has more ethnic diversity, and serves more of the underrepresented population; that is English language learners, reentry students, retraining students.

There has been no significant changes over the past four years.

### Gender:

Over the past year the gender distribution remains basically the same. The department is more evenly balanced in this area than the college.

Computer Studies	Gender	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014
	Male	3420	46.9%	3529	48.7%	2843	50.7%	
	Female	3700	50.8%	3567	49.2%	2620	46.7%	
	Unknown	170	2.3%	150	2.1%	143	2.6%	
	ALL Genders	7290	100.0%	7246	100.0%	5606	100.0%	

Data	F 07	S 08	X 08	F 08	S 09	X 09
% male %	50%	51%	45%	47%	49%	51%
female	50%	49%	55%	53%	51%	49%

The programming classes are less balanced, having more white males than any other group. This would be an area to pursue; encouraging young women to go into computer science.

### 5.8 Curriculum Offered Within Reasonable Time Frame

All of our courses are offered at least once per year. In each certificate, required courses are alternated by semester so that student can always take the course in sequential semesters. Here is a list of courses that are rotated:

### Fall only classes:

CS 12 Assembly Language CS 55.11 Javascript CS 55.13 PHP CS 63.11B MS Access Part 2 CS 70.13 Image Correction and Restoration with Adobe Photoshop CS 72.11C InDesign 3 CS 74.21C Video Post-Production Techniques 3 CS 74.41A Game Design 1 (tentative; call for details) CS 82.21A Cisco 1 CS 82.21B Cisco 2 CS 84.11 Supporting Microsoft Windows CS 175.11 Adobe Acrobat

### Spring only classes:

CS 70.12 Adobe Photoshop Advanced Concepts CS 72.11B InDesign 2 CS 74.21D Video Post-Production Techniques 4 CS 74.31B Intermediate Flash CS 74.41B Game Design 2 (tentative; call for details) CS 81.62 Database Concepts CS 82.21C Cisco 3 CS 82.21D Cisco 4 CS 84.13 Supporting Software Applications CS 165.31 MS Office Integration

### 5.9a Curriculum Responsiveness

Computer Studies is constantly updating courses and certificates to stay on the cutting edge of technological advances.

CS 5 is the only general education course. It does contain some objectives related to social issues and ethics as they relate to computers, but does not address gender, global perspectives, or American cultural diversity directly. We need to work on this.

Several other departments have certificates that require our courses. For example, some health sciences certificates require CS 5, and some BAD certificates require some of our office applications classes.

The Department is excited about its role in the recently launched Digital Media certificates. Game Design and Programming courses have been added to the curriculum; however, due to the difficulty in finding/retaining faculty in this highly employable area, two sections (Spring and Fall 2014) had to be cancelled because there was no faculty to teach.

Mobile Media is an emerged/recently emerged area in which the Department has developed curriculum. However, the curriculum has not been presented in Cluster Tech or to the Curriculum Review Committee because no lower division comparable (to date) has been located from a California institution. Even if the course were to be approved - like Game Development and Design courses - the Department may experience difficulty finding/retaining qualified faculty.

Course offerings continue to be collaborated with the two (2) Advisory Committees.

### 5.9b Alignment with High Schools (Tech-Prep ONLY)

We do have programs that align with high school preparation and we do have courses that are articulated with high school courses or part of a tech prep or 2+2.

The following table lists the specific courses:

Industry Sector	SRJC Course	SRJC Course Title	SRJC Units	High School Course Name(s)/Sequence						
Healdsburg, Healdsburg Unified										
Information Tech	CS 80.15	IT Essentials 1	4.0	IT Essentials						
Information Tech	CS 82.21A	Cisco Netwkg 1 (Exploration	4.0	Cisco Discovery 1 + Discovery 2						
		1)								
		Santa Rosa, <i>Santa Ro</i>	sa City Schools							
Information Tech	CS 80.15	IT Essentials 1	4.0	IT Essentials						
Information Tech CS 82.2		Cisco Netwkg 1 (Exploration	4.0	Cisco Discovery 1 + Discovery 2						
		1)								
In Developme	ent 2009-2010	(awaiting signatures and/or Cr	edit by Exam app	proval): High Schools Participating:						
Digital/MultiMedia	CS 50.11A	Web Design: HTML 1	1.5	CGHS, PNR, Pet, CHS						
Digital/MultiMedia	CS 50.11B	Web Design: HTML 2	1.5	CGHS, PNR, Pet, CHS						
Digital/MultiMedia	CS 74.21A	Digital Video Prod. 1*	1.5	AHS, EMHS, HHS, SRHS, SVHS, WHS						
Digital/MultiMedia	CS 74.21B	Digital Video Prod. 2*	1.5	AHS, EMHS, HHS, SRHS, SVHS, WHS						
Information Tech	CS 80.15	IT Essentials 1	4.0	Middletown High School						
Information Tech	CS 82.21A	Cisco Netwkg 1 (Exploration	4.0	Middletown High School						
		1)								

# 5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

Yes, the requirements for the Computer Science major are in very close alignment with lower division requirements at CSUs and UCs.

# 5.11a Labor Market Demand (Occupational Programs ONLY)

The data in the table below shows that all of our Computer Studies related field continue to see growth. The data does not do a good job of breaking the occupations down into relevant categories. For example, we know that Web designers are in high demand and yet there is no separate category for Web.

We know that there is very high demand in the area of Game Design. We are also aware that there is a new trend toward dramatically increased enrollment in transfer Computer Science courses.

	Employment Development Department	2012-2022 Occupational En							
Labor Market Information Division Santa Rosa Metropolitan Statistical Area   Published: February 2015 (Sonoma Court							ojection	S	
SOC Code*	Occupational Title	Estimated Employme nt 2012**	Projected Employme nt 2022	Numeric Change 2012- 2022 [1]	Percent		Ave Jol	rage Anr b Openin	
						_	New Jobs [2]	Replace -ment Needs [3]	Tot Job [4]
00- 0000	Total, All Occupations	196,800	229,900	33,100	16.8%	1.7%	3,504	4,638	8,1
11- 0000	Management Occupations	15,460	17,200	1,740	11.3%	1.1%	224	298	5

11- 3021	Computer and Information Systems Managers	220	290	70	31.8%	3.2%	7	3	
15-	Computer and Mathematical	2,610	3,440	830	31.8%	3.2%	83	41	1
<b>0000</b> 15- 1100	Occupations Computer Occupations	2,550	3,350	800	31.4%	3.1%	80	40	1
15- 1121	Computer Systems Analysts	200	290	90	45.0%	4.5%	9	3	
15- 1122	Information Security Analysts	70	120	50	71.4%	7.1%	5	1	
15- 1131	Computer Programmers	150	170	20	13.3%	1.3%	3	4	
15- 1132	Software Developers, Applications	460	570	110	23.9%	2.4%	10	6	
15- 1133	Software Developers, Systems	290	390	100	34.5%	3.4%	9	4	
15- 1134	Web Developers	350	490	140	40.0%	4.0%	14	6	
15- 1141	Database Administrators	60	80	20	33.3%	3.3%	2	1	
15- 1142	Network and Computer Systems Administrators	270	320	50	18.5%	1.9%	6	4	
1142 15- 1151	Computer User Support	380	510	130	34.2%	3.4%	13	6	
15-	Specialists Computer Network Support	230	290	60	26.1%	2.6%	6	4	
1152 15-	Specialists Computer Occupations, All Other	60	70	10	16.7%	1.7%	1	1	
1199 <b>27-</b>	Arts, Design, Entertainment,	3,150	3,550	400	12.7%	1.3%	46	76	1
0000	Sports, and Media Occupations								
27- 1024	Graphic Designers	350	420	70	20.0%	2.0%	7	9	
27- 4000	Media and Communication Equipment Workers	290	320	30	10.3%	1.0%	4	4	
27- 4021	Photographers	100	100	0	0.0%	0.0%	1	1	
43- 0000	Office and Administrative Support Occupations	27,330	30,610	3,280	12.0%	1.2%	376	594	9
43- 1000	Supervisors of Office and Administrative Support Workers	2,020	2,360	340	16.8%	1.7%	34	48	
43- 1011	First-Line Supervisors of Office and Administrative Support Workers	2,020	2,360	340	16.8%	1.7%	34	48	
43-	Information and Record Clerks	4,920	5,620	700	14.2%	1.4%	71	131	2
4000 43-	Information and Record Clerks,	180	210	30	16.7%	1.7%	3	4	
4199 43-	All Other Secretaries and Administrative	5,070	5,890	820	16.2%	1.6%	82	61	1
6000 43-	Assistants Executive Secretaries and	1,200	1,280	80	6.7%	0.7%	8	14	
6011	Executive Administrative Assistants	0.740	0.000		00.40/	0.00/			
43- 6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,740	3,290	550	20.1%	2.0%	55	33	
43-	Other Office and Administrative	4,820	5,050	230	4.8%	0.5%	48	102	1
9000 43- 9021	Support Workers Data Entry Keyers	250	190	-60	-24.0%	-2.4%	0	3	
9021 43- 9022	Word Processors and Typists	200	150	-50	-25.0%	-2.5%	0	1	
0022									

43- 9061	Office Clerks, General	3,230	3,670	440	13.6%	1.4%	44	68	1
43- 9199	Office and Administrative Support Workers, All Other	650	690	40	6.2%	0.6%	4	18	

\* The Standard Occupational Classification (SOC) system is used by government agencies to classify workers into collecting, calculating, or disseminating data.

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\*\* Data sources: U.S. Bureau of Labor Statistics' Current Employment Statistics (CES) March 2013 benchmark, Qua (QCEW) industry employment, and Occupational Employment Statistics (OES) data.

Occupational employment projections include self-employed, unpaid family workers, private household workers, fa N/A - Information is not available.

Occupations with employment below 50 in 2012 are excluded.

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Occupation subtotals may not add to the totals due to rounding and the suppression of data.

The use of occupational employment projections as a time series is not encouraged due to changes in the occupa systems; changes in the way data are collected; and changes in the OES survey reference period.

- [1] Numerical employment change is the net difference between the base and projected year employment and reflect year employment are independently rounded to 10. Therefore, numerical change may not equal new jobs.
- [2] New jobs are only openings due to growth and do not include job declines. If an occupation's employment change jobs are set to zero. New jobs may not equal numerical change.
- [3] Replacement needs estimate the number of job openings created when workers retire or permanently leave an oc
- [4] Total jobs are the sum of new jobs and replacement needs.
- [5] Median hourly and annual wages are the estimated 50th percentile of the distribution of wages; 50 percent of work percent earn wages above the median wage. The wages are from 2014 first quarter and do not include self-employ
- [6] In occupations where workers do not work full-time all year-round, it is not possible to calculate an hourly wage.
- [7] The Bureau of Labor Statistics develops and assigns education and training categories to each occupation. For m http://www.bls.gov/emp/ep\_education\_training\_system.htm

#### Entry Level Education

1- Doctoral or professional degree

- 2- Master's degree
- 3- Bachelor's degree
- 4- Associate's degree

5- Postsecondary non-degree award

- 6- Some college, no degree
- 7- High school diploma or equivalent
- 8- Less than high school

### 5.11b Academic Standards

The Computer Studies Department meets twice a month and the subject of academic standards is often the topic. For example, we have had many discussion about how to best reconfigure our classes to remove DHR and best meet the needs of our students. As another example, we have had several discussions about best practices for teaching online courses. We have not reached conclusions on either of these, but are close on both.

# 6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	Μ	Goal	Objective	Time Frame	Progress to Date
0001	ALL	00	00	We attained 100% completion of SLO		1 year	
				assessments for all courses in fall 2014			
0001	ALL	00	00	incorporate mobile media into curriculum		1 year	Tablet devices for instructor demos and for
							student use

# 6.2a Program/Unit Conclusions

Location	Program/Unit Conclusions						
ALL	Computer Studies is constantly doing data analysis of enrollment and completion data, job demand, and practices						
	as other learning institutions. Some of our conclusions follow:						
ALL	Demand for mobile media coursework is exploding, and the correct way to incorporate mobile media into our						
	curriculum is to incorporate courses into various web and digital media certificates.						
ALL	Our Networking programs must be expanded and new directions regarding security related to homeland security						
	must be explored.						

# 6.2b PRPP Editor Feedback - Optional

Please see the BPS Dean PRPP for commentary on the CS Department.

# 6.3a Annual Unit Plan

Rank	Location	SP	Μ	Goal	Objective	Time Frame	Resources Required
0001	ALL	00	00	incorporate mobile media into curriculum		1 year	Tablet devices for instructor demos and for
							student use