

# Santa Rosa Junior College

## Program Resource Planning Process

### *Computer Studies 2021*

#### **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 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: Digital Media: Web and Multimedia, Computer Science, Graphic Design, and Digital Media: Game Programming. We also offer our Computer Literacy class, which many students take to meet general education requirements for an AA degree.
- Delivering Career Education through certificate programs in Adobe Applications, Digital Media, Cisco Networking, IT Support, Web Development, Web Design, Microsoft Office Applications, and Commercial Drone Licensing.
- Aligning curriculum to support economic development and job growth.
- Continuously improving our curriculum to reflect the growth and changes in computer- and 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 certificates. 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, Communication Studies, and Applied Technology Departments. CS has classes in each of these programs, and is the primary department for the game development and Web and multimedia 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 development, Web programming, and multimedia. Includes a capstone class in which students work with non-profit organizations throughout the county. Programs include 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

### **Emerging Technology**

Courses and certificates in emerging technologies including commercial drone usage and 3d printing.

- Students seeking education in emerging technology
- Currently employed industry professionals seeking to gain or improve existing skills

## **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. In addition, the department works to develop courses and certificates in emerging technologies

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 and emerging 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%
<b>Total Expenditures</b>	<b>\$1,400,334.97</b>	<b>8.77%</b>	<b>\$37,183.50</b>	<b>0.00%</b>	<b>\$1,437,518.47</b>	<b>11.66%</b>

#### 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%
<b>Total Expenditures</b>	<b>\$1,613.56</b>	<b>5.99%</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>\$1,613.56</b>	<b>5.99%</b>

#### 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%
<b>Total Expenditures</b>	<b>\$8,440.02</b>	<b>28.95%</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>\$8,440.02</b>	<b>28.95%</b>

### 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 well below the district-wide average for a department of our size.

#### Purchases:

- Consumables: pens, pencils, paper, printer toner, other office supplies, advertising supplies.
- Reimbursing adjunct faculty for taking Adobe, FAA, and other certification tests.
- Minor classroom equipment such as multidirectional microphones for instructors teaching courses that are broadcast live to online students.

#### Budget needs:

- An increase in the supplies budget to provide more minor equipment such as the microphones 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.
- Many of our instructors require computers with specs above the standard issue. The department has to pay the difference for any of these necessary upgrades. With our current budget, we are no longer able to pay this differential in order to equip our instructors with the proper computers.
- 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	M	Amount	Brief Rationale
0001	ALL	02	07	\$3,500.00	Our supplies budget is very small, and this increase would allow us to purchase larger items annually. CS is a large department with a very small budget for small repairs, graphics and supplies.
0002	ALL	04	01	\$3,500.00	Updated laptop for faculty
0003	ALL	04	07	\$500.00	We need a budget for repair of our fleet of drones. As students extensively use these drones, and occasionally crash them, we need to pay for repairs to keep the fleet flying.
0004	ALL	01	05	\$500.00	Advertising costs. In order to recruit additional students to our courses, we would like to be able to create advertising materials and place online ads.

## 2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Administrative Assistant	20.00	12.00	<ul style="list-style-type: none"> <li>• Provide front-line customer service to students and instructors</li> <li>• Attend department meetings and take minutes.</li> <li>• Interview, hire, train and supervise student staff</li> <li>• 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.</li> <li>• Download room use reports from SIS and post weekly on classroom doors</li> <li>• Generate and track purchase requisitions using Escape software</li> <li>• Point of contact for faculty absences: Notification of lab staff, post signs</li> <li>• Collect and file course syllabi, proof syllabi for required content, send regular reminders to instructors</li> <li>• Monitor Computer Studies and Graphic Design budgets</li> <li>• Generate and track requisitions using Escape software</li> <li>• Complete Payment Request forms and submit for processing</li> <li>• Track and submit blanket purchase order receipts</li> <li>• Access student data in SIS</li> <li>• Maintain department course files</li> <li>• Prepare new course proposals and course revisions in SIS and track courses through curriculum process</li> <li>• Maintain various department files</li> <li>• Order and keep inventory of office supplies</li> <li>• Assist in development of scheduling proofs</li> </ul>

## 2.2b Current Management/Confidential Positions

<b>Position</b>	<b>Hr/Wk</b>	<b>Mo/Yr</b>	<b>Job Duties</b>
-----------------	--------------	--------------	-------------------



Department Chair	32.00	10.00	<p>Fulfills the duties as described in the AFA contract.</p> <p>This is not an exhaustive list, but gives a good sense of what the job currently entails.</p> <ul style="list-style-type: none"> <li>• Oversee the development of the schedule</li> <li>• Oversee department hiring</li> <li>• Staffing classes</li> <li>• Overseeing staff evaluations</li> <li>• Being aware of new policies and procedures</li> <li>• Answering student questions</li> <li>• Mediating student complaints</li> <li>• Counseling students</li> <li>• Interface with multiple deans and the department</li> <li>• Oversee the department budgets</li> <li>• Supervise the classified staff</li> <li>• Prepare annual program review</li> <li>• Complete the PRPP process</li> <li>• Oversee, develop and support curriculum through the curriculum process</li> <li>• Participate in curriculum tech review committee</li> <li>• Attend DCC/IM and DCC meetings</li> <li>• Oversee absences/NOA forms</li> <li>• Solicit and track CTEA funding</li> <li>• Advocate for department staff</li> <li>• Set up adjunct faculty meetings</li> <li>• Communicate with the department including communicating and explaining policies, procedures, rules, regulations and requests</li> <li>• Develop department meeting activities</li> <li>• Oversee advisory committee meetings</li> <li>• Organize PDA group activities</li> <li>• Spearhead events such as the department holiday party and retirement parties</li> <li>• Acknowledge classified staff during classified staff recognition week</li> <li>• Represent department at Public Relations events such as Day Under the Oaks, Career Day, and various meetings</li> </ul>
------------------	-------	-------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Position	Hr/Wk	Mo/Yr	Job Duties
			<ul style="list-style-type: none"> <li>• Orient and evaluate new adjunct faculty.</li> <li>• Keep in communication with IT about lab usage</li> <li>• Attend meetings about rooms, labs, other spaces that the department uses, and other departments use</li> <li>• Communicate with faculty from other departments about locking doors, turning off video equipment and other matters that arise</li> <li>• Strategic and tactical planning</li> </ul>
Summer department chair	5.00	2.00	<p>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.</p> <p>Address any student/faculty problem</p> <p>Prepare for the fall semester.</p>

## 2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
----------	-------	-------	------------

## 2.2d Adequacy and Effectiveness of Staffing

Our classified staff support is 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.

## 2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0001	ALL	06	06	Increase of department administrative assistant to	same	Classified

## 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.
Networking Lead (100%)	Petaluma faculty. 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.
Web/Mobile/Gaming (100%)	Teaches all levels of Web classes. Coordinator for the Web and gaming programs.
New Technologies Lead (45%)	Certified in Photoshop and a licensed commercial drone pilot. Teaches all levels of Photoshop, Intro to 3D, Commercial Drone Imaging, and social media. Coordinates the CS/IT areas. Has been focusing on new technologies such as 3D printing and drones. Also is department chair.
IT Support Lead/IT/Web (100%)	Petaluma faculty. Teaches IT and computer literacy classes.
Literacy/Intro Programming (100%)	Teaches Intro programming in C++ and Computer Literacy
Digital Media Lead(100%)	Teaches Intro to Digital Media, Photoshop, and Video Production
Graphic Design Lead (100%)	Teaches Graphic Design courses. Graphic Design area coordinator.

**2.3b Full-Time and Part-Time Ratios**

<b>Discipline</b>	<b>FTEF Reg</b>	<b>% Reg Load</b>	<b>FTEF Adj</b>	<b>% Adj Load</b>	<b>Description</b>
ALL	8.0000	38.0000	27.0000	62.0000	FY 2019/20

## **2.3c Faculty Within Retirement Range**

As of spring 2021, we have 8 full-time faculty in our department. This is down from 13 full-time faculty in the 2011 - 2012 academic year, and down from a high of 17 ten years ago. We had our last new hires started in Fall 2016. There is still a critical need to replace more of our 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 8 full-time faculty, 3 are 56 or older.

CS is facing major challenges and negative impacts to our programs if not enough faculty members are replaced each year in the coming years. We have already seen 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: Programming Instructor**

We have a tremendously difficult time recruiting adjunct programming instructors, in part due to the minimum qualifications required to teach programming courses. As this is one of our healthiest program areas, we are constantly in danger of canceling full classes due to lack of available staff. Our transfer programming classes are among the most impacted in our department and our inability to offer enough sections to meet student demand is holding students back from being able to transfer.

### **Request #2: Adobe Lead**

Our InDesign program and Illustrator program coordinators have retired. These programs have been struggling due to lack of coordination, updating, and proper marketing that only a full-time faculty member can provide. As the Adobe programs account for a sizeable portion of our overall enrollment, keeping them healthy is vital for the overall health of the department.

### **Request #3: Office Applications/Computer Basics**

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 to keep courses up-do-date with frequent software updates and to maintain parity with industry certifications. In addition, CS 5 (Computer Literacy) is one of our two courses which are both UC-level and meet General Education criteria. This course is overdue for a major overhaul and requires coordination with the several adjunct instructors who teach it.

#### 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, along 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 changes, they've received better job offers in industry and have stopped teaching for us, or have retired. 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. In addition, it is quite difficult to explore the wide-ranging advances in technology in order to determine which areas to go into.

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 several years, and have conducted interviews nearly everysemester, as well as during summer and winter breaks. During 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 9 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 Illustrator classes.

## 2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	Santa Rosa	02	01	Programming Instructor	We are unable to find sufficient numbers of qualified instructors to teach the sections in this very impacted program area.
0002	Santa Rosa	02	01	Adobe Lead	We are unable to maintain the vibrancy of the entire Adobe applications program without a new contract faculty member. The quantity of work and depth of knowledge 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.
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 Rationale for Instructional and Non-Instructional Equipment, Technology, and Software

### Instructional:

- Drones for drone course - replace aging/damaged:
  - Part of our existing drone fleet has been lost due to student accidents and/or equipment failure. These drones need to be replaced
  - Drone technology is rapidly changing. In order to allow the students in the commercial drone imaging and Applied Drone Projects courses access to newer technology, we need to purchase new drones on an ongoing basis.
  - Several batteries for our existing drones have reached the end of their lifespan and have failed. When these batteries near the end of their lives, they become unstable and can be safety hazards. This makes it difficult for our students to get enough flight time. In addition, the batteries for our older drones are no longer being manufactured, so we can not purchase replacements. We now have drones in our program that we can no longer fly, as all of their batteries have failed.
  - If the full amount is not available, a partial amount would still allow us to replace some equipment.
- 
- Safety vests for drone class students: Safety is a primary concern with any drone courses. Safety vests would allow for increased visibility for students conducting drone flight operations.
- 
- RTK GNSS Equipment for drone mapping: RTK equipment will allow the Applied Drone Projects class to use centimeter-level accuracy when learning how to create maps and build 3d models, giving them real-world experience and skills useful for high-paying skilled jobs. Items needed include an EMLID Reach RS+ RTK GNSS Receiver, quality tripod, and ground control point markers.
- 
- Replit.com browser-based integrated development environment and hosting service. Every student in web and game development classes used this to complete and submit their required assignments. Serves approximately 250 students per year.
- 
- Bluehost.com server-side hosting platform. Provides WordPress, SQL, and PHP coding platform to allow web development students to host their project sites.



- Supplies for annual Hackathon event for SRJC students. Event fosters student collaboration across disciplines and prepares them for hackathon opportunities in order to gain visibility and increases their employment opportunities. Also engages community members in web and game development programs.
- 1-time update for instructor Pix4D software: The original purchase of a perpetual license for instructor use was a few years ago, and did not include version upgrades. The software has had multiple improvements since then. This purchase will provide for a one-time upgrade to the latest version.
- Perpetual 25-seat Pix4D lab license - student: We currently only have one copy of the market-leading Pix4D photogrammetry software. This purchase would allow us to install copies on 25 student lab computers. This would allow students to work simultaneously, rather than sharing the one instructor copy. This is a one-time perpetual license.
- Parrot Anafi USA drone for drone projects class: The Applied Drone Projects course will teach students how to conduct professional-level mapping projects - a skill which is in high industry demand. In order to do this with the best accuracy, a professional-level drone is required.
- Instructor laptop replacements: Many of our instructors are teaching applications that require higher-end equipment than the standard equipment setup provided by IT, or require Macintosh computers, which are the standard in their field of expertise. The standard-issue computers offered by IT do not have sufficient specifications to properly run many of the demanding programs we need in order to teach our classes. Our department has been funding upgrades from the basic specifications offered by IT out of our department funds. However, this comes at a cost of around \$2600 per upgrade (on top of what is provided by IT), which is the majority of our department's annual budget.
- Plastic recycling equipment: We would like to fund the building of plastic recycling machines in order to increase sustainability. This would allow us to recycle the spoils of our 3d printers, as well as other post-consumer plastics, into new 3d printing filament. The actual machine building could either be contracted out, or provided as a project for the machine tools and welding programs. Total cost would be around \$1000.

- Lab management software. Instructors teaching in our three computer labs cannot see the screens of the computers students are using. This allows students to stray off of the class tasks by Web surfing, using social media, or checking email. This creates problems in which students fall behind the rest of the class or create distractions for the other students in the class. Software which displays the instructor's screen on the displays of the lab computers would solve this problem and lead to increased student success. In addition, this would increase accessibility by allowing students with vision problems to look at their screens, rather than the projected instructor's screen.
  
- Drone pavilion: We are currently unable to complete the drone class lab activities on rainy days. This prevents us, on average, from completing flying time on 20-25% of our scheduled hours. In addition, on clear days, we still must share field locations with the Athletics department activities. A dedicated drone pavilion would offer many advantages:
  - All-weather flying in order to complete all course activities
  - Possibility of creating a permanent drone racing or drone soccer course in order to further an additional course, club activities, and public facility rental
  - Energy sustainability opportunity of utilizing the roof space for a solar installation
  - Opportunity to partner with local organizations to provide materials for pavilion construction
  - Possible collaboration with other departments in order to tie in pavilion development with existing courses in architecture, construction, and sustainable energy
  - Possibility to add additional resources for athletic department to use pavilion for a course practice field for golf and baseball classes
  - Possible funding opportunity for naming rights
  - Possible integration of drone program into one or more Public Safety programs, as an enclosed flight area would allow us to provide drone courses at the PSTC, which is otherwise in a no-fly zone due to proximity to the Sonoma County Airport
  - Could potentially be built on the Petaluma campus, Santa Rosa campus, or at the PTSC
  
- Accessory items like extra cords for laptops and replacement power supplies for laptops are not the responsibility of IT. Since so many of our faculty use laptops for instruction, these items are required, and need to be paid for from our department funds.

- **Mobile Computer Lab**

The Computer Studies department would like to 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 which could potentially be 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 65,000
- Laptops 10,000
- Solar equipment 2,000
- Network equipment 2,000
- Supplies for engine and interior redo 5,000
- Alarm system 2,000

Possible funding sources:

Donations (bus, supplies, materials)

Crowd sourcing

Grants (HS pathways, CTEA, SWP, etc.)

## Non-Instructional:

- The alarms on the third floor of Maggini Hall have not been functional since the district switched from landline to IP-based phones several years ago. As the floor houses three computer labs, multiple offices, and the 3D/drone lab, having a functional alarm system which is tied into District Police is absolutely necessary. In addition, the current alarm system does not provide any fire notification. This is definitely a personal safety issue.

- More of our students each year are bringing their own laptops to class, but each of our classrooms has only 2-3 electric outlet available to the students. Additional power outlets would provide for more students to be able to bring their personal equipment.
- Many of our office chairs are old and no longer offer the ergonomic benefits they once did. We would like to replace them with new chairs.

## **2.4c Instructional Equipment Requests**

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	ALL	01	01	Drones for drone course - replace aging/damaged	5	\$900.00	\$4,500.00	Donald Laird		Donald Laird
0001	ALL	01	01	Safety vests for drone class students	25	\$20.00	\$500.00	Donald Laird		Donald Laird
0001	ALL	01	01	RTK GNSS Equipment for drone mapping	1	\$980.00	\$980.00	Donald Laird		Donald Laird
0001	ALL	01	01	1-time update for instructor Pix4D software	1	\$199.00	\$199.00	Donald Laird		Donald Laird
0001	ALL	01	01	Batteries for drones	20	\$125.00	\$2,500.00	Donald Laird		Donald Laird
0001	ALL	01	01	Replit.com integrated development environment	1	\$1,000.00	\$1,000.00	Ethan Wilde		Donald Laird
0001	ALL	01	01	Bluehost.com hosting platform	1	\$300.00	\$300.00	Ethan Wilde		Donald Laird
0001	ALL	01	01	Supplies for annual hackathon student event	1	\$1,250.00	\$1,250.00	Ethan Wilde		Donald Laird
0002	ALL	01	01	Perpetual 25-seat Pix4D lab license - student	1	\$6,700.00	\$6,700.00	Donald Laird		Donald Laird
0003	ALL	01	01	Parrot Anafi USA drone for drone projects class	1	\$7,500.00	\$7,500.00	Donald Laird		Donald Laird
0004	ALL	04	01	Instructor laptop replacements	2	\$2,600.00	\$5,200.00	Donald Laird		Donald Laird
0005	ALL	05	03	Plastic recycling equipment	1	\$1,000.00	\$1,000.00	Donald Laird		Donald Laird
0005	ALL	04	01	Drone pavilion	1	\$60,000.00	\$60,000.00	Donald Laird		Donald Laird
0006	ALL	04	01	Computer accessories	1	\$500.00	\$500.00	Donald Laird		Donald Laird
0007	ALL	04	01	Mobile computer lab	1	\$90,000.00	\$90,000.00	Donald Laird		Donald Laird

## 2.4d Non-Instructional Equipment and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	04	07	ITG Bond Funded Working alarm system	0	\$0.00	\$0.00	Donald Laird	All third floor of Maggini	Donald Laird
0003	Santa Rosa	04	01	Classroom electric outlets for students	4	\$500.00	\$2,000.00	Donald Laird	2907, 2913, 2921, 2928	Donald Laird
0004	Santa Rosa	04	07	Replacement office chairs	6	\$400.00	\$2,400.00	Donald Laird		Donald Laird

## 2.4f Instructional/Non-Instructional Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	04	01	Lab license for Pix4D drone mapping software	1	\$6,700.00	\$6,700.00	Donald Laird	Drone lab	Donald Laird
0001	ALL	01	01	Replit.com integrated development environment	1	\$1,000.00	\$1,000.00	Ethan Wilde	all	Donald Laird
0001	ALL	01	01	Bluehost.com hosting platform	1	\$300.00	\$300.00	Ethan Wilde	all	Donald Laird
0002	ALL	04	01	Update for Pix4D instructor license	1	\$199.00	\$199.00	Donald Laird	Drone lab	Donald Laird
0003	Santa Rosa	04	01	Lab management software for computer labs	1	\$5,000.00	\$5,000.00	Donald Laird	2920, 2923, and 2926	Donald Laird

## 2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description
0002	Santa Rosa	06	07	Urgent	Maggini Hall	Third floor	\$0.00	Working alarm system



## **2.5b Analysis of Existing Facilities**

Classroom sizes vary greatly. This causes difficulty in scheduling. A remodel of the 3<sup>rd</sup> floor of Maggini Hall would allow for the creation of consistently-sized classrooms.

We do not have enough computer labs. It would be more effective to teach more of our classes in hands-on format, but with only three labs, we do not have the capacity to do this. Modular furniture which converts a room between lecture and lab would take care of this problem.

We have need for additional storage areas.

## **3.1 Develop Financial Resources**

We apply for CTEA, IELM, and SWP grants whenever possible in order to leverage available funding sources.

Our Foundation account has less than \$1 in it – we would like to find ways to grow the account in order to supplement our low budget.

## **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 on-line courses makes college more accessible to those with limited mobility.

### **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.

The lack of usable alarms creates a safety hazard. There is no theft protection or fire notification to the police department.

The current lock status is unsafe. There are too many unaccounted-for keys for our rooms.

### **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.

We would like to be able to recycle plastic into usable class materials for our 3d printing courses.

### **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 assessment	next 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**

Type	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
Course	cs 105b More Mac Intro	N/A	N/A	N/A
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
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
Course	cs 5 Computer Literacy	Fall 2009	Fall 2009	Fall 2009

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
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 50.31 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

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
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
Course	cs 65.11 MS Office Suite	Fall 2011	Fall 2011	Fall 2011
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 2011	Fall 2011	Fall 2011
Course	cs 72.11a Adobe InDesign 1	Fall 2010	Fall 2010	Fall 2010
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
Course	cs 74.11 Intro to Digital Medi	Spring 2012	Spring 2012	Spring 2012
Course	cs 74.21a Digital Video Prod 1	N/A	N/A	N/A
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

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
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



Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
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		X														
CIS 101A		X		X												
CS 10		X									X					
CS 101B		X		X												
CS 50.32					X			X	X					X		
CS 70.11A/B, 70.12, 70.13		X										X				
CS 71.11/A/B/C		X										X				
CS 72.11A/B/C		X										X				
CS 82.21A/B/C/D		X									X			X		
CS 84.11		X						X	X	X				X		

## 4.2b Narrative (Optional)

## 5.0 Performance Measures

Not Applicable

### 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 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, budgets permitting, so students are able to complete their certificates in a reasonable amount of time.

#### 5.1 Student Headcounts The number of students enrolled in each Discipline at first census (duplicated headcount).

##### Santa Rosa Campus

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0	0	0	0	0	0	0	0	0
Computer Studies	740	2120	2114	658	1893	1849	634	1844	1844
<b>ALL Disciplines</b>	<b>740</b>	<b>2120</b>	<b>2114</b>	<b>658</b>	<b>1893</b>	<b>1849</b>	<b>634</b>	<b>1844</b>	<b>1844</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0	0	0	0	0	0	0	0	0
Computer Studies	0	364	265	0	236	191	0	244	191
<b>ALL Disciplines</b>	<b>0</b>	<b>364</b>	<b>265</b>	<b>0</b>	<b>236</b>	<b>191</b>	<b>0</b>	<b>244</b>	<b>191</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0	0	0	0	0	0	0	0	0
Computer Studies	0	0	35	0	0	17	0	0	0
<b>ALL Disciplines</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

<b>Discipline</b>	<b>X2015</b>	<b>F2015</b>	<b>S2016</b>	<b>X2016</b>	<b>F2016</b>	<b>S2017</b>	<b>X2017</b>	<b>F2017</b>	<b>S2018</b>
Computer & Information Sciences	0	0	0	0	0	0	0	0	0
Computer Studies	740	2484	2414	658	2129	2057	634	2088	2057
<b>ALL Disciplines</b>	<b>740</b>	<b>2484</b>	<b>2414</b>	<b>658</b>	<b>2129</b>	<b>2057</b>	<b>634</b>	<b>2088</b>	<b>2057</b>

## 5.2a Enrollment Efficiency

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**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	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	84.2%	87.3%	88.0%	76.6%	90.5%	87.1%	80.1%	88.2%	85.0%
<b>ALL Disciplines</b>	<b>84.2%</b>	<b>87.3%</b>	<b>88.0%</b>	<b>76.6%</b>	<b>90.5%</b>	<b>87.1%</b>	<b>80.1%</b>	<b>88.2%</b>	<b>85.0%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	79.1%	78.3%	0.0%	76.6%	86.8%	0.0%	78.3%	68.0%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>79.1%</b>	<b>78.3%</b>	<b>0.0%</b>	<b>76.6%</b>	<b>86.8%</b>	<b>0.0%</b>	<b>78.3%</b>	<b>68.0%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	0.0%	23.3%	0.0%	0.0%	18.9%	0.0%	0.0%	10.0%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>0.0%</b>	<b>23.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>18.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>10.0%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	84.2%	86.0%	83.5%	76.6%	88.7%	84.6%	80.1%	87.2%	81.0%
<b>ALL Disciplines</b>	<b>84.2%</b>	<b>86.0%</b>	<b>83.5%</b>	<b>76.6%</b>	<b>88.7%</b>	<b>84.6%</b>	<b>80.1%</b>	<b>87.2%</b>	<b>81.0%</b>



## 5.2b Average Class Size

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

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

### Santa Rosa Campus

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	25.8	26.4	26.3	23.4	27.7	28.9	24.4	29.6	29.6
<b>ALL Disciplines</b>	<b>25.8</b>	<b>26.4</b>	<b>26.3</b>	<b>23.4</b>	<b>27.7</b>	<b>28.9</b>	<b>24.4</b>	<b>29.6</b>	<b>29.6</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	0.0	21.4	21.0	0.0	19.7	23.9	0.0	20.8	20.8
<b>ALL Disciplines</b>	<b>0.0</b>	<b>21.4</b>	<b>21.0</b>	<b>0.0</b>	<b>19.7</b>	<b>23.9</b>	<b>0.0</b>	<b>20.8</b>	<b>20.8</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	0.0	0.0	4.4	0.0	0.0	3.4	0.0	0.0	0.0
<b>ALL Disciplines</b>	<b>0.0</b>	<b>0.0</b>	<b>4.4</b>	<b>0.0</b>	<b>0.0</b>	<b>3.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer Studies	25.8	25.5	23.9	23.4	26.5	26.7	24.4	28.5	28.5
<b>ALL Disciplines</b>	<b>25.8</b>	<b>25.5</b>	<b>23.9</b>	<b>23.4</b>	<b>26.5</b>	<b>26.7</b>	<b>24.4</b>	<b>28.5</b>	<b>28.5</b>

## 5.3 Instructional Productivity

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**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		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	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		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	68.65	195.65	200.86	63.26	180.39	180.80	66.51	169.61	165.2
	FTEF	4.97	13.46	14.52	5.28	12.08	12.04	5.20	10.91	10.9
	Ratio	13.81	14.53	13.83	11.99	14.93	15.01	12.78	15.54	15.1

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

Computer & Information Sciences		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	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		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	0.00	44.34	30.26	0.00	29.80	24.20	0.00	19.35	17.3
	FTEF	0.00	4.14	2.52	0.00	2.98	1.95	0.00	1.87	1.6
	Ratio	0.00	10.72	12.03	0.00	10.00	12.40	0.00	10.37	10.5

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

Computer & Information Sciences		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	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		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	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

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

Computer & Information Sciences		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	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		X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
	FTEF	68.65	239.99	231.12	63.26	210.19	204.99	66.51	188.96	182.5
	FTEF	4.97	17.60	17.04	5.28	15.06	14.00	5.20	12.78	12.9
	Ratio	13.81	13.64	13.57	11.99	13.96	14.65	12.78	14.79	14.5





## 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
<b>TOTALS</b>	<b>129</b>	<b>129</b>	<b>120</b>	<b>151</b>	<b>135</b>	<b>171</b>	<b>120</b>	<b>154</b>

## 5.6 Student Success

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**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	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	66.8%	66.0%	64.3%	64.7%	66.0%	66.9%	70.1%	66.3%	64.3%
<b>ALL Disciplines</b>	<b>66.8%</b>	<b>66.0%</b>	<b>64.3%</b>	<b>64.7%</b>	<b>66.0%</b>	<b>66.9%</b>	<b>70.1%</b>	<b>66.3%</b>	<b>64.3%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	74.5%	74.0%	0.0%	76.7%	79.1%	0.0%	75.2%	75.2%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>74.5%</b>	<b>74.0%</b>	<b>0.0%</b>	<b>76.7%</b>	<b>79.1%</b>	<b>0.0%</b>	<b>75.2%</b>	<b>75.2%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	66.8%	67.2%	65.9%	64.7%	67.2%	68.3%	70.1%	67.4%	65.2%
<b>ALL Disciplines</b>	<b>66.8%</b>	<b>67.2%</b>	<b>65.9%</b>	<b>64.7%</b>	<b>67.2%</b>	<b>68.3%</b>	<b>70.1%</b>	<b>67.4%</b>	<b>65.2%</b>

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**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	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	64.8%	63.2%	61.4%	63.2%	62.9%	65.2%	69.1%	63.6%	61.4%
<b>ALL Disciplines</b>	<b>64.8%</b>	<b>63.2%</b>	<b>61.4%</b>	<b>63.2%</b>	<b>62.9%</b>	<b>65.2%</b>	<b>69.1%</b>	<b>63.6%</b>	<b>61.4%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	72.8%	71.7%	0.0%	74.2%	78.0%	0.0%	73.1%	74.2%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>72.8%</b>	<b>71.7%</b>	<b>0.0%</b>	<b>74.2%</b>	<b>78.0%</b>	<b>0.0%</b>	<b>73.1%</b>	<b>74.2%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
<b>ALL Disciplines</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Computer Studies	64.8%	64.6%	63.0%	63.2%	64.1%	66.7%	69.1%	64.7%	62.8%
<b>ALL Disciplines</b>	<b>64.8%</b>	<b>64.6%</b>	<b>63.0%</b>	<b>63.2%</b>	<b>64.1%</b>	<b>66.7%</b>	<b>69.1%</b>	<b>64.7%</b>	<b>62.8%</b>

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**5.6c Grade Point Average** The average GPA in each Discipline (UnitsTotal / GradePoints).

### Santa Rosa Campus

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer Studies	2.60	2.47	2.46	2.46	2.42	2.61	2.61	2.53	2.53
<b>ALL Disciplines</b>	<b>2.60</b>	<b>2.47</b>	<b>2.46</b>	<b>2.46</b>	<b>2.42</b>	<b>2.61</b>	<b>2.61</b>	<b>2.53</b>	<b>2.53</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer Studies	0.00	2.65	2.66	0.00	2.67	2.68	0.00	2.78	2.78
<b>ALL Disciplines</b>	<b>0.00</b>	<b>2.65</b>	<b>2.66</b>	<b>0.00</b>	<b>2.67</b>	<b>2.68</b>	<b>0.00</b>	<b>2.78</b>	<b>2.78</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer Studies	0.00	0.00	3.17	0.00	0.00	2.97	0.00	0.00	3.17
<b>ALL Disciplines</b>	<b>0.00</b>	<b>0.00</b>	<b>3.17</b>	<b>0.00</b>	<b>0.00</b>	<b>2.97</b>	<b>0.00</b>	<b>0.00</b>	<b>3.17</b>

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

Discipline	X2015	F2015	S2016	X2016	F2016	S2017	X2017	F2017	S2018
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer Studies	2.60	2.50	2.50	2.46	2.46	2.62	2.61	2.57	2.57
<b>ALL Disciplines</b>	<b>2.60</b>	<b>2.50</b>	<b>2.50</b>	<b>2.46</b>	<b>2.46</b>	<b>2.62</b>	<b>2.61</b>	<b>2.57</b>	<b>2.57</b>

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.

## 5.7 Student Access

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**5.7a Students Served - by Ethnicity** The number of students in each Discipline at first census broken down by ethnicity (duplicated headcount).

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

Computer & Information Sciences	Ethnicity	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	White	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Asian	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Black	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Native American	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Pacific Islander	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Filipino	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Other Non-White	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Decline to state	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	<b>ALL Ethnicities</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>

Computer Studies	Ethnicity	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	White	2766	59.3%	2198	54.7%	2026	53.3%	1867	47.2%
	Asian	214	4.6%	245	6.1%	186	4.9%	151	3.9%
	Black	114	2.4%	93	2.3%	97	2.6%	101	2.6%
	Hispanic	1137	24.4%	1016	25.3%	1020	26.8%	1020	26.8%
	Native American	44	0.9%	28	0.7%	13	0.3%	13	0.3%
	Pacific Islander	6	0.1%	3	0.1%	6	0.2%	6	0.2%
	Filipino	55	1.2%	24	0.6%	45	1.2%	45	1.2%
	Other Non-White	278	6.0%	210	5.2%	179	4.7%	179	4.7%
	Decline to state	53	1.1%	204	5.1%	229	6.0%	229	6.0%
	<b>ALL Ethnicities</b>	<b>4667</b>	<b>100.0%</b>	<b>4021</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**5.7b Students Served - by Gender** The number of students in each Discipline at first census broken down by gender (duplicated headcount).

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

Computer & Information Sciences	Gender	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	Male	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Female	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	<b>ALL Genders</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>

Computer Studies	Gender	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	Male	2435	52.2%	2218	55.2%	2094	55.1%	2094	55.1%
	Female	2158	46.2%	1697	42.2%	1587	41.8%	1587	41.8%
	Unknown	74	1.6%	106	2.6%	120	3.2%	120	3.2%
	<b>ALL Genders</b>	<b>4667</b>	<b>100.0%</b>	<b>4021</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>

# Santa Rosa Junior College - Program Unit Review

## Computer Studies - FY 2017-18 (plus current FY Summer and Fall)

**5.7c Students Served - by Age** The number of students in each Discipline at first census broken down by age (duplicated headcount).

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

Computer & Information Sciences	Age Range	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	0 thru 18	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	19 and 20	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	21 thru 25	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	26 thru 30	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	31 thru 35	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	36 thru 40	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	41 thru 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	46 thru 50	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	51 thru 60	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	61 plus	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	<b>ALL Ages</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>	<b>0</b>	<b>100.0%</b>

Computer Studies	Age Range	2015-16	Percent	2016-17	Percent	2017-18	Percent	2018-19	Percent
	0 thru 18	442	9.5%	426	10.6%	423	11.1%	423	11.1%
	19 and 20	691	14.8%	647	16.1%	603	15.9%	603	15.9%
	21 thru 25	1223	26.2%	1017	25.3%	981	25.8%	981	25.8%
	26 thru 30	706	15.1%	593	14.7%	550	14.5%	550	14.5%
	31 thru 35	362	7.8%	339	8.4%	350	9.2%	350	9.2%
	36 thru 40	243	5.2%	239	5.9%	233	6.1%	233	6.1%
	41 thru 45	223	4.8%	190	4.7%	154	4.1%	154	4.1%
	46 thru 50	250	5.4%	190	4.7%	157	4.1%	157	4.1%
	51 thru 60	382	8.2%	265	6.6%	232	6.1%	232	6.1%
	61 plus	145	3.1%	115	2.9%	118	3.1%	118	3.1%
	<b>ALL Ages</b>	<b>4667</b>	<b>100.0%</b>	<b>4021</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>	<b>3801</b>	<b>100.0%</b>

## 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
<b>Healdsburg, Healdsburg Unified</b>				
Information Tech	CS 80.15	IT Essentials 1	4.0	IT Essentials
Information Tech	CS 82.21A	Cisco Netwkg 1 (Exploration 1)	4.0	Cisco Discovery 1 + Discovery 2
<b>Santa Rosa, Santa Rosa City Schools</b>				
Information Tech	CS 80.15	IT Essentials 1	4.0	IT Essentials
Information Tech	CS 82.21A	Cisco Netwkg 1 (Exploration 1)	4.0	Cisco Discovery 1 + Discovery 2
<b><i>In Development 2009-2010 (awaiting signatures and/or Credit by Exam approval): High Schools Participating:</i></b>				
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 1)	4.0	Middletown High School

## 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 Projections				
Labor Market Information Division Published: February 2015			Santa Rosa Metropolitan Statistical Area (Sonoma County)						
SOC Code*	Occupational Title	Estimated Employment 2012**	Projected Employment 2022	Numeric Change 2012-2022 [1]	Percent Change 2012-2022	Annual Average Percent Change	Average Annual Job Openings		
							New Jobs [2]	Replacement Needs [3]	Total Job [4]
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>196,800</b>	<b>229,900</b>	<b>33,100</b>	<b>16.8%</b>	<b>1.7%</b>	<b>3,504</b>	<b>4,638</b>	<b>8,142</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>15,460</b>	<b>17,200</b>	<b>1,740</b>	<b>11.3%</b>	<b>1.1%</b>	<b>224</b>	<b>298</b>	<b>522</b>
11-3021	Computer and Information Systems Managers	220	290	70	31.8%	3.2%	7	3	10
<b>15-0000</b>	<b>Computer and Mathematical Occupations</b>	<b>2,610</b>	<b>3,440</b>	<b>830</b>	<b>31.8%</b>	<b>3.2%</b>	<b>83</b>	<b>41</b>	<b>124</b>
15-1100	Computer Occupations	2,550	3,350	800	31.4%	3.1%	80	40	120
15-1121	Computer Systems Analysts	200	290	90	45.0%	4.5%	9	3	12
15-1122	Information Security Analysts	70	120	50	71.4%	7.1%	5	1	6
15-1131	Computer Programmers	150	170	20	13.3%	1.3%	3	4	7
15-1132	Software Developers, Applications	460	570	110	23.9%	2.4%	10	6	16
15-1133	Software Developers, Systems Software	290	390	100	34.5%	3.4%	9	4	13
15-1134	Web Developers	350	490	140	40.0%	4.0%	14	6	20
15-1141	Database Administrators	60	80	20	33.3%	3.3%	2	1	3
15-1142	Network and Computer Systems Administrators	270	320	50	18.5%	1.9%	6	4	10
15-1151	Computer User Support Specialists	380	510	130	34.2%	3.4%	13	6	19
15-1152	Computer Network Support Specialists	230	290	60	26.1%	2.6%	6	4	10
15-1199	Computer Occupations, All Other	60	70	10	16.7%	1.7%	1	1	2
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, and Media Occupations</b>	<b>3,150</b>	<b>3,550</b>	<b>400</b>	<b>12.7%</b>	<b>1.3%</b>	<b>46</b>	<b>76</b>	<b>122</b>
27-1024	Graphic Designers	350	420	70	20.0%	2.0%	7	9	16
27-4000	Media and Communication Equipment Workers	290	320	30	10.3%	1.0%	4	4	8
27-4021	Photographers	100	100	0	0.0%	0.0%	1	1	2
<b>43-0000</b>	<b>Office and Administrative Support Occupations</b>	<b>27,330</b>	<b>30,610</b>	<b>3,280</b>	<b>12.0%</b>	<b>1.2%</b>	<b>376</b>	<b>594</b>	<b>970</b>

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
43-4000	Information and Record Clerks	4,920	5,620	700	14.2%	1.4%	71	131
43-4199	Information and Record Clerks, All Other	180	210	30	16.7%	1.7%	3	4
43-6000	Secretaries and Administrative Assistants	5,070	5,890	820	16.2%	1.6%	82	61
43-6011	Executive Secretaries and Executive Administrative Assistants	1,200	1,280	80	6.7%	0.7%	8	14
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,740	3,290	550	20.1%	2.0%	55	33
43-9000	Other Office and Administrative Support Workers	4,820	5,050	230	4.8%	0.5%	48	102
43-9021	Data Entry Keyers	250	190	-60	-24.0%	-2.4%	0	3
43-9022	Word Processors and Typists	200	150	-50	-25.0%	-2.5%	0	1
43-9061	Office Clerks, General	3,230	3,670	440	13.6%	1.4%	44	68
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.

\*\* Data sources: U.S. Bureau of Labor Statistics' Current Employment Statistics (CES) March 2013 benchmark, Quarterly (QCEW) industry employment, and Occupational Employment Statistics (OES) data. Occupational employment projections include self-employed, unpaid family workers, private household workers, and farm workers. N/A - Information is not available.

Occupations with employment below 50 in 2012 are excluded.

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 occupational 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 reflects that 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 is negative, new 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 occupation.

[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 workers earn wages above the median wage. The wages are from 2014 first quarter and do not include self-employed workers.

[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 more information, see [http://www.bls.gov/emp/ep\\_education\\_training\\_system.htm](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	M	Goal	Objective	Time Frame	Progress to Date
------	----------	----	---	------	-----------	------------	------------------

### 6.2b PRPP Editor Feedback - Optional

—

### 6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
------	----------	----	---	------	-----------	------------	--------------------