Santa Rosa Junior College

Program Resource Planning Process

Computer Studies 2024

1.1a Mission

Our mission is to provide a sound foundation of knowledge and problem-solving skills in computer studies to a diverse community, leading to vocational certificates, degree programs, and university transfer. The major areas of curriculum are Computer Science & Programming, Web, Office Applications, Graphics & Digital media, Graphic Design, and Information Technology (IT). New courses are implemented as industry or employment demands change. Courses are offered online and face to face, full semester and short courses and in a variety of locations.

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 Cyber Security, 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 or Data 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 9:30am – 2:30pm Monday, Tuesday, and Wednesday. 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

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21

2.1 Fiscal Year Expenditures

Santa Rosa Campus

Expenditure Category	Unrestricted Funds	Change from 2019-20	Restricted Funds	Change from 2019-20	Total	Change from 2019-20
Faculty payroll	$515,692.70	-4.20%	$0.00	0.00%	$515,692.70	-4.20%
Adjunct payroll	$64,503.68	-61.92%	$0.00	-100.00%	$64,503.68	-62.18%
Classified payroll	$36,583.32	0.32%	$0.00	0.00%	$36,583.32	0.32%
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)	$72,720.00	0.30%	$0.00	0.00%	$72,720.00	0.30%
Benefits (3000's)	$245,483.29	-9.68%	$0.00	-100.00%	$245,483.29	-9.76%
Supplies (4000's)	$5,158.82	390.36%	$0.00	-100.00%	$5,158.82	276.75%
Services (5000's)	$0.06	-99.92%	$0.00	0.00%	$0.06	-99.92%
Equipment (6000's)	$0.00	0.00%	$1,650.00	-88.97%	$1,650.00	-88.97%
Total Expenditures	**$940,141.87**	**-13.72%**	**$1,650.00**	**-90.10%**	**$941,791.87**	**-14.87%**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Expenditure Category	Unrestricted Funds	Change from 2019-20	Restricted Funds	Change from 2019-20	Total	Change from 2019-20
Faculty payroll	$192,175.30	-14.02%	$0.00	0.00%	$192,175.30	-14.02%
Adjunct payroll	$17,677.55	-48.00%	$1,512.21	-85.92%	$19,189.76	-57.10%
Classified payroll	$0.00	0.00%	$0.00	0.00%	$0.00	0.00%
STNC payroll	$0.00	0.00%	$0.00	-100.00%	$0.00	-100.00%
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)	$78,484.62	-14.47%	$93.28	-96.79%	$78,577.90	-17.00%
Supplies (4000's)	$0.00	0.00%	$0.00	-100.00%	$0.00	-100.00%
Services (5000's)	$0.00	0.00%	$0.00	-100.00%	$0.00	-100.00%
Equipment (6000's)	$0.00	0.00%	$147,691.10	320.67%	$147,691.10	320.67%
Total Expenditures	**$288,337.47**	**-17.45%**	**$149,296.59**	**81.06%**	**$437,634.06**	**1.37%**

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

Expenditure Category	Unrestricted Funds	Change from 2019-20	Restricted Funds	Change from 2019-20	Total	Change from 2019-20
Faculty payroll	$0.00	0.00%	$0.00	0.00%	$0.00	0.00%
Adjunct payroll	$537,349.07	26.99%	$0.00	0.00%	$537,349.07	26.99%
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)	$68,613.70	18.00%	$0.00	0.00%	$68,613.70	18.00%
Supplies (4000's)	$0.00	0.00%	$0.00	0.00%	$0.00	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	**$605,962.77**	**25.91%**	**$0.00**	**0.00%**	**$605,962.77**	**25.91%**

Expenditure Totals

Expenditure Category	Amount	Change from 2019-20	District Total	% of District Total
Total Expenditures	$1,985,388.70	-1.68%	$163,677,860.78	1.21%
Total Faculty Payroll	$1,328,910.51	-5.09%	$49,270,893.82	2.70%
Total Classified Payroll	$36,583.32	0.32%	$20,601,791.75	0.18%
Total Management Payroll	$72,720.00	0.30%	$9,552,448.70	0.76%
Total Salary/Benefits Costs	$1,830,888.72	-5.47%	$107,857,188.83	1.70%
Total Non-Personnel Costs	$154,499.98	87.31%	$13,207,623.21	1.17%

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 faculty for conferences, certification tests, hosting application services, maintenance on specialized equipment (Drones)
- Minor classroom equipment such as computer peripherals, hacking tools, specialized licenses.
- Budget needs:
- An increase in the supplies budget to provide more minor equipment such as the OWL Labs systems to support synchronous online instruction, field trips for the Computer Literacy course.
- 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
0004	Santa Rosa	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, place online ads, and attend job fairs.

2.2a Current Classified 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 and take minutes. • 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 • Collect and file course syllabi, proof syllabi for required content, send regular reminders to instructors • Monitor Computer Studies and Graphic Design budgets • 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 SIS 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. This is not an exhaustive list, but gives a good sense of what the job currently entails. • Oversee the development of the schedule • Oversee department hiring • Staffing classes • Overseeing staff evaluations • Being aware of new policies and procedures • Answering student questions • Mediating student complaints • Counseling students • Interface with multiple deans and the department • Oversee the department budgets • Supervise the classified staff • Prepare annual program review • Complete the PRPP process • Oversee, develop and support curriculum through the curriculum process • Participate in curriculum tech review committee • Attend DCC/IM and DCC meetings • Oversee absences/NOA forms • Solicit and track CTEA funding • Advocate for department staff • Set up adjunct faculty meetings • Communicate with the department including communicating and explaining policies, procedures, rules, regulations and requests • Develop department meeting activities • Oversee advisory committee meetings • 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

Position	Hr/Wk	Mo/Yr	Job Duties
			• Orient and evaluate new adjunct faculty. • Keep in communication with IT 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
Summer department chair	5.00	2.00	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

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	Administrative Assistant	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.
Cyber Security/Networking Lead (100%)	Petaluma faculty. Teaches and develops Cisco, Security and other Networking classes and programs. Anchor person for relationship with Cisco. Developing all new and revised networking curriculum. Training new Cisco 1, 2, 3 associate and fulltime instructors.
Web/Mobile/Gaming (100%)	Teaches all levels of Web classes. Coordinator for the Web and gaming programs.
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(60%)	Teaches Intro to Digital Media, Photoshop, and Video Production
Graphic Design Lead (100%)	Teaches Graphic Design courses. Graphic Design area coordinator.
Digital/Social Media & UI/UX Apps Lead (100%)	Probationary faculty, resigned Sprng 2024. Hiring search replacement Spring 2024. Teaches Adobe, Compter basics, UI/UX, and Graphic Design courses.
Computer Science/Programming (100%)	Probationart faculty, started Fall 2023.

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
ALL	8.4000	62.2500	6.2000	37.7500	FY 2024

2.3c Faculty Within Retirement Range

As of spring 2024, we have 9 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 hired a new programming instructor who started Fall 2023.
The request to replace our Dec. 2023 full time retirement was denied.
The tenure track faculty we hired in Fall 2022 elected to withdraw from the track. We are in the search process to replace Spring 2024.

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, 4 are 56 or older.

Also included in the Petaluma PRPP is the need to hire another FTF to staff the Cyber Security program. As a 2-year major/certificate program, it requires 2 FTF to teach all the classes there. Associate faculty are generally unwilling to teach on the Petaluma campus in person for a variety of reasons.

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

Computer Studies (CS) Department Fulltime Faculty (FtF) Staffing Requests/Rationale 2024

The Computer Studies Department (CSD) is requesting two (2) new positions in different technical arenas and locations. One of them is in Petaluma for supporting the Cyber Security major. The one in Santa Rosa for someone with a Computer Science masters to conduct our Artificial Intelligence (AI) and Data Science (DS) courses. Both of these positions are for dynamic, innovative, and cutting edge disciplines and careers. The programs these instructors will lead are vital to the ongoing rehabilitation of the SRJC image within the Sonoma County community and afford our students, especially the traditionally underserved, access to learning opportunities and high-earning careers they would otherwise not obtain.

AI/DS POSITION
We need an instructor to teach and develop our new courses in Artificial Intelligence (AI) and Data Science (DS). This position has minimum qualifications of a masters in Computer Science,

which would also allow this instructor to help with our always-full and hard-to-staff computer programming courses in the UC/CSU transfer major. We have had to cancel full programming classes in the past due to lack of instructors and our current FtF at 140% loads.

Artificial Intelligence (AI) is an umbrella term for computer software that mimics human cognition in order to perform complex tasks and learn from them. Machine learning (ML) is a subfield of AI that uses algorithms trained on data to produce adaptable models that can perform a variety of complex tasks. See: https://cloud.google.com/learn/artificial-intelligence-vs-machine-learning

AI & Society: AI is transforming our relationships with technology and with others, our senses of self, as well as our approaches to health care, banking, democracy, and the courts. But while AI in its many forms has become ubiquitous and its benefits to society and the individual have grown, its impacts are varied. Concerns about its unintended effects and misuses have become paramount in conversations about the successful integration of AI in society. This volume explores the many facets of artificial intelligence: its technology, its potential futures, its effects on labor and the economy, its relationship with inequalities, its role in law and governance, its challenges to national security, and what it says about us as humans. *

*From: https://www.amacad.org/daedalus/ai-society

AI and ML are currently covered in one (1) chapter within our Virtualization and Cloud Computing class, CS 181.11, and is mentioned in our Computer Literacy class, CS 5. We could easily have two 3-unit AI classes in CS alone, not to mention the tie-ins to other departments' coverage of impact of AI in society and education.

A new CSD course, Fundamentals of Data Science (Data 8 at UC Berkeley), is going through our Curriculum approval process now (as if Oct. 12, 2023). The College of Computing, Data Science and Society at UC Berkeley is the first new college there in 50 years. Their foundation course, Data 8, averages 1,300 per semester! It is the most popular course on campus. We could easily have additional DS classes here mapping to UC Berkeley's undergraduate programs. This would allow us to develop an AS transfer major for Data Science using the CSD DS classes and SRJC's existing Math courses. See: https://data.berkeley.edu/academics/undergraduate-education

Robust AI and DS classes can and will allow the CSD to collaborate with several other SRJC departments (and colleges in our region) wanting to incorporate these topics into their programs. We foresee working with: Health Sciences, the Police Academy, Behavioral Sciences, Social Sciences, Mathematics, Earth and Space Sciences, and others. There are no other such courses or programs in our local area.

2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	Santa Rosa	02	01	Artificial Intelligence/Data Science Instructor	We are unable to find sufficient numbers of qualified instructors to teach the courses in our department. Retirement replacement.
0001	Petaluma	02	01	Cyber Security Instructor	Program is a 2-year major, requiring 2 FTF to conduct courses in a timely sequence.

2.4b Rationale for Instructional and Non-Instructional Equipment, Technology, and Software

Instructional:

Raspberry Pi 5 kits
These are used in CS 12, assembly language programming, as a platform for students to practice and demonstrate on modern microprocessors.
Cost $150 per kit
Use 10 kits per year for students unable to provide their own.

iPad Minis (updated2/2023)
Most of our drone fleet requires screen devices to be connected to their controllers. These are necessary to view the camera and data feed from the drone. We currently use iPod Touches for this task, but their batteries are all reaching end-of-life. Apple recently discontinued the iPod Touch, so we are unable to replace them. We will need to use iPad Minis for this task to replace the iPods as they fail. We have received 4 so far, but are in need of 3-4 more.

Drones for drone program- replace aging/damaged (updated 2/2023):

- 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.
- Request is for 4x DJI Air2S Fly More Combo drones - each combo includes the Air2S drone, 3 batteries, and a charging hub.
- If the full amount is not available, a partial amount would still allow us to replace some equipment.

Batteries for Yuneec H520 drone (updated 2/2023):

- The Computer Studies department's Yuneec H520 drone, one of the department's most expensive, is grounded due to all of its batteries having reached their end of life. Request is for 2x YUNEEC H520 - 5250MAH 4S/15.2V (79.8WH) LITHIUM POLYMER BATTERY to put this valuable resource back into use. (https://www.vertigodrones.com/Yuneec-H520--5250mAh%C2%A04s152V%C2%A0798Wh%C2%A0Lithium%C2%A0Polymer%C2%A0Battery_p_562.html)

Batteries and charger for DJI Phantom 3 drone (updated 2/2023):

- All of our Phantom 3 drone's batteries have reached end-of-life.
- Request is for 4 **Powerextra 15.2V 4480mAh LiPo Intelligent Flight Battery Replacement Battery for DJI Phantom** ($75 each) and Venom Group 4-Bay Battery Charger for DJI Phantom 3 charger ($190). (https://www.newegg.com/powerextra-dji-phantom-3-professional-phantom-3-advanced/p/382-001A-00001?Description=dji%20phantom%203%20battery&cm_re=dji_phantom%203%20battery-_-9SIABFB5Z58727-_-Product and https://www.bhphotovideo.com/c/product/1249610-REG/venom_group_0694_pro_dji_phantom_3.html)

Drone program safety 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.
- Request is for 30 Radians SV2Z Economy Type R Class 2 Mesh Safety Vest with Zipper - Orange with custom "SRJC Drone Studies" printing on back. Pack of 30 is $230 (https://www.fullsource.com/radians-sv2zom/)

Software for Web Development program:

- 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 annuial Hackathon event for SRJC students. Event fosters student collaboration across disciplines and prepares them for hackathon opportunites in order to gain visibilty and increases their employment opportunites. Also engages community members in web and game development programs.

Drone instructor software:

- 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 ($199+tax)

- 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.

- 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.

Non-Instructional:

- The alarms on the third floor of Maggini Hall were removed as part of the switch to electronic locks. 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	Replit.com integrated development environment	1	$1,000.00	$1,000.00	Ethan Wilde		Michael McKeever
0001	ALL	01	01	Bluehost.com hosting platform	1	$300.00	$300.00	Ethan Wilde		Michael McKeever
0001	ALL	01	01	Supplies for annual hackathon student event	1	$1,250.00	$1,250.00	Ethan Wilde		Michael McKeever
0001	ALL	01	01	raspberry pi 5 kits	10	$150.00	$1,500.00	Michael McKeever		Michael McKeever
0002	ALL	01	01	1-time update for instructor Pix4D software	1	$220.00	$220.00	Donald Laird		Donald Laird
0002	ALL	01	01	Batteries for Yuneec H520 drone	2	$250.00	$500.00	Donald Laird		Donald Laird
0003	ALL	04	01	Instructor laptop replacements	2	$2,600.00	$5,200.00	Donald Laird		Donald Laird
0003	ALL	01	01	Safety vest bulk order for drone class students	1	$230.00	$500.00	Donald Laird		Donald Laird
0003	ALL	01	01	Batteries and charger for Phantom 3 drone	1	$550.00	$550.00	Donald Laird		Donald Laird
0003	ALL	04	01	iPad Minis for drone program	7	$494.00	$3,458.00	Donald Laird		Donald Laird
0005	ALL	01	01	Drones for drone program - replace aging/damaged	4	$1,400.00	$5,600.00	Donald Laird		Donald Laird
0005	ALL	05	03	Plastic recycling equipment 3D printed items	1	$1,500.00	$1,500.00	Donald Laird		Donald Laird
0006	ALL	04	01	Computer accessories incl desk power supplies	1	$500.00	$500.00	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	01	Classroom electric outlets for students	4	$500.00	$2,000.00	Donald Laird	2907, 2913, 2921, 2928	Donald Laird
0002	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	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 3rd 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 Academic Quality

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 Student Success and Support

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 Responsiveness to Our Community

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 Campus Climate and Culture

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

Course	Course Title	Faculty Assigned	Semester Completed	Next Assessmer
CS 5	COMPUTER LITERACY			

CS 10A	INTRO TO PROGRAMMING
CS 10B	PROGRAMMING CONCEPTS 1
CS 10C	PROGRAMMING CONCEPTS 2
CS 12	ASSEMBLY LANG PROG
CS 17.11	JAVA PROGRAMMING
CS 40	HISTORY OF GAMES
CS 41	GAME DESIGN
CS 42	INTRO TO GAME CODING
CS 50A	WEB DEVELOPMENT 1
CS 50B	WEB DEVELOPMENT 2
CS 50C	WEB DEVELOPMENT 3
CS 50.33	WEB PROJECTS
CS 55.13	SERVER-SIDE WEB DEV
CS 55.14	MOBILE HYBRID APP DESIGN
CS 57.11	SOCIAL MEDIA AND SOCIETY
CS 57.12	APPLIED SOCIAL MEDIA
CS 60.1A (CS 60.11A)	MS WORD, PART 1
CS 60.1B (CS 60.11B)	MS WORD, PART 2
CS 61.1A (CS 61.11A)	MS EXCEL, PART 1
CS 61.1B (CS 61.11B)	MS EXCEL, PART 2
CS 62.11 9 (CS 62.11A)	MS POWERPOINT
CS 63.1A (CS 63.11A)	MS ACCESS, PART 1
CS 70.1A (CS 70.11A)	ADOBE PHOTOSHOP 1
CS 70.1B (CS 70.11B)	ADOBE PHOTOSHOP 2
CS 70.12	PHOTOSHOP ADV CONCEPTS
CS 71.11	ADOBE ILLUSTRATOR 1
CS 72.1A (CS 72.11A)	ADOBE INDESIGN 1
CS 72.11B	ADOBE INDESIGN 2
CS 74.11	INTRO TO DIGITAL MEDIA
CS 74.22	DIGITAL VIDEO POSTPROD
CS 74.33	MOTION GRAPHICS (RVPA)
CS 75.11	CHARACTER ANIMATOR
CS 75.12	DIGITAL 2D ANIM (RVPA)
CS 76.11	COMMERCIAL DRONE IMAGING
CS 77.11	VIRTUAL PRODUCTION
CS 77.12	VIRTUAL PROD 2 (RVPA)
CS 78.1A	MAKE IT WITH 3D PRINTING
CS 78.1B	DESIGN IT 3D PRINTING
CS 80.11	EXPLORING MS WINDOWS
CS 80.15	IT ESSENTIALS 1
CS 81.1A (CS 81.81A)	SERVER 1
CS 81.21	INTRODUCTION TO LINUX
CS 81.41 (CS 81.41A)	PYTHON PRGRAM ESSENTIAL
CS 81.62	SQL/RELATIONAL DATABASES
CS 82.2A (CS 82.22A)	INTRO TO NETWORKS
CS 82.2B (CS 82.22B)	SW RT W ESSENT
CS 82.2C (CS 82.22C)	ENT NET SEC
CS 82.57	CYBEROPS
CS 82.58	INTRO CYBERSEC

CS 82.59	FIREWALLS
CS 82.71	ETHICAL HACKING
CS 84.13	IT SUPPORT
CS 84.21	MANAGEMENT INFO SYS
CS 84.26	IT PROJECT MNGMT
CS 88	FOUND DATA SCI
CS 110A	CODING FOR BEGINNERS
CS 167.1 (CS 167.11)	MS OUTLOOK
CS 176.2 (CS 176.12)	APPLIED DRONE PROJECTS
CS 180.3 (CS 181.11)	INTRO TO CLOUD COMPUTE
CS 181.2 (CS 181.23A)	LINUX ADMINISTRATION 1
CS 181.3 (CS 181.23B)	LINUX ADMINISTRATION 2
CS 183.5 (CS 181.43)	CYBER PROGRAMMING
CS 701	COMPUTER STUDIES SURVEY

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 82.22A/B/C		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	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0	0	0	0	0	0	0	0	
Computer Studies	610	1845	1722	388	1871	1666	475	1664	16
ALL Disciplines	**610**	**1845**	**1722**	**388**	**1871**	**1666**	**475**	**1664**	**16**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0	0	0	0	0	0	0	0	
Computer Studies	0	190	188	0	188	127	0	162	1
ALL Disciplines	**0**	**190**	**188**	**0**	**188**	**127**	**0**	**162**	**1**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0	0	0	0	0	0	0	0	
Computer Studies	0	0	1	0	0	0	0	0	
ALL Disciplines	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0	0	0	0	0	0	0	0	
Computer Studies	610	2035	1911	388	2059	1793	475	1826	18
ALL Disciplines	**610**	**2035**	**1911**	**388**	**2059**	**1793**	**475**	**1826**	**18**

5.2a Enrollment Efficiency

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	88.9%	89.0%	100.3%	92.3%	92.6%	99.8%	89.9%	88.1
ALL Disciplines	**84.2%**	**88.9%**	**89.0%**	**100.3%**	**92.3%**	**92.6%**	**99.8%**	**89.9%**	**88.1**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	86.2%	74.0%	0.0%	86.2%	64.8%	0.0%	85.7%	78.1
ALL Disciplines	**0.0%**	**86.2%**	**74.0%**	**0.0%**	**86.2%**	**64.8%**	**0.0%**	**85.7%**	**78.1**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
ALL Disciplines	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	88.6%	87.3%	100.3%	91.7%	89.9%	99.8%	89.5%	87.1
ALL Disciplines	**84.2%**	**88.6%**	**87.3%**	**100.3%**	**91.7%**	**89.9%**	**99.8%**	**89.5%**	**87.1**

5.2b Average Class Size

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Computer Studies	25.7	29.2	29.2	30.8	30.5	30.5	33.9	30.8	30
ALL Disciplines	**25.7**	**29.2**	**29.2**	**30.8**	**30.5**	**30.5**	**33.9**	**30.8**	**30**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Computer Studies	0.0	23.1	20.9	0.0	23.5	18.1	0.0	27.0	2
ALL Disciplines	**0.0**	**23.1**	**20.9**	**0.0**	**23.5**	**18.1**	**0.0**	**27.0**	**2**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Computer Studies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ALL Disciplines	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Computer Studies	25.7	28.6	28.1	30.8	29.7	29.1	33.9	30.4	2
ALL Disciplines	**25.7**	**28.6**	**28.1**	**30.8**	**29.7**	**29.1**	**33.9**	**30.4**	**2**

5.3 Instructional Productivity

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Ratio	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**

Computer Studies		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	61.42	199.64	196.46	44.79	203.85	186.55	53.39	187.07	185.9
	FTEF	4.57	12.46	11.99	2.59	12.45	11.28	3.20	12.29	12.6
	Ratio	**13.43**	**16.03**	**16.39**	**17.29**	**16.38**	**16.54**	**16.69**	**15.22**	**14.6**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Computer & Information Sciences		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Ratio	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**

Computer Studies		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	21.46	25.09	0.00	23.73	15.93	0.00	20.53	25.8
	FTEF	0.00	1.84	2.23	0.00	2.04	1.71	0.00	1.51	2.0
	Ratio	**0.00**	**11.66**	**11.26**	**0.00**	**11.63**	**9.30**	**0.00**	**13.63**	**12.6**

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

Computer & Information Sciences		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Ratio	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**

Computer Studies		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Ratio	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**

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

Computer & Information Sciences		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Ratio	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**

Computer Studies		X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
	FTES	61.42	221.10	221.55	44.79	227.57	202.48	53.39	207.61	211.8
	FTEF	4.57	14.30	14.22	2.59	14.49	12.99	3.20	13.80	14.7
	Ratio	**13.43**	**15.47**	**15.58**	**17.29**	**15.71**	**15.59**	**16.69**	**15.05**	**14.3**

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**

5.6 Student Success

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0

Computer Studies	71.6%	64.2%	66.0%	79.2%	64.8%	63.0%	79.1%	68.3%	69.
ALL Disciplines	**71.6%**	**64.2%**	**66.0%**	**79.2%**	**64.8%**	**63.0%**	**79.1%**	**68.3%**	**69.**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S202
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
Computer Studies	0.0%	81.3%	78.2%	0.0%	76.5%	73.6%	0.0%	61.6%	58.
ALL Disciplines	**0.0%**	**81.3%**	**78.2%**	**0.0%**	**76.5%**	**73.6%**	**0.0%**	**61.6%**	**58.**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S202
Computer & Information Sciences	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%	0.0%	0.0%	0.0%	0.
ALL Disciplines	**0.0%**	**0.0%**	**100.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S202
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
Computer Studies	71.6%	65.8%	67.2%	79.2%	65.8%	63.7%	79.1%	67.7%	68.
ALL Disciplines	**71.6%**	**65.8%**	**67.2%**	**79.2%**	**65.8%**	**63.7%**	**79.1%**	**67.7%**	**68.**

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Computer Studies	68.3%	61.9%	63.4%	74.9%	61.4%	61.8%	77.8%	66.0%	66.4
ALL Disciplines	**68.3%**	**61.9%**	**63.4%**	**74.9%**	**61.4%**	**61.8%**	**77.8%**	**66.0%**	**66.4**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	77.5%	75.5%	0.0%	74.3%	70.5%	0.0%	61.6%	55.5
ALL Disciplines	**0.0%**	**77.5%**	**75.5%**	**0.0%**	**74.3%**	**70.5%**	**0.0%**	**61.6%**	**55.5**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
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%	0.0%	0.0%	0.0%	0.0
ALL Disciplines	**0.0%**	**0.0%**	**100.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Computer Studies	68.3%	63.3%	64.6%	74.9%	62.6%	62.4%	77.8%	65.6%	65.7
ALL Disciplines	**68.3%**	**63.3%**	**64.6%**	**74.9%**	**62.6%**	**62.4%**	**77.8%**	**65.6%**	**65.7**

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (plus current FY Summer and Fall)

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

Santa Rosa Campus

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Computer Studies	2.66	2.44	2.54	2.81	2.45	2.91	3.23	2.79	2.
ALL Disciplines	**2.66**	**2.44**	**2.54**	**2.81**	**2.45**	**2.91**	**3.23**	**2.79**	**2.**

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Computer Studies	0.00	2.76	3.01	0.00	2.65	2.96	0.00	2.56	2.
ALL Disciplines	**0.00**	**2.76**	**3.01**	**0.00**	**2.65**	**2.96**	**0.00**	**2.56**	**2.**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Computer Studies	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.
ALL Disciplines	**0.00**	**0.00**	**4.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.**

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

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Computer & Information Sciences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Computer Studies	2.66	2.48	2.60	2.81	2.48	2.91	3.23	2.77	2.
ALL Disciplines	**2.66**	**2.48**	**2.60**	**2.81**	**2.48**	**2.91**	**3.23**	**2.77**	**2.**

5.7 Student Access

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	White	0	0.0%	0	0.0%	0	0.0%	
	Asian	0	0.0%	0	0.0%	0	0.0%	
	Black	0	0.0%	0	0.0%	0	0.0%	
	Hispanic	0	0.0%	0	0.0%	0	0.0%	
	Native American	0	0.0%	0	0.0%	0	0.0%	
	Pacific Islander	0	0.0%	0	0.0%	0	0.0%	
	Filipino	0	0.0%	0	0.0%	0	0.0%	
	Other Non-White	0	0.0%	0	0.0%	0	0.0%	
	Decline to state	0	0.0%	0	0.0%	0	0.0%	

	ALL Ethnicities	**0**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	

Computer Studies	Ethnicity	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	White	1897	50.0%	1522	44.3%	1508	44.5%	
	Asian	231	6.1%	222	6.5%	210	6.2%	
	Black	87	2.3%	72	2.1%	61	1.8%	
	Hispanic	1057	27.9%	992	28.9%	975	28.8%	
	Native American	15	0.4%	24	0.7%	28	0.8%	
	Pacific Islander	11	0.3%	10	0.3%	14	0.4%	
	Filipino	29	0.8%	50	1.5%	52	1.5%	
	Other Non-White	195	5.1%	165	4.8%	176	5.2%	
	Decline to state	269	7.1%	378	11.0%	363	10.7%	
	ALL Ethnicities	**3791**	**100.0%**	**3435**	**100.0%**	**3387**	**100.0%**	

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	Male	0	0.0%	0	0.0%	0	0.0%	
	Female	0	0.0%	0	0.0%	0	0.0%	
	Unknown	0	0.0%	0	0.0%	0	0.0%	
	ALL Genders	**0**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	

Computer Studies	Gender	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	Male	2094	55.2%	1940	56.5%	1800	53.1%	
	Female	1573	41.5%	1384	40.3%	1475	43.5%	
	Unknown	124	3.3%	111	3.2%	112	3.3%	
	ALL Genders	**3791**	**100.0%**	**3435**	**100.0%**	**3387**	**100.0%**	

Santa Rosa Junior College - Program Unit Review

Computer Studies - FY 2020-21 (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	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	0 thru 18	0	0.0%	0	0.0%	0	0.0%	
	19 and 20	0	0.0%	0	0.0%	0	0.0%	
	21 thru 25	0	0.0%	0	0.0%	0	0.0%	
	26 thru 30	0	0.0%	0	0.0%	0	0.0%	
	31 thru 35	0	0.0%	0	0.0%	0	0.0%	
	36 thru 40	0	0.0%	0	0.0%	0	0.0%	
	41 thru 45	0	0.0%	0	0.0%	0	0.0%	
	46 thru 50	0	0.0%	0	0.0%	0	0.0%	
	51 thru 60	0	0.0%	0	0.0%	0	0.0%	
	61 plus	0	0.0%	0	0.0%	0	0.0%	
	ALL Ages	**0**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	

Computer Studies	Age Range	2018-19	Percent	2019-20	Percent	2020-21	Percent	2
	0 thru 18	431	11.4%	437	12.7%	467	13.8%	
	19 and 20	693	18.3%	655	19.1%	548	16.2%	
	21 thru 25	899	23.7%	832	24.2%	789	23.3%	
	26 thru 30	532	14.0%	493	14.4%	535	15.8%	
	31 thru 35	330	8.7%	316	9.2%	372	11.0%	
	36 thru 40	228	6.0%	187	5.4%	185	5.5%	
	41 thru 45	165	4.4%	140	4.1%	145	4.3%	
	46 thru 50	155	4.1%	149	4.3%	108	3.2%	
	51 thru 60	238	6.3%	160	4.7%	171	5.0%	
	61 plus	120	3.2%	66	1.9%	67	2.0%	
	ALL Ages	**3791**	**100.0%**	**3435**	**100.0%**	**3387**	**100.0%**	

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 1)	4.0	Cisco Discovery 1 + Discovery 2
Santa Rosa, *Santa Rosa City Schools*				
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
In Development 2009-2010 *(awaiting signatures and/or Credit by Exam approval)**:*** ***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 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

Labor Market Information Division

Published: February 2015

2012-2022 Occupational Em Projections

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]	Replace-ment Needs [3]	Tota 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	
15-0000	**Computer and Mathematical Occupations**	**2,610**	**3,440**	**830**	**31.8%**	**3.2%**	**83**	**41**	**1**
15-1100	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 Software	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	
15-1151	Computer User Support Specialists	380	510	130	34.2%	3.4%	13	6	
15-1152	Computer Network Support Specialists	230	290	60	26.1%	2.6%	6	4	
15-1199	Computer Occupations, All Other	60	70	10	16.7%	1.7%	1	1	
27-0000	**Arts, Design, Entertainment, Sports, and Media Occupations**	**3,150**	**3,550**	**400**	**12.7%**	**1.3%**	**46**	**76**	**1**
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		
43-4000	Information and Record Clerks	4,920	5,620	700	14.2%	1.4%	71	131	2	
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	1	
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	1	
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	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.

** 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.

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

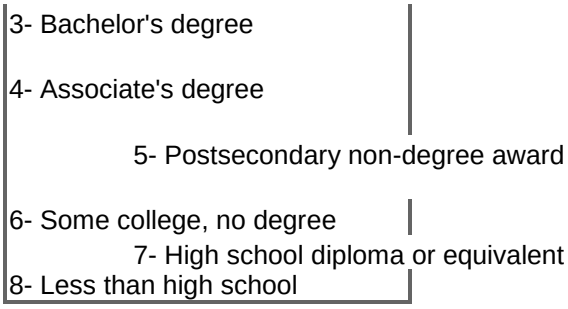
[4] Total jobs are the sum of new jobs and replacement needs.

[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-emplo

[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



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
0001	Petaluma	01	01	Create Cyber Security Major and Certificate Programs	Provide education and training for studetns to work in this underserved area in the community, State and nation.	Fall 2022	Accomplished and students enrolled and declared
0002	ALL	01	01	Create a new Data Science course	Offer entry level data science class, leading to an SRJC major and a Transfer major.	Fall 2024	Accomplished and scheduled for Fall 2024 semester

6.2b PRPP Editor Feedback - Optional

Message from Dean Kerry Loewen, January 2024

Computer Studies programming, gaming and web classes are highly impacted. All Associate Faculty have been utilized and FT faculty are teaching very high amounts of overload. The department is in need of new faculty to allow our students to enter high-wage tech careers in areas of data science*, virtual programming and UI/UX. These are very difficult positions to fill. Our recent Programming hire took two years to find a qualified applicant.

*Note: Data Science is the new emerging collaborative discipline at Berkeley that could provide very large enrollment growth for SRJC.

6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	ALL	01	01	Revitalize and update digital media program to include UI/UX and integrated Social Media skills	Revise Adobe track courses from 2-course 3-unit series to single 4-unit courses and cross list with Graphics Design	Fall 2026	Replacement for Digital Media UI/UX lead faculty.
0001	ALL	01	01	Cross list CS8, Foundations of Data Science with MATH department as MATH 8	Collaborate with MATHto improve course and lead to Data Science degree.	Fall 2025	Cooperation of MATH department.
0001	ALL	01	07	Develop and publish department policy on the use of generative AI in the classroom.	Provide clear guidance for faculty and students on the proper and improper uses and various social and ethical implications surrounding generative AI platforms and tools.	Fall 2025	Dialog and patients
0001	ALL	01	01	Include AI component to classes where appropriate	Help students learn how to best, if at all, use AI tools in the various department disciplines. Possible creation of now intro to AI course.	Fall 2025	Faculty syllabus revisions. CRC
0001	ALL	03	05	Continue existing and create new High School duel enrollment courses	Offer HSstudents opportunities to gain college credit and degrees whilst in HS	Fall 2025	SCOE suport and coordination.
0002	ALL	01	03	Collaborate with STEM, APTEC, Business, and Art to improve Social Media course offerings	Provide students with KSA's needed to successfully navigate and thrive in online platforms.	Fall 2025	Cooperation of various and several department chairs
0002	ALL	02	02	Provide Cyber Security Internships	Offer students capstone level internships to service small businesses and local organizations cyber security "health checks" and remediation advise.	Fall 2026	Grant support, collaboration with several BACC partners.
0002	ALL	02	07	Effective utalization of OIR student data regards their self-identified academic pathways.	Contact students early and at the start of their SRJC careers to welcome and support them with departmental resources. Use email, posters, websites and et cetera.	Fall 2026	OIR data sets
0002	ALL	03	05	Create non-credit versions of CE courses and certificates	Allow students how have taken training from us in the past to update KSAs and improve employment opportunities. Provide low cost options for community to gain technical acumen.	Fall 2026	CRC and Cluster Dean support

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0003	ALL	01	02	Create Data Science AS and transfer degrees	Provide students with pathway to Data Science and AI careers	Fall 2026	CRC, VPAA approval, NSF grant participation with UCSD/UCB/CSUSD