



Faculty Request Justification

Complete One Per Department/Program

Date: May 18, 2023

Division: BCAT

Department/Program: Computer Information Systems

Number of Faculty Requested: 3

Position	Retirement, Resignation or Growth	Retirement/Resignation Date	Instruction, Non-Instruction, Both	If 'Both', indicate the ratio of instruction to non-instruction
Faculty Computer Information Systems	Retirement	December, 2022	Instruction	Click or tap here to enter text.
Faculty Computer Information Systems	Retirement	June 30, 2023	Instruction	Click or tap here to enter text.
Faculty Computer Information Systems	Article 18 Semi-retirement + Note enrollment growth of 6% since 2017-18	Two FT faculty chose Article 18 effective Fall 2022.	Instruction	Click or tap here to enter text.

Note: Insert additional rows if needed.

Guiding Principles

De Anza College's [mission](#) and [Educational Master Plan](#) serve as guiding principles for programs to facilitate continuous development, implementation, assessment and evaluation of their program effectiveness as part of ongoing planning efforts.

De Anza identified the following areas within its Educational Master Plan:

- *Outreach, Retention, Student-Centered Instruction and Services, Civic Capacity for Community and Social Change*

Through its [Equity Plan Re-Imagined](#), it identified the following framework to work towards narrowing long-standing equity gaps:

- **Racial Equity:** Faculty members, classified professionals and administrators should: recognize the realities of race and ethnicity for students of color. Develop intersectional understanding of the ways in which institutional racism shapes educational access, opportunity and success for Black, Filipinx, Latinx, Native American, Pacific Islander and other disproportionately affected students.
- **Student Success Factors:** The College should ensure students: Feel connected to the college; Have a goal

and know what to do to achieve it; Actively participate in class and extracurricular activities; Stay on track – keeping their eyes on the prize; Feel somebody wants them to succeed and helps them succeed; Have opportunities to contribute on campus and feel their contributions are appreciated.

Based upon these guiding principles, please provide information for each of the following areas:

A. Instructional Faculty

The following data can be gathered from the departmental [program review data sheet](#).

- 1- Enrollment data for each for each department in which the position is requested. Insert additional rows if needed.

Omitting 2018-19 (first year of last new hire) and 2022-23 enrollment data clouds the real picture. Between 2018-19 and 2022-23 the department yearly enrollment grew by 706 students or 8% at a time when campus enrollment was declining.

Position	Enrollment (#)					Sections (#)			Fill Rate (%)		
	2017-2018	2019-2020	2020-2021	2021-2022	2022-2023	2019-2020	2020-2021	2021-2022	2019-2020	2020-2021	2021-2022
CIS	8,710	9,095	1,0033	9,090	9,416	246	266	258	95%	95%	90%

Note: Fill rate is the actual enrollment divided by the maximum enrollment per section.

- 2- Success and equity data for each department in which the position is requested. Insert additional rows if needed.

N.B. Comparison to Da Anza College in last row

Position	Success Rate (%)			Withdraw Rate (%)			Equity Gaps (%)		
	19-20	20-21	21-22	19-20	20-21	21-22	19-20	20-21	21-22
CIS	77%	77%	77%	13%	14%	13%	-16%	-15%	-14%
De Anza	80%	80%	79%	10%	10%	10%	-13%	-12%	-13%

Note: Equity gap subtracts the course success rate of the overall population (Asian, White, Native American, Pacific Islander, and Decline to State) from the course success rate of the population areas of focus (African American, Latinx and Filipinx). A negative equity gap indicates that course outcomes for students from the areas of focus are lower than course outcomes for all other student groups.

- 3- Faculty ratios for each department in which the position is requested. Insert additional rows if needed. *Hypothesis on lower overload is that we all love to meet students and teach what we love but providing feedback (i.e. grading) is the limiting factor on our time. As data to uphold this hypothesis EWRT, where faculty indubitably spend more time per student grading than most other departments, has overload % lower than CIS.*

Position	Full Time (FT %)			Part Time (PT %)			Overload (%)		
	19-20	20-21	21-22	19-20	20-21	21-22	19-20	20-21	21-22
CIS	34.4%	30.9%	31.8%	53.3%	56.5%	56.1%	12.3%	12.6%	12.0%
EWRT							7.0%	6.4%	7.0%
De Anza	36.6%	36.2%	37.7%	49.1%	49.6%	48.3%	14.3%	14.2%	14.0%

Note: Overload represents full time faculty teaching overloads as well as all summer assignments.

4. **Awards** for each department in which the position is requested. Insert additional rows if needed.

Position	Certificates (#)			Associate Degrees (#)			Assoc. for Transfer (#)		
	19-20	20-21	21-22	19-20	20-21	21-22	19-20	20-21	21-22
CIS	107	147	85	22	34	32	88	145	119

5. How does the department use the data listed above to develop, adapt, and improve teaching and learning to respond to the needs of changing environments, populations served, and evolving institutional and state priorities?

1. Enrollment data	<p>Given the current job market one may assume CIS department needs to increase outreach efforts and to offer more that students desire to maintain/increase enrollment.</p> <ul style="list-style-type: none"> Hence our efforts to offer dual enrollment classes through FUHSD each quarter starting 2021-22 academic year. More courses now are mirrored with noncredit option. Competitive Programming Club is supported by Manish Goel (FT) and our Dean. Participation and/or high placement at these events is important to students since they can use this for college applications, internships, and job applications.
2. Success and equity	<p>Success rate is high considering STEM program.</p> <ul style="list-style-type: none"> Many CIS faculty request higher maximum enrollment (40 + # they intend to add) to ensure that students have access to Canvas and all other resources from day one of the class. Equity gap is not close yet to the desired 5%. Also bothersome is that the percentage of students from such groups as Black and Latinx is smaller than the percent of the group in Santa Clara County. <p>Interventions</p> <ul style="list-style-type: none"> Free access to zyBooks for all beginning programming students LinC program (Abeer Alameer - FT) with CIS 22A beginning programming course and MATH 1A first quarter calculus. Volunteer Teaching Assistant program and paid peer tutoring program.
3. Faculty ratios	<p>We are currently 6 percentage points below De Anza College in terms of percentage of classes taught by full-time faculty. Thus, we are seeking three new positions.</p> <p>For Fall 2022 CIS department began with 10 full-time faculty with two Article 18 beginning Fall 2022, one on leave, and another who resigned end of Fall 2022. One other was already on Article 18.</p> <p>Three new part-time faculty needed to be hired to cover courses for Spring 2023. Department Chair began this process first week of January sending our invitations for interviews. In the end no part-time faculty member could be found to teach CIS 3 Business Information Systems. Thus, the need for an exception for one part-time faculty to teach an extra CIS 3 bring their load to 0.667. In addition to support by Online Education and Professional</p>

	Development, the chair conducted multiple meetings with the new part-time faculty to discuss teaching best practices and assist in course/syllabus development.
4. Awards	Once per quarter the department chair with the support of transfer counselor and one transfer counselor offers a workshop where the primary focus is to demonstrate to students how relatively easy it is to earn a degree and/or certificate(s) while completing their transfer path.

6. Other information, if any?

Students wish to start more computer science related clubs than there is faculty able to act as advisor for. While this is auxiliary to faculty main responsibilities such club activity is sought after by students for their college, internship and work applications. In addition, membership in such clubs provides students with learning students that are outside of what is taught in class.

B. ~~Non-Instructional Faculty~~

- ~~1. Describe the data used to develop, adapt, and improve teaching, learning, and/or support to enable this position to respond to the needs of changing environments, populations served, and evolving institutional and state priorities (this may include a description of the population served, student needs and experiences from surveys or focus groups, or ratios related to the number of students served relative to current occupational standards).~~
- ~~2. How does the program use these data to develop, adapt, and improve teaching, learning, and/or support to respond to the needs of changing environments, populations served, and evolving institutional and state priorities?~~
- ~~3. How does the position support on-going college operations and/or student success?~~

C. Justifications for EACH requested position. Please limit each response below to no more than 300 words.

<p>1. Why is the position needed and how would the position contribute to the health, growth, or vitality of the program?</p>	<p>Background applying to all three positions requested:</p> <p>There are currently 37 active part-time faculty. CIS faculty have always valued part-time faculty to instruct the “cutting-edge” classes. Currently this is the case when part-time faculty teach the following courses: CIS 5 Swift Programming, CIS 3 Business Information Systems, CIS 4 Computer Literacy, CIS 44H R Programming, CIS 44F Introduction to Big Data and Analytics, CIS 46 Fundamentals of Digital Security, CIS 57 Website Administration, CIS 102 Ethical Hacking, CIS 104 Digital Forensics and Hacking Investigation, CIS 105 Cloud Security Fundamentals to list a subset.</p> <p>Issue is the majority of classes in our core courses (CIS 22A, CIS 22B, CIS 22C, and CIS 21JA) should be taught by full-time faculty. For the core courses we wish for the students to be well-supported knowing that learning is the main goal. To do these best practices need to be developed and more importantly they must be practiced by all faculty teaching these classes.</p>
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	<p>Industry background partners bring wonderful accomplishments and knowledge to the department but sometimes lack the expertise in conveying that knowledge to their students. Looking at the proposed schedule for Fall 2023 there are a total of 35 sections counting as “core classes” for transfer. Twenty-nine of these sections or 83% are scheduled to be taught by part-time instructors.</p> <p>In requesting three faculty positions we will be able to support our core transfer program, offer CTE programs in areas providing living wage career opportunities in short (1-2 years) timeframe, develop a wider set of offerings in the “cutting edge” of technology areas.</p> <p>Computer science area has many branches: programming, data science, artificial intelligence (AI), cloud computing, security, database, networking, system administration. Not every instructor is an expert in all areas. As we create the announcement and interview candidates, we will be looking for programming expertise plus expertise in one or more areas of these computer science branches.</p>
<p>Why is Position 1 needed and how ...</p>	<p>Position 1: Programming plus experience and/or course work in data science and/or AI and/learning machine learning. (<i>Critical with the retirement of Spera Georgiou.</i>)</p>
<p>Why is Position 1 needed and how ...</p>	<p>Position 2: Strong background with Python and R programming along was data science. (<i>Critical to stay on top of educating our students for the current trends in technology</i>). Without this position we will not keep attracting more students. Clare Nguyen has been making this area her goal both in developing curriculum and teaching the subjects. However, as this area grows, we need another person to help teach the courses.</p>
<p>Why is Position 1 needed and how ...</p>	<p>Position 3: Strong background and coursework in security. (<i>Critical with the retirement of Mark Sherby who oversaw and contributed to the scheduling of security classes and developed curriculum including revisions.</i>)</p>
<p>2. How does this request align with the goals in the Educational Master Plan?</p>	<p>Full-time faculty are closer to the pulse of the college and are more focused on the long-term goals as outlined in the Educational Master Plan. These goals support all students but are particularly focused for groups that are experiencing the greatest disproportionate impacts across all metrics:</p> <ul style="list-style-type: none"> • <i>Outreach to Historically Under presented Populations</i> – While CIS department works with Outreach by attending spring Enrollment Day, high school campus visits, Villages Open House, Welcome Day the number of full-time faculty is spread thin to cover all of these. We have developed three noncredit certificates and programs. Many credit courses have mirrored noncredit

	<p>offerings. More are in the curriculum pipeline and others are waiting for approval by Curriculum Committee to begin.</p> <ul style="list-style-type: none"> • <i>Course success</i> – As stated above in 5.2 under Interventions: <ul style="list-style-type: none"> ○ Free access to zyBooks for all beginning programming students ○ LinC program (Abeer Alameer - FT) with CIS 22A beginning programming course and MATH 1A first quarter calculus. ○ Volunteer Teaching Assistant program and paid peer tutoring program • Assist students in transfer – Faculty are the first line of support to encourage and advise students in transfer offering them nuances in how to be successful in transferring and beyond. • Degree and certificate training – Continue and increase workshops to encourage students to attain certificates and degrees as they work toward goal of transferring. Work with Advisory Board to update requirements and offerings in the area of certificates and degrees. • Workforce training – Develop more certificates such as Information Technology Technical Support that lead directly to employment. Increase noncredit offerings.
<p>3. How does this request align with the College’s Equity Plan Re-Imagined?</p>	<p>All initiatives mentioned in #2 as aligning to “goals in the Educational Master Plan” could be broadened and increased with more full-time instructors on board.</p> <p>With the hiring of Position #1 and #2 course work in data science, AI and machine learning can be developed and offered. With the hiring of position three noncredit work in the area of Cybersecurity can be developed and offered.</p>
<p>4. Are there any special regulations such as law, Title 5, Education Code, student success initiative or accreditation standards, etc. for the position? Provide documentation.</p>	<p>Hold Harmless is in place through 2024-25 and then any increases the College receives will be based on SCFF formula. Thus, we need to further persuade students to seek a degree and one or more certificates as the pursue their transfer pathway.</p> <p>For our students first and foremost and secondarily for accreditation purposes, more subcommittee work within the department should take place to strengthen our core transfer courses.</p>
<p>5. Explain how the work will be accomplished if the position is not filled.</p>	<p>If we do not have these full-time positions, the following initiatives that are already in place will need to be relied upon more:</p> <ul style="list-style-type: none"> • Continue indefinitely with providing students in the beginning programming courses with zyBooks at no charge to the student. • Broaden Volunteer Teaching Assistants and Paid Peer Tutoring programs.

	<p>The CIS Department will not be able to expand the course offerings into data science, cloud computing, AI, etc. as much as we would like.</p> <p>The CIS Department will not be able to expand noncredit offerings.</p> <p>We will not be able to support all computer science student clubs.</p>
6. Other information, if any.	