FULLERTON COLLEGE ELEVATING. EXCELLENCE.

Instructional Programs
2017-2018 Self-Study
Three-Year Program Review Template
Computer Science

Mathematics and Computer Science Division

Statement of Collaboration

The program faculty listed below collaborated in an open and forthright dialogue to prepare this Self Study. Statements included herein accurately reflect the conclusions and opinions by consensus of the program faculty involved in the self-study.

Participants in the Self-Study
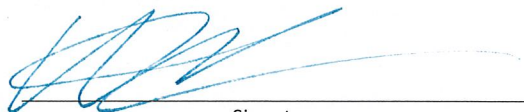**Scott Edwards**
Andrew Clifton
Dana Clahane

Authorization

After the document is complete, it must be signed by the Principal Author, the Department Coordinator, and the Dean prior to submission to the Program Review Committee.

Andrew Clifton	_(signature)_	PROF of CSCI	12/11/17
Printed name of Principal Author	Signature	Title	Date
Scott Edwards	_(signature)_	CSCI DEPT COORD	12/7/2017
Printed name of Department Coordinator	Signature	Title	Date
Mark Greenhalgh	_(signature)_	DEAN OF MATH & CSCI	12/7/17
Printed name of Dean	Signature	Title	Date

1.0 Mission and Goals

The College's <u>Mission, Vision, Core Values and Goals</u> drive all college activities. The Program Review committee would like to understand the connection of your program to the College's Mission, Vision, Core Values and Goals. Summarize how your program supports each area.

Mission:
Fullerton College advances student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

The skills that our students learn involve understanding the importance of language syntax, and semantics; interpreting word problems, breaking down complex problems into sub problems which they solve and then incorporate into a total solution and learning to evaluate and edit their computer code to be the most efficient solution possible. All of these abilities contribute to problem-solving skills which translate over many disciplines and life experiences.

Vision:
Fullerton College will transform lives and inspire positive change in the world.

Computer Science is a rapidly changing discipline. One of the most important skills we must give to our students is the ability to be self-learners. We do this by providing class assignments which require them to interpret, design and then program solutions to real world problems. By learning a set of strategies and approaches, we give our students the tools they need to be successful in a software career and in any other discipline that they choose to pursue.

Core Values:
The computer science department supports the core values of Fullerton College:

- Community - We promote a sense of community that enhances the well-being of our campus and surrounding areas.
- Diversity - We embrace and value the diversity of our entire community.
- Equity - We commit to equity for all we serve.
- Excellence - We honor and build upon our tradition of excellence.
- Growth - We expect everyone to continue growing and learning.
- Inclusivity - We support the involvement of all in the decision-making process.
- Innovation - We support innovation in teaching and learning.
- Integrity – We act in accordance with personal integrity and high ethical standards.
- Partnership – We work together with our educational and community partners.
- Respect – We support an environment of mutual respect and trust that embraces the individuality of all.
- Responsibility – We accept our responsibility for the betterment of the world around us.

College Goals:

Goal 1: Fullerton College will increase student success
- Objective 1: Address the needs of under-prepared students
- Objective 2: Increase course retention and success
- Objective 3: Increase the number of degrees and certificates awarded
- Objective 4: Increase the number of transfers
- Objective 5: Increase the number of students participating in STEM activities
- Objective 6: Increase the persistence rate of students

Goal 2: Fullerton College will reduce the achievement gap
- Objective 1: Address the needs of English language learners
- Objective 2: Increase retention rate of Hispanic and African-American students by at least 2%
- Objective 3: Increase success rate of Hispanic and African-American students by at least 2%
- Objective 4: Increase persistence rate of Hispanic and African-American students by at least 2%
- Objective 5: Increase the number of students from underrepresented groups participating in STEM activities

Goal 3: Fullerton College will strengthen connections with the community
- Objective 1: Strengthen our contacts with Alumni
- Objective 2: Strengthen partnerships with local feeder high schools and universities
- Objective 3: Strengthen partnerships with local business and industry
- Objective 4: Increase funding capabilities of the college
- Objective 5: Increase engagement of the college with the community through college events, community service, and other partnerships

The Computer Science discipline attracts a wide range of students from recent high school graduates to students returning to retrain in this expanding field, from foreign students to native born Americans, and from all different ethnic groups. We encourage students to study together and share their knowledge through classroom and laboratory activities. Because they share common goals, we have found that we can foster an atmosphere of respect and acceptance by creating a nurturing environment. Our small department has established a practice of inclusion in the shaping of department policies and responsibilities. Our adjunct faculty is free to share their experiences and ideas, and we welcome their input.

We also maintain contact with our former students. Several of our former students have been the source of offers of internships and employment, along with local businesses. Students are taught that personal integrity and hard work is the only way to succeed in this field. We stress honesty and do not tolerate plagiarism or cheating in any form and structure our assignments to minimize this. Students are required to be able to explain any code they write and to submit design documents which explain the reasons and methods used to design the program. Fortunately, as students have realized that they cannot "fake" programming skills and because of the personal relationship that faculty establish with their students, we have found that this problem has reduced significantly over the past years.

2.0 Program Data & Trends Analysis

2.1 Key Performance Indicators (KPI)

For each KPI listed below, analyze and report your findings and describe what they mean.
(Attach 5-year longitudinal data from Office of Institutional Research and Planning (OIRP) to Appendix.)

KPI	Findings
Enrollment	Our overall enrollment increased by 35%; this is similar to increases seen in peer institutions, and most likely reflects the still-growing interest in Computer Science as a field, as well as the understanding that computer science professionals are still in high demand.
Total FTES	The increase in FTES, 35%, mirrors that of our enrollment. Most students in our classes tend to be regular, full-time college students.
Sections	The number of sections offered has increased from 14 to 19, a 35% increase. This would seem to indicate that our class offerings have kept pace with our enrollment; an alternate explanation (supported by the experience of semesters of full waitlists and students dropped due to lack of space) might be that our enrollment is limited by our available sections.
FTEF	Our FTEF increased from 3.7 to 5.0, again an increase of 35%. A similar chain of reasoning would apply here: either our faculty levels are tracking enrollment, or enrollment is limited by faculty levels.
Fill Rate	Our fill rate remained steady at slightly above 100%. It is rare for sections not to fill shortly after enrollment opens.
WSCH/FTEF	Our WSCH per FTEF fluctuated between a 424 in the first and last years of the study period, and 403 in the intervening year. This 5% variation is probably due to natural fluctuations in student enrollment.
Retention	Student retention declined 3%, from 68% to 65%. Some of the low retention can be explained by the inherent difficulty of computer science as a subject, and the fact that most students have no exposure in high school, leading to unrealistic expectations about the difficulty of the subject. We are investigating the possibility of offering an additional computer science preliminaries course, which has been shown to increase success and retention, particularly among underrepresented groups.

	Success	Declined by 5%, from 58% to 53%. The variation might be due to recent staffing changes: the hiring of an additional full-time faculty, and changes in part-time faculty as well. We will continue to monitor our success rates to determine if they stabilize over time or continue to decline.---

2.2 Peer Institution Comparison
Complete the table below.

	Fall 2013		Fall 2014		Fall 2015	
	Retention Rate	Success Rate	Retention Rate	Success Rate	Retention Rate	Success Rate
Fullerton Total	67.16 %	57.21 %	75.73 %	61.09 %	70.82 %	57.05 %
Canyons Total	85.20 %	74.01 %	79.42 %	65.86 %	89.68 %	79.17 %
Orange Coast Total	66.67 %	66.67 %	79.61 %	67.76 %	83.33 %	68.97 %
Saddleback Total	81.25 %	70.07 %	84.64 %	72.75 %	83.23 %	70.65 %
Santiago Canyon Total	86.21 %	58.62 %	88.24 %	64.71 %	*(no data available)*	

	Annual 2013-2014	Annual 2014-2015	Annual 2015-2016
Fullerton Total	6	7	4
Associate of Science (A.S.) degree	6	7	4
Canyons Total	9	11	8
Associate in Science for Transfer (A.S.-T) Degree		2	4
Associate of Science (A.S.) degree	9	9	4
Orange Coast Total		1	5
Associate in Science for Transfer (A.S.-T) Degree	*(no data available)*		1
Associate of Science (A.S.) degree			2
Certificate requiring 30 to < 60 semester units		1	2
Saddleback Total	2	4	8
Associate of Science (A.S.) degree	2	4	8
Santiago Canyon Total	8	23	9
Associate of Science (A.S.) degree	8	7	9
Certificate requiring 18 to < 30 semester units		16	

When comparing Peer Institutions, several observations can be made:

1. Success and retention rates in the Fullerton College CSCI are significantly lower than those of the peer institutions selected by the OIR. This has been the case throughout the 2014-2015 time period that data was collected for this Program Review. However, a significant factor in these differences is most likely the emphasis on rigor and professional documentation. We prepare students not only for CSU Computer Science/Engineering programs, but we provide students with more challenging projects than other peer institutions do, having higher expectations on professionalism from our students.
2. This maintenance of high standards will of course adversely affect success and retention, but it is notable that the number of degrees in CSCI awarded is among the highest compared to the peer institutions, showing that our philosophy of challenging our students is effective.
3. Getting our students engaged into Math Colloquium computation and programming projects is a new initiative that we will try in order to make some impacts on our success and retention rates. We believe that participating students will have dramatically higher retention and success rates. REU funding will be sought for these students to participate in enrichment and computer science research.
4. Hiring diverse CS faculty will contribute to higher success and retention among underrepresented groups in Computer Science.

In summary, because the courses at Fullerton College are formulated to meet the requirements of the UC's, they articulate on a course to course basis to most UC's and CSU's thus benefiting our transfer and graduating students. Although other transfer colleges do not have similar programs, an analysis of our course transferability to the major shows that 3 or more of our 4 courses transfer on a one-to –one basis with CSUF, Cal Poly Pomona, UCR, UCLA, UCSD, UCSB among other more distant schools.

2.3 Achievement Gap
Indicate achievement gap for each of the groups listed below. (Attach to Appendix the Success and Retention by Ethnicity Data as identified by the Office of Institutional Research and Planning.)

Group	% Retention	% Success
Males	65%	52%
Females	55%	47%
Asian-American	69%	60%
African-American	58%	33%
Filipino	61%	40%
Hispanic	61%	37%
Native American/Pacific Islander	50%	50%
Other Non-White	81%	59%
White	67%	61%
Unknown	78%	57%
Range (Max-Min)	78% – 55%	33% – 61%

Note: several groups have very limited enrollments; for example, only 2 Native American/Pacific Islander students were enrolled in any computer science courses over the duration of the study period.

2.4 Program Effectiveness
Since your previous Program Review Self-Study, what significant changes have occurred that impact the effectiveness of your program?

In recent years it appears that proficiency in programming has become more and more important to students pursuing majors other than computer science. As such, it has been challenging to offer sufficient numbers of sections to accommodate the demand, our offerings are often filled to capacity within days of the start of online registration. Additionally, finding qualified professors to teach the sections we do have continues to be a distinct challenge.

2.5 Describe any laws, regulations, trends, policies, procedures or other influences that have an impact on the effectiveness of your program. Please include any other data (internal or external) that may be relevant to student achievement, learning, and trends within your Basic Skills, CTE, or Transfer Education programs.

N/A

2.6 Provide any other data that is relevant to your self-study.

N/A

3.0 Strengths, Weaknesses, Opportunities, Challenges (SWOC)
Based on your analysis in 2.1 through 2.6, answer the following questions:

3.1 What are the strengths of your program?

Fullerton College has successfully articulated its courses to transferring institutions with most courses transferring on a one-to-one basis. This expedites the completion of student's degrees at the UCs. Finally, there is a strong demand for what we do, it's a challenge to satisfy the enrollment numbers that remain strong and continue to grow.

3.2. What are the weaknesses of your program?

Our success and retention rates are slightly lower than our peer schools, but we believe that is partially due to the rigorous nature of our program. Also, students (particularly those who are just entering the program) have a tendency to seriously underestimate the amount of time required to become proficient in a programming language. Learning how to write software deals not only with the acquisition of a language and gaining proficiency in that language, but also dealing with the unpredictable mistakes that commonly occur when writing code.

3.3 What opportunities exist for your program?

There is a great opportunity to expand the program's offerings as computer science is a major that is growing in demand. Not only is the number of CS majors increasing, but other majors often require some proficiency in programming. Given adequate funding, this expansion would also have a positive effect on our enrollment in transfer level mathematics and engineering as well.

3.4 What challenges exist for your program?

The biggest threat is the failure to expand the program to accommodate the increased demand for classes. Students may go elsewhere, negatively impacting our department and other departments which offer courses our students need. Our classes frequently have full wait lists, so there is no room to add additional students with the current number of sections. Additionally, it is often a challenge to find classrooms available to accommodate our sections.

Staffing remains a challenge; aside from the on campus duties necessary to maintain and update the lab, there is also the ongoing need to revisit and renew articulation agreements, course outlines and manage SLOs for all sections.

4.0 Student Learning Outcomes (SLO) Assessment

4.1 List your program level SLOs and complete the expandable table below.

Program Student Learning Outcomes (PSLOs)	Date Assessment Completed	Date(s) Data Analyzed	Date(s) Data Used For Improvement	Number of Cycles Completed
1. The student will be able to write computer programs to solve problems.	Fall 2015 / Fall 2016	Fall 2015 / Fall 2016	Fall 2015 / Fall 2016	1
2. The student will be able to design and implement Abstract Data Types using object-oriented techniques.	Fall 2015 / Fall 2016	Fall 2015 / Fall 2016	Fall 2015 / Fall 2016	1

4.2 Assessment: Complete the expandable table below.

Program Student Learning Outcomes Assessment for Instructional Programs at Fullerton College			
Intended Outcomes	**Means of Assessment & Criteria for Success**	**Summary of Data Collected**	**Use of Results**
1. The student will be able to write computer programs to solve problems.	Exam Questions	A weighted average was derived using the recent CSLOs of each course in the CS curriculum. The result was that 76% of the students overall met the SLOs.	The results were shared and discussed among the CS faculty, both full-time and adjunct, for any insights and comments.
2. The student will be able to design and implement Abstract Data Types using object-oriented techniques.	Exam Questions	A weighted average was derived using the recent CSLOs of each course in the CS curriculum. The result was that 76% of the students overall met the SLOs.	The results were shared and discussed among the CS faculty, both full-time and adjunct, for any insights and comments.

4.3 What percentage of your program level SLOs have ongoing assessment? Comment on progress/lack of progress.

All of the computer science courses have identified SLOs. CSCI 241 was assessed in fall 2016, while CSCI 123 was assessed in fall 2015. The two remaining courses, CSCI 133 and CSCI 223 will be assessed in spring 2018.

4.4 How has assessment of program level SLOs led to improvements in student learning and achievement?

There was a strong improvement in the SLO results for both CSCI 133 and CSCI 241, but it is difficult to determine if this is actually the result of any adjustments in instruction. There was a slight decline in the results for CSCI 123 and CSCI 223, but there was no obvious reason for this result.

4.5 How has assessment of program-level SLOs led to improvements in transfer or certificate/degree awards?

This is also difficult to determine, especially since there appears to be no consensus on what set of data is to be used on how to measure transfers to other institutions.

4.6 What challenges remain to make your program level SLOAs more effective?

It can be difficult to fully interpret the fluctuations in the SLO results. We need to establish a more substantial and consistent pool of data to better identify any trends and hopefully derive meaning from those trends. Those results could lead to ideas and observations about how we can improve our operations.

5.0 Evaluation of Progress Toward Previous Goals/SAP's (Future program review templates for this section will identify "previous goals" as "previous *strategic action plans*"-- SAP's.)

5.1 List the goals from your last self-study/program review.

- Increase retention and success by 2% each
- Increase the number of sections offered

5.2 Describe the level of success and/or progress achieved in the goals listed above.

While the number of sections was increased, and enrollment with it, retention and success both declined slightly.

5.3 How did you measure the level of success and/or progress achieved in the goals listed above? Success and retention improvement were derived by referring to recent KPI statistics.

5.4 Provide examples of how the goals in the last cycle contributed to the continuous quality improvement of your program.

We were successful in adding another full-time faculty member to our department, which should help significantly with the strength and stability of our program. Additionally, our computer science lab was recently upgraded in fall of 2017 to machines more in line with current technology.

5.5 In cases where resources were allocated toward goals in the last cycle, how did the resources contribute to the improvement of the program?
The last hardware and software upgrade to our computer science lab was effective in providing access to current technology for our students.

5.6 If funds were not allocated in the last review cycle, how did it impact your program?
N/A

6.0 Strategic Action Plans (SAP) [formerly called Goals (6) and Requests for Resources (7)]

Using the tables below, list the strategic action plans (SAPs) for your program. These plans should follow logically from the information provided in the self-study. Use a separate table for each SAP.

SAPs for this three-year cycle:

STRATEGIC ACTION PLAN # 1	
Describe Strategic Action Plan: (formerly called short-term goal)	Increase retention and success rates.
List College goal/objective the plan meets:	College Goal #: 1,2 Objective #: 1,2; 2,3,5
Describe the SAP: (Include persons responsible and timeframe.)	We will continue to pursue an increase in retention and success rates while also maintaining our high standards and rigor. Until we can actually hire another full-time instructor, it is important to pursue qualified and talented adjunct professors.
What *Measurable Outcome* is anticipated for this SAP?	Increase retention and success rates by 2% each.
What specific aspects of this SAP can be accomplished without additional financial resources?	Greater publicity and coordination with the mathematics colloquium should increase the number of computer science students who participate in that program. This activity outside of the classroom can expose our students to topics and techniques that are relevant the the discipline of computer science, broadening their awareness of how math and computer science are related.

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	**$0**	

STRATEGIC ACTION PLAN # 2	
Describe Strategic Action Plan: (formerly called short-term goal)	Increase the number of sections offered to keep up with demand.
List College goal/objective the plan meets:	College Goal #:1 Objective #: 3, 4, 5
Describe the SAP: (Include persons responsible and timeframe.)	Although it is unknown as to when we can actually hire another full-time faculty member, our courses continue to be in high demand. In order to offer more sections, it is essential that we succeed in locating and recruiting talented adjunct professors to teach additional sections.
What *Measurable Outcome* is anticipated for this SAP?	An increase in the number of sections we offer in computer science.
What specific aspects of this SAP can be accomplished without additional financial resources?	Maintain contact with departments and staff at neighboring colleges and universities.

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	**Approx. $4,000 per additional section**	**Extended Day budget**

STRATEGIC ACTION PLAN # 3

Describe Strategic Action Plan: (formerly called short-term goal)	Offer a preliminary course in computer science, for students with zero prior exposure.
List College goal/objective the plan meets:	College Goal #: 1,2 Objective #: 1,2,4; 2,3,4,5
Describe the SAP: (Include persons responsible and timeframe.)	Research has shown that a preliminary "CSci Zero" course can have a dramatic positive effect on student success and retention, particularly among underrepresented groups. We will investigate such offerings at other community colleges and hopefully prepare a course for submission to the Curriculum Committee in the next two years.
What *Measurable Outcome* is anticipated for this SAP?	An increase in student success and retention, particularly among underrepresented groups. A secondary benefit would be an increase in enrollment.
What specific aspects of this SAP can be accomplished without additional financial resources?	Research into similar course offerings at other community colleges can be done by existing faculty, without additional spending.

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	**$0 for curriculum development. Approx. $4,000 per section**	**Extended Day funds**

STRATEGIC ACTION PLAN # 4

Describe Strategic Action Plan: (formerly called short-term goal)	Update classroom technology
List College goal/objective the plan meets:	College Goal #: 1,2 Objective #: 1,2,5; 2,3,4,5
Describe the SAP: (Include persons responsible and timeframe.)	The technology available in our primary computer science classroom is now more than five years old. The projection equipment, in particular, is sometimes unreliable and does not support modern video connections and resolutions.
What *Measurable Outcome* is anticipated for this SAP?	An increase in student retention, due to the increased opportunities for interactive presentation during class.
What specific aspects of this SAP can be accomplished without additional financial resources?	Research into the various upgrades, projector models, etc., can be done without additional spending.

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source	
Personnel			
Facilities			
Equipment	$1,000		
Supplies			
Computer Hardware	$4,000		
Computer Software			
Training			
Other			
Total Requested Amount	**$5,000**		

STRATEGIC ACTION PLAN # 5	
Describe Strategic Action Plan: (formerly called short-term goal)	Continue to increase the number of full-time faculty members
List College goal/objective the plan meets:	College Goal: The hiring of fulltime faculty provides the human resources to address all the college goals.
Describe the SAP: (Include persons responsible and timeframe.)	We continue to need fulltime faculty to provide the best possible instruction to students. While we have an excellent pool of adjuncts, the Division believes that students have a more meaningful experience when they can access their instructor out of class during office hours and have the consistency in instruction that a fulltime faculty member can provide. Data from fall 2017 shows that of the 15 CSCI sections, 7 (47%) are taught be adjunct faculty. We request additional fulltime hires to address this disparity.
What *Measurable Outcome* is anticipated for this SAP?	• Increased retention and success of students in CSCI classes • Students will have increased access to faculty • Faculty involvement in campus-wide initiatives will increase • Faculty involvement in special programs, grants, outreach etc. will increase
What specific aspects of this SAP can be accomplished without additional financial resources?	None. The hiring of fulltime faculty requires considerable financial resources

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel	$64,236 - $94,354	District Budget
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	**$64,236 - $94,354**	District Budget

7.0 Long Term Plans

Describe the long term plans (four-six years) for your program. Please consider future trends in your narrative. (Identifying financial resources needed for these plans is optional.)

Although we have made improvements in accomodating the increased demand for Computer Science courses, particularly for CSCI 123, it is important that we at least maintain our current resources as well as augment them in planning for the future. It is becoming more and more common for other academic disciplines to require at least some introductory programming classes as part of earning a degree, especially for STEM majors. As the demand for our courses increases, the Computer Science department will continue to provide support for students preparing for a degree in Computer Science, as well as for students pursuing other STEM majors. Although Fullerton College isn't currently prepared to take on another full-time instructor for Computer Science, it is a possibility that we need to monitor, given the apparent need for our courses.

8.0 Self-Study Summary

This section provides the reader with an <u>overview</u> of the highlights, themes, and key elements of this self-study. It should not include new information that is not mentioned in other sections of this document.

As technology continues to develop and assume a more prominent role in many areas of academic study, the discipline of Computer Science is becoming increasingly important, not only for students majoring in Computer Science, but other STEM-related majors as well. Thus far, we have managed to maintain our high standards so our students are able to transfer to university well-prepared for what lies before them in their academic pursuits, and we will strive to continue those standards as well as adapt to future challenges that may develop in our field. This may require additional sections of our course offerings, which will in turn require the hiring of additional qualified adjunct professors.

9.0 Publication Review

Fullerton College is committed to assuring integrity in all representations of its mission, programs, and services. As such, during the program review self-study process programs are required to document their publications (websites, brochures, pamphlets, etc.), when they were last reviewed, and denote the publication is accurate in all representations of the College and program missions and services. In the far-right column please provide the URL where the publication can be accessed. If it cannot be accessed via the internet, please provide a sample of the publication with your program review self-study.

Publication	Date last reviewed	Is the information accurate?	URL of publication
CSci Dept website	2015	No	http://compsci.fullcoll.edu

For publications that you have identified as inaccurate, please provide the action plan for implementing corrections below.

It has been several years since the website for the Computer Science department has been updated, so it presently needs a major revision. We intend to redesign the site and bring it up to date so it will be in sync with current program missions and services.

Routing & Response Page

Originator → IMS → Appropriate President's Staff Member → Program Review Chair

Originator

Electronically submit completed Program Review to Division Dean/IMS for review.

Appropriate Immediate Management Supervisor (IMS)
RESPONSE

MARK GREENHALGH DEAN OF MATH/CSCI 12/7/17

<u>Printed name of IMS</u>   Title   Date

Select one and provide response if necessary. Forward electronically to appropriate Vice President's Office.

Response Page

[X]   *I concur with the findings contained in this Program Review.*

[ ]   *I concur with the findings contained in this Program Review with the following exceptions (include a narrative explaining the basis for each exception):*

Area of exception:

_____

_____

_____

[ ]   *I do not concur with the findings contained in this Program Review (include a narrative exception):*

_____

_____

_____

Appropriate President's Staff Member
Acknowledging Receipt

_____ _____ _____ _____

Printed Name   Signature   Title   Date

Print Program Review, sign, and route both hard copy and electronic version to Program Review Chair.