Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
A. Program Information			
Program Mission Statement			
How many criteria are met for the Program Mission statement?	Addresses 4 to 7 of the criteria – Needs Some Improvement to Meet the Standard	Addresses 4 to 7 of the criteria – Needs Some Improvement to Meet the Standard	Addresses all 8 criteria - Meets the Standard
Reader Feedback	I suggest changing the ordering of the sentences (see below) and I'm not sure about the definitions you provide (are these necessary? or can you use these ideas to describe the "activities of the program" and to indicate "the students/stakeholders"); I think I see the "activities," although these are deemphasized, and I'm not sure about the students/stakeholders question, honestly. In addition, some mention of equity or how the program is addressing equity concerns could be included? The Geographic Information Systems Technology degree prepares students for entry-level technician jobs and meets (regional) workforce needs. The	**A.1 Criteria = "clearly states the purpose of the program"** Konstantin (Reader) comment: • Compliance = Yes. • This is well articulated in the GIS Program Mission Statement, in terms of what the program is, hw/sw, degree, and job prospect. As per Writer Mission Statement, as replicated below: • "Geospatial technology is the unifying tool that explores spatial phenomena. Geospatial technology consists of Geographic information Systems, Global Positioning Systems and Remote Sensing. The Geographic Information Systems Technology program at Foothill College provides opportunities for career	

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	associate degree provides a solid technical background in geographic information systems concepts and applications including cartographic concepts, database design, programming and interdisciplinary applications of the technology. The Geographic Information Systems Technology program at Foothill College provides opportunities for career preparation and lifelong learning by providing courses that meet workforce needs, and aligns with the U.S. Department of Labor geospatial competency model for geospatial careers. The stacked certificates of achievement help professionals transition to new roles in the workforce or advance in their current profession.

Geospatial technology is the unifying tool that explores spatial phenomena. Geospatial technology consists of Geographic Information Systems, Global Positioning Systems and Remote Sensing. Geographic Information | preparation and lifelong learning by providing courses that meet workforce needs, and aligns with the U.S. Department of Labor geospatial competency model for geospatial careers. Geographic Information Systems are collections of computers and software applications used to capture, store, transform, manage, analyze and display spatial information. The associate degree provides a solid technical background in geographic information systems concepts and applications including cartographic concepts, database design, programming and interdisciplinary applications of the technology. The Geographic Information Systems Technology degree prepares students for entry-level technician jobs and meets workforce needs. The stacked certificates of | |

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	Systems are collections of computers and software applications used to capture, store, transform, manage, analyze and display spatial information	achievement help professionals transition to new roles in the workforce or advance in their current profession. "	

A.2 Criteria = "indicates the primary function"
Konstantin (Reader) comment:
- Compliance = Yes.
- This is well articulated in the GIS Program Mission Statement. As per excerpt from the Writer Mission Statement: "The Geographic Information Systems Technology program at Foothill College provides opportunities for career preparation and lifelong learning by providing courses that meet workforce needs, and aligns with the U.S. Department of Labor geospatial competency model for geospatial careers."

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		A.3 Criteria = "indicates the activities of the program" Konstantin (Reader) comment: - Compliance = Yes. "This is well articulated in the GIS Program Mission Statement. As per excerpt from the Writer Mission Statement: "Geographic Information Systems are collections of computers and software applications used to capture, store, transform, manage, analyze and display spatial information. The associate degree provides a solid technical background in geographic information systems concepts and applications including cartographic concepts, database design, programming and interdisciplinary applications of the technology. "	

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		A.4 Criteria = "describes the programs' aspirational goals for the future and what the program hopes to achieve" Konstantin (Reader) comment: • Compliance = Yes. • "This is well articulated in the GIS Program Mission Statement. As per excerpt from the Writer Mission Statement: "The Geographic Information Systems Technology degree prepares students for entry-level technician jobs and meets workforce needs. The stacked certificates of achievement help professionals transition to new roles in the workforce or advance in their current profession." **A.5 Criteria = "reflects the program's priorities and values"** Konstantin (Reader) comment: • Compliance = Partial. (Although this is addressed	

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		later in the Writer's narrative, with the request to establish a lab equipped with the proper hw and sw in support of students especially low income and under-represented communities). • For the priorities of the program, this is partially addressed in the excerpt from the Writer Mission Statement: "The Geographic Information Systems Technology degree prepares students for entry-level technician jobs and meets workforce needs. The stacked certificates of achievement help professionals transition to new roles in the workforce or advance in their current profession." • Recommendation: Should include the statement as proposed in A.7.2: "The GIST program supports	

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		equity for all students by (1) Outreach to under-represented communities, and (2)proposing to establish a GIS Lab with the appropriate hw/sw and internet to enable all students to complete the class successfully".	

A.6 Criteria = "indicates who the students and/or stakeholders are"

Konstantin (Reader) comment:

- Compliance = Yes.
- "This is well articulated in the GIS Program Mission Statement. As per excerpt from the Writer Mission Statement: "The Geographic Information Systems Technology degree prepares students for entry-level technician jobs and meets workforce needs. The stacked certificates of achievement help professionals transition to new roles in

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		the workforce or advance in their current profession. "	

A.7 Criteria = "is aligned to the college mission statement"
Reference = Foothill College Mission Statement broken (see https://www.foothill.edu/president/mission.html), broken into 3 parts (bullets), with comments after each.

1. **Foothill College Mission Statement Sentence #1 :**
"Believing a well-educated population is essential to sustaining and enhancing a democratic society, Foothill College offers programs and services that empower students to achieve their goals as members of the workforce, as future students, and as global citizens. "

- Konstantin (Reader) comment:

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		• Compliance = Yes, with the 1st part of the FH Mission Statement. as listed below. • This criteria is addressed in the following statement in the GIS program's mission statement: "The Geographic Information Systems Technology program at Foothill College provides opportunities for career preparation and lifelong learning by providing courses that meet workforce needs, and aligns with the U.S. Department of Labor geospatial competency model for geospatial careers." 2. **Foothill College Mission Statement Sentence #2 :** "We work to obtain equity in achievement of student outcomes for all California student populations, and are guided by our core values of honesty, integrity, trust, openness,	

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		transparency, forgiveness, and sustainability. " • Konstantin (Reader) comment: • Compliance = No. Did not find explicit equity-related terminology. (Although equity is addressed in several sections of the narrative, i.e. work with the Deans, Instructors, and Marketing, to advertise the program, and also establish a GIS Lab to make sure all students have the appropriate hw/sw, and internet access). • "This criteria is not addressed in the GIS Program Mission Statement. Recommend adding some words about equity. For example: • this class can permit alternative ways (beyond testing) to demonstrate you have mastered the fundamentals.	

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		• how this class is evolving to address equity issues by leveraging Universal Design for Learning (UDL) principles. See https://www.understood.org/en/school-learning/for-educators/universal-design-forlearning/understanding-universal-design-for-learning • Mention the request to set up the appropriate hw/sw in a GIS Lab, to address resource availability (robust PC, strong/stable Internet connection), to all students, especially low income and under-represented communities. Something like: "The GIST program supports equity for all students by (1) Outreach to underrepresented communities, and (2)proposing to establish a GIS Lab with the appropriate hw/sw and	

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		internet to enable all students to complete the class successfully".	

3. **Foothill College Mission Statement Sentence #3 :** "Foothill College offers associate degrees and certificates in multiple disciplines, and a baccalaureate degree in dental hygiene."

1. Konstantin (Reader) comment: "This criteria is addressed in the following statement in the GIS program's mission statement: "The associate degree provides a solid technical background in geographic information systems concepts and applications including cartographic concepts, database design, programming and interdisciplinary applications of the technology. "

A.8 Criteria = "is clear and concise"
Konstantin (Reader) comment:
- Compliance = Conditional Yes.

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		• "Recommend incorporate Equity verbiage, as stated in A.7. "	
Program Learning Outcomes			
Overall, this section:	Addresses all 5 criteria - Meets the Standard	Addresses all 5 criteria - Meets the Standard	Addresses all 5 criteria - Meets the Standard
Reader Feedback		The 4 PLOs (Program Learning Outcomes) stated are measurable, knowledge-cumulative, student-centered, clear, and actionable	Excellent, clearly written, and understandable. Well aligned with the 4-Cs in the ILOs.
B. FTES - Enrollment Trends			
1. What does the FTES data trend indicate?	FTES has improved over the time span - Excellent	FTES has improved over the time span - Excellent	FTES has improved over the time span - Excellent
FTES Narrative Explanation - *Discuss the factors that would help the college understand these trends and whether there are tangible reasons for no change/flat, an increase or decrease in the trend.*			
Overall, in this section:	The narrative includes all 4 of the criteria - Meets the Standard	The narrative includes all 4 of the criteria - Meets the Standard	The narrative exceeds expectations - the narrative could be used as an exemplar - Excellent
FTES Action Narrative (if applicable) - *Describe the proposed actions for stabilizing/increasing the FTES.*			
Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard	The narrative exceeds expectations - the narrative could be used as an exemplar - Excellent
Reader Feedback	I feel this area might need some more thought, and when I read later sections	FTES = Full Time Equivalent Student = 1 student taking a full	This narrative demonstrates a comprehensive understanding of the enrollment issues, what the

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	(enrollment/productivity), I think some of the information there could be provided here as explanation. Perhaps when a program is increasing its FTES, we don't need to have such a robust set of "proposals" here, but it seems the proposals are really just the last two sentences. "The action proposed to stabilize/increase FTES is to additional sections of GIST 11 and GIST 12, the two ''gateway'' courses to the program. GIST 11 is entirely lecture, so has higher productivity which stands to benefit the program. The faculty will continue multipronged outreach efforts also." I think the "to" is really a "two" and we need a verb "to add" "two additional sections"? How is adding new classes informed by data? Just explaining how these classes will improve the program (not necessarily FTES), along with how you'll measure the effect of the new classes.	load of classes for 1 academic year. FTEF = Full Time Equivalent Faculty = 1 Instructor teaching ? equated hrs/wk for 1 quarter WSCH = Weekly Student Contact Hours = (# of class contact hrs class is scheduled to meet/week) * (# of students in the class) Productivity = FTES / FTEF Productivity (as defined in this document) = WSCH / FTEF Clearly articulates understanding of the trend, identifies the root cause (difficult access to the Sunnyvale campus due to 101/237 traffic. Program reacts by moving the class online, which helped increase enrollment due to easier class accessability. In support of the online class, and with the help of ETS, enabled cloud-based virtual desktops to allow students on any computer to successfully	department did to mitigate those issues, and how proactive they are with regard to increasing enrollment.

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		complete the class. Also identified need for robust computers to run the GIS sw. More work needs to be done in this space to accommodate the needs of the students (strong internet connection, robust computer, and/or onsite GIS lab), as is requested further down this evaluation by the Writer.	
C. Sections - Enrollment Trends			
Section Narrative Explanation (If Applicable) - *Explain why the number of sections is flat, increased or decreased.*			
Overall, in this section:	The narrative includes all 4 of the criteria - Meets the Standard	The narrative includes all 4 of the criteria - Meets the Standard	The narrative exceeds expectations – the narrative could be used as an exemplar - Excellent
Section Narrative Explanation (If Applicable) - *Explain why the number of sections increased while FTES decreased.*			
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard		
Reader Feedback		Offered a minimum number of sections, which were fully enrolled. Thus increased productivity. Plan is to increase the number of sections, in certain gateway classes to increase interest. However as per Writer, "The program is small (under 50 FTES) and is intended to	N/A

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		remain small, as this satisfies the demands of regional workforce. " Since the demand for regional workforce is small, makes sense to keep the number of sections flat. FTES increased, thus the last section (Section Increased while FTES decreased) is not applicable.	

D. Productivity - Enrollment Trends

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
1. What does the data indicate about the productivity trend?	The program productivity trend has increased or has reached its maximum - Excellent	The program productivity trend has increased or has reached its maximum - Excellent	The program productivity trend has increased or has reached its maximum - Excellent

Productivity Narrative Explanation (If Applicable) - *Explain why the productivity is flat, increased or decreased.*

Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard

Productivity Action Narrative (If Applicable) - *Describe the proposed actions for stabilizing/increasing the productivity number.*

Overall, in this section:	The narrative is not included		
Reader Feedback		the move of the program to online format helped productivity. Students could not get to the evening classes onsite prior to the online move.	N/A

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		Last section about increasing productivity not applicable, as it is already increasing.	

E. Enrollment by Student Demographics

a. Enrollment by Gender

Enrollment by Gender Narrative Explanation - *Explain why the enrollment rates is flat, increased or decrease for male, female, or non-binary.*

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative exceeds expectations – the narrative could be used as an exemplar - Excellent
2. Does your program differ in the percentage of males to females, in this most recent year, compared to the College? (College 2019-20 = 51% Female, 47% Male)	The difference between the genders/sex is less than or equal 10% - Excellent	The difference between the genders/sex is less than or equal 10% - Excellent	The difference between the genders/sex is less than or equal 10% - Excellent

Enrollment by Gender Action Narrative (If Applicable) - *What is the source of gender disparity and what proposed/planned actions is the program taking to achieve parity?*

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Overall, in this section:	The narrative is not included		
3. What does the data trend indicate about enrollment (headcount) by gender of declared majors in the program?	The Gender gap by declared major is between 0% and 10% - Excellent	The Gender gap by declared major is between 0% and 10% - Excellent	The Gender gap by declared major is between 0% and 10% - Excellent
Reader Feedback		The program focus on gender equity is reflected in the about 50/50 ratio of female and male.	

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		Section on Gender Disparity does not apply, as the female/male ratio is about 50/50. Writer narrative states trends for Female, Male, and Non-Binary are flat. Agree. Yearly numbers vary, however given the +/- direction, average trend seems to be flat.	

b. Enrollment by Ethnicity

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Does your program differ in enrollment distribution among ethnic groups, in this most recent year, compared to the College enrollment by ethnic group? (2019-20 College enrollment distribution by ethnicity: 4% African American, 38% Asian, 5% Filipinx, 25% Latinx, 0% Native American, 1% Pacific Islander, 21% White, 4% Decline to State)	The enrollment does not mirror the college's ethnic distribution – Needs Some Improvement to Meet the Standard	The enrollment does not mirror the college's ethnic distribution – Needs Some Improvement to Meet the Standard	The enrollment does not mirror the college's ethnic distribution – Needs Some Improvement to Meet the Standard

Enrollment by Ethnicity Narrative Explanation (If Applicable) - *Explain changes identified over the past five years for each ethnic group (address each ethnic group by bullet point).*

Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard

Enrollment by Ethnicity Action Narrative (If Applicable) - *Describe the proposed actions for addressing disparities in enrollment by ethnic group within the program.*

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Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard
Reader Feedback		Writer understands the trends and will work with the Advisory Board, Counselors, Instructors, and college marketing professionals to remedy.	
F. Student Course Success			
a. Student Course Success			
1. What does the data trend indicate about overall course success?	Course success has decreased over the time span by no more than 4 percentage points - Needs Some Improvement to Meet the Standard	Course success has decreased over the time span by no more than 4 percentage points - Needs Some Improvement to Meet the Standard	Course success has decreased over the time span by no more than 4 percentage points - Needs Some Improvement to Meet the Standard
Student Course Success Narrative Explanation - *If the data trend shows an increase, decrease, or no change in students' course success percentage, explain what programmatic factors led to such a trend.*			
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard
Student Course Success Action Narrative (If Applicable) - *Describe the proposed actions for stabilizing/increasing the student's course success percentages.*			
Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard
Reader Feedback		Writer understands trends. Root cause is move to online format, which requires either a robust pc	The department undeniably understands the impact of the technology necessary for the

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		or strong internet to use the cloud version of the GIS sw. These limitations are explained to the students. Impact is greatest in the low income group. Remedy is to have an onsite presence for the students that do not have a robust pc or strong internet connection to stop by and use the sw onsite. In 2020/Winter, the program has also began tutoring services in the Learning Resource Center (STEM Center, Garden program). Too early to review effectiveness at this time of the tutoring program, especially given the lack of access to onsite resources. Also GIS program will work with the BSS and PSME Deans to provide a campus lab with the robust PCs and sw in support of the GIS classes. The Learning Resource Center (LRC - which includes the Garden and the STEM Center) will work with GIS in support of establishing the hw/sw (GIS Lab) required to enable students complete the class successfully.	discipline and how it can affect student success. They inform their students ahead of time and appear to work hard to do what they can to bridge any gaps. However, other issues aside from technology may be at play in any reduction in student success, such as the effect of the global pandemic on those student groups for the last part of the academic year 2019-2020? What overall economic issues are at play? Are other colleges (Diablo Valley for instance) that offer similar programs and if so, what is their success rate?

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		This is aligned with the LRC's equity plans, in providing all students with the right type of support needed to succeed.	

b. Student Course Success by Student Groups

3. Is there a course success gap between African-American, Latinx, Filipinx student groups and Asian, Native American, Pacific Islander, White, Decline to State student groups?	The gap between the two groups has increased over the time span – Needs Major Improvement to Meet the Standard	The gap between the two groups has decreased over the time span – Meets the Standard	The gap between the two groups has increased over the time span – Needs Major Improvement to Meet the Standard

Course Success by Student Groups Narrative Explanation - *Explain why the course success gap is flat, increased or decreased.*

Overall, in this section:	The narrative includes fewer than 2 of the criteria - Needs Major Improvement to Meet the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard

Course Success by Student Groups Action Narrative (If Applicable) - *What actions are program faculty and staff engaged in to decrease the course success gap between African-American, Latinx, and Filipinx student groups and Asian, Native American, Pacific Islander, White, and Decline to State student groups?*

Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard
Reader Feedback	Under "Student Course Success by Student Groups" you not that there is "no" equity gap in success, but there clearly is in the data success numbers 60 compared to 66%, with previous	Reason for success drop in all groups is the same: Requires robust PCs and stable strong Internet connections. Thus impacts those that cannot afford these resources the most.	It may not be possible to understand all the reasons for declines in student success and higher withdrawal rates, but the department is making informed,

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	years even more glaring.	In F.b, question #3 (". In the data table above, is there a course success gap between African-American, Latinx, Filipinx student groups and Asian, Native American, Pacific Islander, White, Decline to State student groups?"), Writer states "No". Is this response in error by the Writer? However in Question #4, (". Does the data suggest that changes are necessary to decrease student course success gap between African-American, Latinx, Filipinx student groups and Asian, Native American, Pacific Islander, White, and Decline to State student groups? "), Writer states Yes. Agree with the latter, that yes there is a gap, and yes changes are necessary to improve. Also interesting to note that there is a reversal of the gap, which is not explained, First 2 years (2015-2017), African-American, Latinx, and Filipinx have a higher success rate than Asian, Native American, Pacific Islander, and White group.	student-centered changes to mitigate the situation.

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		Then 2017-2020, it reverses. Although 1st 2-year gaps seem much smaller than last 3 years. Possible the low-income factor is responsible, which can exist in any of the groups.	
G. Student Course Success by Demographics			
a. Student Course Success by Gender			
What does the data indicate about course success?			
Female	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Male	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Non-binary	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has been flat or decreased over the time span by no more than 2 percentage point – Meets the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard

Course Success by Gender Narrative Explanation - *If the data trend shows an increase, decrease, or no change/flat in the male, female, or non-binary student course success percentages, explain why the percentage is flat, increased or decreased.*

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Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes 2 of the criteria - Needs Some Improvement to Meet the Standard
Course Success by Gender Action Narrative (If Applicable) - *Describe proposed actions to stabilize/increase the course success rates for either male, female, or non-binary.*			
Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standad	The narrative includes all 5 of the criteria - Meets the Standad	The narrative includes 4 of the criteria - Needs Some Improvement to Meet the Standard
Reader Feedback		Root cause is again availability of robust PCs and stable/strong Internet connections. Thus need (1)onsite lab with PCs and the proper sw, as well as stable Internet connections. Also expand tutoring services in the Learning Resource Center Garden. The STEM Center is in strong support of working with the GIS and PSME divisions to establish a GIS Lab in the LRC Garden, with robust (gaming-level PCs) to accommodate the computation-intensive GIS sw. Disclosure: Reader (Konstantin) is the STEM Center Program	The decline in the male category is significant and suggests further exploration into this statistic necessary. Again, is this impacted by the global pandemic? What about the economic implications in the last six months of the academic year 2019-20?

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		Coordinator, and was part of the founding team of the Garden, that Allison (Writer) is referring to.	

b. Student Course Success by Ethnicity

What does the data trend indicate about program student course success by ethnicity?			
African Americans	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Asian	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Filipinx	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Latinx	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard

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Native American	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Pacific Islander	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
White	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard
Decline to State	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard	Course success has decreased over the time span by more than 4 percentage points - Needs Major Improvement to Meet the Standard

Student Course Success by Ethnicity Narrative Explanation (If Applicable) - *If the data trend shows a decrease in any of the student ethnic groups' course success rates, explain why the percentage decreased for each (address each ethnic group by bullet point).*

Overall, in this section:		The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes 2 of the criteria - Needs Some Improvement to Meet the Standard

Student Course Success by Ethnicity Narrative Explanation (If Applicable) - *Describe the reasons for the gap in course success.*

Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard		The narrative includes all 3 of the criteria - Meets the Standard

Student Course Success by Ethnicity Action Narrative (If Applicable) - *Describe the proposed actions for stabilizing/improving the course success by ethnicity.*

Overall, in this section:	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard	The narrative includes all 5 of the criteria - Meets the Standard
Reader Feedback		Writer understands root cause, which is (1)Requires robust PC to run the sw, or (2) requires strong/stable Internet connection to run the sw on the ETS supported virtual desktop via the cloud. Also understands the solution is to (1)establish GIS Open Lab with the appropriate sw, and (2) Provide the open Lab with strong/stable Internet connection. In Section G.b.2, "Do the data indicate a gap in course success for any of the ethnic groups as compared to other groups? ", Writer responds "No". **Is this an error? Need to provide narrative for this section.** Then in G.b.3, "Do the data suggest that	I found this Program Review to be thoughtful, well written, and reflective. The turnaround that GIST made from academic years 2015-17 to 2019-20 is impressive. Comebacks are never easy and this program should be commended for its decisive actions and its plans for the future. From a reader's standpoint, I found the rubric to be confining, and often times it felt like I was being led to a conclusion that I didn't necessarily agree with. For instance, items that "are in the department's control". If I left that box unchecked, it didn't meet the standard, no matter what the narrative had to say about the item.

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		changes are necessary to improve program course success equality?", Writer responds "Yes". Agree with the latter. There is a gap among the ethnic groups. And Yes, changes are necessary to remedy. Strongly support the proposal requesting collaboration between the BSS and PSME divisions to establish a GIS Lab, (in the LRC Garden) providing gaming-level PCs and strong Internet connections to enable all students an equal opportunity to succeed.	

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
A. Re-Accreditation Information			
2. Did the program maintain accreditation?	The program was reaccredited, received commendations, and no citations/recommendations - Excellent		The program was reaccredited and received both commendations and citations/recommendations - Meets the Standard
4. What were the major citations of the last re-accreditation report (e.g. areas of improvement, strategic direction, facilities, personnel, etc.)?			The program was able to take actions to improve and received the needed support to take the actions - Meets the Standard
Did the program make the required improvements?		The program maintained its accreditation.	
Reader Feedback	According to the program review, "there is not an accrediting body for this program, however the curriculum is modeled after the NSF Model Geospatial Technology curriculum"	As per Writer, "There is not an accrediting body for this program". As per Writer, "curriculum is modeled after the NSF Model Geospatial Technology curriculum "	
B. Advisory Board			

1. Did the program hold an annual advisory board meeting each year of the five-year cycle?
2. Did the program submit the advisory board meeting minutes each year of the five-year cycle?
3. Did the program include the web address/link to the online minutes?

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Overall, in this section:	Yes the program held an annual meeting of the advisory board and submitted the minutes - Meets the Standard	Yes the program held an annual meeting of the advisory board and submitted the minutes - Meets the Standard	Yes the program held an annual meeting of the advisory board and submitted the minutes - Meets the Standard
4. Were there any advisory board commendations/special mentions identified?	The program received commendations - Meets the Standard	The program received commendations - Meets the Standard	The program received commendations - Meets the Standard
5. Are there any identified actions for improvement or recommendations based on feedback from the program's advisory board? **6. What actions has the program taken to address recommendations made by the Advisory Board? What barriers has the program faced in implementing improvements?**			
Overall, in this section:	The program was able to take actions or investigate the recommendations and received the needed support to proceed - Meets the Standard	The program was able to take actions or investigate the recommendations and received the needed support to proceed - Meets the Standard	The program was able to take actions or investigate the recommendations and received the needed support to proceed - Meets the Standard
Reader Feedback		Recommendation by the Advisory Board was to move the GIST program online, as a response to declining enrollment. GIST did move online. Challenges were identified as students needed either (a) robust PC or (b) very stable internet connection (to access GIST sw online). The challenges are being addressed by the Writer via the request to establish a GIS Lab, where students can have access to both a strong Internet connection	GIST has done an exemplary job in working with their advisory board, including strategy and implementation. The move to all online asynchronous classes has increased their reach.

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		(already in place at the STEM Center/Garden), and robust PCs with the GIS sw running. The Instructor has the full support of the STEM Center to establish such a GIS Lab, and also jointly request funding (from BSS and PSME divisions) for an appropriate number of "gaming" laptops to be purchased for the GIS Lab, so students can run the GIS sw without issues. This contributes to equity efforts, as it provides the right resources for students that may not have the means to purchase these needed resources to successfully complete the class.	
C. Regional Labor Demand			
1. In the data table above, what does the regional labor demand data trend indicate?	Labor demand has an upward trend - Excellent	Labor demand has an upward trend - Excellent	Labor demand has an upward trend - Excellent
2. Describe the regional demand for labor in this sector. If the projected data trend shows no change/flat, an increase, or decrease in labor demand, explain why.			
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative exceeds expectations – the narrative could be used as an exemplar - Excellent

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Reader Feedback		GIS is a supplemental skill to many fields, such as Environmental Sciences, Public Safety, Computer Science, etc. The Writer understands and explains the regional demand context, as reflected in their comment: "...notoriously difficult to define in the Projected Regional Job Openings as Geospatial Technology skills are supplemental to many fields and are used to enhance/upskill workers in a variety of fields".	Excellent narrative describing the integration of the program, the student demographic, and how GIS is utilized.
D. Regional Labor Supply			
1. In the data table above, what does the regional labor supply data trend indicate?	Labor supply is projected to increase - Needs Improvement to Meet the Standard	Labor supply is projected to increase - Needs Improvement to Meet the Standard	Labor supply is projected to increase - Needs Improvement to Meet the Standard
2. Describe the regional supply for labor in this sector over the last five years. If the data trend shows no change/flat, an increase, or decrease in labor supply, explain why.			
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard		The narrative includes all 3 of the criteria - Meets the Standard
Reader Feedback		(Reader Comment: Looked up definition of labor supply on several websites. Need clarification of how the Labor Supply data, Labor Supply	The readers were informed by the Office of Instruction that the labor supply chart reflects duplicated counts of students, which may not serve as the best data for labor supply. There is no feedback to

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		descriptions/definitions, and the Writer's explanation correlate.)	provide to the program at this time.
		As follow-up to the above comment/question, and request for clarification, "The readers were informed by the Office of Instruction that the labor supply chart reflects duplicated counts of students, which may not serve as the best data for labor supply. There is no feedback to provide to the program at this time."	
E. Regional Wages			
1. In the data table above, what does the wage data trend indicate?	The occupational wage trend increased - Excellent	The occupational wage stayed flat - Meets the Standard	The occupational wage stayed flat - Meets the Standard
2. Describe the regional trend for wages in this sector over the last five years. If the data trend shows no change/flat, an increase, or decrease in wages, explain			
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes 2 of the criteria - Needs Some Improvement to Meet the Standard	The narrative includes all 3 of the criteria - Meets the Standard
Reader Feedback	GIST program review notes that the trend is "flat" when there was a slight "increase"	Writer understands the trend (averages to flat), as well as the occupational trends. Recommend	There is a clear understanding of the student demographic and how GIS classes are utilized by the student population.

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		providing a bit more detail as to the reason for this trend. The Writer's last couple of sentences may partially explain how the trend is determined: *"Students included in this survey completed one or more GIS classes, but may not have GIS as their primary occupation. The ''Median Wage'' of graduates reflects the varying composition and wide pay range of the jobs that require GIST skills. "* A bit more detail would help clarify what the reason for the trend is.	

F. Program 13.5 Course Completion

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
1. In the data table above, what does the data trend indicate about the number of students completing the 13.5 CTE units each year in the last five years within your program?	The number of students completing 13.5 units decreased over the 5 year period - Needs Improvement to Meet the Standard	The number of students completing 13.5 units decreased over the 5 year period - Needs Improvement to Meet the Standard	The number of students completing 13.5 units decreased over the 5 year period - Needs Improvement to Meet the Standard

2. If the data trend shows no change/flat, an increase, or decrease in the number of students completing the 13.5 CTE units, explain why.

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
Overall, in this section:	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard	The narrative includes all 3 of the criteria - Meets the Standard
Reader Feedback		Writer understands the trend decrease, and reason. As per Writer: *"As the program moved online in 2018, the program struggled to have students complete their degrees/ certificates as many students were "drop in" for specific skills and did not see the need to complete the full certificate"* Writer also explains what the department is doing to help increase certificate completions, by having program faculty encourage students to complete their certificates. The Writer's recommendation for the GIST industry to establish a formal accreditation or licensing group (which does not exist presently) would probably encourage more students to complete their certifications. Would be great to include a	

CTE Geospatial Tech Program Review

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		sentence or 2 if Foothill College is engaged in this accreditation effort..	
G. Program Graduate Employment Rates			
1. In the data table above, what does the graduate employment rate indicate for certificate/degree completers (e.g., Within one year after Community College Completion)?	Employment rate is 79% to 70% - Needs Some Improvement to Meet the Standard	Employment rate is 79% to 70% - Needs Some Improvement to Meet the Standard	Employment rate is 79% to 70% - Needs Some Improvement to Meet the Standard
2. Describe the graduate employment rate trend for both certificates and degrees. If the projected data trend shows no change/flat, an increase, or decrease, explain why.			
Overall, in this section:	The narrative includes all 4 of the criteria - Meets the Standard	The narrative includes 3 of the criteria - Needs Some Improvement to Meet the Standard	The narrative includes all 4 of the criteria - Meets the Standard
Reader Feedback	If the program needs to work on anything here, it would be to look into more of the "what is in the control of the department" in order to respond to the decline in the trend. The trend is said to be "flat" but while it's flat if looked at from a distance, the real numbers show a slight decrease from the starting point. I'm no data guru, however.	In Item G.1 above, selected "Employment rate is 79% to 70%", as the data cycles between 67% and 74%, which averages to about 71%. Recommend adding a bit more detail as to the reason for the trend. The comment by the Writer: "The data reflects that GIS	This is a great example of a CTE program working in conjunction with their advisory board to best serve their workforce demographic.

Rubric Evaluation	Brian Lewis (Faculty At-Large)	Konstantin Kalaitzidis (Classified Staff At-Large)	Lisa Drake (Same Division Faculty)
		skills can help to enhance the employability of students as between 67% and 73% of students who took a GIS course ... " partially describes how GIS classes help increase the student's employability. However, it is not clear why the trend is relatively flat between 2011 to 2019.	