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I. Department/Program Mission	
1. State the department name and everyone who participated in creating the comprehensive program plan.	Business Technology (BT): Verley O'Neal, Jackie Hood, Tim Parkhurst, Bob Cormia, Mimi Will, and Tim Woods.
2. State the program's mission. If you don't have one, create one.	<p>The mission of the Business Technology Department is to develop and provide career-oriented college-level curriculum to increase student skills and knowledge in areas of services, technical project management, communications, decision science, leadership, and teamwork skills.</p> <p>Objectives:</p> <p>The Department strives to create a student-centered learning environment that supports:</p> <ul style="list-style-type: none">▪ Hands-on instruction on business tools and applications,▪ Training professional workers and service professionals,▪ Training students in current and emerging technologies, techniques, and methodologies related to knowledge management and business information systems. <p>The Department places a high priority on enabling learning for diverse student populations with limited resources.</p>

I. Department/Program Mission

3. Explain how the program/department mission is aligned with the [college mission](#)?

Prepares students for career preparation and transition, lifelong learning, transfer education, and acquiring new skills in the field. Instructors are committed to the success of the Foothill College students. The BT department offers five individual classes and two certificate programs plus mini 2-course certificates aimed at mid-career professionals. Classroom, hybrid, and online learning opportunities.

II. Department and Program Description & Data				
1. What are your hours of operation?		Our offices open at: 9 am Closed for Lunch: No <input type="checkbox"/> or Yes <input checked="" type="checkbox"/> If yes, when: 12 – 1pm Our offices closed at: 5 pm		
2. What types of classes do you offer, at what locations, and at what times?		Times offered: <input checked="" type="checkbox"/> Morning (6AM-12PM) <input checked="" type="checkbox"/> Afternoon (12PM-4PM) <input checked="" type="checkbox"/> Evening (4PM-10PM)	Locations offered: <input checked="" type="checkbox"/> FH Main Campus <input checked="" type="checkbox"/> Middlefield <input type="checkbox"/> Off campus	Types Offered: <input checked="" type="checkbox"/> In Person <input checked="" type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Distance
3. List current positions and descriptions for all personnel in your area on the chart below (include position titles only, not individual names).				
Faculty Positions by Discipline	Full-time Headcount	Part-time Headcount	Brief Description of duties	
Computer Information Systems	0	1	Prepare and deliver lectures.	
Management and Classified Positions	Full-time Headcount	Part-time Headcount	Brief Description of duties	
Dean	1		Provide division leadership, manage budgets, facilitate curriculum processes, supervise staff, assist students/faculty/staff, and coordinate program activities and oversight.	
Administrative Assistant	1	0	Position currently filled through an “out-of-class” assignment, which ends in December. Div. Admin supports 3 distinct functions: CTIS, Apprenticeship, and COOP. Coordinates the day-to-day operations of the office, interact with the public, students, administrators, faculty and staff.	

			Monitors division budgets and fiscal management process.	
Student Worker Positions	Hours per Week	Months per Year	Brief Description of duties	

<p>4. Given the data, describe the trends in enrollment, FTES, and Average Class size. What are the implications for your department?</p>	<p>In the 06/07 fiscal year, student enrollment (grades) was 162 and WSCH was 2,233 with a productivity of 2,095. The sharp increase in enrollment and WSCH over 05/06 came from the new implementation of BT 93V & 93W – NASA internships. There were 114 interns in 06/07; 64 interns in 07/08; and, 28 interns in 08/09. In 07/08 fiscal year, student enrollment (grades) was 125 and WSCH 1,493 with a productivity of 1,120. The NASA intern program was retooled in 2008/09 as CWE courses. In 08/09 student enrollment (grades) dropped to 105 and WSCH was 1,314 with productivity of 910. With exception of the NASA program, average class size for BT courses have been traditionally small (combined average -6). The department has been traditionally small, offering basic skills for the office environment.</p>	
<p>5. Student Achievement: Given the data, describe the trends in overall success rates, retention rates, and degrees and certificates awarded. What are the implications for your department?</p>	<p>In the 06/07 fiscal year, there was a retention rate of 86% and a success rate of 83%. In 07/08, there was a retention rate of 85% and a success rate of 77%. The retention rate had dropped by 3% and the success rate had dropped by 2%. In 08/09, there was a retention rate of 93% and a success rate of 82%. The incorporation of the NASA intern program had helped increase retention by 8% with student success increasing by 5%. In 2007, there were 80 Associate's degrees and 270 Certificates (Awards<2 years) completions in the region. None were awarded by Foothill. In 2007, there were 35 Associate's degrees awarded in the region for Administrative Assistant and Secretarial Science, General; none were awarded by Foothill.</p>	

	<p>There were 102 certificates awarded in the region that were less than 1 academic year; none have been awarded by Foothill. As previously mentioned, BT programs have been designed to provide training in office procedures, basic computing skills, computing applications, business communications, and decision making. Given our enrollment patterns, in conjunction with the low level of degrees/certificates offered regionally, the department has determined that a redevelopment of focus is needed. Departmental program discussions have primarily focused on expanding curriculum beyond basic skills computing to include Information Technology Project Management, Health Care Information Systems (HIS), and Business Intelligence. We are unable to incorporate these new directions within the existing program degree sheet because they represent a substantive change. This requires a new state approved degree sheet, which would constitute a new department within CTIS, which would be Computer Business and Information Technology (CBIT). The existing BT structure will be reconfigured as a component within the new CBIT department.</p>	
<p>6. Student Equity: Given the data, describe the trends with respect to underrepresented students. How will your program address the needs/challenges indicated by the data?</p>	<p>In comparing 2007/08 (total headcount 125) with 2008/09 (total head count 105), retention increased for Filipino students by 40 percentage points, for Hispanic students by 33 percentage points, for Pacific Islander students by 25 percentage points, and for White students by 16 percentage points. Student retention decreased for Asian students by 9 percentage points and for Black students by 43 percentage points. Black (57%) Ethnicity students seem to have a disproportionately lower percentage of student retention. Percentage of success increased 1 percentage point for Asian students, 23 percentage points for Filipino students, 16</p>	

	<p>percentage points for Hispanic students, 25 percentage points for Pacific Islander students, and 19 percentage points for White students. Percentage of success decreased 5 percentage points for Asian students, 57 percentage points for Black students. Percentage of non-success decreased for Asian students by 4 percentage points and 2 percentage points for White students. Percentage of non-success increased for Black students by 14 percentage points, 17 percentage points for Filipino students, 17 percentage points for Hispanic students. There was no change in non-success for Pacific Islander students. There are significant increases in non-success for Black, Filipino, and Hispanic students that need to be addressed. The division as a whole will be looking to better identify barriers opposing student success. We will be developing a survey instrument that will seek to identify challenges, needs, and opportunities in raising student success and retention.</p>	
<p>7. Given the data, discuss how the FTEF trends and FTEF/FTES ratio will impact your program. Include any need for increasing or reducing your program faculty. What are the implications for your department?</p>	<p>In 2006/07 fiscal year, Full-time FTEF was 0.24 and PT/Overload was 0.11. In 2008/09, Full-time FTEF was 0.33 and PT/Overload was 0.04. The percent full-time rose 21% in 2008/09 over 2006/07. There is zero reassigned time in this department. The department has no fulltime faculty members at the current time, which is appropriate. Faculty members from other departments have been teaching in this area and have been working on defining new program development in order to increase departmental FTES.</p>	
<p>8. Given the data for distance learning, describe the trends related to success, retention, and student satisfaction. Discuss solutions to ensure that rates match or exceed those of comparable traditional format courses.</p>	<p>In the 06/07 fiscal year, Distance Education student enrollment (grades) was 29 and WSCH was 288 with a productivity of 393. In the 08/09 fiscal year, Distance Education student enrollment (grades) increased to 35 and WSCH increased to 322 with a productivity decreasing to 242. Full-time FTEF in 06/07 was 0.24; in 08/09 it was 0.33. There was a 38% increase in Full-time FTEF between the two periods. In 06/07, retention was 45%. Retention increase by</p>	

	<p>38 percentage points in 08/09 (83%). Student success for 06/07 was 31%; in 08/09, the success rate was 60%. Increases in success and retention within the BT department can be attributed, in part, to higher-levels of student-faculty interaction. The department's working group has been discussing how to potentially utilize a hybrid blending of modalities as a means to improve student retention.</p>	
<p>9. Optional: Provide any additional data relevant to your program. (Indicate the source of the data).</p>	<p>As mentioned above, there is faculty interest in redeveloping the BT department. For Project Management, there is a growing student population. In 2009, there were 10,030 jobs in computer and information systems managers. Job growth is anticipated to be 24% by 2019, which translates to an increase to 12,450. In 2009, there were 160,656 jobs in management occupations with a July unemployment of 6,915 (4.3% of total jobs). In the same period, there were 115,692 computer and mathematical science occupations with 11,640 unemployed in July (10.1% of total jobs). (All data from EMSI Complete Employment - 3rd Quarter 2009). A certificate in project management would provide both employed and unemployed professionals greater marketable skills, as well as, potential job growth. BT/ office technology – business and office technology – can also be expanded beyond the desktop to include collaboration tools, workflow, conferencing, and productivity, including cloud computing, SaaS (salesforce.com) and mobile based productivity tools, including smart phone applications.</p> <p>As for Health Care Information Systems (HIS) initial developmental focus would look into developing programs that aligned with two industry certifications: American Health Information Management Association (AHIMA) and Registered Health Information Administration (RHIA). Program focus would include: Health informatics, databases in health care environments, system security in health care</p>	

	<p>environments, data analysis, and decision support for Health Information Technology Practitioners (HITP). Health informatics, health care informatics, or medical informatics is the intersection of information science, computer science, and health care. It deals with the resources, devices, and methods required optimizing the acquisition, storage, retrieval, and use of information in health and biomedicine. Health informatics tools include not only computers but also clinical guidelines, formal medical terminologies, and information and communication systems. It is applied to the areas of nursing, clinical care, dentistry, pharmacy, public health and (bio)medical research. (retrieved December 2009, http://en.wikipedia.org/wiki/Health_informatics). In 2002, there were 44,384 jobs in medical office support. The anticipated growth by 2019 is 12% (49,702 jobs) (Source: EMSI Complete Employment - 3rd Quarter 2009). In 2009, there were 2,154 specific jobs in medical records, information technicians, and healthcare technologist. Anticipated job growth by 2019 for this sector is 25% (2,424). (Source: EMSI Complete Employment - 3rd Quarter 2009).</p>	
10. Are you seeing trends that are not reflected in the data cited above? If yes, please explain.	As previously mentioned, it is necessary to redesign the department in order to better align with critical technical skills that are in high demand. Potential redesign areas include: Project Management, Health Care Information Systems, and Knowledge Management/Collaboration/Productivity.	

Summary of Planning Goals & Action Plans				
11. Identify 3-6 operational goals and link them to one or more college strategic initiatives or to your operations.				
Department Operational Goals	College Strategic Initiatives			
Identify 3-6 operational goals	Building a Community of Scholars	Putting Access into Action	Promoting a Collaborative Decision-making Environment	Operations Planning
Retire outdated curricula and create new relevant courses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Improve our ability to meet current and future industry demands.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Identify problem areas for underrepresented populations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Establish strong career and academic pathways.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. What is your plan for accomplishing your goals?				
Department Operational Goals	Activities			
Retire outdated curricula and create new relevant courses.	Retired several courses in Fall 09. Will continue to review active courses and their standing with industry and program goals.			
Improve our ability to meet current and future industry demands.	Work closely with Advisory committee, as well as, follow industry trends as reflected in workforce research.			
Identify problem areas for underrepresented populations	The Division as a whole will be looking to better identify barriers opposing student success. We will be developing a survey instrument that will seek to identify challenges, needs, and opportunities in raising student success and retention.			
Establish strong career and academic pathways.	Scheduling better sequence offering for certificates so that online students can complete curricula online and evening students can complete curricula in evenings.			

13. Are additional resources needed to accomplish your department operational goals? If yes, identify the resource, as well as the purpose and rationale for each resource.		
Identified Resource	Purpose	If requesting funding, provide a rationale of how each request supports one or more college strategic initiative and/or supports student learning.

III. Curriculum	
Curriculum Overview	
1. How does your curriculum address the needs of diverse learners ?	Our curriculum offers different levels, speeds, and intensity of courses and different levels of complexity. We offer delivery for different learning styles such as visual, auditory, kinesthetic, etc. Students can choose among day and/or night classes, and online classes, which helps students overcome differing learning challenges.
2. How does your curriculum respond to changing community, student, and employer needs?	Industry Advisory committee, guest speakers, outreach, community events (Code Camp), updating courses on a continual basis. Most learning materials are current rather than in textbooks. The tools used are the latest versions and the projects change depending on current market needs.
3. How does your curriculum support the needs of other certificates or majors?	Computer literacy and critical thinking.
4. Do your courses for the major align with transfer institutions?	No.
5. Do your courses have appropriate and necessary prerequisites ? Identify any challenges and plans to address the challenges.	Yes. Faculty are active with students in helping guide their career and academic pathways.
6. Review the attached curriculum report for currency. What is your plan to address the deficiencies? (Consider: Title V , course deactivation , updated prerequisites , cross-listed courses , measuring student learning outcomes , curriculum sheets , certificates and degrees).	COR development is ongoing, both in new courses and updating existing courses often.
7. Does your program offer distance education courses?	Yes
8. If you offer distance education courses, list one or two short examples of how your distance education courses provide for effective interaction between students and faculty.	Faculty participate in online discussions and respond to email and private messages in a timely manner. Because of this, students do not have to wait for faculty office hours for individualized attention.

9. If you offer distance education courses, list one or two short examples of how your distance education courses provide for effective interaction among students.	Online discussions enable students to actively participate with other students.	
<i>College Skills (Pre-collegiate) Overview (Data Available Fall 2009-filling out this section is optional)</i>		
10. What college skills should a student have before entering your program?	Business experience and general computer and Internet skills. Basic arithmetic and computational skills, reading, writing, critical thinking, ability to communicate in basic English, and some familiarity with using Web based communication and collaboration tools.	
11. Given the data, comment on the effectiveness of the assessment and placement of college skills students into your program. (For MATH, ENGL and ESL only).	Students have the necessary English and math skills to complete the coursework.	
12. In what ways are you addressing the needs of the college skills students in your program?	Pacing of the course, encouraging student collaboration and group activity, one-on-one instructor/student interaction.	
13. How are faculty in your program collaborating with other disciplines and services to meet the needs of college skills students?	We have several courses that are cross-listed with other disciplines, including math and business. Faculty participate in several campus committees: Academic Senate, Curriculum, PARC, etc.	
<i>Program Mapping</i>		
14. If applicable, identify any sequence of courses that are part of your program. List in the order that they should be taken by students.	For the Help Desk/Technical Support program it is necessary to significantly update course sheet, given changes in CNET curriculum. For the Office Administration program, the Business Communication certificate has good potential if realigned with Social Computing and Knowledge Management principles. Key courses: CIS 51A Preparation for Technology Careers I (3 units), CIS 60 Introduction to Business Information Systems (5 units), B T 59 Integrated Business Communication (5 units), Math 220 Elementary Algebra I (5 units).	
15. For your courses that are part of a sequence – are the student learning outcomes well aligned with the next course in the sequence? Please work with the college researcher to answer this question - once your sequence of courses is identified.	Yes.	

16. If applicable, describe any capstone course, signature assignment (project, service learning , portfolio), or exam that demonstrates knowledge, skills, and abilities, indicating successful program completion?	There has also been discussion in creating a capstone course that would allow students to apply previous learning within a project-oriented capstone.	
<i>Course Scheduling & Consistency</i>		
17. Given available data, describe the trends in the scheduling of morning , afternoon , and evening classes, as well as Friday, Weekend , and distance education classes. Comment on the feasibility of offering classes at non-standard times.	Courses are offered in the evenings and on the weekend. The majority of students work full time and are unable to attend the standard morning and afternoon schedule. The only viable options are evening, weekend, and distance education.	
18. Are required courses scheduled in appropriate sequence to permit students to complete the program in the prescribed length of time ? If yes, describe the rationale upon which the sequence is based. If no, what is the plan to change the scheduling pattern? What are the barriers that prohibit implementation of the changes? Explain.	Courses are scheduled on a quarter-by-quarter basis. The first quarter, (Fall), may offer the A and B courses; the second quarter, (Winter), the C and D courses; and remaining courses in the third quarter, (Spring). Individual course offerings may be standard or distance learning. The sequencing allows a student to complete all of the requirements in a specified time frame.	
19. How does the department determine that classes are taught consistently with the course outline of record ?	The course syllabus follows the course outline. Instructor evaluations are also used to observe content alignment.	
<i>Summary of Planning Goals and Action Plans</i>		
20. What are your goals with respect to curriculum and how will those goals be measured?	As previously mentioned, it is necessary to redesign the department in order to better align with critical technical skills that are in high demand. Potential redesign areas include: Project Management, Health Care Information Systems, and Knowledge Management/Collaboration/Productivity.	
21. Are additional resources needed to accomplish your curriculum goals? If yes, identify the resource, as well as the purpose and rationale for each resource.	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning .	
Identified Resource	Purpose	

IV. Student Learning Outcomes		
<i>Student Learning Outcome Assessment</i>		
<p>1. Be sure and complete your student learning outcomes assessment for each course online through the C3MS system. When the program review form is online, the resources that you tie to your student learning outcomes will be included here on this form.</p> <p>2. Are additional resources needed to accomplish your student learning outcome goals that were not included in C3MS report? If yes, identify the resource, as well as the purpose and rationale for each resource.</p>		
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning.

V. Departmental Engagement		
1. What standing committees, if any, does your department maintain? What are the committee charges and membership?	CTIS curriculum committee.	
2. What interdepartmental collaboration beyond college skills has your department been involved in during the past 4 years?	Division Curriculum Committee and Division meetings	
3. What has your department done since its last program review to establish connections with schools, institutions, organizations, businesses, and corporations in the community?	We have a Business Advisory Group which meets quarterly to advise us on industry trends and needs. We are also highly integrated into NOVA works planning activities for funding / deployment of new employment training (especially ARRA and new energy development).	
4. In what ways if any, are you or have you worked with area high schools to align curriculum from the high school to your course?	We work through Foothill HS outreach activities (Rhonda Goldstone) and have a presence in our Technology Day on campus on a yearly basis.	
5. In what ways if any, are you working with CSUs, UCs, private, or out-of-state institutions to align courses and develop articulation agreements ?	BT courses are not easily articulated given the heavy industry-driven focus. The primary goal of these courses and certificates is to enhance the skills and immediate employability of a transitioning workforce.	
Summary of Planning Goals and Action Plans		
6. What are your goals with respect to departmental engagement and how will those goals be measured?	The department shall also seek out innovative joint projects that will help establish and promoted academic and career pathways through articulation and internship opportunities.	
7. Are additional resources needed to accomplish departmental engagement goals? If yes, identify the resource, as well as the purpose and rationale for each resource.		
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning .

VI. Professional Development	
1. List a sampling of professional development activities that faculty and staff have engaged in during the last two years.	Faculty have been active in conferences, workshops, and industry events.
2. What opportunities does your department take to share professional development experiences with colleagues?	This is an area in which the department can improve upon. The division shall host once a quarter a Faculty Forum, where faculty will be brought together to share professional development experiences, best practices, classroom management techniques, as well as, student retention strategies.
3. In what ways have faculty shared, discussed, and used professional development activities to improve program effectiveness?	Faculty members have used information presented at various conferences for new course development discussions.
4. In what ways have staff shared, discussed, and used professional development activities to improve program effectiveness? What professional development needs do you have in the coming years?	Professional development opportunities in Health Care Information Systems (HIS) would be extremely beneficial in developing new and innovative programs.
5. Are there unmet or upcoming professional development needs among faculty in this program? If yes, then please explain a proposed plan of action for addressing this need and any necessary resources.	<p>Problem – Technology programs come up quickly which does not align with college professional development approval process. Faculty must find time during the day or ad hoc to attend these conferences; some pay their own way to attend.</p> <p>Need release time for professional and curricular development.</p> <p>College sponsored grant-based/research-focused externships would allow faculty to work, teach, and gain new and relevant competencies without affecting the limited budget funding.</p>
Summary of Planning Goals and Action Plans	
6. What are your goals with respect to professional development and how will those goals be measured?	Maintaining instructor and curricular currency.

VI. Professional Development		
7. Are additional resources needed to accomplish professional development goals? If yes, identify the resource, as well as the purpose and rationale for each resource.		
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning.
Tuition	Tuition for attending professional development opportunities in Health Care Information Systems	Technology programs come up quickly which does not align with college professional development approval process. Faculty must find time during the day or ad hoc to attend these conferences; some pay their own way to attend.

VII. Support Services		
Support Services		
Consider the support services needed by your program when reflecting over the following questions		Comments or explanations of barriers and solutions.
1. Is there adequate clerical or administrative support for this program?	Yes No	The online bookstore ordering form needs considerable revision. There are also CD versions of several of our texts that are considerably less expensive, however have not been available in sufficient time and quantity. Bookstore interaction with students has been less than helpful by many of our students.
2. Are there sufficient college and departmental computer labs available to support this program?	Yes No	We need more computer labs; labs/classrooms have become increasingly impacted at key times (AM) by other non CTIS programs. Availability is a real issue.
3. Are the library and media resources provided by the college sufficient to support up-to-date program instruction?	Yes No	Safari U - establishing eTextbooks for current course. We also need updated software licenses.
4. Are adequate services provided in compliance with program needs for meeting health and safety guidelines?	Yes No	Yes – computer labs are straightforward to maintain
5. Are the custodial services to this program in compliance with program needs for meeting health and safety guidelines?	Yes No	Yes - computer labs are straightforward to maintain
6. Are accommodations for students with disabilities adequate, including alternative media, testing, and tutorial?	Yes No	Yes – media center is ADA compliant (as is FGA).
7. Are general tutorial services adequate?	Yes No	We have limited assistance for basic skills offered in our KCI/CTIS open computer lab. Online students do have access to these on-campus resources.
8. Are academic counseling and advising services available and/or adequate to support students enrolled in the program?	Yes No	Yes
9. Do students have access to and can they effectively use appropriate information resources ?	Yes No	Students access information resources via the CTIS/KCI multimedia lab or from off-campus using the CTIS website and Web resources.

10. Specifically related to distance learning, do you have appropriate faculty support services and/or effective training for faculty teaching online?	Yes No	There are significant concerns that with ongoing budget cuts, support in this area will be impacted, although we could use more training in developing effective course materials rather than just CMS training.	
<i>Marketing & Outreach</i>			
11. What impact do you feel the college catalog , class schedule , and online schedule of classes have on marketing your program? Does the marketing accurately reflect your program, requirements, and services available?		Online schedule of classes has the most impact on marketing our program – the biggest increase in enrollment is seen in students who come to us through our website and enroll in online courses.	
12. What impact does the college or departmental website have on marketing your program?		The college website is partially effective in marketing our department. Its design has improved in recent years, but there is room for improvement. A continuous feedback loop that allows the department to suggest changes to the college website and online marketing must be established and maintained.	
13. Is there any additional assistance from marketing that would benefit your program? If yes, explain.		Email marketing tools – such as support for constant contact and direct email / database marketing to grow and expand interest around our programs – especially for lightly filled courses where better outreach could build both WSCH and productivity.	
14. If you were to collaborate with the Outreach staff, what activities would be beneficial in reaching new students?		Outreach needs to be electronic – lightweight, fast, and interactive	
<i>Programs, clubs, organizations, and special activities for students</i>			
15. List the clubs that are designed specifically for students in this program. Describe their significant accomplishments.		The students have organized a local Association of Computing Machinery (ACM), which has about 60 members. The effort has been mostly student-driven. There are untapped possibilities in having students compete both locally and nationally. The division has provided an opportunity for Foothill ACM students to meet with the San Jose State Computing club. Joint activities should be further encouraged.	
16. List any awards, honors, scholarships, or other notable accomplishments of students in this program.		This is an area that can be improved. Scholarship opportunities exist that can be better utilized by our students.	
Summary of Planning Goals and Action Plans			

17. What are your goals with respect to support services and how will those goals be measured?		Research and implement upcoming areas in which new clubs might enhance student involvement. (e.g., Business Administration and Technology groups).	
18. Are additional resources needed to accomplish your support services goals? If yes, identify the resource, as well as the purpose and rationale for each resource.			
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning.	

VIII. Career and Technical Education Programs	
<i>Response to Labor Market Demand</i>	
1. How does your program meet labor market demand? Cite specific examples and sources.	As previously mentioned, it is necessary to redesign the department in order to better align with critical technical skills that are in high demand. Potential redesign areas include: Project Management, Health Care Information Systems, and Knowledge Management/Collaboration/Productivity.
2. Given the number of enrollments projected for the program and necessary to support the program, are there enough openings locally to permit placement of the expected number of graduates?	Currently demand for trained Business IT professionals exceeds the available supply. However, the IT industry as whole is unpredictable. The industry is marked by cyclical changes that cannot be predicted.
3. Has the job market been: declining slowly? steady? growing slowly? growing rapidly? newly emerging?	As stated previously, BT programs have been designed to provide training in office procedures, basic computing skills, computing applications, business communications, and decision making. Given our declining enrollment patterns, in conjunction with the low level of degrees/certificates offered regionally, the department has determined that a redevelopment of focus is needed.
4. What is the average starting salary a student can expect to make after completing a certificate or degree?	In the Greater South Bay and Peninsula region, the average hourly salary for executive secretaries and administrative assistants is \$22.79; for secretaries, except legal, medical, and executive, \$17.56 (Economic Modeling Specialists, Inc. [EMSI] Complete Employment, 3/2008).
5. What is the projected average percentage of salary increase in 2 years? 4 years?	Given current market volatility, it is very difficult to forecast, or even expect, significant salary increases over the next 2-4 years.
<i>Response to Program Credibility/Viability</i>	
6. If advanced degrees are typically needed for career advancement, will the courses required for this program transfer towards completion of the requirements for those degrees?	BT courses are not easily articulated given the heavy industry-driven focus. The primary goal of these courses and certificates is to enhance the skills and immediate employability of a transitioning workforce.

7. If yes, are the courses in your program aligned and/or articulated with the four-year institutions.	No.	
8. Will this preparation permit students to stay current in their field? Does the program teach basic principles and theory, as well as applications? Is it current? Is it of sufficient rigor to assure the capacity to continue to follow the literature and learn new techniques? Is it of sufficient generality to allow for later shifts in career?	Yes. We have avoided the teaching of specific technologies in favor of general concepts.	
9. Does this preparation provide a significant secondary expertise to primary careers? If yes, explain the purpose of the training – is it designed primarily or in part to meet the needs of those already employed for upward mobility, entrepreneurship, or other career upgrade?	Course offerings provide entry-level employment, retraining, and also provide managers with the necessary skills to understand, direct, and effectively administer underlying network staff and resources.	
10. Describe any pre-collegiate or noncredit pathways that exist to direct students into the program?	This is an area that the department had begun discussing prior to the recent economic crisis. Currently, many of our students are working professionals who are seeking basic skills development. There is a great need for “bridge” courses that could provide basic skills students with a viable path into professional entry-level BT careers.	
11. How does this program prepare students for competitive employment?	The department seeks to enhance students' knowledge in information communication technology, administration and management. Programs are designed to raise skills in systems analysis, critical thinking, active listening, judgment and decision making, monitoring, speaking, systems evaluation, time management, active learning, and complex problem solving.	
<i>Advisory Board</i>		

<p>12. List your advisory board members. The list of advisory board members should include their job titles as well as their affiliations, and an accompanying explanation should make clear that the professionals on this committee represent those within the industry who would hire graduates of a proposed CTE program.</p>	<p>Vikram Chowdiah, PhD – Intel Corporation - Vikram currently works at Intel Corporation in the Microprocessor validation department. He led the development of a High Performance Computing lab for validating Intel's processor architecture. He has also worked on various aspects of high end server validation. This work entails both hardware and software validation. High-end scientific applications and server operating systems have been validated for the end user based on his work.</p> <p>Donna Dulo, MS, MA, MSCIS, MBA – Department of Defense - Donna is a mathematician and computer scientist for the Department of Defense currently heading the Department of Computational Statistics for the US Army in Monterey.</p> <p>Peter Kellner - founded 73rd Street Associates in 1990, where he successfully delivered systems for university clinic scheduling, insurance company management, and a turnkey physician office management to more than 500 customers nationwide. Peter is also the founder of the Silicon Valley Code Camp, a free annual conference that draws developers from around the world to discuss, share, and explore new technologies and developmental approaches. Among the technologies he currently is involved with are ASP.NET, Silverlight, Oracle, Java, VOIP, and,SQL Server.</p> <p>Mahmood Khan, MBA, B.Sc., (*PMP) - is the President of Global Enterprise Strategy and Implementation (GESI). Prior to forming GESI, he served as a Program/Project Manager-Practice Principal with Hewlett Packard Consulting and Integration. Prior to HP and during the past 20+ years in IT, he has worked at IBM Global Services, start-up Bay Area consulting company, ROLM/Siemens and Wang. Most of his experience has been with large customers in Telecommunication, Financial/Banking and Manufacturing industries to transform enterprise IT, application development, and global operations.</p>
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13. List the dates and number of members attending of your most recent advisory board meetings.	<p>Michael Slinn - Mike has over three decades of experience as a hands-on software entrepreneur. Mike focuses on value creation, including business drivers, technology and engineering methodology. Accepted as a software expert in US Federal Court, Mike has opined in cases involving IP and contractual disputes. He has published approximately four dozen articles in industry publications, and has been technical reviewer for dozens of books prior to publication by O'Reilly & Associates & Wrox Press. Mike has written operating systems, compilers, interpreters, graphics systems, desktop applications, scientific and engineering applications, server-side applications, middleware, communication protocols and business plans. Currently he works with Adobe Flex / AIR, Python, Java, C & C++ and dabbles in functional programming. Mike was past Chairman and co-founder of the Silicon Valley Ruby Conference.</p> <p>Peter F. Young -Peter is currently a United States Fulbright Scholar and just returned to the Bay Area from his year-long teaching assignment at Belarusian State University's School of Business and Management of Technology. He is an experienced journalist, educator, and digital media practitioner who is an adjunct faculty member teaching interactive & multimedia technologies for San Jose State University, and UC Berkeley's Extension Program.</p>
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	<p>The Advisory Board meets quarterly. The last meeting was held during the 09 spring term.</p> <p>Members Present: Luis Barreto (CTIS Lab Administrator at Foothill College), Peter Barling (CTIS Instructor), John Berry (CTIS Instructor), Elaine Haight (CTIS Instructor), Jerry Cellilo (CTIS Counselor & Instructor), Vikram Chowdiah (Intel), Ken Seto (CTIS Instructor), Bob Cormia (CTIS Instructor), Donna Dulo (Department of Defense), Mahmood Khan (HP), Evan Lim (CTIS Instructor), Newton Chan (CTIS Instructor), Scott Gever (CTIS Instructor), Mike Murphy (CTIS Instructor), Bhavi Patel (CTIS Admin), Michael Slinn (Software Entrepreneur), Tim Woods (CTIS Division Dean), Mimi Will (CTIS Instructor), and Peter Young (Computer Education).</p>	
<p>14. What have been the major outcomes of your advisory board meetings? Of those outcomes, which have been acted upon, and what is your plan of action with regard to other outcomes discussed?</p>	<p>The Advisory Board provides feedback and industry perspectives related to CTIS program development and direction. As a result of our last meeting, it was recommended that:</p> <p>In addition to the technical skills, employers are looking for people with...</p> <ul style="list-style-type: none"> → People skills → Teamwork and collaboration skills → Reading, writing and presentation skills → Judgment skills → Strong understanding of ethics and personal responsibility → Focus on value or “wealth” creation. <p>Students should be prepared to face global competition. There seems to be an EDD (Education Deficiency Disorder) in the United States. USA is great for innovation but many good jobs are going outside.</p>	

	<p>The area most related to BT:</p> <p>[1] Project/Program Management</p> <p>Given the accelerated pace of Web application development and the increasing complexity of managing geographically distributed teams, this is a vital area of expertise. Beyond PMP certification, there are pragmatic techniques that can be used to successfully manage a single project, and these can also scale up to program management. Next generation project management is absolutely vital to successful Web deployment.</p>	
<i>Program Accreditation</i>		
15. Is this program subject to approval by specialized state, regional, or national accrediting agencies?	No	
16. What is the program's accreditation status?	N/A	
17. Indicate recommendations of the most recent accreditation evaluation of the program and corrective actions taken or planned. Most recent accreditation report and all additional pertinent documentation and explanations should be available on site for consultant review.	N/A	
18. Provide a brief analysis of student performance on licensure or board exams on first attempt.	N/A	
19. What indicators does your program use to determine success of our students after completion?	N/A	
20. Does your program survey employers for satisfaction of our students who have earned a degree/certificate? Provide brief analysis of employer satisfaction.	N/A	
21. Does the department's analysis of labor market demand, advisory board recommendations, and accreditation status (if applicable) reflect the data?	N/A	
22. Have any/all issues been identified in the program plan and are they adequately addressed with appropriate action plans? Explain.	N/A	

Summary of Planning Goals and Action Plans	
<p>23. What are your 4-year goals based on areas identified in the Career and Technical Education section of the program plan and how will those goals be measured?</p>	<p>Institutions of higher education have a social obligation to offer individuals an opportunity to improve their lives through better education. It is essential that despite current economic conditions, we find creative and innovative means to increase access and awareness so that underserved populations have the ability to begin a path of self-improvement. In addition to raising access and awareness, we must endeavor to remove all possible barriers that stand in the way of student success and persistence.</p> <p>Multiple studies have shown that an institution's constant pursuit of excellence in teaching and learning has a tremendous positive effect upon student success and persistence. The development of clear strategic objectives that guide institutional objectives can lead to better program development and student learning outcomes. In addition to clear learning outcomes, there is significant research that observes students' early and frequent interaction with institutional faculty and staff can lead to higher retention levels. High levels of interaction lead to greater feeling of academic competence along with an improved sense of self-efficacy. All operations should be grounded in this philosophy.</p> <p>The development of workforce readiness and communication is fundamental need in order to improve our community. When students enter or re-enter the workforce, their newly acquired skills make them more productive, while enhancing their individual earning potential and fueling local economic growth.</p>

	<p>In order to improve and promote program effectiveness, planning and assessment, it is necessary to seek ways to identify, collect, and evaluate meaningful data that could lead to improved instruction and higher academic quality. We will work closely with the Office of Curriculum and Instruction to identify existing (and new) data sources that might be utilized for better program development and decision making.</p> <p>From a project management perspective, we shall endeavor to (1) improve institutional methods of identification, servicing, and progress tracking for career technical education students; (2) improve career and academic counseling resources for CTE students focusing on student program selection and student retention; (3) research and implement an ePortfolio system for CTE student career planning and workforce preparation; (4) create a scalable, multidisciplinary Workforce Literacy Skills Program; (5) create a new model for inter-organizational CTE resource and service coordination; and (6) create a new pathways model for internship and job placement opportunities leading to higher wage and high demand areas.</p>	
24. Are additional resources needed to accomplish career and technical education goals? If yes, identify the resource, as well as the purpose and rationale for each resource.		
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning.

IX. Resource Planning: Personnel, Technology, Facilities, and Budget	
<i>Faculty</i>	
1. How does your PT/FT ratio impact the program?	Negatively. At present, we have no full-time faculty to lead the Department.
2. What staffing needs do you anticipate over the next four years. (Consider: retirements , PDL , reassigned time , turnover , growth or reduction of the program)	The long-term plan will be to utilize a new CIS faculty member to lead the BT department (refer to CIS program plan). The growing job demand in the Silicon valley requires that we find a well-rounded and fresh talent that understands the newest innovations in software engineering, computer science, and information technology. In the short term, we shall leverage existing faculty, as well as, recruit targeted part-time faculty positions.
<i>Classified Staff</i>	
3. What staffing needs do you anticipate over the next four years. (Consider: retirements , PDL , reassigned time , turnover , growth or reduction of the program)	Because most of our classes are online and students provide their own equipment and software, our most important classified need is servers and server admin.
<i>Technology and Equipment</i>	
4. Are the existing equipment and supplies adequate for meeting the needs of the instructional program?	Yes
5. Do you have adequate resources to support ADA needs in your physical and/or online courses and classrooms?	No. The division as a whole has been and will continue to be looking to better identify barriers opposing student success.
6. Is the technology used in your distance education courses appropriate to the nature and objectives of your courses? Please explain how it is appropriate or what changes are underway to make it appropriate. Explain.	Yes
<i>Technology & Equipment Definitions</i>	
<ul style="list-style-type: none"> • Non-instructional Equipment and Supplies: includes equipment for “office use” that is non-instructional and that is not used in a lab or classroom – it includes non-programmatic equipment for individual instructors and staff, such as a desktop computer for office use. Desktop technology (computers, printers, scanners, faxes) and software requests are processed through your Dean or Director. 	

<ul style="list-style-type: none"> Instructional Equipment and Supplies: includes technology, software, and supplies used in courses or labs, including occupational program equipment. Instructional program equipment requests are prioritized by the department and then by the Dean or Director. Durable Equipment and Furniture: includes non-instructional, non-technology equipment (chairs, tables, filing cabinets, vehicles, etc.) necessary to improve the operational functioning of the program/department. Note: It is recommended that divisions perform and maintain an inventory of all their technology and equipment. 			
<i>Facilities</i>			
7. Are your facilities accessible to students with disabilities?	Yes		
8. List needs for upgrades for existing spaces	The KCI has adequate laboratory space but is often over booked.		
9. List any new spaces that are needed	We may need additional laboratory space for lecture/lab activities.		
10. Identify any long-term maintenance needs.	Upgrade of computers and replacement of software.		
11. Are available general use facilities, such as classrooms, laboratories, and faculty office/work space adequate to support the program? Please explain.	Yes – current facilities are adequate to support the program.		
12. Are work orders, repairs, and support from district maintenance adequate and timely? Please explain.	Yes – software technicians respond to trouble tickets and request for maintenance in a timely fashion.		
<i>Budget</i>			
13. Are the A-budget and B-budget allocations sufficient to meet student needs in your department?	No. Continually declining B budgets have raised many challenges in maintaining quality operations and services by the division. We have been also to leverage community donations of hardware to offset our expenditures. Staff have also been very frugal in finding low-cost solutions for our continual maintenance and repair needs.		
14. Describe areas where your budget may be inadequate to fulfill program goals and mission.	We do not currently have the budget to supplement student learning through tutorial services. We would like to be able to recruit and pay specialized student tutors that would be able to support struggling students. Our inability to provide this essential support has limited the ability of putting access into action. As we receive students who are academically lesser prepared, attrition rates rise significantly.		
15. Are there ways to use existing funds differently within your department to meet changing needs?	We are already utilizing cost saving strategies to their maximum and will continue to do so.		
Summary of Planning Goals and Action Plans			

16. What are your goals with respect to resource planning and how will those goals be measured?		As a result of this program review, departments will meet quarterly to discuss resource planning, prioritization, and use. Changes will be reflected in annual updates to the program review.	
17. Are additional resources needed to accomplish your resource planning goals? If yes, identify the resource, as well as the purpose and rationale for each resource.			
Identified Resource	Purpose	If requesting funding, provide a rationale for how each request supports one or more college strategic initiative and/or supports student learning.	

X. Final Summary of Goals, Commitments to Action, and Resource Requests

1. Upon completion of this program plan, provide a comprehensive summary of your goals and action plans for the next 4 years.

Departmental program discussions have primarily focused on expanding curriculum beyond basic skills computing to include Information Technology Project Management, Healthcare Information Systems (HIS), and Business Intelligence. We are unable to incorporate these new directions within the existing program degree sheet because they represent a substantive change. This requires a new state approved degree sheet, which would constitute a new department within CTIS, which would be Computer Business and Information Technology (CBIT). The existing BT structure will be reconfigured as a component within the new CBIT department.

Key Division Priorities:

- Access and awareness
- Excellence in teaching and learning
- Workforce readiness and communication
- Program effectiveness – planning and assessment

Key BT Departmental Objectives: The Department strives to create a student-centered learning environment that supports:

- Hands-on instruction on business tools and applications,
- Training professional workers and service professionals,
- Training students in current and emerging technologies, techniques, and methodologies related to knowledge management and business information systems.

In order to meet these objectives, the Department shall:

- Retire outdated curricula and create new relevant courses.
- Establish strong career pathways.
- Improve our ability to meet current and future industry demands.
- Maintain and enhance instructor and curricular currency.
- Improve career and academic counseling resources for CTE students focusing on student program selection and student retention.

- Create a new pathways model for internship and job placement opportunities leading to higher wage and high demand areas.
- Identify ways to encourage and increase certificate/degree program completion.
- Identify problem areas for underrepresented populations.
- Examine and address student equity issues in the areas of retention, success, and non-success.
- Continue strategic scheduling that supports certificate/degree completion.
- Seek increased internship opportunities for our students.
- Increase our industry partnerships through, advisory committee, internships, and workforce program development.
- Work closely with the College marketing department in planning and implementing better promotion for programs.
- Develop and implement “bridge” courses that could provide basic skills students with a viable path into professional technology-enhanced careers.
- Improve institutional methods of identification, servicing, and progress tracking for career technical education students.

<p>2. Final Resource Request Summary: When the program planning and review form is online – the section below will automatically fill in with your responses from each section.</p>			<p>Note: If you are requesting resources this year, these items have to be included in your current program review. If you want the college to understand your full range of need, then list every current and upcoming resource need in each section above.</p>
Resource	Purpose	Rationale	Estimated Cost
Tuition	Tuition for attending professional development opportunities in Health Care Information Systems	Technology programs come up quickly which does not align with college professional development approval process. Faculty must find time during the day or ad hoc to attend these conferences; some pay their own way to attend.	\$ 2,000
Timothy J. Woods, PhD		December 18, 2009	
Supervising Administrator Signature		Completion Date	

