## I. Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Member Type</th>
<th>Email</th>
<th>Contact</th>
<th>Responsible for what part</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick Kelly</td>
<td>Primary Team Member</td>
<td><a href="mailto:patrick.kelly@marin.edu">patrick.kelly@marin.edu</a></td>
<td>7516</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## II. Program Review Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Committee (Chairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Schultz</td>
<td>Curriculum Committee Chair</td>
</tr>
<tr>
<td>Blaze Woodlief</td>
<td>Educational Planning Committee</td>
</tr>
<tr>
<td>V-Anne Chernock and</td>
<td>Facilities Committee Co-Chairs</td>
</tr>
<tr>
<td>Erik Dunmire</td>
<td></td>
</tr>
<tr>
<td>Yolanda Bellisimo</td>
<td>Planning and Resource Allocation Committee Co-Chair/Academic Senate President</td>
</tr>
<tr>
<td>Nick Chang</td>
<td>Planning and Resource Allocation Committee Co-Chair/Instructional Equipment Chair</td>
</tr>
<tr>
<td>Sara McKinnon and</td>
<td>Program Review Committee Chair and SLO Coordinators</td>
</tr>
<tr>
<td>Becky Brown</td>
<td></td>
</tr>
<tr>
<td>Chris Schulz</td>
<td>Student Access and Success Committee Chair</td>
</tr>
<tr>
<td>Michael Irvine</td>
<td>Tech Committee Chair</td>
</tr>
</tbody>
</table>

## III. Vice President of Academic Affairs

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nick Chang</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## IV. Board of Trustees President

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eva Long</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Program Overview—Introduction
COMP-2009

Instructions: Use this form to quickly outline your program at College of Marin. Briefly answer each of the questions and use bullet points whenever possible. Provide any attachments that substantiate or expand on the questions below.

I. Program Definition
Outline the unique qualities that define the importance of your program.

The Computer Science program is designed to offer students a series of courses to help them reach their personal and professional goals with a two-year degree in Computer Science, appropriate preparation for transfer to a four-year institution, advancement in an established career, or retraining for moving into a new profession.

II. Program Purpose
Pathway:
Briefly describe how your program fits into the pathways you have chosen.

The primary goal of the Computer Science program is to prepare students for a career in the Computer Science field by offering a program leading to an A.S. in Computer Science. Together with appropriate electives, students can also meet the requirements for transfer to a four-year institution to receive a baccalaureate degree in a science, engineering, or business discipline.

The secondary goal of the Computer Science program is to offer courses which give students skills necessary for advancement in the computer industry or retraining for an entry-level position.

III. Students Served
Briefly outline what students are served in your program.

Students enrolled in Computer Science courses include:
(a) high school students and graduates seeking a two-year degree in subject areas including computer science,
(b) high school students and graduates taking courses required for transfer to a four-year institution as a Computer Science major,
(c) returning students seeking skills for advancement in their current career or preparing to change professions,
(d) returning students seeking new knowledge in fulfillment of a personal goal.

IV. Program History
Briefly outline the recent history of your program.

Although some core courses in Computer Science have been part of the program for a number of years, new courses have been added as computer technology and Computer Science education have changed. For example, new courses in Java were designed to reflect changes in Computer Science education, and also to meet the needs of the demand for web-based presence in every profession. Another new course introducing computers for scientists and engineers teaches specific skills and techniques like data analysis and problem solving using examples from other disciplines.

As our college enrollments have declined, so have enrollments in computer courses. This decline is reflected in computer programs at other community college and four-year institutions as well, and seems to be the result of a two major factors:
(a) The dot-com bust has had an especially major negative impact in our geographic area on future employment opportunities for graduates in the computer industry. Rather than programmers, the employment market is richer for application specialists.
(b) the export of technical positions off-shore, roughly paralleling the dot-com bust, further drives enrollment declines in the computer field.

However, our students are assured that their courses will be accepted in accordance
with the regulations in place in the UC and CSU systems.

Our present schedule offers courses that enable a student to complete the core courses and additional requirements necessary for an A.S. degree over four consecutive semesters, provided they have the necessary high school background.

Attachments:
List and briefly describe any attachments
Facilities Questionnaire
COMP-2009

What are the existing facilities issues that impact student access and success, or health and safety? (address any of the following: Size, location, conditions, maintenance, features, a/c, lighting, adjacencies, other.)

The computers in the Science Center computer lab are slowly falling apart. We need a realistic roll over plan and should plan on providing the computer labs with up to date computers immediately.
Curriculum
COMP-2009

1. Course Outlines of Record must be updated every 5 years to remain current for content, texts, student learning outcomes as well as for articulation purposes. Are you aware of the dates on your course outlines? If not, contact OIM to check. If you have courses that are over 5 years old, are you planning on updating them? Please list.

We updated all of them except comp/math 117 which is in the works.
Any course that has not been updated will be deleted.

2. Are you planning on changing, updating or revising and degree or certificate requirements? If so, please explain how it will improve student learning, student success and/or access.

3. Are you collaborating (or thinking about collaborating) with other departments to develop joint curriculum for learning communities? If so, please describe briefly and explain how it will improve student learning, student success and/or access.

ENG

4. Do you plan to develop any new curriculum? If so, please describe briefly and explain how it will improve student learning, student success and/or access.

5. Do you plan to develop any new Distance Ed courses or develop Distance Ed versions of existing courses? If so, please describe briefly and explain how it will improve student learning, student success and/or access.

6. Do you plan to add or increase your material fees for any of your classes? If so, please list the classes and the proposed new or revised material fees for the respective classes.
Instructional Equipment

This section will be filled out by faculty and reviewed by the Department Chair, the ARea Dean, the Instructional Equipment Committee, IPC and Budget.

Please enter items that will be used over a period of semesters BY STUDENTS. (Note: These should be NEW items that you are requesting one time only - not ongoing or consumable. Ongoing and consumable requests go under "Other Instructional Equipment". Technology-related requests should go under "Technology Requests".

Select whether the item is less than or more than $200 each. If you are a large discipline with several areas, please include which area this item is for. Include Tax, Shipping and Handling in the total cost for each item.

I. Instructional Equipment/Materials Requirements

<table>
<thead>
<tr>
<th>Priority</th>
<th>To Support</th>
<th>Category</th>
<th>Discipline Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>12 Classes</td>
<td>Over $200 Each</td>
<td>COMP SCI/CHEM/BIO</td>
</tr>
</tbody>
</table>

Description and part number for ordering:
Computers

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Unit Cost:</th>
<th>Tax:</th>
<th>Shipping:</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>$1,500.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$30,000.00</td>
</tr>
</tbody>
</table>

One-time expenses: (e.g. construction, electrical, installation)

On-going Expenses: (e.g. maintenance, repairs, staffing, and/or upgrades)

Item to be shared with the following Department/Program: (Include any shared expenses)

Do you have space for this equipment? Yes

Justification for Item (See Rating Rubric)

1. Indicate how important this item is to the life of your discipline.
   • 'A' means that your discipline cannot teach your course(s) without the requested equipment.
   • 'B' means that your course(s) would be greatly enhanced with the requested equipment.
   • 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

   The computers in the SC lab are up to 7 years old. They can not handle the newest graphics software etc. and will soon be unable to support a computer science program as well as classes such as general chemistry and physiology which also use the lab.

2. Is this equipment required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this equipment required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

3. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?
   Computer Science students will actually be able to use computers!!

4. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?
Computer Science students will actually be able to use computers!!

5. What student learning or other outcomes are expected? Is it important to the achievement of student goals?
Computer Science students will actually be able to use computers!!!

6. How will these outcomes be measured for future planning? What data or evidence supports your request?
They will know how to use computers, program etc.

Additional Justification for this item:
Really???
I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Priority: To Support: Category Discipline Area
None 0 None None

Description and part number for ordering:
See instructional equipment section

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Unit Cost:</th>
<th>Tax:</th>
<th>Shipping:</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Type College-wide Discipline-Specific
None None

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

 Justiçação for Item (See Rating Rubric)
1. Indicate how important this item is to the life of your discipline.
   • ’A’ means that your discipline cannot teach your course(s) without the requested equipment.
   • ’B’ means that your course(s) would be greatly enhanced with the requested equipment.
   • ’C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.
   In addition, how many times have you requested this item, but you have not received it?
   See instructional equipment section

2. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
Is this equipment required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)
   See instructional equipment section

3. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?
   See instructional equipment section

4. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?
   See instructional equipment section

5. What student learning or other outcomes are expected? Is it important to the achievement of student goals?
   See instructional equipment section
6. How will these outcomes be measured for future planning? What data or evidence supports your request?

See instructional equipment section

Additional Justification for this item:
### Faculty Members
**COMP-2009**

#### I. Program Faculty
List of Faculty Members and Total Faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schmitt</td>
<td>Frederick</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Status:**
- Full-time, tenured: Yes
- Shared W/other program(s):

<table>
<thead>
<tr>
<th>Summer 2009 TU</th>
<th>Fall 2009 TU</th>
<th>Spring 2010 TU</th>
<th>Reassigned (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.00</td>
<td>00.00</td>
<td>00.00</td>
<td></td>
</tr>
</tbody>
</table>

**Years of Service:** 35

**Specialty:** List all areas of specialty and/or equivalency

**Leadership:** List involvement in committees or other service

#### II. Additional Teaching Unit Requests
**II. Additional Unit requests for NEW classes or extra sections** (requests for returned units has different process).

<table>
<thead>
<tr>
<th>Specialty:</th>
<th>Units/Class</th>
<th>Number of Sections/Year</th>
<th>Existing or New Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>comp 160, 220.</td>
<td></td>
<td></td>
<td>Existing Course</td>
</tr>
</tbody>
</table>

To meet Program requirements for the following:
- [ ] Health/Safety
- [ ] Scheduling
- [ ] Title 5/Ed.Code
- [ ] Waitlists

**Other:**
If it is for a new course, has the outline been submitted and approved by curriculum, UDWC and the Board?
- Yes

**Justification for new units:**
1. Why do you feel this is an important addition to your overall curriculum and/or number of offerings?
2. Is it or will it be required for a degree or certificate?
3. Is it a new state law requirement?
4. How will this improve access, student learning outcomes and success?
5. Do you have evidence to support the need for your request? If so, please explain and/or attach.

COMP SCI is undergoing revitalization. A letter and program plan summary has been forwarded to PRAC for review.

**Shared Resources:** If you have requested additional units that will be used by more than one department, please indicate here. Please indicate which disciplines and/or departments and the number of combined students/faculty or classes he/she would serve. Please indicate how it will improve access or outcomes and if it is needed for health and safety concerns or required by law.

#### III. FT Faculty Needs
(Please fill this out ONLY if you are stating a need for new full
1. Please indicate if there are NO FT faculty in your discipline. Please provide data regarding the length of time this discipline has been without a full time instructor.

2. Non-availability of part-time instructors in a subject area. Please provide evidence demonstrating the difficulty in finding part-time instructors to teach in the subject area.

3. RETCUM Faculty: How many FT faculty have retired in the past ten years. How many units are now taught by RETCUM faculty each year?

4. New FT Faculty: How many NEW FT faculty have been hired in past 10 years? Please list each faculty name and the year of employment. If this instructor is shared with another department, please list the equivalent FTE% for your department. Please list instructional equivalencies as necessary and if faculty member was the result of retreat rights.

5. Reduction in department TUs as a result of FT Faculty retirements or other significant causes? Please provide data that illustrates a change in teaching unit allocation as a direct result of FT faculty retirements within your department and how this may change in the coming year(s).

6. Other reasons: Have there been other causes for a reduction in units in your discipline? If so, please explain and provide evidence.

7. Changes in Student Demand: Recent or forthcoming growth as a result of added sections due to enrollment demands. Provide evidence that illustrates the need for additional faculty due to increased student demand such as numbers of sections added and/or courses with waitlist totals showing a need for additional sections. What is the % of FTEF for this increase in units? If there has been a decline in student growth, please explain why.

8. Current of forthcoming changes that illustrate the immediate need of additional FT faculty within this department. Please outline all relevant circumstances that justify the priority of a FT hire in addition to those already outlined above. Consider changes in the field, changes in the job market and population shifts.

9. Program Review Findings: Indicate what trends you identified in your last program review that support the need for full time faculty hires. Tie these to the department and college mission.

10. Other considerations: Include such information as matriculation needs, changes in student demand or community and job market needs, response to legislation, or rapid growth of the discipline.

11. Shared Resources: If you have requested FT faculty that will be used by more than one department, please indicate here. Please indicate which disciplines and/or departments and the number of combined students/faculty or classes he/she would serve. Please indicate how it will improve access or outcomes and if it is needed for health and safety concerns or required by law.
Program Summary
COMP-2009

Instructions: after reviewing your data and reports from all other sections of your program review, use this form to briefly summarize all of the information you have provided by closing with your concluding remarks (e.g. an executive one-page summary) for your entire program review.

I. Program Excellence (Best Practices)
Please address any of the following areas:
Overall Program structure, contextualized learning/learning communities, reputation of faculty, faculty collaboration, staff, retention and success, how you maintain a supportive environment, how you address issues of diversity, any specific student learning outcomes.

Students will have the necessary background for entry into upper-division study at a four-year institution as Computer Science majors or minors. Students will have a reasonable understanding at a lower-division level of each of the subject areas that define the discipline at that level—algorithms, architecture, data structures, programming languages, software engineering, and discrete mathematics. Students will be able to apply their knowledge of Computer Science to science, technology, or society in order to advance the goals of a business, research, academic, or governmental enterprise. Students will be able to work collaboratively as a member of a group to advance the goals of the group.

COMP SCI has requested a revitalization procedure. A cover letter and program plan summary has been forwarded to PRAC for review.

II. Program Resources (Responsiveness)
Briefly summarize examples of key resources required for your program to meet or exceed the college goals (as cited in this review).

COMP SCI has requested a revitalization procedure. A cover letter and program plan summary has been forwarded to PRAC for review.

III. Moving Forward Objectives (Planning)
Please summarize any data-driven coordinated planning has your department done to improve enrollment, student learning, access and success?

COMP SCI has requested a revitalization procedure. A cover letter and program plan summary has been forwarded to PRAC for review.

IV. Assessment of 2008 Program Reviews:
1. What resources have you been granted from your previous program reviews?
2. Please assess how these resources have been used to improve access, learning outcomes and student success in your program?
3. What changes have you implemented based on previous program reviews?
4. What results have you found?

V. Fall 2009 Requests Summary:
1. Please summarize the main requests you have made in this program review in order of your priority starting with the most important one.
2. Summarize briefly why you want each one.
3. Summarize your overall rationale.

COMP SCI has requested a revitalization procedure. A cover letter and program plan summary has been forwarded to PRAC for review.

VI. Other concluding remarks.
COMP SCI has requested a revitalization procedure. A cover letter and program plan summary has been forwarded to PRAC for review.
Department Chair Comments
COMP-2009

1. Please make any comments on the Five Pathways, Student Access and Success, Facilities, Curriculum and SLO sections.

2. Please comment on the instructional equipment requests, technology requests and other instructional materials requests sections. Please comment especially on any specific priorities without which this program cannot function.

The computers in the SC are falling apart. They are very old and we have already lost 5 of them (unrecoverable). We can not update certain courses because the old computers can not handle the new software. There has been much talk over the years of a computer roll over plan for the computer labs on campus, but like so many things here it has, to date, not gone beyond the talking stage. This jeopardizes not only the revised comp sci program but also the chemistry, physics and biology students who use the lab on a regular basis. Getting new computers is among the highest priorities for the physical science department.

3. Please comment on the faculty and staff sections.

4. Other comments
Area Directors and Deans Comments
COMP-2009

1. Please make any comments on the Five Pathways, Student Access and Success, Facilities, Curriculum and SLO sections.

2. Please comment on the instructional equipment requests, technology requests and other instructional materials requests sections. Please comment especially on any specific priorities without which this program cannot function.

3. Please comment on the faculty and staff sections.

4. Please itemize expenses currently covered by external funds that may revert back to general funds.

5. Other comments

The computer science discipline at COM has struggled for many years. With the move this academic year of offering courses in the evening, and bringing in new part-time instructors for these courses, there has been some renewed interest in the area, evidenced by healthier class enrollments. A proposal has been submitted to PRAC for revitalization and is under review.