

2011-2012 Tactical Plan

Create Action Items

Mission Statement

The unit supports the college's mission of successful student learning by:

1. Preparing students for transfer to four-year colleges and universities in order to continue on in mathematics at the upper division level or to meet the mathematics requirements in general education.
2. Helping students meet the general education requirements in mathematics at PCC, and hence helping the college increase the number of students who complete Associates degrees.
3. Providing mathematics classes for members of the community who want to enhance their mathematical skills.

Overview/Summary

The largest challenge/project facing the Mathematics Division in 2011-12 will be to explore curricular options which might be adopted in order to improve the rate at which students who start at the basic skills level actually eventually achieve success, namely completing a transfer level math course. Wrapped up in this broader challenge will be some sub-challenges which will eventually intertwine into an overall program. Those sub-challenges are delineated in this plan for the year, and they are:

1. Explore Curricular Alternatives: for the basic skills sequence of course, such collapsing 3 courses into 2, or alternative, more technologically based, delivery of the lowest level courses, and other possibilities as yet unknown. Collectively, this approach is currently known as "course redesign" in the applicable literature.
2. Create Alternative Pathways: for students to move through the curriculum, typically as cohorts or clusters.
3. High School Curriculum Alignment: continue, strengthen and expand the current project with PUSD.
4. Math Center: Create a truly comprehensive, full service, technology based center which can appropriately support the curricular alternatives adopted.
5. Math Major: Create a program for students who want to transfer to CSU as a Math Major. This is already underway during Spring 2011.

In addition, two ongoing needs must be addressed in order for the Math program to flourish: additional classroom space for Math classes, and additional Full Time Faculty positions.

All this ... and new Interim Dean to start the year! The Math Division has a lot of work to do.

Actions

Comprehensive Math Center

Facilities

Math Center Facility Needs

Space needs for math center estimated at a total of 7,500 square feet, to accommodate computer labs, tutor space, classrooms, storage, offices.

▼ Action: Identify/Create Space for Comprehensive Math Center for Students

Action details: Identify on campus space to create an up to date Math Center to provide comprehensive support for math students. Estimated need is 7,500 square feet. Concept is modeled on the west half of the 5th floor of the R-Bldg in the space to be vacated by VAMS after their new Art Center building is completed.

Implementation Plan (timeline): Fall 2011: Formulate vision for Math Center
Spring 2012: VP of Instruction convenes committee to evaluate campus wide needs for instructional space, including Math Center. Committee makes decisions regarding how VAMS space in R-building will

be used after they vacate.
Fall 2014: Convert 5-th floor (west) of R-Bldg to Math Center.

Key/Responsible Personnel: Math Dean, Math Faculty, VP of Instruction.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): Fall 2014: Construction funds needed to convert existing space to Math Center.

Budget request amount: \$80,000.00

Priority: High

Supporting Attachments:

 Math Support Center Vision - Initial Concept (Microsoft Word)

Provides broad outline of initial concept for a comprehensive, full service Math Center for students at PCC. Developed by Dean and two faculty (Yamato, McClendon), Fall 2010.

Personnel

Math Center Personnel Needs

A properly functioning comprehensive Math Center will need more personnel than are currently available in the Mathematics Division.

▼ Action: IT- Capable Staff

Action details: 2 staff are needed who have Instructional Technology capabilities. They will welcome students, ensure they are checked in, provide handouts, guidance, etc., and tend to computer needs below the level of computer technology specialists.

Implementation Plan (timeline): Spring 2011: establish job descriptions

Fall 2013: Advertise, recruit

Spring 2014: Hire

Fall 2014: Start work assignments.

Key/Responsible Personnel: Dean, Faculty, HR

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): Personnel salaries and benefits

Budget request amount: \$150,000.00

Priority: High

▼ Action: Math Center Supervisor

Action details: Increase release time of current Math Resource Center Supervisor (Yamato) from 72%, 10 months, to 100%, 12 months.

Implementation Plan (timeline): Fall 2013: Describe position responsibilities.

Key/Responsible Personnel: Dean, MRC Supervisor

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): 67% combined increase in salary and benefits.

Budget request amount: \$80,000.00

Priority: High

▼ Action: Peer Tutors

Action details: Hire 20 additional Peer tutors to work with students in the open lab and in the tutor room.

Implementation Plan (timeline): Spring 2013: Recruit

Fall 2014: Hire

Key/Responsible Personnel: Math Center Supervisor (Yamato)

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): 64 hours of center operation per week, 2 tutors on duty at all hours of operation, at ~\$12/hour, 46 weeks per year.

Budget request amount: \$75,000.00

Priority: High

▼ Action: Supplemental Instruction Leaders

Action details: Need 20 SI leaders to provide support for assigned classes.

Implementation Plan (timeline): Spring 2013: Recruit
Fall 2014: Hire

Key/Responsible Personnel: Math Center Supervisor (Yamato) and/or PCC Supplemental Instruction Coordinator (Pell)

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): 5 hours per week, each SI Leader, \$10/hour, 44 weeks per year. Also need funds to provide SI Leader training.

Budget request amount: \$4,000.00

Priority: Medium

Equipment

Math Center Technology Needs

Computers, student tracking and enhanced media are needed for a fully functioning Math Center.

▼ Action: Computers

Action details: 50 for open labs, 105 for computer lab classrooms, 2 for instructors in labs, 1 for check-in/welcome desk; Total 158 computers.

Implementation Plan (timeline): Fall 2012: Detail needs
Spring 2013: Order computers
Spring 2014: Install computers

Key/Responsible Personnel: VP of Instruction (budget), Math Dean and Faculty (Design), Assistant Dean, Computing Services (Implementation)

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): \$1,000 per computer?

Budget request amount: \$160,000.00

Priority: High

▼ Action: Furniture

- Action details:
1. 155 computer desks for open lab and 3 classrooms, with chairs.
 2. 10 sets of desks, chairs, bookcases and file cabinets for faculty.
 3. 70 student desks for general math classrooms.
 4. Long table with 10 chairs for each of 6 study rooms.
 5. Counter space for check-in with attendant stool.
 6. Cabinets in storage space.
 7. 5 round 8-person tables with 8 chairs each for general tutor space.
 8. 2 Instructor desks with chairs for labs (developmental and transfer)
 9. 35 student desks for test center

Implementation Plan (timeline): Spring 2013: Identify details of needs
 Fall 2013: Order furniture
 Spring 2014: Install furniture

Key/Responsible Personnel: Dean, Math Center Supervisor (Yamato)

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): Wild guess at this time for all the furniture listed above.

Budget request amount: \$150,000.00

Priority: High

High School Curriculum Alignment Project

Personnel

Alignment of High School Math Courses

Have PCC Math Faculty work with PCC district high schools to align their curriculum so that their graduates can enter PCC with guaranteed placement at one of several levels of mathematics competency.

▼ Action: PCC Math Faculty Coordinate with High School Teachers and Administrators

Action details: PCC Math faculty propose course design and work with high school teachers to ensure their curriculum and standards for equivalent courses are aligned with ours so that when their student succeeds in the course, they can be guaranteed placement at an appropriate level at PCC.

Implementation Plan (timeline): Fall 2010, Spring 2011: Work with PUSD administrators and teachers to design HS course equivalent to our Math 125 to ensure placement of students upon graduation at Math 131 level at PCC.

Fall 2011: Run approved courses at PUSD schools.

Fall 2012: Place successful PUSD high school students into classes at PCC. Expand program within PUSD and expand program to coordination with other high school districts in our area.

Key/Responsible Personnel: Dean; Program coordinators Jessica Valentine, Yoshiko Yamato, and supporting instructors Yu-Chung Chang and Elizabeth Cannis.

Steps - what are the steps in implementing this action?: Initial PUSD pilot project already in progress and planned: Will entail class visitations in Spring 2011 and training in Summer 2011. Start approved classes at PUSD schools in Fall 2011.

Budget approval required? (describe): Stipends to support PCC faculty on this project, as this entails work outside their normal responsibility which often occurs at times (Winter and Summer) outside their normal contract schedule. Amounts shown under "Budget request amount" is for:

2011-12: 2,200

2012-13: 3,200

2013-14: 3,200

A small additional budget is cited under the Supplies category.

Budget request amount: \$8,600.00

Priority: High

Supplies

Duplicating and Supplies

▼ Action: Duplicating and Supplies

Need small amounts for duplicating costs and food for working lunches.

Action details: Need small amounts of budget each year for this project to cover food at working lunches and duplicating of course materials.

Implementation Plan (timeline):

Key/Responsible Personnel:

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): Food: \$300/lunch for two lunches per year.

Duplicating: \$200 per year

Timeline: 3 years (2011-12, 2012-13, 2013-14)

Budget request amount: \$1,500.00

Priority: Medium

Pasadena City College Action Category Framework (Copy 1)

Curriculum

Explore New Curricula

Search for new ways to offer math classes, and/or review curricula for possible additions, deletions, or improvements.

▼ Action: Remedial Mathematics Alternatives

Action details: A lot of college resources are used to teach students who need a lot of remedial mathematics work before they are qualified to be in degree courses such as Math 131 (Intermediate Algebra) and above. These students have very low success rates even in the lowest level courses. Meanwhile, not enough resources are allocated to transfer level classes. We need to explore and possibly experiment with alternatives to remediating those students so they can start their classwork at a higher level. Such alternatives would then, hopefully, allow reallocation of resources (instruction time) to higher level courses that would then improve our ability to meet excess demand for transfer courses.

Implementation Plan (timeline): Explore alternatives such as "modular" remediation, computer delivered remediation (such as within MyMathLab), self-paced learning supported by a math computer lab, and other possibilities.

Key/Responsible Personnel: Math Faculty. No one specified as yet.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe):

Budget request amount: \$0.00

Priority: Medium

Math Major

We need to establish a Mathematics Major in accordance with AB 1440.

▼ Action: Establish Mathematics Major

Action details: Review state approved major and modify as needed for local priorities.

Implementation Plan (timeline): Complete by December, 2011.

Key/Responsible Personnel: Math Faculty; no one yet specified.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe):

Budget request amount: \$0.00

Priority: High

Alternative Pathways

Explore alternatives to

▼ Action: Stat-Path

getting students through to a completed degree and/or transfer ability in less time.

Action details: Explore alternative pathway similar to that used by other colleges (i.e., Los Medanos) in which non-STEM students take one sub-transfer math course that raises their math abilities to the point where they can then take Statistics and be done with their transfer requirement.

Implementation Plan (timeline): Explore during 2011-12.

Key/Responsible Personnel: Faculty; none yet specified.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe):

Budget request amount: \$0.00

Priority: Medium

Facilities

Increase Math Classrooms

Math Division needs 1 more classroom on "first call" to accommodate its current class offerings.

Almost all mathematics instruction is done in general classroom space. Math has under its "first call" 16 rooms which are more densely scheduled (with math classes) than any other classroom on campus. And yet, in Fall 2011 we have 40 hours per week of math classes which we cannot fit into our own rooms and which are therefore in the rooms of other divisions who clearly have more general classroom space than they need.

▼ Action: Increase Office Space

Action details: Room R119 was separated from R121 in Winter, 2011. Now it is ready to be converted to an office and storage space. It will be used to house 3 math faculty and to provide storage for instructional materials for Math 450.

Implementation Plan (timeline): Obtain furniture for 3 faculty members (desk, chair, file cabinet, book case, student chair): Spring 2011. Hoping for surplus furniture to do the job; otherwise will have to buy new.

Install internet and phone for three positions; Summer 2011.

Key/Responsible Personnel: Dean, Mathematics; Assistant Dean, Computer Services; Director, Purchasing Services.

Steps - what are the steps in implementing this action?: Have already made requests to Computer Services and Purchasing Services.

Budget approval required? (describe): Hopefully no funding is required, assuming internet installation falls within Computing Services budget and surplus furniture can be located by Purchasing Services.

Budget request amount: \$0.00

Priority: High

▼ Action: Obtain Additional Math Classroom Space

Action details: Obtain at least one more general purpose classroom dedicated to math classes (on Math Division's "First Call").

Implementation Plan (timeline):

Key/Responsible Personnel: VP of Instruction, Dean of Mathematics

Steps - what are the steps in implementing this action?:

Budget approval required? (describe):

Budget request amount: \$0.00

Priority: High

Personnel

Full Time Faculty

In Fall 2011 59.3% of mathematics class hours are being taught by full time instructors. This is far below the state standard of 75%. We have some excellent adjuncts, but on average adjuncts are less effective than full time instructors because:

- Full Time instructors are fully dedicated to teaching; adjuncts have either full time jobs elsewhere, or have very hectic schedules running between campuses.
- Full Time instructors are fully engaged with division wide analysis of pedagogy and SLOs;
- Adjuncts do not have office hours.

▼ Action: Hire Additional Full Time Faculty

Action details: Hire 3 per year, for 3 years, total of 9 new, growth positions.

Implementation Plan (timeline): Spring 2011, Fall 2011, 2012: Initiate hiring process for 3 growth positions each year.

Key/Responsible Personnel: Dean.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe): Salary and benefits estimate:

Budget request amount: \$240,000.00

Priority: Medium

Supporting Attachments:



Full Time vs. Part Time Teaching Loads - Fall 2010 (Microsoft Excel)

Shows percentages of class hours taught by Full Time faculty, and by Adjunct Faculty, in all classes and in Basic Skills classes.

▼ Action: Hire New Mathematics Dean

Action details: Current Dean is planning to retire 6/30/2011, assuming Early Retirement Incentive is approved. So, a new Dean will have to be hired.

Implementation Plan (timeline): Select Math Committee members, Spring 2011, or early Fall 2011 at the latest.

Start search Fall 2011.

Hire not later than Summer 2012.

Key/Responsible Personnel: Interim Mathematics Dean; VP of Instruction; Human Resources.

Steps - what are the steps in implementing this action?:

Budget approval required? (describe):

Budget request amount: \$0.00

Priority: High

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