

# Goal Progress Report - Four Columns

## Long Beach City College Dept - Math & Engineering

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**Mission:** The mission of the Long Beach City College Mathematics and Engineering Department is to foster an environment that both challenges and supports its students. The primary purposes of the educational programs offered by the department are: to prepare students for transfer to baccalaureate-granting institutions; to nurture an appreciation of the role of mathematics and engineering in life; to enhance the ability of students to utilize mathematics, engineering, and critical thinking in their lives; and to support business and industry in economic development by providing a highly educated work-force. The Mathematics and Engineering Department will aspire to excellence in teaching, a well-designed curriculum, and a supportive environment for all our students.

The Mathematics and Engineering Department is committed to continuous revision and improvement of the curriculum, making real world connections, and incorporating technology. The department employs an assortment of assessment techniques including student learning outcomes, provides a variety of teaching styles, and maintains intervention plans for students having difficulty.

**Description:** >>The Mathematics and Engineering Department provides:

- mathematics instruction needed for general education
- developmental math instruction needed by students in all disciplines
- mathematics and engineering instruction for transfer students majoring in mathematics, science, engineering, fields other than mathematics and science, and teacher preparation.
- mathematics support needed for an AA/AS degree, the newly created Mathematics Associate in Science for Transfer degree, certificate programs, and other disciplines.

>>The Mathematics Program serves a student population:

- that has members who possess a wide range of abilities -- from only the most rudimentary basic arithmetic skills to individuals familiar with differential equations and linear algebra.
- that often take only the minimum amount of mathematics classes specifically required for their educational program.
- that often require multiple semesters of math to meet their goals.
- that display varying degrees of math anxiety.
- that has members greatly varied in age from recent high school graduates still in their teens to senior citizens.
- that has members who have attended city college periodically for more than 4 years.
- that has members that have never graduated from high school.
- that has members who are returning students.
- that has members who are undergoing career changes, but who may already possess previous certificates or college degrees.
- that is diverse in educational experience in mathematics and diverse in language skills.

- >>The Engineering Program serves a student population:
  - with abilities ranging from only basic geometry to differential equations and linear algebra
  - that seeks to transfer to engineering schools or need to upgrade their skills.
  - that needs both a traditional engineering degree with its mathematics and science components, but also may seek a more vocational emphasis without the science and mathematics.
  - that have attended city college periodically for more than 4 years.
  - that are returning students.
  - that are undergoing career changes and may already possess previous certificates or college degrees.

**Summary of Access, THE MATHEMATICS PROGRAM:**

**Productivity & Effectiveness:** The curriculum of the Mathematics and Engineering Department must provide support for several non-transfer majors and preparation for students upgrading their skills so they can directly seek employment. This requires continuing consultation with faculty in non-transfer programs and an awareness of employer's requirements.

Within the last six years, the Mathematics and Engineering Department has adjusted to changes originating in the four-year schools. In particular, CSULB has directed some students to the Long Beach City College Mathematics and Engineering Department who did not reach freshman status in mathematics within the first year. The Mathematics and Engineering Department has also adjusted the technology portions of the courses to keep abreast of technology changes and upgrades. The emergence of the algebra component of the high school exit exam and common final exams in other courses in Long Beach high schools continually challenges the Mathematics and Engineering Department to maintain contact with local high schools.

Within the last six years, the Mathematics and Engineering Department has developed a 2-semester version of MATH 110 and MATH 130 for students who need a slower pace for this course. We have also expanded into multimedia instruction and distance learning via the internet as alternatives to the traditional class format.

The success rates for MATH 110 and MATH 130 for the past three academic years are listed below:

| course   | 05-06 | 06-07 | 07-08 |
|----------|-------|-------|-------|
| MATH 110 | 34.2% | 33.5% | 33.7% |
| MATH 130 | 38.9% | 42.5% | 42.4% |

These success rates are considered sub-optimal. To improve these success rates, the department has implemented activities using a success center model that incorporates class mandated supplemental instruction. This success center model was incorporated into MATH 110, MATH 110A and MATH 110B in Fall 2008. Though the program is still new, the preliminary results are very encouraging, showing an increase of 6 percentage points in success rates during the academic year 08-09. The department then expanded the success center program to MATH 130, MATH 130A and MATH 130B in Fall 2009. Since then the Success Center model has expanded even further to include Math 815 as well. Since Fall 2008, the Mathematics and Engineering department has customized books for MATH 110, MATH 110A, MATH 110B, MATH 130, MATH 130A, MATH 130B. This has resulted in developing resources that are being paid by the publisher to LBCC Foundation for mathematics and engineering. These funds will be utilized in establishing scholarships for mathematics and engineering majors and/or to meet any other departmental needs.

Interaction with Other LBCC Departments: The Mathematics and Engineering Department provides courses to satisfy the requirements of other departments. Feedback on the satisfaction of other departments with those courses is obtained through informal dialogue with faculty in the affected department. The Math and Engineering department maintains its effort to create further symbiotic relationships with other disciplines to further enhance the education of our students.

In the past the Mathematics and Engineering Department has expanded the number of classes offered in MATH 110, MATH 130, and STAT 1 for the Accelerated College Education (ACE) program. These courses have been scheduled for Saturdays and Sundays. The department has supported the First Year Experience (FYE) program by linking math courses with the LEARN 11 and counseling courses. A formal articulation program is in place for courses which are acceptable for transfer to CSU/UC.

The Math and Engineering department continues to respond to student demand for alternative information delivery as well. Successful experiments have included the addition of early morning classes, additional late evening classes, weekend classes, and more hybrid course offerings. Also popular are the accelerated math classes (AMC) which deliver two classes in one semester (815/110 or 110/130 combinations by meeting daily from Monday to Thursday.

The Math and Engineering department has also designed and implemented the Mathematics Associate in Science for Transfer degree to better facilitate the transfer of students to the CSU system.

#### ENGINEERING PROGRAM:

The Engineering Program serves a very diverse student population.

The transfer curriculum of the Engineering Program must match university courses. Regular contact is maintained with faculty at four-year institutions to insure that our courses articulate with those at the four-year institutions and that the interface works for students progressing through a sequence of courses that begins with us and continues after they transfer.

During the last six years, while attempting to grow their engineering program, the Math and Engineering department has had to adjust to changes originating in the four-year schools. Although the department continues to support two sections of ENGR 50 (Introduction to Engineering), the offerings of other engineering courses is often spotty or even non-existent. The department is currently looking into the Promise Pathways philosophy advertise revamp course offerings in order to generate more interest in the engineering program.

All the Engineering courses are transferable to UC/CSU. A formal articulation program is in place for courses which are acceptable for transfer to CSU/UC.

**Internal Conditions (see Help for list):** In the past 5 years the Mathematics and Engineering Department has gone from 25 to 22 fulltime faculty members due to retirement/resignation, while the demand for math offerings continues to rapidly rise. These numbers have not yet changed despite the hiring of one new full-time instructor, for another full-timer has since retired. The demands on the department have increased due to our meeting the increased needs of the student, and hence the clerical burden of the department has also increased. Due to its very large size, the Mathematics and Engineering Department needs more

dedicated secretarial help.

**Faculty & Staff :** The Mathematics and Engineering Department currently has 22 fulltime and 46 part-time faculty members. The Math Success Center (MSC) provides tutoring to all students taking math classes, provides Directed Learning Activities (DLAs) and Workshops for MATH 110, 110A, 110B, 130, 130A, 130B, and 815. Currently directing these activities are one fulltime Instructional Specialist, one Instructional Associate, several student tutors, part-time and full-time instructors, and a few supporting staff.

Educational history of each of the fulltime faculty members is accessible in the college catalog. Expertise in education includes computer literacy, Flex day attendance, as well as math conference attendance and subscriptions to math publications. Many of the full time faculty members have attended professional activities or workshops during the past year. These include subject matter conferences, workshops on teaching methods, teacher preparation meetings, and/or modern technology (hand held calculators, computers, use of multimedia, and/or internet teaching). Some part-time faculty members also participate.

**Names & Titles of Program Review Participants:** Robert Maxell, Instructor  
Michael Zugates, Instructor  
Bhagirathi Anand, Instructor  
Mohammad Areaipour, Instructor  
B. K. (Kris) Mudunuri, Instructor  
Rich Weber, Department Head

**2009-2010 Accomplishments:** 1) Implementation of Directed Learning Assignments and Workshops into Intermediate Algebra, Math 130; Intermediate Algebra A and B, Math 130A and Math 130B to enhance student retention and success.

2) In response to increased demand and to accomodate the diverse needs of our students, Mathematics and Engineering has started offering: Computer Methods, ENGR 54; and Statics, ENGR 35. We are also offering an additional section of Introduction to Engineering, ENGR 50 to meet student needs.

3) The Mathematics and Engineering Department has procured three laptop computers through cap outlay. Another laptop computer is being procured through a Foundation Grant awarded to Professor Jong Kim. These laptops are being setup and utilized for in-class use and presentations to keep pace with current technology usage in the fields of Mathematics and Engineering and to assist with meeting the diverse needs of our students.

4) The Mathematics and Engineering Department has been more active in the participating in Student Outreach and Recruitment's Early Bird Saturday Program. We provided students with information, not only about our own department, but also highlighted opportunities in LBCC's School of Trade and Industrial Technology and provided contact information as appropriate.

**2010-2011 Accomplishments:** 1) Implementation of Directed Learning Assignments and Workshops into the Preparation for Algebra (Math 815) course to further enhance student retention and success.

2) Alternative course delivery continues to be created to make the course offering of the Math and Engineering department even more accessible to our student population. These enhancements include early morning course offerings, additional late-night offerings, additional and more diverse course offerings on our Pacific Coast Campus

(PCC), as well as additional hybrid course offerings.

3) Student Learning Outcomes data collection has been implemented in 100% of the department's course offerings, and the department is currently planning response strategies to these data.

4) A Mathematics Associate in Science for Transfer degree has been created and newly approved by the State and has already become implemented into the college curricula.

| Goals   | Request & Justification / Resources Needed  | Goal Progress  | Strategies Implemented & Follow-Up |
|---|---|--|------------------------------------|
| <p>Dept - Math &amp; Engineering - MEET DIVERSE NEEDS - To meet the mathematics educational needs of an ethnically and culturally diverse spectrum of students.</p> <p><b>Start Date:</b><br/>08/14/2009</p> <p><b>Goal Status:</b><br/>In Progress</p> <p><b>Goal Priority:</b><br/>High</p> <p><b>Rationale:</b><br/>The student body at LBCC represents an ethnically, culturally, and adaptively diverse population. All of our students deserve an equal opportunity to achieve a quality education.</p> <p><b>Strategies:</b><br/>We will collaborate with other administrative structures on campus, and support our own faculty in assisting our students.</p> <p><b>Responsible Parties:</b><br/>Math and Engineering faculty</p> <p><b>Campus supported by this goal:</b><br/>Both</p> <p><b>Specify if goal is for department or sub-area:</b><br/>Department/ Program</p> <p><b>Other Area impacted by this goal:</b><br/>Other</p> <p><b>Other Area(s) impacted by this goal:</b><br/>DSPS, Student Health Services.</p> | <p><b>Resources Needed Name:</b><br/>Calculators and Laptops</p> <p><b>Resources Needed Description:</b><br/>Calculators and laptop computers for in-class use and presentations.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>Both (i.e., initial &amp; maintenance costs)</p> <p><b>Estimated Cost:</b><br/>4700.0000</p> <p><b>Type of Resource Requested:</b><br/>640000 - Equipment</p> <p><b>Justification for Resource Request:</b><br/>Departmental calculators for student and instructor use need to be upgraded to reflect current technology. A departmental laptop is required for in-class presentation utilizing specialized software not available on the current in class pre-nestation equipment. (Purchasing licenses to install to each of the in-class presentation laptops would be prohibitively expensive -- in excess of \$80,000. Cheaper to buy a single dedicated laptop and purchase the license to install software on it.) Estimated cost above is for hardware alone.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> <p><b>Resources Needed Name:</b><br/>CAMPUS RESOURCES</p> | <p>09/30/2010 - The Mathematics and Engineering Department has procured three laptop computers through cap outlay.</p> <p>Another laptop computer is being procured through a Foundation Grant awarded to Professor Jong Kim.</p> <p><b>N/A:</b><br/>N/A</p> <p><b>Next Step:</b><br/>Continue Working on Goal</p> <p><b>Data to Support Goal Progress:</b><br/>Items are in possession of the department.</p> |                                    |

| Goals | Request & Justification / Resources Needed  | Goal Progress | Strategies Implemented & Follow-Up |
|-------|---|---------------|------------------------------------|
|       | <p><b>Resources Needed Description:</b><br/> The department will rely on the services of:<br/> Disabled Students Programs and Services<br/> Library Services<br/> Learning Resource Center<br/> Supplemental Instruction<br/> ESL program and counselors<br/> Instructional Technology Development Center</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/> Pending</p> <p><b>Fiscal Year:</b><br/> 2010 - 2011</p> <p><b>Duration:</b><br/> On-going</p> <p><b>Estimated Cost:</b><br/> 0.0000</p> <p><b>Type of Resource Requested:</b><br/> 999999 - Other (specify in "Description" above)</p> <p><b>Justification for Resource Request:</b><br/> These services are required to:<br/> -- meet ADA compliance<br/> -- ensure equal access to our materials for all students<br/> -- adapt to the varying degrees of academic preparedness of our students<br/> -- meet the needs of our students from non-English speaking backgrounds<br/> -- to develop programs to meet the needs of our working and non-local student populations</p> <p><b>Department Code:</b><br/> 170100 Maths &amp; Eng</p> |               |                                    |
|       | <p><b>Resources Needed Name:</b><br/> Classroom Supplies</p> <p><b>Resources Needed Description:</b><br/> White board markers and erasers;<br/> demonstration materials and models;</p>   |               |                                    |

| Goals | Request & Justification / Resources Needed   | Goal Progress | Strategies Implemented & Follow-Up |
|-------|--|---------------|------------------------------------|
|       | <p>manipulatives</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>9700.0000</p> <p><b>Type of Resource Requested:</b><br/>432000 - Supplies Instructional</p> <p><b>Justification for Resource Request:</b><br/>White board markers and erasers -- needed for lecture presentations in classroom. Demonstration materials and models are used in the presentation of geometric concepts and interactions. Manipulatives are used to allow students to actualize concepts.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> |               |                                    |
|       | <p><b>Resources Needed Name:</b><br/>Copiers; printers; copying supplies</p> <p><b>Resources Needed Description:</b><br/>Copiers; printers; copying supplies for instructional use.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>23200.0000</p> <p><b>Type of Resource Requested:</b><br/>432500 - Duplicating Instructional</p> <p><b>Justification for Resource Request:</b><br/>These resources are used by faculty, both full-time and part-time, in the day to day</p>   |               |                                    |

| Goals  | Request & Justification / Resources Needed  | Goal Progress | Strategies Implemented & Follow-Up |
|--|---|---------------|------------------------------------|
|  | <p>conduct of their classes. Handouts, notes, quizzes, and exams. Provides for local copying and for printing and duplicating services outside of the hours of the campus duplicating services.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> <p><b>Resources Needed Name:</b><br/>Software and software upgrades</p> <p><b>Resources Needed Description:</b><br/>Software and upgrades used for educational use.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>Both (i.e., initial &amp; maintenance costs)</p> <p><b>Estimated Cost:</b><br/>37740.0000</p> <p><b>Type of Resource Requested:</b><br/>438000 - Software Instructional</p> <p><b>Justification for Resource Request:</b><br/>Software needed to give our student access to current technology. Includes: Camtasia Studio @ 3 -- \$540<br/>Mathematica @ 1 -- \$10,000<br/>Matlab and toolboxes for: Parallel Processing; Statistics; Linear Optimization; Differential Equations @ 10 -- \$14000<br/>Scientific Workplace @ 14 -- \$12,900<br/>Adobe Acrobat Standard @ 3 -- \$300<br/>C++ compiler</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> |               |                                    |
| <p>Dept - Math &amp; Engineering - FLEXIBLE PROGRAM - To provide a substantial yet flexible program which will both nurture and challenge the intellect of students and foster</p> | <p><b>Resources Needed Name:</b><br/>Additional full-time faculty</p> <p><b>Resources Needed Description:</b></p>   |               |                                    |

| Goals  | Request & Justification / Resources Needed  | Goal Progress  | Strategies Implemented & Follow-Up |
|--|---|--|------------------------------------|
| <p>their critical thinking.</p> <p><b>Year(s):</b><br/>2009 - 2010<br/>2010 - 2011<br/>2011 - 2012</p> <p><b>Start Date:</b><br/>08/14/2009</p> <p><b>Goal Status:</b><br/>In Progress</p> <p><b>Goal Priority:</b><br/>High</p> <p><b>Rationale:</b><br/>Offer classes in multiple modes to provide students flexibility, yet maintain curriculum integrity.</p> <p><b>Strategies:</b><br/>Provide Expand programs to hybrid and distance learning mode to other non-transferrable and transferrable courses.</p> <p><b>Responsible Parties:</b><br/>Math and Engineering Faculty</p> <p><b>Campus supported by this goal:</b><br/>Both</p> <p><b>Specify if goal is for department or sub-area:</b><br/>Department/ Program</p> <p><b>Other Area impacted by this goal:</b><br/>Distance Learning</p> <p><b>Other Area(s) impacted by this goal:</b><br/>DSPS; Library; Facilities</p> | <p>Two additional full-time faculty to teach in the classroom, serve in the Math Success Center, help design/adjust department courses, serve on department and campus-wide committees, hold office hours, and otherwise assist in improving the department.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>NEW</p> <p><b>Fiscal Year:</b><br/>2011 - 2012</p> <p><b>Duration:</b><br/>Both (i.e., initial &amp; maintenance costs)</p> <p><b>Estimated Cost:</b><br/>100000.0000</p> <p><b>Type of Resource Requested:</b><br/>Personnel - Faculty</p> <p><b>Justification for Resource Request:</b><br/>The understaffed Math and Engineering department faculty continue to be required to do more with less, having to teach classes that are severely impacted, and adapting to overcrowded classrooms with enrollments pushing to 50 students and beyond. These same faculty are also needed to teach hybrid courses and to be available in the Math Success Center as needed/scheduled. At 22 full-time faculty, the department needs 3 additional faculty just to reach its prior level of 5 years past, and really needs even more faculty than that just to meet the ever growing demand for additional math and engineering classes.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> <p><b>Requested Funding Source:</b><br/>General Fund</p> |  |                                    |
|  |   | 09/30/2010 - The Department has implemented Student Success Center Directed Learning |                                    |

| Goals  | Request & Justification / Resources Needed   | Goal Progress  | Strategies Implemented & Follow-Up |
|--|--|--|------------------------------------|
|  |  | <p>Assignments and Workshops into Intermediate Algebra, Math 130; Intermediate Algebra A and B, Math 130A and Math 130B to enhance student retention and success.</p> <p><b>N/A:</b><br/>N/A</p> <p><b>Next Step:</b><br/>Continue Working on Goal</p> |                                    |
| <p>Dept - Math &amp; Engineering - COLLABORATE - To collaborate with colleagues from other disciplines so that together we can foster the development of students who are mathematically literate.</p> <p><b>Year(s):</b><br/>2009 - 2010<br/>2010 - 2011<br/>2011 - 2012</p> <p><b>Start Date:</b><br/>08/14/2009</p> <p><b>Goal Status:</b><br/>In Progress</p> <p><b>Goal Priority:</b><br/>Medium</p> <p><b>Rationale:</b><br/>Other departments currently offer classes that require various levels of mathematic sophistication of their students. We seek to support those programs and to be available to assist those other departments. In like manner, other departments teach skills needed by students in mathematics, and their expertise would be sought in contributing to the well-rounded education of our students.</p> | <p><b>Resources Needed Name:</b><br/>Campus Resources</p> <p><b>Resources Needed Description:</b><br/>Collaboration with other departments and programs such as English, History, and ITDC.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>0.0000</p> <p><b>Type of Resource Requested:</b><br/>999999 - Other (specify in "Description" above)</p> <p><b>Justification for Resource Request:</b><br/>The development of comprehensive instructional technology requires a broader field of view than a single subject. The input of other departments would be sought to ensure alignment.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> |  |                                    |
| <p><b>Strategies:</b><br/>The basic strategy involved is to develop and foster both informal and formal communications with other departments.</p>   |  | <p>09/30/2010 - The Mathematics and Engineering Department has been more active in the participating in Student Outreach and Recruitment's Early Bird Saturday Program. We</p>   |                                    |

| Goals   | Request & Justification / Resources Needed  | Goal Progress  | Strategies Implemented & Follow-Up |
|---|---|--|------------------------------------|
| <p>As opportunities arise, collaborative projects -- such as joint computer assisted education programs involving both an mathematic component and a language skills component-- would be pursued.</p> <p><b>Responsible Parties:</b><br/>Math and Engineering Faculty</p> <p><b>Campus supported by this goal:</b><br/>Both</p> <p><b>Specify if goal is for department or sub-area:</b><br/>Department/ Program</p> <p><b>Other Area impacted by this goal:</b><br/>Other</p> <p><b>Other Area(s) impacted by this goal:</b><br/>Othe departments; institutional effectiveness; Faculty Resource Center; DSPPS; Instructional Technology Development Center</p> |   | <p>provided students with information, not only about our own department, but also highlighted opportunities in LBCC's School of Trade and Industrial Technology and provided contact information as appropriate.</p> <p><b>N/A:</b><br/>N/A</p> <p><b>Next Step:</b><br/>Continue Working on Goal</p> |                                    |
| <p>Dept - Math &amp; Engineering - BE A RESOURCE - To be a resource in mathematical sciences, and Engineering for other disciplines.</p> <p><b>Year(s):</b><br/>2009 - 2010<br/>2010 - 2011<br/>2011 - 2012</p> <p><b>Start Date:</b><br/>08/14/2009</p> <p><b>Goal Status:</b><br/>In Progress</p> <p><b>Goal Priority:</b><br/>Medium</p> <p><b>Rationale:</b><br/>The Mathematics and Engineering Department seeks to support and assist</p>   | <p><b>Resources Needed Name:</b><br/>Communication</p> <p><b>Resources Needed Description:</b><br/>Phones, email, support to communicate with our colleagues in other departments.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>0.0000</p> <p><b>Type of Resource Requested:</b><br/>640000 - Equipment</p> <p><b>Justification for Resource Request:</b><br/>In order to support other departments, we must be able to communicate with those departments</p> |  |                                    |

| Goals  | Request & Justification / Resources Needed  | Goal Progress  | Strategies Implemented & Follow-Up |
|--|---|--|------------------------------------|
| <p>other programs on campus to enhance our student's experience. This support may come in the form of meeting mathematic prerequisite of the courses for those departments, or in the form of providing mathematic expertise or perspective to situations evolving in those departments.</p> <p><b>Strategies:</b><br/>We will contact and encourage contact with members of other departments. We will also welcome contact from other departments and seek to support their programs.</p> <p><b>Responsible Parties:</b><br/>Mathematics and Engineering faculty</p> <p><b>Campus supported by this goal:</b><br/>Both</p> <p><b>Specify if goal is for department or sub-area:</b><br/>Department/ Program</p> <p><b>Other Area impacted by this goal:</b><br/>Other</p> <p><b>Other Area(s) impacted by this goal:</b><br/>Institutional Effectiveness; DSPS</p> | <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p>   | <p>09/30/2010 - At Saturday Early-Bird Programs, we have provided students with information, not only about our own department, but also highlighted opportunities in LBCC's School of Trade and Industrial Technology and providing program information when available and contact information as appropriate.</p> <p><b>N/A:</b><br/>N/A</p> <p><b>Next Step:</b><br/>Continue Working on Goal</p> |                                    |
| <p>Dept - Math &amp; Engineering - IMPROVE PROGRAM - To critically review the programs of the Department with respect to efficacy and success; and to respond to those findings in meaningful ways.</p> <p><b>Year(s):</b><br/>2009 - 2010<br/>2010 - 2011<br/>2011 - 2012</p> <p><b>Start Date:</b><br/>08/14/2009</p> <p><b>Goal Status:</b><br/>In Progress</p> <p><b>Goal Priority:</b></p>  | <p><b>Resources Needed Name:</b><br/>Campus Resources</p> <p><b>Resources Needed Description:</b><br/>We would require the services of offices of Program Review, Professional Development, Matriculation, Assessment and Orientation.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>Pending</p> <p><b>Fiscal Year:</b><br/>2010 - 2011</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>0.0000</p> |  |                                    |

| Goals   | Request & Justification / Resources Needed  | Goal Progress | Strategies Implemented & Follow-Up |
|---|---|---------------|------------------------------------|
| <p>Medium</p> <p><b>Rationale:</b><br/>Enhance student success and increase student retention and institutional effectiveness.</p> <p><b>Strategies:</b><br/>The math and engineering faculty will constantly review our programs for internal consistency and alignment with college mission and goals. We will also consider the application of new technologies toward our efforts as those technologies become available.</p> <p><b>Responsible Parties:</b><br/>Math and Engineering Faculty</p> <p><b>Campus supported by this goal:</b><br/>Both</p> <p><b>Specify if goal is for department or sub-area:</b><br/>Department/ Program</p> <p><b>Other Area impacted by this goal:</b><br/>Institutional Effectiveness</p> <p><b>Other Area(s) impacted by this goal:</b><br/>DSPS; Professional Development; Instructional Technology Development Center</p> <p><b>Level of Support Needed:</b><br/>Department</p> | <p><b>Type of Resource Requested:</b><br/>999999 - Other (specify in "Description" above)</p> <p><b>Department Code:</b><br/>170200 Math Success Center</p> <p><b>Resources Needed Name:</b><br/>Research</p> <p><b>Resources Needed Description:</b><br/>Research support and/or access to information on the accuracy of the placement system in math; research support and/or access to information on the various ways our students satisfy prerequisites for math classes; research support and/or access to information which would allow the faculty to study the progress of our students over a period of several semesters; research support and/or access to information about the relationship, if any, between reading skills and success in math.</p> <p><b>Inter-Level/ VP Level Group Decision:</b><br/>NEW</p> <p><b>Fiscal Year:</b><br/>2011 - 2012</p> <p><b>Duration:</b><br/>On-going</p> <p><b>Estimated Cost:</b><br/>0.0000</p> <p><b>Type of Resource Requested:</b><br/>Other</p> <p><b>Justification for Resource Request:</b><br/>This information would help the department faculty in assessing the effectiveness of our program; it would also aid the faculty in planning a more efficient use of our limited resources.</p> <p><b>Department Code:</b><br/>170100 Maths &amp; Eng</p> <p><b>Requested Funding Source:</b><br/>Other</p> |               |                                    |

| Goals | Request & Justification / Resources Needed | Goal Progress   | Strategies Implemented & Follow-Up |
|-------|--|---|------------------------------------|
|       |  | <p>09/30/2010 - The Department has implemented Student Success Center Directed Learning Assignments and Workshops into Intermediate Algebra, Math 130; Intermediate Algebra A and B, Math 130A and Math 130B to enhance student retention and success.</p> <p><b>N/A:</b><br/>N/A</p> <p><b>Next Step:</b><br/>Continue Working on Goal</p> |                                    |