2. Do the curriculum and scheduling of courses in your discipline provide a coherent sequential path in which your students’ goals of transfer, graduation, and certificate completion can be realized in a timely manner? Please explain what data you use and how you make these evaluations.

RESPONSE: The course sequence from Arithmetic, Math 105, to Intermediate Algebra, Math 125, prepares students for graduation and transferable 200-level courses. Students are initially placed into the sequence using the MDTP placement test. All courses in the sequence are tightly coupled through prerequisites and curriculum designed to prepare students for the following course. After Math 112, Pre-Algebra, the curriculum for both standard paths leading through the Math 125 curriculum are tightly coordinated and uniformly delivered. The textbook and the courseware for each path are used for the entire sequence of courses in the path. Syllabi, exam topics, and the pace of all sections are standardized to insure that successful students are prepared for the next course in the sequence. Classes are scheduled and faculty are assigned in both paths that allow students to progress through the sequences taking successive courses on the same days, at the same time, and with the same instructor. Student surveys, student success and retention data, and common final data are analyzed on a regular basis to gauge program effectiveness. Using SLO assessment data and this analysis, the department identifies and makes any necessary changes.

Data is gathered and is used to calculate a “progression rate” for each instructor. This rate gauges the success of students in next class. For example, suppose an instructor teaches Math 115 in the fall. At the end of the spring semester, data is collected on students who passed his/her Math 115 and enrolled in Math 125. The progression rate is then calculated as the number of students who passed Math 125, normalized for the total number of students who passed Math 115. This is a good measure to identify outliers. We have had instructors with a 90% pass rate in a prerequisite course with a large percent enrolling in the subsequent course, only to find less than 12% passing the subsequent course. This would yield a low progression rate. The instructor is then counseled how he/she might improve.

Beginning in the fall 2013 semester the department introduced two new courses meant to shorten the remediation path from Math 112 to graduation and transferable courses. These courses, Pre-statistics Algebra, Math 137, and the Pre-college Algebra sequence, Math 129A,B,C are described elsewhere in the review.

Statistics, Math 227, was offered in a hybrid format for the first time in fall 2013. If this format is successful, we will be able to accommodate more students than with the traditional classroom setting. Math 227 is again scheduled in this format in the current semester, spring 2014. Course offerings are scheduled throughout the day and evening to meet the needs of all students.
The department works closely with the Math Tutoring Center to insure tutors are adequately prepared and aware of the curriculum requirements of the individual courses.

3. Has the curriculum kept pace with changes and developments in areas that would affect the program, e.g. university articulation requirements, developments in pedagogy, developments at other LACCD campuses, or requirements for commercial/industry skills? Briefly explain.

RESPONSE: Curriculum has been approved for the Math TCM degree, which will appear in the fall 2014 catalog. The department has also developed and adopted courses to meet the requirements of the TCM degree in CSIT. We are closely monitoring the progress of the TCM degree for engineering and have identified courses and lab facilities required to support it. The CSIT discipline has been working with Verizon Corp. to develop a Cyber Security certificate program. This will address a growing demand in the industry for entry level cyber security positions as well as prepare students for transfer to university.

The department is active in local, regional, and national professional organizations. Through seminars, meetings and conferences, department faculty keep well informed about changes and new developments affecting the discipline. We are closely monitoring the evolution of Common Core Standards in California. Depending on how these are implemented, they have a profound potential to impact our curriculum, articulation agreements, and our relationship to feeder high schools.

The department continues to infuse Math 227, Statistics, to include technology that focusses on data manipulation, exploration, and analysis and relieves the student from tedious hand calculations. This is a continuing trend in universities and is supported by AMATYC.

4. Are the department’s mission, goals, and objectives clearly articulated and communicated to faculty? Briefly explain how you involve your faculty in setting goals.

RESPONSE: The department meets on a monthly basis. All full time faculty as well as the adjunct faculty representative attend these meetings. The department also communicates with faculty through the department website. Memos are sent at the beginning of each semester summarizing department policy and any significant changes from the previous semester. All faculty are invited to offer comments and suggestions on department issues. Most recently, this outreach resulted in a common pool of SLO assessment questions that better reflected how the topic was taught in the classroom.

Course Coordinators are appointed for each course offered by the department. These are the primary source for course information, changes, and questions from instructors. The coordinators are listed on the department website and in the class outlines.

The department will begin posting department meeting minutes on the department website in the spring 2014 semester.
5. **Does your department/discipline have an adequate procedure in place to determine whether it is meeting its instructional goals and objectives? Briefly explain this procedure and what data is collected to inform your analysis.**

**RESPONSE:** The department regularly extracts and analyzes data from the SIS data bases to gauge program effectiveness, identify where changes could be made, and measure the effect of past changes. In addition to the SIS data, the department regularly gathers and analyzes data from student surveys and the Math 115 common final. Student evaluations of instructors are done in all sections of a given course every two years to create a baseline with which to compare individual instructors teaching the same course. This data and analysis are distributed to faculty and used in instructor evaluations. Student surveys are done using Class Climate only except in the case of instructor evaluations where Scantron forms are used and data collected using Class Climate.

The department regularly assesses SLOs and makes appropriate changes (see above).

6. **Describe the use of Social and/or instructional media, computers, and other technologies in your current program and any plans in this area for the coming year.**

**RESPONSE:** The department has included courseware in all remedial and some college level courses. Several computer aided instructional platforms and their associated textbooks were class tested over the last four semesters, these included XYZ, Hawks Learning System, Open Source, and MyMathLab. MyMathLab was determined to offer the most robust and thorough support for the student. The Math 115 and Math 125 curriculum have been changed to require homework count for at least 7% of the final grade. All adjunct and full time faculty have been trained on MyMathLab and are using it to assign, track, and grade homework. Course coordinators insure that all sections of a given course are on schedule with the topics by providing a standard course for use by all instructors teaching the course. The department is also using WebAssign for Calculus sequence of courses. Math 137 and Math 129A,B two new course sequences, both include computer lab hours as part of the curriculum. The department began offering Math 227 in a hybrid format in the fall semester 2013 and continues with one section this semester. The department makes extensive use of it’s website to communicate with faculty and students. We developed and placed an interactive application on the department website allowing students to prepare for the Mathematics placement test. The site also helps guide the student in choosing the appropriate test to meet his educational goals.

Through the STEM grant the department is able to offer all STEM students a free license for MATHEMATICA. We are also working on ways to include this program into the curriculum.
Professor Bamdad Samii describes the Math 137 course he developed and which is now in the second semester of a pilot offering:

Math 137 uses the free Open learning Initiative online text developed by Carnegie Mellon University. The text is interactive. Students’ mastery is checked after each topic is introduced and there are various online activities imbedded in the text to engage students and contextualize the content. We also use statistical software during lab hours to analyze real world data using the methods learned in the class. Currently we use Minitab, Tinkerplots and Statcato (a free java based statistical package). We are going to keep the software used in this course aligned with the software used in Math 227.

Professor Ryan Yamada describes his class-testing of a new book for Math 260, Precalculus:

The Math department is piloting a new interactive eBook for the Math 260 Pre-Calculus course. This interactive eBook utilizes computer animations and interactive figures. Students can click and move graphs, diagrams, and images, allowing them to explore concepts and engage the material more than they would be able to with a traditional textbook. These interactive figures are also being used during lectures to promote discussion and participation from students in class. The eBook is completely integrated with the MyMathLab courseware used in many of the other math courses.

7. How would you describe the morale and atmosphere within the department/program? How does your department/program promote collegiality among its faculty?

RESPONSE: Department faculty collaborate and work in teams to achieve department goals. The department meets monthly to discuss issues and assign responsibility for department duties. The department insures that faculty having responsibility for a task have the authority and resources required to complete it. The department has an excellent reputation among its adjunct faculty for fairness and impartiality.

Recognizing the need for faculty to feel comfortable with the curriculum, the department schedules workshops to inform faculty on curriculum changes and instruct them in the use of technology in their classrooms.

The department promotes membership in CMC^3, a state wide organization of California community colleges. Faculty are encouraged to attend the CMC^3 semiannual conferences and supported by College funds available for these activities. In the fall semester 2012 the department sponsored the southern regional conference at LAMC. The department consistently has one of the largest faculty groups attending these events.

The department works closely with the Math Center and tutors. In the past this has included department sponsored Christmas parties.

Working together, the full time faculty began in the spring 2013 semester to offer scholarships to selected students which are fully funded by the faculty. Students are nominated by individual faculty and selections for the scholarships are made by consensus.