Submission Date: 2013-2014

(Based on Criteria for Full-Time Faculty Requests agreed on at the Instructional Administrators Council, with the Dean of Counseling and the Academic Senate President present, 9/25/12)

1. Describe the position being requested (e.g., biology faculty with expertise in anatomy).

Chemistry Instructor with specialization in inorganic chemistry

2. Explain how the position supports one or more Board of Trustees Core Values, the College of San Mateo Mission and Diversity Statements, the College of San Mateo Institutional Priorities, and college initiatives.

Board of Trustee Core Values

 Student Centered Mission: "The Board places top priority on our core mission of providing transfer education and work force training to as many students as possible". Chemistry is an essential prerequisite for both transfer in STEM majors as well as supporting work force training for students in areas such as nursing.

Institutional Planning Priorities

- Priority 2: Promote Academic Excellence. This includes improving transfer rates and improving effectiveness of distance learning program. One full time faculty member is retiring at the end of spring 2013 and this means that to continue offering a full complement of courses, remaining full time faculty will have to care a high level of overload. This will put stress on their other professional obligations. The team has just begun to transition to distance education. To be successful, distance education in chemistry requires a lot of electronic support (videos etc). Lack of an additional full time faculty will slow this transition process.
- Priority 4: Promote Integrated Planning, Fiscal Stability, and the Efficient Use of Resources. This includes maintaining FTES targets and increasing College load. Without the replacement of the retiring faculty member it will be difficult to offer sufficient sections of chemistry without significant overload for chemistry faculty. It is difficult to find qualified chemistry adjuncts.

Educational Master Plan

- According to the Educational Master Plan, San Mateo County is projected to have an increase in the demand for biological science, physical science and computer science majors. Chemistry is a physical science, and a prerequisite to a major in biological science. An additional faculty member will allow the department to maintain it high quality offerings.
- 3. Discuss how the position will help the department and/or division meet goals and support student learning as described in program review.

The chemistry department serves 850 to over 900 students each academic year. They offer 8 different courses to meet the requirements for a variety of majors in the life and physical sciences. The department load varies from 525 to over 800 depending on the

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term. So, the department is very efficient. In the spring 2012 Program Review, the retirement of an instructor was anticipated and the requirement for a replacement noted. Offering quality courses requires a great deal of administrative work on the part of the faculty. SLO assessment, course outline updates, scheduling, coordinating and mentoring adjunct faculty, as well as committee participation and support of distance education and other initiatives such as Reading Apprenticeship. Without an additional faculty member, there is a very high probability that the only way to continue offering enough sections to meet student needs for transfer, is to overload the remaining 4 full time faculty, since it has always proven difficulty to find qualified chemistry adjuncts. Additional instruction will cut into the time available for other professional duties.

- 4. Explain how the position will promote increased student success as described in program review in one or more of the following areas:
 - Transfer: Include discussion of articulated pathways (e.g., UC, CSU, IGETC, SB 1440 transfer degrees, collaborative agreements with other community colleges and/or four-year transfer institutions).
 - Career and Technical Education (CTE): Include evidence of a demand for the next five years (e.g., EMSI data available from the dean, data indicating healthy employment demand, other available environmental scans)
 - o Capacity to move students from basics skills or ESL to transfer or CTE.

With the retirement of Professor Michael Clay at the end of 2013, the remaining 4 full time faculty will have to take overload to maintain the chemistry offerings. Since chemistry is a prerequisite for all life and health science majors and most physical sciences, this could increase time to degree or certificate.

5. Identify number of students served by the department.

Fall 2011: 419 Spring 2012: 432 Summer 2012: 165

 Discuss LOAD (The definition of LOAD is provided in the Educational Master Plan. The Budget Planning Committee sets College of San Mateo's target college-wide LOAD. Contact administration for current LOAD target.)

Fall 2011: 548.6 Spring 2012: 525 Summer 2012: 836.3

Chemistry consistently combines multiple labs (cap of 30 or less) into single lectures to maximize efficiency and safety at the same time.

7. Describe the impact of the following full-time / part-time faculty issues.

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- Full-time and part-time faculty in the department or discipline
- Ratio of full-time FTEF (full-time equivalent faculty) to hourly FTEF
- Headcount of full-time faculty
- Headcount of part-time faculty
- Headcount of overload faculty (full-time faculty teaching an overload)

As of spring 2013 there are 5 full time and four part time instructors. At the end of this semester, a full time faculty retirement will result in 4 full time and 4 part time faculty.

As of spring 2013, 4 of the full time faculty are teaching overload (varying from 0.9 to over 5 FLC). The only faculty member not teaching overload this spring is Professor Clay, who is retiring at the end of the spring 2013 term.

8. Discuss impact (positive and negative) of full-time to part-time faculty ratio on the program's goals, targets, and program student learning outcomes.

The single most significant impact of full time vs part time faculty is the scope of the professional responsibilities full time faculty can support that part time faculty cannot. Things like scheduling, SLO assessment, updating course materials like lab manuals, committee service (department, division and College), mentoring (of new and adjunct faculty), evaluation of faculty (new and adjunct) and support of student success initiatives such as Reading Apprenticeship. All of these things impact student success. An increase in overload for all of the full time faculty will result in less time to focus on implements student success in and out of the classroom.

9. Recount number of faculty retirements for the past six years

There have been two retirements and two new hires. The department is in a steady state.

10. Discuss the vitality of the program (e.g., curriculum innovation, involvement in teaching and learning initiatives, faculty participation on committees, faculty participation in professional development).

The chemistry department faculty serve on a variety of committees from the department level to the district level. One member, Professor Flowers, recently completed his ED.D. the faculty serve on:

- Hiring committees
- Library committee
- Tenure evaluation
- Hiring committees
- Divisional technology committee
- District STOT training
- Attend professional conferences
- Data collection, evaluation, input and update for SLO outcomes assessment

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- Update course outlines
- Transitioning courses to hybrid to facilitate distance education mandate from the Board of Trustees
- Accreditation standards committee
- Support initiatives like Reading Apprenticeship
- Teaching in the Honors Program
- 11. Discuss any mandates and regulations affecting the position.

none

12. Provide any additional reasons for filling this position as determined by the department or discipline and the division including need and impact on the community at large (beyond CSM).

Student success, however measured, in a STEM or health sciences major, requires chemistry. Therefore, the College needs to be in a position to meet the demand for students in these majors. Not only San Mateo, but California and the U.S. need additional STEM and health science majors. In addition, we must continue to maintain the quality programs, which have made our graduates successful as they transfer or complete certificates. At CSM this means maintaining the minimum number of full time faculty in the department at 5. The departure of Professor Clay at the end of spring 2013 means a new hire will be required as soon as possible in 2013-14.