# Program Information

<table>
<thead>
<tr>
<th><strong>Degree</strong></th>
<th>ECONOMICS, B.A., B.S., M.A.</th>
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<tbody>
<tr>
<td><strong>Department</strong></td>
<td>ECONOMICS</td>
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<tr>
<td><strong>College</strong></td>
<td>SOCIAL SCIENCES</td>
</tr>
</tbody>
</table>
| **Department Chair** | LYDIA ORTEGA, Lydia.Ortega@sjsu.edu  
408-924-5405 phone  
408-924-5406 fax  
Department of Economics  
SJSU, San Jose, CA 95192-0114 |
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LYDIA ORTEGA Lydia.Ortega@sjsu.edu |
| **External Reviewer** | |
| **Program Plan Period** | 2011-2012 |
| **Date Begun** | Fall 2011 |
| **Extension Request** | Fall 2012 request to extend to Spring 2013 |
| **Date Submitted to Dean** | Expected May 2013 |
### a. INSTITUTION
Summarize Mission of SJSU

To enrich the lives of its students, to transmit knowledge to its students along with the necessary skills for applying it in the service of our society, and to expand the base of knowledge through research and scholarship.

### b. COLLEGE
Summarizing Mission of COSS (and how it aligns with the above)

To educate students in human behavior, in its many past and present cultural forms, in individual, group, national and international contexts, and to empower students as democratic participants in a rapidly changing world.

### c. PROGRAM--ECONOMICS

- Year program implemented
- Department website link
- Program mission statement
- List of programs including minors
- List other programs served by department.
- # of faculty, instructors, lecturers, staff
- # of students enrolled
- Approx. % of teaching undergraduate
- % of teaching non-majors
- Total operating budget (include expenses)

Before 1960

http://www.sjsu.edu/economics/

Our teaching and research stress the importance of markets and institutions on economic, political and social issues.

B.A. B.S. Minor in Economics, MA


Effective Spring 2013: 3 Full Professors; 2 Associate Professors; 1 Assistant Professor; 2 Faculty in FERP; 11 Lecturers at 0.50 or less; 1.5 Admin support and some work-study student support. Successfully, recruited two Assistant professors to begin August 2013.

Fall 2012 – 177 LD+UD and 50 graduate enrolled.

Slightly less than half of our time is teaching undergraduates--we offer 22 sections of lower division courses, 12 sections of upper division courses and 4 Graduate courses each semester.

More than 50 percent is generated by non-majors primarily principle courses and minors.

Aside from salaries, operating budgets are changing and unpredictable.
<table>
<thead>
<tr>
<th>Location of department and faculty offices</th>
<th>Offices located in DMH, 1st and 2nd floor</th>
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</thead>
<tbody>
<tr>
<td>List of specialized facilities, if any</td>
<td>Conference/Tutoring Room, Computer Labs</td>
</tr>
<tr>
<td>Accrediting or similar agency, if applicable</td>
<td>None</td>
</tr>
<tr>
<td>Date of most recent review</td>
<td>2004-2005</td>
</tr>
<tr>
<td>Date of other peer review</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**d. PROCESS**

- Outline process used by the faculty to select the program-specific theme, if any.
- Outline faculty engagement in the program review process.

| PROCESS | No program-specific theme for this review. All faculty asked to participate in survey and three discussions and to submit recommendations for external reviewers. Participation was start and stop due to interruptions in the process. Main participation of lecturers and TTR faculty occurred at the 2012 Teaching summit. The format was also changed to adopt this new template. Faculty comments on the final draft (to be submitted to the Dean) occurred on May 23rd Faculty meeting. |

2. SUMMARY OF PROGRESS, CHANGES, CHALLENGES, PROPOSED ACTIONS

**b. PROGRESS ON ACTION PLAN OF PREVIOUS PROGRAM REVIEW**

The Department’s last review ended with accolades for its innovative nature, growth, student accomplishments, faculty research, and community and international activities. Broadly put, Provost Carmen Sigler signed-off on the Department as healthy and on the right track. There were no issues carried over for consideration from previous reviews. As this report shows, the Department continues on that same healthy track but faces new challenges.

**c. SIGNIFICANT CHANGES TO THE PROGRAM AND CONTEXT**

Since our last review we have been working to strengthen the quality of the graduate program by instituting procedures for automatic probation and disqualification when warranted. We have also been engaging in repeated conversations about moving to 4 unit courses across the bachelors program. Ongoing concerns about such a change were resolved at our May 2012 meeting and the department submitted the request for course and program changes to the College Curriculum Committee in April. It passed and was submitted to Undergraduate Studies.


\textit{STRENGTHS AND ACCOMPLISHMENTS}

\textbf{POINT 1 – COLLEGIALLY.} Abundant collegiality\footnote{We do not use the term Collegiality superficially. Sociologists argue that collegiality describes a full-fledged organizational form that is particularly useful for coordination in knowledge intensive organizations where inter-dependent members jointly perform non-routine tasks.} means we interact less like a commuter-faculty department and more like an entrepreneurial start-up. This collegiality imbues our tradition of supporting one another—whether by proctoring an exam, covering a lecture, or assuming extra assignments to support colleagues on professional leave. We accomplish much, given our limited resources, because we work collaboratively and share an appreciation for entrepreneurial, innovative thinking. For example, we were the first department in the COSS to institute four-unit courses blending lectures with online labs. We also brought the Unitrack program to campus. Other COSS departments later adopted these major initiatives. Our cooperative, entrepreneurial nature drives us to work across departments and across the campus where we are welcome. Most recently two of our courses were cross-listed with history. The success of future innovations depends heavily on maintaining this start-up mentality.

\textbf{POINT 2 – OUTSTANDING TEACHER-SCHOLARS.} A start-up is a team, where each member has individual responsibilities, works autonomously for a time, and then meets to move the ball forward. Econ faculty are personally dedicated to the craft of education, they work autonomously for a time but then we meet, formally and informally, to check that, as a team, we are accomplishing the Department’s well-defined student learning goals. We dedicate strategic planning time at the first faculty meeting of each academic year to discuss student learning and assessment. We also meet on the first Friday of February for a day long, Best Practices in Teaching Summit. Lecturers, professors and guests present at the summit. Our courses are far removed from the stereotypical, droning professor’s chalk-and-talk: we increasingly blend online and classroom meeting and cultivate questioning as we break the habit of stenography and help students reawaken the questioning, skeptical, creative mind. A brief summary of recent professional publications, popular press publications, grants, and faculty-student co-authored work is included in Appendix …

Teaching and scholarship are inextricably linked. Scholarship informs the profession, students, and the community. Research in the Department spans peer-reviewed journals, books, popular-press print, radio, and video. Our Friday Workshops (yes, we voluntarily meet on Friday afternoons) exemplify our ability to blend research and teaching. Graduate and advanced undergraduates attend along with faculty and lecturers. The Workshops are a mix of traditional activities, (i.e., faculty present research-in-progress) directed readings, and student presentations. Our teaching-scholarship goal for the Workshop is to model the process of critical thinking, present interesting areas for future student research, and demonstrate professional presentation skills. Students are often reluctant to speak out at such sessions but following each Workshop we gather for pizza to continue discussion in a more informal atmosphere--here is where students feel more comfortable asking questions. Ultimately, this leads to co-authored research, such as these recent works:

\begin{quote}
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\end{quote}
POINT 3 – WELL-DEFINED IDENTITY IN APPLIED ECONOMICS.  Our abundant collegiality, dedication to excellence in teaching, and prolific research spout from a well-defined identity. This is an applied program. We use the tools of economic theory to examine the world and offer testable hypotheses. This is in sharp contrast to many economics programs that emphasize mathematical modeling. Students from UC’s often know well, how to take the first partial derivative of a constrained optimization equation but they cannot explain why or use the concept of choice, voluntary exchange, or explain how institutions impact real world problems. Our applied-economics focus suits the skill-set of the typical SJSU undergraduate, the needs of the typical Masters student, and best fits the mission of the University. This does not mean, however, that our program is not quantitative. We challenge all economics majors to “own” basic statistical skills that are demonstrated in reports. We offer rigorous courses in econometrics that use cutting-edge software. Students report that their econometric reports and skills led to job interviews or set them apart from their peers in MBA programs. We also participate in the Math Department’s Applied Mathematics concentration. We advise graduate students interested in a doctorate to take math from the math department while we continue to specialize in applied economics. These students regularly report back that they are highly regarded by their peers and faculty in the doctoral programs because our students can explain the economics behind the math.

Within applied economics, we have also developed a niche as a department that specializes in the Austrian and Public Choice schools of thought. These schools of thought have deep traditions, and count several Nobel Laureates among their ranks. They originate from the Universities of Vienna and Virginia respectively. The Austrian school of economic thought is one of the few traditions emphasizing the theoretical underpinnings of entrepreneurship and dynamic processes. Entrepreneurship and dynamic processes are particularly suited to our Silicon Valley location and start-up mentality. Public Choice is traditional price theory applied to the production of legislation where the legislature is the firm. Our niche was evaluated in our last program review and positively regarded as a bold move. Since our last review, our reputation in this niche has grown: we attract graduate students worldwide, continue to be successful in fundraising, and as recommended by the previous external reviewers have developed two new courses--the economics of entrepreneurship and an experimental course in the economics of public choice.

POINT 4 – MENTORS. A distinguishing feature of the Department of Economics at SJSU is our faculty-student connection. We actively engage with students to provide a range of learning opportunities. Examples of regular programs include the David S. Saurman Provocative Lecture Series, informal gatherings after the Friday Workshop, online and ground meetings of the Barstool Economists, well-supported Econ Club meetings, week-long summer seminars actively promoted to students, and the Student-Faculty Partnership Program which awards scholarship and mentorship to over ten students each semester. These are robust activities, that when coupled with the demanding teaching schedule, prolific research, and curriculum innovations, would simply not fit into the day if it were not for the fact that mentoring is a shared responsibility across the faculty, lecturers, staff and students.

We have fostered successful, peer-to-peer mentoring by having regularly scheduled hours for Econ tutors who meet students in the conference room. Senior professionals pursing a masters degree are also encouraged to mentor undergraduates in the classroom and when they study together for exams. A diverse, dedicated and highly valued group of lecturers contributes to the camaraderie of the department and the mentoring. Staff advise, inform, sometimes console and occasionally apply bandages. We succeed in creating a welcoming, vibrant and safe environment that fosters a sense of belonging. This mentoring helps us better direct students to available resources and opportunities that they may never have considered. In the last three years, there have been three student publications in refereed journals and one article in the Financial Times of India. In the last 6 years we have sent students to Harvard University Law School, University of Texas Law School and to doctoral programs in economics at George Mason University, UC Santa Cruz, University of Tokyo, USC, and UC Davis.
These student placements are as much a testimony to the quality of our program as it is to the mentoring.

**POINT 5 – TEACH PROBLEM-SOLVING SKILLS NECESSARY FOR THE 21ST CENTURY.** By its nature, economics develops problem-solving skills. According to psychologist a distinguishing feature between expert and novice problem solvers is that novices seek the first fact (declarative knowledge) that they can recall to answer the question. Experts, on the other hand, first use theory to view the problem (schematic knowledge) and then search for specific facts as directed by the theory. Given that the 21st century is characterized by near instantaneous access to a sea of facts, it is imperative that we stop rewarding students for memorizing facts. They will never beat the computer for recalling facts. Economics teaches students the schematic tools of supply and demand so that they know which facts to seek. Further, we teach students that there is often no single-right answer to complex social, historical, political and business problems. Students learn to feel comfortable with the notion that they do not need a memorized “right” answer—it doesn’t exist. Instead, they learn a systematic approach that allows them to posit reasoned answers to complex, ill-defined problems. Our students frequently report that they can give reasoned answers to Silicon Valley interview questions such as “How would you move Mt. Fuji?”

e. **CHALLENGES AND CONCERNS**

The Department’s delay in completing this review in Spring 2012 has proven propitious. Our faculty situation has changed so unexpectedly and materially that the ‘on time’ report would have been irrelevant. To serve as a meaningful document for Department and University planning, this report has been updated to include changes.

**Status:** As of December 31, 2012, the Department consists of 3 Full Professors; 2 Associate Professors; 1 Assistant Professor; and 2 Faculty members in the Faculty Early Retirement Program.

**Change:** We had a third associate professor, Dr. Edward Lopez, who was promoted to full professor effective August 2012 but he resigned to accept an endowed chair position. We had a second assistant professor, Dr. Emily Skarbek, who was receiving favorable retention reviews but sent a letter of resignation on December 31, 2012 to accept a tenured position at Kings College, London.

**Expected Change:** Professors Tom Means and Lydia Ortega, have plans to retire in four and five years respectively.

**Challenge:** We lack faculty in the tenure and promotion pipeline necessary to maintain a Department given expected retirements of full professors and the time it takes to move assistant professors through the tenure and promotion process. The University is approving a limited number of searches for departments facing crisis in “accreditation standards” but there are other standards to consider. The Department plans to leverage our ability promote outstanding teaching and scholarship by establishing a post-doc program and to retain tenure-track faculty by establishing an endowment for supplemental funding to be able to attract and retain the best economic faculty.

f. **PROPOSED CHANGES AND RECOMMENDATIONS**

**Recruitment:** The Department submitted recruitment requests for a position in Math Econ and Statistics and for a position in Law and Economics. For the 2012-2013 academic year, Dean Bienenfeld ranked these positions as first and fourth, respectively, in the College of Social Sciences. Due to campus-wide budget cuts, the Department is currently only able to search for one replacement. We hope to parlay this expensive search into 2 to 3 positions if possible. We had over 200 applications
applying for our position in Quantitative Economics. We narrowed this down to 20 candidates -- all have excellent quantitative skills and secondary fields in other areas needed by the Department. Hiring in this recruitment cycle presents a great opportunity to replace missing fields such as labor economics, political economy, law and economics, with a cohort of economists with strong applied quantitative economic tools. Such a cohort presents the opportunity to develop a third course in Data Analysis and Methods which would include techniques for working with large panel data sets and evaluating appropriate statistical techniques based on the data distribution. Additionally, such a cohort would strengthen the Department’s program learning goal of producing students with a strong command of statistics and statistical analysis. Five candidates will be brought for campus interviews in January and February 2013. Update: The Department was able to fill a second position. In Fall 2013 we will bring Robert Ragan, Ph.D. Economic 2009, University of Georgia and Rui Liu, Ph.D. Economics expected 2013, UC Irvine. Dr. Ragan brings exceptional quantitative, programming, and statistical skills and also contributes to the Department’s interdisciplinary focus with his work in political science. Rui Liu brings excellent math, statistical, and forecasting skills. We now have sufficient resources to consider adding classes in data analysis and manipulation. Additionally, a Spring 2013 Alumni survey strongly endorsed additional work in statistical analysis with some programming to deal with big data.

Program Learning Goals: In preparing this report the Department reviewed survey and assessment data and embarked on changes to our program learning goals. Assessment will be an ongoing process as we discover better ways to measure learning in specific areas at lower cost. Faculty agreed to a few changes in our program learning goals to better incorporate and assess critical thinking goals.

3. PROGRAM DESCRIPTION

a. PROGRAM MISSION AND GOALS

Our program mission statement is as follows: Our teaching and research stress the importance of markets and institutions on economic, political and social issues.

The career/life goals that our program prepares its students to achieve includes the following: We specialize in teaching students how to apply economic-reasoning tools towards Problem Solving. Students learn to formulate reasoned responses to complex social, political, and business issues. We leverage economics to develop Critical Thinking skills. Everything about our program--co-curricular activities (e.g. Provocative Lecture series), interaction with students, and a pedagogy that promotes discussion--is directed at reawakening the student’s questioning, challenging and creative mind.

Through advising, students focus on discovering opportunities to acquire three, flexible and durable, human capital skills: Communication, Calculation (statistics) and Critical thinking. We want students see themselves as team members, working with faculty, to make a touchdown. When the 3 human capital skills are coupled with economic-reasoning tools, students acquire the Confidence to take-on any job. Touchdown!

The primary teaching effort of the department is for this program not in service to other programs. By its schematic nature, economics makes students better systematic problem-solvers. The emphasis we place on critical thinking takes problem solving to the next level: strategic thinking, awareness of trade-offs, long and short run calculations, out-of-the-box solutions, and entrepreneurial alertness.
**b. List of Program Learning Objectives**

<table>
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<th>TABLE 1</th>
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<tr>
<th>Program Learning Outcomes (BA &amp; BS programs)</th>
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1. **MICROECONOMICS.** Hallmarks for the principles and intermediate level include:
   - Incentives Matter (law of demand; law of supply; rational decision makers weight marginal costs versus marginal benefits; the power of self-interest)
   - Opportunity Costs (sunk costs; production possibilities; the free-lunch fallacy; tradeoffs in consumption and production; gains from Interpersonal & International trade; comparative advantage)
   - Supply and Demand (understanding the S&D model as a representation of individual choices in exchange based on individual preferences, knowledge and circumstances; ability to examine current events using S&D tools; movement versus shift; welfare analysis.)
   - Intermediate Microeconomic Theory

   Assessment: analysis of student answers to multiple choice and essay problems

2. **MACROECONOMICS.** Hallmarks for the principles and intermediate level include:
   - Comparative Advantage (specialization and the gains from trade; globalization)
   - Macroeconomic Measures (real versus nominal calculations; components and concept of GDP; components and concept of unemployment figures; calculation of inflation)
   - Macroeconomic Models (circular flow; monetary and fiscal policy; the market for loanable funds & interest rate determination; the demand and supply of money & price level determination)
   - Intermediate Macroeconomic Theory

   Assessment: analysis of student answers to multiple choice and essay problems

3. **METHODS.** Broadly defined to include, for example, analytical mathematics, analytical narratives, case study, computational, historical, statistical methods.

   Assessment: analysis of student attempt to use at least one methodology to answer a sophisticated economic problem, for example in a research report.

4. **SPECIALIST AREA.**
   - History / Development
   - International / Finance
   - Policy Economics
   - Quantitative Methods (emphasized for B.S. program)

   Assessment: analysis of exams or term papers where students attempt to demonstrate mastery of at least one specialist area within economics, for example by being able to describe the historical development of thought in the field, relevant microeconomic and macroeconomic theory, and important sources of data.

5. **COMMUNICATION.** How to apply economic reasoning about topics of practical interest to citizens, firms, governments, and other institutional and social groups, through spoken and written outlets.

   Assessment: Students are graded on written and oral projects; the emphasis is on the quality of delivery rather than mastery of theory and methods.
PLOs are formally communicated to students by posting on the Department of Economics website. All syllabi direct students to this website. Additionally, PLO are informally communicated throughout the course via periodic self-assessment surveys. Self-assessment surveys are currently (Spring 2013) being tested in a few of the courses; the results will be reported at the August faculty meeting.

Changes to the program learning objectives include revamping the language describing the PLO’s; it is now more comprehensive, assessable, and better aligned with curriculum, program planning and the student experience. We also revised the areas of expertise and changed the fifth PLO to Communication. These changes apply to the undergraduate and graduate PLOs and are summarized in Table 3.

In faculty meetings, we discussed applied economics, critical thinking, and communication. These were also emphasized in our faculty survey. None of our PLOs directly dealt with how to assess critical thinking. We concluded that effective communication includes critical thinking. Indeed firms are using writing tests, administered after the job interview, to assess both writing proficiency and
thinking ability. We added Communication to both the undergraduate and graduate program as a more tractable way of ascertaining writing, thinking, and the ability to apply economic reasoning tools (See comprehensive Communication Rubric—Appendix 3).

**TABLE 3 -- QUICK VIEW OF CHANGES**

<table>
<thead>
<tr>
<th>OLD UNDERGRADUATE PLO’S</th>
<th>NEW UNDERGRADUATE PLO’S</th>
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<tbody>
<tr>
<td>Principles of Microeconomics</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>Principles of Microeconomics</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>Methods</td>
<td>Methods</td>
</tr>
<tr>
<td>Fields:</td>
<td></td>
</tr>
<tr>
<td>1. International Economics</td>
<td>Fields:</td>
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<tr>
<td>2. Financial Economics</td>
<td>1. History and Development</td>
</tr>
<tr>
<td>4. Quantitative Methods</td>
<td>3. Policy Economics</td>
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<tr>
<td>5. Apply Econ theory &amp; reasoning</td>
<td>4. Quantitative Methods</td>
</tr>
</tbody>
</table>

**WASC PROGRAM OUTCOME RUBRIC**

The WASC rubric focuses on five criteria. We reviewed our PLOs and Assessment Schedule and Course-to-PLO Map with these five areas in mind.

**Area 1: Comprehensive List**
Our list of PLOs is Developed. We have a well-organized set of outcomes, with careful distinctions between the programs. We fall short of Highly Developed because our PLOs do not describe explicit criteria for assessing students' level of mastery of each outcome (although we would add that we have our assessment schedule does specify how students can demonstrate learning).

**Area 2: Assessable Outcomes**
The “assessability” of our outcomes is Emerging. The PLOs themselves do not specify how students can demonstrate learning (though we would add that our assessment schedule does specify how students can demonstrate learning).

**Area 3: Alignment**
The alignment of our PLOs and curriculum is Developed. We have made efforts to redesign the curriculum to provide opportunities for students to learn and develop increasing sophistication with respect to each outcome.

**Area 4: Assessment Planning**
Assessment planning is Highly Developed. The program has a fully-articulated, sustainable, multi-year assessment plan that describes when and how each outcome will be assessed.

**Area 5: The Student Experience**
The student experience is Emerging. Students have some knowledge of PLOs.

A consensus view among the faculty is that our assessment process is on the right track. Over the last few years, the Department has pursued a data-driven, quantitative approach to assessment that promotes effective discussions on assessment of student learning.
How PLO Relate to University Learning Objectives

<table>
<thead>
<tr>
<th>ULO Brief Description</th>
<th>Department PLOs</th>
<th>Co-curricular</th>
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<tbody>
<tr>
<td>Specialized Knowledge</td>
<td>Micro &amp; Macro Theory (1&amp;2)</td>
<td>Both</td>
</tr>
<tr>
<td>Broad Integrative Knowledge</td>
<td>All PLO’s as a whole</td>
<td>Both</td>
</tr>
<tr>
<td>Intellectual Skills</td>
<td>Methods &amp; Communication (3&amp;5)</td>
<td>Friday Workshop</td>
</tr>
<tr>
<td>Applied Knowledge</td>
<td>Area Studies (4)</td>
<td>Both</td>
</tr>
<tr>
<td>Social &amp; Global Responsibility</td>
<td>Communication (5)</td>
<td>Both</td>
</tr>
</tbody>
</table>

Major Co-curricular Activities:
David Saurman Provocative Lecture series and Barstool Gathering
Offered three times per semester, attendance averages 200 students per event, presentations and debates on controversial topics (e.g. cyber security, international trade, immigration, terrorism.

Friday Workshops and Social
Offered 6 to 8 times per semester. This afternoon seminar consists of reading group discussions, presentations of research (by faculty, students and invited guests), and labs.

How PLO Relate to Curriculum Courses

**UNDERGRADUATE PROGRAM – COURSE TO PLO MAP**

<table>
<thead>
<tr>
<th>PLO</th>
<th>Brief Description</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Microeconomics</td>
<td>Econ 1B and 101</td>
</tr>
<tr>
<td>2</td>
<td>Macroeconomics</td>
<td>Econ 1A and 102</td>
</tr>
<tr>
<td>3</td>
<td>Methods</td>
<td>Econ 003 and 103</td>
</tr>
<tr>
<td>5</td>
<td>Communication</td>
<td>Faculty Focus Group (We have a rubric to assess thinking and application of economic tools.)</td>
</tr>
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</table>

**GRADUATE PROGRAM – COURSE TO PLO MAP**

<table>
<thead>
<tr>
<th>PLO</th>
<th>Brief Description</th>
<th>Course and Comp. Exam Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microeconomics</td>
<td>Econ 201, Exam Sec.I</td>
</tr>
<tr>
<td>2</td>
<td>Macroeconomics</td>
<td>Econ 202, Exam Sec. II</td>
</tr>
<tr>
<td>3</td>
<td>Methods</td>
<td>Econ 205, 205A, Exam Sec II and III</td>
</tr>
<tr>
<td>4</td>
<td>Area Studies</td>
<td>Course and Exam Section III   Econ 212 Econ 235 (Section II) Econ 205B, Econ 200 Econ 104, Econ 203</td>
</tr>
<tr>
<td>5</td>
<td>Communication</td>
<td>Analyze final reports submitted in Policy Analysis Workshop (205B)</td>
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</table>
The PLO to Course to ULO mappings are convenient but rather sterile summaries. Our team mentality means that we meet frequently in formal and informal settings. This gives us many opportunities to “check-in” on Department goals, student learning, and course content. Hence there is strong agreement on learning outcomes such as the holistic one described in this quote from the faculty survey:

“Overall, the final product of a economics graduate is an ability to think and reason effectively using the logic of economics. He or she is well prepared for careers in a wide range of businesses because the tools developed as an econ major are general and applicable to careers across disciplines. An economic major has exceptional communication skills, knowledge of Excel and data processing software, and a strong understanding of how to assess costs and benefits in a wide range of applications.”

In preparing for this review, we surveyed the faculty (lecturers and TTR) to ask them about the strengths and weaknesses of our program, the strengths and weaknesses of the individual classes they offer, and also the curriculum goals we should have for our students. The large majority of faculty mention critical thinking and analytical skills first when listing strengths of their classes, our program, and also goals for our programs.

The faculty also recognize that another important goal is to teach students to be able to handle data and present it in a way that is useful. The faculty recognized that statistical skills complement analytical ability and critical thinking; as one faculty member put it, “students need to learn to formulate and substantiate arguments through analyzing theory and evidence, posing hypotheticals, and substantiating their claims.”

Other comments that were discussed and agreed to include: students should be proficient in microeconomics and have substantial knowledge within an area of interest; students should be able to communicate economic intuition effectively both in both written and oral form; and the hallmark of a top economics student is one who can develop a sound economic argument, using critical thinking skills to reason through the argument and dismiss competing theories.

In summary, these words provide a clearer view of how our program learning objectives mirror the university learning objectives.

Describe any successful curriculum changes or innovative ideas:

In April 2013, the Department presented to the College Curriculum committee a comprehensive proposal to change upper division courses from 3 units to 4 units. The proposal was well received and passed unanimously. The change is expected to go into effect no later than Fall 2014. It will entail curriculum changes—such as flipped, experiential and hybrid classes. Beginning Summer 2013, the Department has allocated funding to support faculty development of effective and innovative curriculum transformations. As a team, we aim to make the most out this opportunity to be truly innovative with course design.

This was an extensive change that impacted all our upper division courses. It was accomplished under the direction of Matt Holian and with the full agreement and participation of the faculty. In 2003, we were the first department in the College of Social Sciences to institute a hybrid 4-unit class – 3 hours of lecture plus 1 unit of online activity for our introductory classes. Since then three other departments have adopted 4-unit courses in whole or in part. We lagged these departments because there was not complete buy-in on what could effectively be done with the fourth unit and on the trade-offs in terms of the number of elective units that would be available to majors. The faculty wants to retain as many “any
course” electives as possible for three reasons: it is important for students to apply economic reasoning to other subjects; we support student study aboard; and greater flexibility expedites transfers and graduation. When these issues were resolved the change went forward.

Other curriculum changes that were initiated in this extensive program change:

- Econ 158 was replaced with modified to focus on the Economics of Entrepreneurship.
- The experimental course Econ 196J, Economics of Public Choice, was approved as a permanent course -- Econ 133.
- Cross-listed two economics courses with history – Econ 113A and 115B.
- Eliminated Math 70 prerequisite to align with Math’s course offerings and COB changes.
- Econ 290R was added to comply with new policies regarding RP grades.
- Working on the development of an experiential course – Strategic Thinking about Innovation—to examine venture capital markets.

Other curriculum changes that we are considering include:

- Given faculty and alumni survey responses, and the expertise of our two new tenure-track recruits we are looking to adding another data analysis/management course.
- With the expertise of one of newest tenure-track recruit, we look forward to course development to extend interconnections with Political Science (e.g., hope to propose cross-listing Economics of Public Choice, Government Regulation of Business, Political Economy of National and International Institutions)
- Develop a new course in Managerial Economics for Non-Profits and Public Administrators.
- Develop online 3-unit economics course for non-majors, possibly to fit in GE area E.
- Develop externally funded certificate program (Ortega and Jerbic working on this)

Curriculum description -- Using the 2013 proposal, the curriculum is divided into three areas:

1. Theory and Methods

2. Applied Courses (Breadth) – this section assures that students select four courses from at least two of the following four areas (B.S. does not have this category because the required quantitative courses count as one of the areas of breadth):
   1. History and Development
   2. International and Finance
   3. Policy Economics
   4. Quantitative Methods

3. Applied Courses (Depth) – this section allows students to explore other areas or take more courses in a particular area of economics.

Please see Appendix 4 to view a clear table of each Undergraduate Course, with learning goals and corresponding PLOs.
b. **Courses Serving Other Programs**

*Economics provides courses to other programs* across the University; the departments and courses are listed.

**College of Business** -- We teach one thousand COB students every semester, mainly in our principles class. 85% of our minors come from COB students Appendix 7, Exhibit 12. We also provide an upper division course, Econ 136, for COB students in International Business.

**Mathematics** -- Students in the B.S. program in Applied Mathematics, Concentration in Economics and Actuarial Sciences take Econ 1A, 1B, 101 and 102. Math students also can select from Econ 103, 104, 106, 138, 139.

**Environmental Studies** -- In 5 of the 6 undergraduate major degrees offered by ENVS, Econ 1B and Econ 107 (cross-listed with Envs 107) is a required course. In one concentration – Environ.

Impact Assessment -- Econ 108 (cross-listed with Envs 108) satisfies one of 2 required upper division electives. While Econ used to staff these courses regularly, retirements have made that impossible. Econ only recently has sufficient staffing to offer Econ 108 regularly.

**History** -- We recently cross-listed two courses with the Department of History, Econ 113A: Econ History of the U.S. and Econ 113B: Econ History of Europe.

**Global Studies Program** -- The Global Studies BA program allows students to take Econ 117 as part of the six-unit Global Business and Economics breadth area. We informed them that staffing has not allowed us to offer that class and advised GLST to offer Econ 112, Econ 136 and/or 113B.

Instructional Design and Nursing also require principles of economics courses.

Our only G.E. course is Econ 1B in area D1. The Department believes that all educated persons should have an understanding of the organic system whereby resources are allocated based on mutually beneficial trades that promote efficiency, specialization, and innovation. However, we do not have the resources to offer more courses for general education. It is not a priority at this time.

Describe the formal structures that enable the needs of those dependent programs to be regularly incorporated into the design and regular update of those courses. We have no formal structures for working with other units regarding changes in content but there have been no major curricular content changes. We did make a major program change (from 3 to 4 units), and personally contacted each about the change.

4. **Assessment of Student Learning**

a. **Assessment Plan**

Please refer to Pages 9 and 10, Tables 1 and 2 for a description each PLO and a summary explanation of how each is assessed. Also please see Appendix 4 for an easy to follow table of each course in economics, the learning outcomes for the course, and the corresponding PLO.

Our schedule for assessing each learning objective has changed. Our assessment plan specifies that we assess one PLO per year, every five years. Our last assessment report was in 2011-2012 but it covered PLO’s 1 and 2.

2011-2012 was a watershed year for our program assessment as we revamped our program learning objectives and further refined our quantitative assessment methods, which are designed to “close the loop” between assessment, curriculum, and student learning. Our PLO’s have been rationalized and
streamlined. The language describing the PLO’s is now more comprehensive, assessable and better aligned with the student experience.

Going through this program planning review, with accompany revisions to the PLO’s has changed our schedule for assessing each learning objective. Faculty opted to evaluate PLO 5, Communication/Critical Thinking sooner to establish a benchmark.

<table>
<thead>
<tr>
<th>Original schedule</th>
<th>New Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011 PLO 1 (Micro)</td>
<td>Done</td>
</tr>
<tr>
<td>2010-2011 PLO 2 (Macro)</td>
<td>Done</td>
</tr>
<tr>
<td>2011-2012 PLO 1 and 2 (Revisited*)</td>
<td>Done</td>
</tr>
<tr>
<td>2012-2013 PLO 3 (Methods)</td>
<td>PLO 5 (Communication)</td>
</tr>
<tr>
<td>2013-2014 PLO 4 (Area of Specializations)</td>
<td>PLO 3 (Methods/Statistics)</td>
</tr>
<tr>
<td>2014-2015 PLO 5 (Communications)</td>
<td>PLO 4 (Area of Specializations)</td>
</tr>
</tbody>
</table>

* We revisited PLOs 1 and 2 because of the results of previous year’s assessment. In other words, while our schedule told us to move on to PLO 5, we decided to revisit 1 and 2 because we had important unanswered questions regarding sequencing (See Assessment Results below).

CURRENT ASSESSMENT:
Assessment on PLO 5 began Spring 2013. We collected recent syllabi from every course offered in the last year to determine which had paper assignments. Courses with paper requirements: 108 (referee report, literature review) 132 (research project) 135 (research paper or book report) 151 (final paper) 158 (two written analyses, on readings) 190A (term paper). Courses with other communication requirement: 112 (video project) 136 (video project).

Courses not reviewed: 1A, 1B, 2A, 2B, 3 (lower division) 100W (GE course, assessed as part of GE assessment)

Over the summer a small group of faculty will receive papers to evaluate according to the Communication Rubric (see Appendix 3). This task is generally accomplished at the undergraduate level during the Spring semester, but Spring 2013 was overly taxing given a shortage of two, tenure-track faculty coupled with the additional work of recruitment and program planning. At the graduate level, it will also be deferred to the summer of Fall of the next year because we must wait until the end of the spring semester to collect papers from Econ 205B. Faculty discuss their findings at the first faculty meeting in August and again at the February Best Practices Teaching Summit.

Who has primary responsibilities for data collection, analysis, interpretation and reporting? Professor Matthew Holian has been driving the assessment process, making reviews more quantitative and productive.

What is your formal process of how results of assessment are used by faculty? We have two regularly scheduled meetings to discuss assessment: first faculty meeting in August and the First Friday in February, Best Practices in Teaching summit. One of the outcomes of our discussions has been to use the assessment data to drive empirically testable questions. See Assessment Results.

Summarize how each of the program learning objectives and university learning objectives are assessed, identifying direct and indirect methods, and describe performance standards expectations.

Tables 1 and 2 (pages 9 and 10 respectively) succinctly describe our method for assessing learning outcomes. Except for PLO 5 (communication) all PLO’s are evaluated by examination. We believe our Department PLOs overlap extensively with ULOs, hence assessment is simultaneous. The standards for performance on undergraduate work are B or better in the set of examination questions used for assessment. B or better is a higher goal than the average grade point average for all lower
division courses (G.P.A. ranges from C to C+) and higher than the average for most upper division courses. Graduate student assessments are based on evaluation of the comprehensive exam questions for evidence of PLO learning. Performance is measured as Fail, Marginal Pass, or Pass. Our expectations are that students demonstrate the PLOs at the Pass level (note this may not be equivalent to getting the question answered at the Pass level—we are looking for specific PLOs in the answers).

Describe any assessment conducted on a senior project course. Not Applicable to our program.

Briefly describe any assessment that incorporates the use of portfolios. Not Applicable to our program.

b. Past Assessment Results

Summarize/interpret assessment results collected since the previous program review describing levels of student attainment for each learning objective.

Assessment Results from 2010-2011:

Analysis of three exam questions from over 200 students show that correct response rates are greater than 90% on two questions, and above the external benchmarks on all questions. Overall, the survey suggests we are achieving PLO 2 with a fairly high degree of success for the undergraduate program, but that there is room for improvement, primarily in the area of macro models.

As for the graduate program assessments, a comparison of the results from comprehensive exam questions from two periods (Spring 2006 - Spring 2008 and Fall 2008 - Fall 2010 ) show that our students have been passing PLO2 questions at a higher rate in the more recent period. Obviously there are many factors to consider, but it is possible that the decrease in the rate of failure were due to improvements in student learning, and possibly as a result of giving students access to previous versions of the exams. Or the stricter admission standards may have lead to a sample selection effect.

Proactive Assessment Attitude:

Our new focus on quantitative assessment, has led to a more proactive position on assessment. Instead of just asking, “how are students doing?” and then reacting to the results, faculty are posing questions for investigation based on literature about learning. This change in our assessment perspective is evidence in the historical record of our assessments since 2006 provided in Appendix 6; to put it succinctly—“we’ve come a long way, baby.”

In 2011-2012, for example, we re-ran assessment of PLO 1 and 2 because faculty were interested in whether there was a statistically significant performance difference, depending on whether the student had 1A before 1B or vice versa. Also, we were interested in the magnitudes of any effect. Finally, we were interested to what extent the implied sequencing affects actual student scheduling decisions. We gathered student grade outcomes for all the students enrolled in Econ 1A and Econ 1B, for the last three years and performed quantitative analysis that is reported in Appendix 5.

We did not find an economically or statistically significant effect of having microeconomics before or after macroeconomics. However, taking the courses concurrently has a positive effect, and this is especially true for microeconomics. These results suggest that the order of principles courses doesn’t make much difference, but that if they take them at the same time, we see improvement in grades. We conclude that this improvement in grades derives from intensity of focus on economics concepts over a
given period of time. The Department is advising students not to hesitate to take Econ 1A and Econ 1B simultaneously if it fits their schedules.

This “proactive” approach to assessing what works is what led to our adjustment in the schedule of PLO assessment. We want to establish a baseline in writing before adopting more wide-spread use of Criterion. By the same token, given that we have two new, tenure-track hires with strong skill sets in statistical analysis, we want a baseline of statistical skills across the major as a way of gauging improvement with the addition of more tutorials and additional data analysis courses (under consideration).

Describe any program, curriculum, and/or course changes made due to the assessment result.

The Department is advising students not to hesitate to take Econ 1A and Econ 1B simultaneously if it fits their schedules.

The Department Faculty are focusing on repetition of PLO concepts in the principles courses.

The Department is testing periodic self-assessment surveys to keep students mindful of course learning goals.

Considering adding more statistics tutors to our cadre of economics theory tutors.

Describe what has been done or is being planned in response to gaps, if any, in student achievement.

While the Department has not yet tested PLO 5 Communication, discussion on the subject of effective writing and critical thinking shows that faculty are dissatisfied with performance. All Department faculty attended a presentation on Criterion and several adopted the software as a means of testing its impact on student writing. The results are somewhat encouraging: students who are motivated to improve writing have a favorable impression of Criterion. Most students are nonplused about the software. So the Department will be discussing Motivation (e.g. through more extensive writing competitions) and will be assessing PLO 5 this year.
5. STUDENT SUCCESS MEASURES -- Required Exhibits 5 through 10 in Appendix 7.

a. TRENDS, ENROLLMENT, RETENTION, GRADUATION, PLACEMENT, AND OTHER INDICATORS

Summarize and interpret key trends.

- Exhibit 8B – SFR. This is not a required table but it is important to show how much faculty are accomplishing. Since Fall 2008, our SFR has average 28.8 and except for one year (Fall 2010) has always been above 27 with a high in Fall 2012 of 32.7

- We are succeeding in better managing the ratio of Undergraduate to Graduate students. Graduate students to total students has gone from 50 percent in 2008 to about 20 percent in 2015. This trend holds for both Fall and Spring.

- Impaction has reduced our admission rates and consequently our show rates.

Summarize and interpret program trends in regards to enrollment, first-year retention, graduation, average time-to-degree rates, and placement of graduates

Exhibit 5 – Applied, Admitted, Enrolled. From Fall 2008 to Fall 2012 – Show rate of First-Time Freshman has averaged 13 percent of those admitted. Freshmen rarely enter as Economics majors—the number is historically in the single digits. So while we could improve on the show rate by sending out more email contacts to those admitted we are not likely to get large increases in students. The Department has made a brochure that is sent to transfer students and freshmen when we get the emails. Freshmen may need a different message or a second message to convince them that SJSU is a top program. We will likely put together information about our alumni successes to send to all admitted students but particularly to freshman.

Before Fall 2012, show rate for First-Time Graduates averaged 64 percent of those admitted. In Fall 2012 the show rate dropped to 49 percent but this was the year that GAPE instituted strict admission limits.

Exhibit 6 – Enrollment by Class level with FTES shows a remarkably consistent enrollment and distribution across grade level between Fall 2008 and Fall 2012 averaging 227 total Headcount Enrollment. This consistency is curious given that we were one of three departments in the college to be impacted beginning as early as Fall 2010.

Exhibit 7 – Enrollment by Student Level and Concentration shows that we are slowly succeeding in increasing our undergraduate enrollment relative to graduate enrollment. Graduate students to total Undergrad plus Grad, has gone from 30 percent in 2008 to about 20 percent in 2013. This trend holds for both Fall and Spring.

Exhibit 8A – Degrees Awarded is notable for the 2012-2013 abnormally low number of undergraduate degrees (less than half of the average since 2008-2009) and graduate degrees (a fourth of the average number awarded since 2008-2009) awarded. This may be the result of impaction that started three years earlier.
Exhibit 9 – Retention Summary. Ignoring Freshmen data due to small sample size, and looking only at the transfer students for 2006, 2008, and 2010, we see that the number of transfer students still active economics majors is always above 60 percent and reached a high in 2008 of 83 percent. We have no benchmark to evaluate our retention rates.

Exhibit 10 – Graduation Rates. Here we look at two available cohorts, 2004 and 2008. Again focusing on transfer students, we see that 76.9 percent of those transfer students entering as Economics majors, graduated within 5 years and that 92.3 percent graduated from the University overall (as some other major). In 2008, the graduation rates fall off. 54.8 percent of those transfer students entering as economics majors graduated within 5 years with an economics degree; 52.2 percent graduated with some degree from SJSU. The reasons for the change are not clear. What can be inferred is that students get excellent advising once they enter as economics majors because they do on to graduate.

Exhibit 11 – Comparison of SFR, FTES, FTF for Economics, Sociology, and Political Science
In an effort to get a firmer understanding of how Economics is doing we decided to compare a few Departments in the COSS. We picked Sociology and Political Science because we have similar FTF and generate comparable FTES. This comparison looks at averages from Fall 2008 to Fall 2012.

The main difference is that we are a little lower in FTES Average but this can be accounted, in part by our early period of impaction. Overall, we are not as robust as Psychology but comparable to the two other major departments in the COSS.

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<tr>
<th></th>
<th>ECON</th>
<th>SOCIOLOGY</th>
<th>POLI SCI</th>
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<tbody>
<tr>
<td>SFR Avg.</td>
<td>28.8</td>
<td>26.52</td>
<td>29.8</td>
</tr>
<tr>
<td>Fall 2012 SFR</td>
<td>32.7</td>
<td>29.6</td>
<td>29.7</td>
</tr>
<tr>
<td>FTES Avg.</td>
<td>390.42</td>
<td>447.32</td>
<td>403.94</td>
</tr>
<tr>
<td>Fall 2012 FTES</td>
<td>403.1</td>
<td>423.6</td>
<td>405.5</td>
</tr>
<tr>
<td>FTF Avg.</td>
<td>13.6</td>
<td>16.94</td>
<td>13.58</td>
</tr>
</tbody>
</table>

In Fall 2012, Sociology had almost fifty percent more majors than Economics and Political Science had about 30 percent more majors. But in Fall 2012 we had comparable FTES. Why? We only have one G.E. course. We did some research into our minors.

Exhibit 12, in Appendix 7 is the Analysis of Econ minors. It shows that we serve large numbers of minors, most coming from the College of Business.
b. **Student, Alumni, Employer Feedback**

**Summarize student satisfaction surveys.** During this period (2012-2013) students were surveyed as part of the Chair’s Review. Although the data pertains specifically to the Chair’s work the data can be extrapolated to satisfaction with the department overall. Satisfaction was high across all questions in the survey.

**Summarize any employer feedback.** We did not complete an employer feedback survey. The Department works closely with employer and area business people, so we are constantly getting informal feedback on our students and on skill sets in demand. While laudatory, the remarks are from a small sample and the comments are oral we cannot put much weight on them here. One other measure of employer and business satisfaction with our program’s results is our success in fund development. Fund development is the number one priority of the department for the next five years. To date we are greatly encouraged by positive signs for multimillions dollar faculty development endowment.

**Summarize any alumni feedback.** The Department conducted its first alumni survey in over 10 years. We sent out over 130 invitations to respond to a Google Docs Survey (see Appendix 8).

We had 36 lengthy responses to 4 questions.

1. How did you end up studying Econ at SJSU?
2. Please describe the impact of Econ in your life.
3. Do you have advice for students considering a major in Economics?
4. What could we do differently that would better prepare students?

The responses to these questions are in Appendix 9.

While this is not a professional qualitative evaluation of the responses to question 2, we can report that most students commented on critical thinking, decision making, analysis, applied focus, life changing, connecting with faculty. With respect to question 4, the words most often used were more quantitative courses, statistics, but also keep focus on applying economics to real world situations.

c. **Student Tutoring**

This is an incredible success. Students are invited to volunteer as Department tutors, offering a minimum of 2 hours per week in the Dept. Conference room. The room has become a hubbub of readily visible student activity. This tutoring has helped the Econ Club flourish, has helped expedite advising, and generally created a network of students that continues as alumni.
### 6. PROGRAM RESOURCES

<table>
<thead>
<tr>
<th><strong>a. FACULTY</strong></th>
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<tbody>
<tr>
<td>• Comment on student to faculty ratios, faculty demographics, diversity, etc.</td>
</tr>
<tr>
<td><strong>Summarize the accomplishments of the whole faculty in relationship to:</strong></td>
</tr>
<tr>
<td>• teaching and learning, scholarship service to their profession, community, and university, other forms of professional growth.</td>
</tr>
<tr>
<td><strong>1.5 Admin work with 9 Full-time TTR faculty and 14 Part-time faculty. Diversity with August 2015 new hires includes: 3.5 females (one of Hispanic descent and 1.5 of Asian descent) 5.5 males (one of Asian descent).</strong></td>
</tr>
<tr>
<td><strong>Given expected retirements of senior full professors in 4 to 5 years, we have insufficient numbers of faculty at the associate rank moving to full professor rank.</strong></td>
</tr>
<tr>
<td><strong>The best <strong>summary</strong> of accomplishments is the market test. Our team mentality, coupled with a focus on applied economics and research specializations, has allowed five talented faculty members to quickly excel in teaching and research. They were wooed away with substantial endowments.</strong></td>
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<tr>
<th><strong>b. SUPPORT STAFF</strong></th>
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<tbody>
<tr>
<td>• Report and comment on faculty to support staff ratios</td>
</tr>
<tr>
<td>• Report and comment on department, college, and university staff support including advising, tutoring, supplemental instruction, Information Technology (IT)</td>
</tr>
<tr>
<td><strong>Department support staff consists of one full time admin. (focus on personnel and scheduling) a part-time admin (focus on finances) and a part-time student assistant.</strong></td>
</tr>
<tr>
<td><strong>We depend strongly on an exceptional college support staff. We have been directing students to ACCESS for GE advising. We have a well-established tutoring program in Economics.</strong></td>
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<thead>
<tr>
<th><strong>c. FACILITIES</strong></th>
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<tbody>
<tr>
<td>• Report and comment on program facilities</td>
</tr>
<tr>
<td>• Report and comment on college and university facilities</td>
</tr>
<tr>
<td><strong>We have shared office space for 10 TTR, full-time faculty (two per office). We have two offices that are configured to accommodate part-time faculty (8 in one room and 6 in the other). We have one conference room that is used extensively by students and tutors. The offices have been recently renovated. Classrooms are adequate but unbearably hot in summer months.</strong></td>
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<th><strong>d. CHANGES AND IMPROVEMENTS</strong></th>
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<tr>
<td>• Outline any proposed changes and improvements to resources</td>
</tr>
<tr>
<td><strong>The Department’s focus is fund development. We are making some progress on an endowment for faculty development and we are also seeking funding for a post-doc program in the department.</strong></td>
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