

Self-study

Department of Economics
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The Department of Economics was founded in 1952 and initially offered only a Bachelor of Arts in Economics. The program offerings expanded to include a Master of Arts in Economics in 1969, a BA in Business Economics in 1999, and a BA in Economics with an option in Mathematical Economics and Economic Theory in 2000. The department also offers a minor in Economics which was initiated in 1968, and another in International Economics established in 1997. The department is also partnering with the College of Business Administration in offering a Master of Science in Global Supply Chain Management which plans to admit its first cohort in the fall of 2014.¹ The focus of this self-study, however, is on the state-side programs as the new MS degree program is awaiting approval from the Chancellor's Office.

Section I. Mission, Goals and Environment

A. Briefly describe the program's mission and goals, and note any changes since the last program review. Identify areas of distinction or special competence.

The mission statement for the department which specifies the higher-level goals is:

Through the study of economic theory, policy and institutions it is the goal of the faculty to: increase students' ability to think objectively, critically and imaginatively; encourage intellectual curiosity and the desire for knowledge; enhance the ability to identify, acquire, organize and interpret relevant data objectively; and develop effective oral and written communication skills.

As economics is a mature discipline in the social sciences there have been relatively few changes since the last self-study in 2007. The department has introduced some new courses such as Game Theory (ECON330) and Economics in Movies (ECON340) to update the curriculum, and we have eliminated some courses, such as American Economic History (ECON360I) and European Economic History (ECON361I) that we were no longer able to staff given the changes in our tenured/tenure track expertise. Details on those changes are provided below.

The department has developed strengths in urban and regional economics to complement our existing expertise in trade and development, transportation, labor, and environmental and natural resource economics. As part of this self-study we are re-evaluating the areas of concentration for our graduate program.

¹ The MS in Global Supply Chain Management evolved from the former MA in Global Logistics program offered by the department as a self-support program through the College of Continuing and Professional Education (CCPE). The new program will also be offered through CCPE.

B. Briefly describe changes and trends in the discipline, and what the program is doing to respond. Describe, if relevant, how external changes (e.g., community needs for graduates in the discipline) have affected academic offerings.

The department faculty is actively engaged in the discipline both academically and in projects that serve the greater community. This engagement allows us to continually update the curriculum to meet the needs of our students and the community. Both internal and external issues have affected the programs offered by the department.

Issues within the field of economics that affect the programs offered by the department relate more to pedagogical improvements than to changes in economic theory or practice. For example, there have been significant improvements in the support material available to students online that most publishers make available with their textbooks. Such online materials allow the student to receive immediate feedback on assignments that help to reinforce their learning and increase the efficiency of their time used. Also, there have been continued improvements in software that supports the analytic courses offered in our undergraduate and graduate programs. Students are now able to focus on learning the theory, application and interpretation of skills in econometrics and statistics instead of how to program a computer to obtain the results necessary for analysis.

The regional economy has undergone many changes since our last self-study due to the impacts of the great recession and California budget constraints. The changes to the regional and global economy have impacted the opportunities available for our graduates. However, the region does have a number of natural advantages such as the San Pedro Bay Ports and the trade opportunities for the industries associated with the port activity. These opportunities are directly related to our fields in trade and development as well as transportation. Also, as regional governments have to address the planning issues faced by communities to support this sector their needs for students trained in regional and urban economics is also being met by our programs. A major focus of the department is on the development of skills necessary to support the economics growth sectors in the region. This effort is complemented by projects conducted through the Office of Economic Research (i.e., Gateway Cities Council of Governments economic support, the annual Economic Forum). The department's engagement in the economic analysis needs of local and state government as well as our relationships with the private and public sectors have allowed us to provide important internship and other opportunities to our students.

C. Identify the program's priorities for the future. Indicate how the program arrived at these priorities.

A key priority for the department is to decrease our reliance on offering supporting classes for programs that are not controlled by us. As resources have become more constrained and given the pressures to improve graduation rates, many departments and colleges that have partnered with the

department in the past are now relying more on their own classes to meet their targets. It is important for the stability of the department that we develop programs and partnerships that allow us self-determination about the direction of these efforts. An effort that the department is currently studying is the introduction of a degree program in Political Economy. A sub-committee of the faculty has evaluated over 20 programs throughout the U.S. that offer such degrees and have put together a proposed curriculum for consideration by the entire department. We have circulated the draft and had one faculty meeting to discuss the options.

We are also in the process of refining the focus of the department. Traditionally, the department has concentrated its expertise in three areas: trade and development, transportation, and environmental and natural resources. Due to recent changes in the composition of our faculty from retirements and departures, we will evaluate the appropriateness of maintaining these areas or develop a different configuration. The method that we use to develop these priorities is through department retreats, meetings and circulating proposals for faculty review and comment.

Section II. Educational Programs

A. Briefly describe the existing program, any new programs (degrees, majors, minors, options, certificates) developed since the last program review, and any programs that have been discontinued. Include self-support programs.

Current programs offered by the department are:

- BA in Economics
- BA in Business Economics
- BA in Economics with an option in Mathematical Economics and Economic Theory
- Minor in Economics
- Minor in International Economics
- MA in Economics

This list of degree options has changed since the last self-study. Specifically, the department has discontinued the minor in business economics and is in the process of discontinuing the self-support graduate program in global logistics (MAGL). The department faculty determined that the distinction between the minor in economics and business economics was insignificant, therefore, instead of creating differences that would include classes outside the department we decided to eliminate the minor in business economics. The case for discontinuing the MAGL program was different. Difficulty in maintaining sufficient cohort sizes, constraints on the number of faculty available to teach in the program, and the growing importance of incorporating broader supply-chain coursework, our best option was to collaborate with the College of Business Administration in the development of a new Master of Science in Global Supply Chain Management program offered

as a self-support degree through CCPE. This would allow the department to continue to meet the needs of the community with our limited resources.

B. Using the university and department data reports accessible on the Institutional Research and Assessment web site, with optional supplemental data from the program, department, or college, discuss student demand for the program’s offerings and any problematic areas, such as over- or under-enrollment, retention, graduation, time to degree, impaction, or low completion rate courses; see instructions for Table 1 for Department Overview in Appendix A and Tables 2 – 5 for undergraduate degree programs in Appendix B and Tables 6 – 9 for post-baccalaureate programs in Appendix C.

The following data are based upon information provided by Institutional Research and Assessment for the university. Table 1 provides data on full-time equivalent students for fall semester for the last five years. As the data show, the FTES for the department have followed a U-shaped pattern where the FTES bottomed out in 2010 and has since increased each year.

Table 1

Department of Economics
FTES by Student Enrollment

Fall Term	Department FTES	Undergraduate Major (% FTES)	Undergraduate Non-major (% FTES)	Grad/PostBAC (% FTES)
2012	625.4	15.7	76.2	8.1
2011	568.8	22.0	75.8	2.2
2010	475.4	7.8	78.5	13.7
2009	559.2	15.9	81.0	3.1
2008	584.8	19.8	80.2	0.0

There are a number of uncertainties that exist that will affect whether this trend will continue. First, the department was offering a course in Managerial Economics (ECON333) that was a required course for all majors in the College of Business Administration (CBA). The CBA then made the decision that they would no longer require the course of its majors which will significantly affect our enrollments since this course would serve approximately 500 students a semester. The full effect of this change has yet to be determined. Another change that will potentially affect the department FTES is a program change by the College of Engineering (COE). The department offers Fundamentals of Economics (ECON300) for COE to fulfill their requirements for accreditation. The COE has indicated that they will no longer require this course since they will offer the material in their own courses. Again, it is not clear how this will eventually impact the FTES in the department.

Headcounts for the three BA degrees offered by the department exhibit a similar U-shaped pattern found in the FTES data. What is noticeable from the data in Table 2 is the reallocation within the degree options. The number of majors choosing Economics has increased significantly while the Business Economics option has been declining. Also, the Mathematical option has shown dramatic growth since 2010. We believe that our efforts in recruiting majors, particularly working with the

College of Liberal Arts (CLA) advising center (ATLAS) to identify good candidates and to help candidates that are not as well prepared for an economics degree to find a better match for their skills. This effort will improve the learning environment in the upper-division classes which should provide a better experience for our students and improve the word-of-mouth advertising for the major in order to continue the trend of the last few years.

Table 2
Department of Economics
Headcount of Undergraduate Majors

Fall Term	B.A. Economics	B.A. Business Economics	B.A. Mathematical Economics & Economic Theory	Total
2012	220	176	28	424
2011	167	164	21	352
2010	112	196	9	317
2009	107	213	9	329
2008	116	261	8	385
Total	722	1,010	75	

Table 3a provides data on graduation rates for native students in the BA Economics degree program. The data show that native students have not been graduating in a timely manner. The data do not provide a consistent message as to the graduation pattern, however, the one obvious conclusion is that additional intervention should occur earlier in the program to make sure students are on track to graduate in a timely manner. We believe the coordination that now exists with the new advising arrangement between the department and ATLAS will achieve this goal.

Table 3a
B.A. Economics
Native Junior Students Graduation Rates Beyond Year 3

Freshman Admit Term (Fall)	Initial Cohort of Native Juniors	Year(s) after 3 rd Year Snapshot (Percent Graduated)			
		1-year (Year 4)	2-year (Year 5)	3-year (Year 6)	4-year (Year 7)
2007	15	20.00	40.00	-	-
2006	7	28.57	57.14	57.14	-
2005	11	9.09	36.36	63.64	63.64
2004	10	40.00	70.00	70.00	70.00
2003	4	0.00	50.00	75.00	75.00

Table 3b presents a similar picture as the previous case – too few native students are graduating in a timely manner. The 2003 and 2004 data reflects a unique situation where there were a large number of students that changed their major to business economics, therefore, requiring the students to meet certain prerequisites for the program that would delay their graduation. Also, during this time many of the students ended up switching majors again so would not be included in our statistics.

Table 3b**B.A. Business Economics**

Native Junior Students Graduation Rates Beyond Year 3

Freshman Admit Term (Fall)	Initial Cohort of Native Juniors	Year(s) after 3 rd Year Snapshot (Percent Graduated)			
		1-year (Year 4)	2-year (Year 5)	3-year (Year 6)	4-year (Year 7)
2007	19	21.05	68.42	-	-
2006	21	4.76	52.38	57.14	-
2005	30	13.33	33.33	40.00	50.00
2004	33	9.09	24.24	27.27	39.39
2003	67	13.43	26.87	35.82	38.81

The data in Table 3c are not meaningful due to the small numbers for providing any interpretation. This degree option requires a higher number of units (48 versus 41). However, with careful planning students in this major are capable of graduating within the 120 units in four years.

Table 3c**B.A. Mathematical Economics & Economic Theory**

Native Junior Students Graduation Rates Beyond Year 3

Freshman Admit Term (Fall)	Initial Cohort of Native Juniors	Year(s) after 3 rd Year Snapshot (Percent Graduated)			
		1-year (Year 4)	2-year (Year 5)	3-year (Year 6)	4-year (Year 7)
2007	1	0.00	100.00	100.00	100.00
2006	0	0.00	0.00	0.00	-
2005	2	0.00	0.00	50.00	50.00
2004	1	100.00	100.00	100.00	100.00
2003	1	100.00	100.00	100.00	100.00

The graduation data for transfer students indicates the difficulty in graduating within four years as a transfer student. The data in Table 4a suggest the need for better advising and monitoring of transfer students to make sure they are on track to graduate in a timely manner. The department, college and university have taken a number of steps to address this issue consistent with the charge from SB1440. We expect more recent data to show significant improvement in the timeliness of graduation.

Table 4a**B.A. Economics**

Community College Transfer Students Graduation Rates

Transfer Semester of Entry (Fall)	Initial Number of Transfer Juniors	Year(s) after Transfer (Percent Graduated)			
		1-year	2-year	3-year	4-year
2007	21	0.00	28.57	52.38	66.67
2006	27	0.00	29.63	44.44	44.44

2005	13	0.00	7.69	23.08	38.46
2004	29	0.00	20.69	44.83	48.28
2003	26	0.00	19.23	26.92	30.77

Table 4b suggests that junior transfer students opting for a Business Economics degree have an even more difficult time graduating in a timely manner. Again, based upon the changes in advising and early intervention to make sure the students are prepared for a quantitative major we expect these results to be much improved for more recent cohorts.

Table 4b
B.A. Business Economics
 Community College Transfer Students Graduation Rates

Transfer Semester of Entry (Fall)	Initial Number of Transfer Juniors	Year(s) after Transfer (Percent Graduated)			
		1-year	2-year	3-year	4-year
2007	39	2.56	15.38	30.77	35.90
2006	27	3.70	22.22	44.44	44.44
2005	27	7.41	25.93	44.44	48.15
2004	33	0.00	12.12	24.24	27.27
2003	84	0.00	11.90	21.43	30.95

The data in Table 4c are not sufficient to provide a reliable discussion of any trends or patterns over the five years considered.

Table 4c
B.A. Mathematical Economics & Economic Theory
 Community College Transfer Students Graduation Rates

Transfer Semester of Entry (Fall)	Initial Number of Transfer Juniors	Year(s) after Transfer (Percent Graduated)			
		1-year	2-year	3-year	4-year
2007	1	0.00	0.00	100.00	100.00
2006	2	0.00	50.00	50.00	50.00
2005	1	0.00	0.00	100.00	100.00
2004	1	0.00	0.00	100.00	100.00
2003	0	-	-	-	-

The data provided in Table 5 shows the distribution of graduates by degree option. The numbers for each degree are consistent over the five years considered. We expect the numbers to change based upon the changing distribution of majors by degree option as mentioned above.

Table 5
 Undergraduate Degrees Granted

Academic Year	B.A. Economics	B.A. Business Economics	B.A. Mathematical Economics & Economic Theory
2011-2012	36	48	3
2010-2011	29	52	3
2009-2010	36	43	3
2008-2009	32	56	1
2007-2008	26	78	4
Total	159	277	14

Table 6
M.A. Economics
 Graduate Program Applications, Admissions, and New Enrollment*

Fall Term	# Applied	#Admitted	% Admitted	# Enrolled	% Enrolled
2012	42	7	16.7	-	-
2011	56	12	21.4	14	116.7
2010	66	26	39.4	17	65.4
2009	61	26	42.6	11	42.3
2008	50	32	64.0	17	53.1

*Enrollment data are presented as reported by Institutional Research. We are working to check our own records to correct or explain the anomalies.

Table 7
 Headcount of Graduate Majors

Fall Term	M.A. Economics
2012	23
2011	28
2010	29
2009	35
2008	46

Table 8
M.A. Economics
 Graduate Student Graduation Rates

Fall Term	Initial Cohort Count	Year(s) after Admission (Percent Graduated)			
		1-year	2-year	3-year	4-year
2010	17	0.00	23.53	-	-
2009	11	0.00	36.36	54.55	-
2008	17	5.88	29.41	35.29	35.29
2007	15	20.00	26.67	46.67	46.67
2006	16	0.00	12.50	37.50	43.75

Table 9
Graduate Degrees Granted

Academic Year	M.A. Economics
2011-2012	8
2010-2011	6
2009-2010	12
2008-2009	13
2007-2008	9

C. *Comment on the program's enrollment trends since the last program review based on information concerning enrollment targets [FTES, faculty allocation (FTEF)], and student-faculty ratios. For post-baccalaureate programs, comment on whether there is sufficient enrollment to provide a community of scholars in terms of formal and informal sharing of ideas, experience and knowledge, and whether graduate students have sufficient exposure to graduate-only coursework.*

Table 10 presents data on faculty trends, class size and student-faculty ratios. The data show a consistent story that the FTEF have declined over the five years as the average class size and student-faculty ratios have increased. During that period, the department's average student-faculty ratio was 29% greater than that of the University, and 24% greater than that of the College of Liberal Arts. The CSU system in general has suffered severe budget cuts over the last few years resulting in increased class sizes and fewer resources for hiring tenure/tenure track faculty and lecturers. We are concerned that the tenure density in the department will suffer in the next few years as we are losing faculty to retirement and resignation to move to other positions. This will be discussed further below.

Table 10
Faculty and Instruction

	Fall Term				
	2012	2011	2010	2009	2008
Total Full Time Equivalent Faculty (FTEF)	19.5	20.2	17.5	18.9	22.1
Total Student Faculty Ratio (SFR)	32	28	27	30	27
Average Class Size	56	52	52	52	50
Tenure Track (TT) Full Time Equivalent Faculty (FTEF)	14.4	14.4	14.4	13.5	15.9
Tenure Track Density	73.8%	71.3%	82.3%	71.4%	71.9%
Tenure Track (TT) Student Faculty Ratio (SFR)	31	26	27	26	22
Non-Tenure Track (TT) Full Time Equivalent Faculty (FTEF)	5.4	5.8	3.1	5.4	6.2
Non-Tenure Track (TT) Student Faculty Ratio (SFR)	36	34	29	40	38

Tables 6 and 7 above provide data on cohort size and admissions for the MA program in Economics. The size of the graduate program has been steadily declining over the last five years but has maintained a critical mass for a community of scholars to exist. Some of the decline has been due to increased admission standards as we were concerned that students were not well enough

prepared to succeed in the program. An important step in this change was the decision not to admit students into the 'conditional admit' category. We are now encouraging applicants that show promise to take the necessary prerequisite courses and reapply once they have completed them.

We have made additional changes to the program to improve the 'graduateness' experience for the student. The elective field courses and the econometric sequence no longer are taught jointly with undergraduate versions of the class. This has helped us to achieve the desired effect of teaching in the graduate program more as a seminar experience instead of the traditional lecture approach. Students are also encouraged to present their research at the department seminar and to compete in the system-wide research competition where our students have performed very well. We have also introduced a comprehensive exam as a culminating experience for the graduate students. The comprehensive exam requires them to present and defend their original research paper in their primary area of concentration. This has helped to strengthen the graduate environment and to further develop the community of scholars experience for the students and faculty.

D. Briefly describe any plans for curricular changes in the short (up to three years) and long (seven years) term, such as expansions, contractions, or discontinuances. Relate these plans to the priorities described in Section I.C. above.

As discussed in Section I.C. above, the department is evaluating the feasibility of introducing a degree program in Political Economy. A subcommittee of the faculty has presented a 'strawman' document to begin the discussion, and we have discussed the pros and cons of introducing the new program at a faculty meeting. At this point, the committee is charged with obtaining some additional information on course requirements, including any new courses that would be required, career potential for graduates, and demand for such a major. This is a short term plan for the department and a decision as to whether or not to proceed should be made this academic year. This effort may be delayed due to the shortage of faculty and the lack of resources to complete the study.

Since the last self-study the department has discontinued the minor in business economics. We believe that the differences between the business economics minor and the economics minor were insignificant and that it would benefit the student to have the flexibility provided by the minor in economics.

The department is also continually evaluating our curricular offerings to make sure we are current with the profession and the needs of the community we serve. We accomplish this primarily through the actions of the Undergraduate Curriculum Committee and the Graduate Curriculum Committee. Both of these committees meet on an as-needed basis to address relevant curricular issues.

E. Include information on any self-support programs.

Another curricular change that is occurring is the discontinuance of the MA program in Global Logistics and the partnership with the College of Business Administration to deliver the MS in Global Supply Chain Management. The new program is scheduled to admit its first cohort of students in the fall semester of 2014. The program will be administered with co-directors, one from

the Economics department and one from the Management/Human Resources Management department.

F. Information from CS-Link that contributes to an understanding of your educational programs.

n/a

Section III. General Education

A. Describe your department's role in the college and university in offering courses that satisfy General Education (GE) relative to the department, college, and university mission.

The department's contributions to the GE requirements for the university are met with six courses. The six courses are Principles of Macroeconomics (ECON100); Principles of Microeconomics (ECON101); Fundamentals of Economics (ECON300); Environment and the World Economy (ECON306); Introduction to Development Economics (ECON366); and International Economics (ECON372). Each of these courses count for the GE category D2: Social Sciences and Citizenship. Environment and the World Economy and Introduction to Development Economics are options in section F: Capstone Courses of the GE requirements.

B. Describe the criteria employed by the department to assign faculty to teach General Education courses. Note, in table format, the percentage of your department's total FTES's that are lower division and upper division GE instruction. See instructions for Table 10 Department FTES in General Education in Appendix D.

The choice of faculty to teach in these courses is guided by expertise, performance and availability. The three field courses are rotated among faculty that specialize in these fields so that their research and experience can add to the relevance of the class. The introductory classes are taught by tenured/tenure-track faculty when possible, but it is frequently necessary to hire lecturers to meet the demand for the courses. Fortunately, we have identified several lecturers that excel at the introductory level and we are able to use them to meet the demand for the principles of economics classes. Whenever we have a situation when the lecturer does not meet our expectations we intervene and provide support to help improve the class and if that is not sufficient, the person is replaced in that class. When tenured/tenure-track faculty experience difficulties in the GE classes, we use the university resources to provide support for classroom improvement, for example, the Faculty Center for Professional Development will provide guidance for classroom improvement.

C. Describe how the department's student learning outcomes (SLOs) are aligned with the General Education SLOs. How does the department ensure that course coordination occurs across multiple sections with respect to disciplinary and GE SLOs?

The student learning outcomes for the GE program are listed (http://www.csulb.edu/depts/enrollment/registration/ge_courses/why.html) as:

- Intellectual and Practical Skills, including

- ✓ Written Communication
- ✓ Oral Communication
- ✓ Critical Thinking
- ✓ Quantitative Reasoning
- ✓ Information Literacy and Technology
- ✓ Teamwork
- ✓ Creativity, Inquiry, and Discovery
- Personal and Civic Responsibility, including
 - ✓ Global Competencies
 - ✓ Intercultural Competence
 - ✓ Ethical Reasoning and Social Responsibility
 - ✓ Self-Understanding
 - ✓ Foundation and Skills for Lifelong Learning
- Integrative Learning, including
 - ✓ Synthesis and Interdisciplinary Methods of Inquiry

The detailed listing of the student learning outcomes for the department is provided in Table 12 in Section V below. We believe that our SLOs are closely aligned with the GE SLOs. The GE SLOs that are particularly relevant to the GE course offerings by the department are critical thinking and quantitative reasoning. These skills are endemic to any program in economics and are essential skills that our students must have to successfully complete any of our degree options or for non-majors to complete the GE courses offered by the department. However, the overlap between the GE SLOs and the departments do not end with these two. As Table 11 clearly demonstrates, within our three higher-order goals there are specific learning objectives that reinforce the SLOs of the GE program. Additional details on the department’s SLOs will be provided in the next section.

Section IV. Student Learning Outcomes and Assessment

A. For each degree/credential/certificate program offering described in Section II.A. above, list the expected student learning outcomes.

Table 11 provides a matrix of our three higher-order goals and then provides information on the objectives that we have identified to achieve those goals. These SLOs were developed to be applicable to all three of our undergraduate degree programs as well as the minor options for undergraduate students.

Table 11
Department of Economics
Student Learning Goals & Objectives

PROGRAM GOALS	PROGRAM OBJECTIVES	COURSE		ASSESSMENT METHOD(S)
		Core	Elective	
A. INTELLECTUAL GROWTH				

1. Develop the ability to explain core economic terms, concepts, and theories.	1.1 Explain the function of market and prices as allocative mechanisms.	Econ 101 Econ 310	Econ 333 Econ 355 400 electives	Graded assignments: - homework - quizzes - hourly examinations - final examination
	1.2 Apply the concept of equilibrium to both microeconomics and macroeconomics.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	
	1.3 Identify key macroeconomic indicators and measures of economic change, growth and development.	Econ 100 Econ 311	Econ 320 Econ 465 Econ 472 Econ 411	
	1.4 Identify and discuss the key concepts underlying comparative advantage.	Econ 100 Econ 101	Econ 372 Econ 465 Econ 472	
	1.5 Identify and explain major types of market failures.	Econ 101 Econ 310	Econ 306I Econ 434 Econ 462 Econ 464 Econ 463 Econ 450	
2. Demonstrate the ability to employ the “economic way of thinking.”	2.1 Discuss the application of marginal analysis.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	Graded assignments: - homework - quizzes - hourly examinations - final examination

	2.2 Explain the use of benefit/cost analysis.	Econ 101 Econ 310	Econ 465 Econ 450 Econ 333	
	2.3 Explain the contribution of economics to the analysis of non-market social issues.	Econ 101 Econ 310	Econ 306I Econ 441 Econ 355	
3. Demonstrate awareness of global, historical, and institutional forces.	3.1 Assess the role of domestic and international institutions and norms in shaping economies.	Econ 100 Econ 101 Econ 310 Econ 311	Econ 472 Econ 306I	Graded assignments: - homework - quizzes - hourly examinations - written assignments - final examination
4. Apply economic theories and concepts to contemporary social issues, as well as formulation and analysis of policy.	4.1 Describe how economic trade-offs and social values impact public/private social policy, and the success or failure of policies to achieve intended outcomes.	Econ 100 Econ 101	300 & 400 electives	Graded assignments: - homework - quizzes - hourly examinations - final examination
5. Recognize the role of ethical values in economic decisions	5.1 Distinguish between normative and positive economics.	Econ 100 Econ 101 Econ 310 Econ 311	400 electives	Graded assignments: - homework - quizzes - hourly examinations - final examination
	5.2 Identify the limits of economic analysis.			
	5.3 Compare and contrast efficiency and equity.			
B. SKILL AREAS				

6. Apply both oral and written communication skills within the discipline	6.1 Present economic arguments in non-quantitative form.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	Graded assignments: - homework - quizzes - hourly examinations - written assignments - final examination
	6.2 Synthesize the arguments found in both academic and popular economic media.	Econ 100 Econ 101	300 & 400 electives	
	6.3 Discuss economic concepts in an articulate manner in a classroom.	Econ 310 Econ 311 Econ 380	300 & 400 electives	Class presentations
7. Demonstrate quantitative reasoning skills.	7.1 Present an economic argument in quantitative terms.	Econ 100 Econ 101 Econ 380	400 electives	Graded assignments: - homework - quizzes - hourly examinations - written assignments - final examination
	7.2 Demonstrate ability to solve systems of equations.	Econ 310 Econ 311 Econ 380	Econ 333 Econ 420 Econ 485 Econ 486 Econ 403 Econ 411 Econ 511	
	7.3 Be able to conduct economic	Econ 100	300 & 400 electives	

	analysis using equations and graphs.	Econ 101 Econ 310 Econ 311 Econ 380		
8. Demonstrate the ability to collect, process, and interpret data, including statistical inference.	8.1 Recognize how to use the scientific method in economics.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	Graded assignments: - homework - lab assignments - quizzes - hourly examinations - written assignments - final examination
	8.2 Formulate empirically testable hypotheses.	Econ 310 Econ 311 Econ 380	Econ 485 Econ 486	
	8.3 Construct a data set of economic variables.	Econ 380	Econ 420 Econ 441 Econ 485 Econ 486	
	8.4 Calculate, present, and discuss descriptive statistics.	Econ 380	Econ 420 Econ 485 Econ 486	
	8.5 Conduct a regression analysis.	Econ 380	Econ 420 Econ 485 Econ 486	
	8.6 Critically assess the statistical analysis of other researchers.	Econ 380	Econ 420 Econ 486	
9. Demonstrate computer proficiency within	9.1 Access, download, and use electronic	Econ 100	Econ 420 Econ 441	Lab assignment

economics.	databases.	Econ 101 Econ 380		
	9.2 Use standard software packages.	Econ 380	Econ 420 Econ 441 Econ 486	Lab assignments
10. Be able to use critical thinking skills within the discipline of economics about economic matters.	10.1 Present viewpoints and alternative hypothesis on economic issues.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	Graded assignments: - homework - quizzes - hourly examinations - written assignments - final examination
	10.2 Recognize underlying assumptions in economic models.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	
	10.3 Demonstrate ability to use the economic tools of analysis.	Econ 100 Econ 101 Econ 310 Econ 311	300 & 400 electives	
C. PROFESSIONAL DEVELOPMENT				
11. Develop an awareness of career choices for undergraduate economics majors, and the options for graduate study.	11.1 Set up and keep current a database concerning career opportunities for undergraduate majors and undergraduate options in economics.	Econ 100 Econ 101		
	11.2 Encourage majors and option students to consult department advisors concerning career		Send announcements via BeachBoard and email lists to notifying students of jobs and internship	

	goals, and to develop study programs consistent with those career goals.		opportunities.	
	11.3 Set up and keep current data base on the employment and graduate study experience of alumni.		Conduct alumni survey every 3 years.	

The learning objectives for the MA program are based upon assessing the performance of the students in the qualifying exams. Therefore, we developed learning goals based upon specific knowledge in macroeconomics and microeconomics. This information was then combined with student performance in the graduate seminars (600 level courses) that defined the student’s fields of concentration. Table 12 provides detail on the learning outcomes for each element of the graduate program.

Table 12
Department of Economics
M.A. Learning Outcomes

	Macroeconomics	Microeconomics
Learning Outcome 1	Demonstrate knowledge of and ability to solve macroeconomic models such as, currently accepted short-run models, growth models, dynamic models including multi-period models, the Ramsey-Cass-Koopmans model, and basic real business cycle models.	Develop a fundamental understanding of consumer choice models.
Learning Outcome 2	Ability to interpret macroeconomic data, which generally come in the form of tables and graphs, using different theoretical frameworks.	Develop a fundamental understanding of producer theory.
Learning Outcome 3	Ability to apply the different theoretical macroeconomic models and concepts to contemporary economic policy and debates.	Ability to apply microeconomic theory to real-world events.

B. Describe the assessment of student learning outcomes for each program, including the methods or techniques used and how the information is analyzed. Within this description, be sure to include assessment relative to the department’s GE skills and GE discipline-specific content (if/how applicable).

Professor Steve Yamarik is primarily responsible for assessment at the undergraduate level.² Copies of the most recent assessments of the undergraduate programs are included as Appendix A. The classes used to assess the learning objectives are the core classes in the program: principles and intermediate theory classes (ECON100, 101, 310, 311, and 380) as well as Fundamentals of Economics (ECON300). Three of these classes cover 50% of the GE classes offered by the department. At this time, assessment of the other GE classes is not formally conducted.

Details on the implementation of the assessment process are provided in the annual reports in Appendix A. However, the fundamental approach used is to incorporate five multiple-choice questions into the final exams for the principles-level classes. Each of the questions focused on a different learning objective identified in Table 12. The performance of the students is then recorded and the data are analyzed for trends from semester to semester.

At the upper-division level, open-ended questions are asked that address the learning outcomes relevant to economics majors. These questions are included in the final exams of the intermediate theory courses and statistics (ECON310, 311 and 380). Also, the outcomes identified that are to be assessed with the student's performance in statistics include the use of Excel to analyze and interpret data. The statistics class (ECON380) is a 4 unit class that includes a lab. The students are given a lab final exam at the end of the semester to assess their ability to use Excel to analyze data and interpret the results. Those exams are consistent across course sections and tracked over time.

C. Describe how department members are involved in the assessment process.

The assessment effort in the department is led by Professor Yamarik. Based upon input from the rest of the department regarding the outcomes to assess, Professor Yamarik will identify a set of multiple choice questions for each professor to include in their final exam for the relevant classes. Faculty will then provide Professor Yamarik with the results from the final exams and he will then summarize and analyze the findings. The results are then presented to the department at a meeting or retreat for further discussion and interpretation.

D. Describe the results of the assessment of student learning outcomes for each program since the last program review. Within this description, be sure to include results of assessment relative to the department's GE skills and GE discipline-specific courses (if/how applicable).

The assessment data since 2008 for the undergraduate programs is presented in detail in Appendix A. Considering the data for the principles of economics courses (ECON100 and 101) the aggregate percentages reported for 'all five questions' demonstrate a consistent trend showing improvement in the performance of the students beginning with a success rate in ECON100 of 40.4% in spring 2008 to 54.8% in spring 2013. The results for ECON101 show a similar, however more pronounced, trend with the spring 2008 results showing 49.8% correct answers increasing to 68.6% in spring 2013. The higher performance in ECON101 compared to ECON100 may be explained by the fact that many students in ECON101 will have already taken ECON100. Some comparative analyses of

² Professor Alejandra Edwards performed the assessment tasks while Professor Yamarik was on sabbatical for the 2011/12 academic year.

issues that may affect the performance have been analyzed in the annual assessment reports presented in Appendix A.

- E. Describe the process for using the results of assessment for program improvement in the degree/credential/certificate program and general education, and provide at least two examples since the last review of changes in programs that were made on the basis of the results of assessment.*

The assessment results have been discussed at department retreats and faculty meetings. Faculty members who frequently teach in these GE classes shared their successful and unsuccessful strategies. An outcome of the discussions has been the increased use of the iClicker technology and online homework assignment software that provides more immediate feedback to students. At the department level, we have used these results to implement a free tutoring program on a pilot basis that was funded by one-time money from the Student Success fee. The tutoring program was available during the 2011/12 academic year. A preliminary analysis of the data collected on the students that used the service indicates that the service had a positive effect. However, anecdotal information supports the conclusion that the main effect was to help students who would have received a D or F to earn a C thus reducing the need for repeat/deletes. A complete analysis of the data has been slowed due to lack of resources to support such efforts.

Based upon the assessment results of the MA program, the department has made significant changes to the degree requirements that have been implemented beginning in fall 2012. Therefore, we will be redesigning our assessment efforts to more directly target the objectives of the newly redesigned program. The changes of particular importance are 1) the discontinuance of the qualifying exams in macroeconomics and microeconomics; 2) the de-coupling of the 400-level classes with the 500-level classes that improve the graduate experience of the students and the “graduateness” of the curriculum; and 3) the introduction of the comprehensive exam as the culminating experience for the program. The third change provides a good opportunity to design our assessment activities to target the effectiveness of the program to meet the learning objectives of the degree.

- F. Include information on any Special Sessions self-support programs offered by the department or unit, with particular emphasis on the assessment of student learning outcomes in alternative delivery formats (on-line, off-campus, compressed schedule, etc.).*

Not applicable.

- G. Attach all annual reports on assessment since the last program review as an appendix.*

See Appendix A.

Section V. Faculty

- A. Describe the changes in faculty resources for instructional delivery since the last program review in:*

- a. *The full-time equivalent faculty (FTEF) allocated to the program. Include information on tenured and tenure-track faculty lines (e.g. new hires, retirements, FERPs, resignations).*

i. *Separations since last self-study*

<i>Name</i>	<i>Reason</i>	<i>Field</i>
Rebecca Braeu	Resignation	Macroeconomics
Darwin Hall	Retirement	Natural Resources
Tomotaka Ishimine	Retirement	International
Noel Johnson	Resignation	History
Joseph P. Magaddino	FERP (.5 position)	Microeconomics
Marshall Medoff	FERP	Microeconomics
Davinder Singh	FERP	Microeconomics

ii. *Hires since last self-study*

<i>Name</i>	<i>Current Rank</i>	<i>Field</i>
Yutian (Kate) Chen	Associate Professor	Industrial Organization
Elaine Frey	Assistant Professor	Environment/Natural Resources
Chen Feng Ng (on leave)	Assistant Professor	Urban, Transportation
Andrew Ojede (on leave)*	Assistant Professor	Macroeconomics
Heather Stephens	Assistant Professor	Urban/Regional

* Has taken another position but requested one year leave.

- b. *How these changes have affected the program's academic offerings.*

The changes in faculty composition have resulted in a decrease in our number of tenured/tenure-track faculty from 17 at the time of our last self-study to 13 for fall 2013. The 13 assumes that the two faculty members that have accepted positions elsewhere will not be returning. Those losses come at a time when the department's number of undergraduate majors has grown by 20%, its undergraduate enrollment has grown by 10%, and its student-faculty ratio is 45% greater than the University's average. Moreover, the losses in the area of transportation have significantly impacted our ability to offer sufficient courses in this area for a specialization at the graduate level and the elective at the undergraduate level. This is a specialization of both Professor Ng and Professor Monaco. Also of concern is the loss of Professor Ojede's expertise in macroeconomics since we now are required to move faculty around to cover classes he taught therefore affecting other classes such as econometrics. All of these concerns illustrate the department's dire need for additional tenure-track faculty.

- c. *Describe tenure density in the program and the distribution among academic ranks (assistant, associate, professor).*

Current Tenure/Tenure Track Faculty

<i>Professors</i>	<i>Primary Field</i>
Alejandra Edwards	Labor/Development

Lisa Grobar	International Trade
Jack Hou	Labor/International Trade
Wade Martin	Environment/Natural Resources
Kristen Monaco (on leave)*	Transportation/Labor/Industrial Organization
Steve Yamarik	Macroeconomics
Guy Yamashiro	Macroeconomics/Time Series Econometrics
<i>Associate Professors</i>	
Yutian (Kate) Chen	Industrial Organization
Edward Funkhouser	Development
Xuemei Liu	Environmental
Seiji Steimetz	Transportation
<i>Assistant Professors</i>	
Elaine Frey	Environment/Natural Resources
Chen Feng Ng (on leave)	Urban/Transportation
Andrew Ojede (on leave)*	Macroeconomics
Heather Stephens	Urban/Regional

* Have taken another position but requested one year leave.

Semester	%Classes taught by lecturers	Student/Faculty Ratio: Economics	Student/Faculty Ratio: College of Liberal Arts	Student/Faculty Ratio: University
Fall 2012	30.8%	32	26	22
Fall 2011	33.3%	28	24	21
Fall 2010	19.6%	27	21	24
Fall 2009	35.0%	30	21	24
Fall 2008	34.0%	27	24	21

- B. Discuss the issue of “faculty sufficiency” in the department relative to the department’s mission, degrees, development of curricula, courses, and program delivery. Your response should account for decision making regarding the faculty mix based on type of degree programs (undergraduate, graduate, etc.) degree program size and scope (on-campus, off-campus, distance, traditional or non-traditional students, etc.) and scholarship focus.*
- a. Describe the role that tenured/probationary faculty play in the department’s curriculum and program delivery.*

The tenured/tenure-track (T/TT) faculty play fundamental roles in the development and delivery of our curriculum. Through the undergraduate and graduate program committees, those faculty define the curriculum for the department and all its programs. All T/TT faculty are involved in delivering the curriculum to the students. For example, the faculty members will determine if it is appropriate to have a single book for sections with multiple sections, as has been done for the Managerial Economics (ECON333) class for the last five years, or identifying a set of texts from which an instructor may choose as is the case in the principles classes. They are also the ones that develop the Standard Course Outlines for our selection of classes. Finally, the faculty members determine which classes are acceptable for which degree options. In sum, the department’s T/TT faculty drive the curriculum and program delivery.

- b. *Describe the role that lecturers, student assistants, and teaching assistants play in the department's curriculum and academic offerings. Indicate the percentage of courses taught by lecturers, student assistants, and teaching assistants (TA) since the last program review. Identify any programs or curricula that are the responsibility of lecturers, student assistants, and teaching assistants.*

The department has always relied on lecturers to help meet the demand for classes offered each semester. The T/TT faculty numbers have never been sufficient to meet all the in-class needs for the department, and tenure density has suffered with the several, recent separations. This situation could become more problematic in the near future if we are not allocated additional positions. We will have three faculty on leave this coming academic year with at least two of them not likely to return as they have accepted other positions. This will reduce our number of T/TT faculty to a 20-year low of 12 available to teach this coming year.³

The department uses teaching assistants from our graduate program to support the statistics (ECON 380), forecasting (ECON 420), and econometrics (ECON 485, 585) labs that are offered. These teaching assistants conduct the lab exercises in the computer lab facilities assigned to those courses. Finally, graduate assistants provide grading support for large sections of classes and provide free tutoring services for classes that have low completion rates such as ECON310, 311, and offer mathematical tutoring for those classes.

- c. *Evaluate the department's capacity to support its curricular offerings and whether the faculty is sufficient to accommodate the size and scope of existing and future curriculum and/or degree programs.*

We are unable to fully support our current program offerings due to the unexpected departure of two faculty members. Specifically, our field in transportation at the graduate level relies on one remaining faculty to cover all courses in this subject since two others in this field are on leave and it is unlikely that at least one of them will return. The department numbers have been declining for T/TT positions over the last five years as discussed above while our majors and minors numbers have been increasing. The department is also short in the areas of macroeconomics, econometrics, and forecasting. With the departure of Professor Ojeda, we will require at least one hire in the area of macroeconomics. We are also hopeful that future hires will have econometrics or forecasting as secondary fields in order to meet the teaching needs in this area. Also, due to the decision by the College of Business Administration to no longer require Managerial Economics (ECON333) we now need fewer instructors for that course, but our Game Theory (ECON330) class has become more popular and we need additional expertise in this area to meet the demand of the students. Finally, the department is an active partner in the Environmental Science and Policy program and offers classes to support this degree. With the retirement of Professor Hall we are now short on faculty with expertise in the area of environmental and natural resource economics. The department is in the process of prioritizing the hiring needs with the realization that we will not be able to meet all these needs with one hiring cycle.

- C. *Describe changes anticipated in the next program review cycle and indicate the program's priorities for future hiring.*

³ During fall of 2013 the number will be 10 due to parental leave for two faculty members.

- a. *Identify how these priorities and future hiring plans relate to relevant changes in the discipline, the career interests of students, the strategic plans of the university, and regional, national or global developments.*

The hiring needs of the department have been discussed above, but bear repeating. Our current student-faculty ratio is 50% greater than the University's average, while our number of T/TT faculty is at a 20-year low.

As for relevant changes in the discipline, economics is very well established so trends related to course offerings and career paths are fairly stable over time. What does change is the interest of the students and their career paths. We are actively studying the feasibility of offering a degree option in Political Economy that emphasizes the role of institutions in the allocation of scarce resources as a means to meet the needs of our students for career paths in the government or regulatory sector. Although the recent economic recession has severely limited the job opportunities in many areas, we are actively pursuing options to strengthen the degrees we offer that will increase the competitiveness of our graduates in the job market.

- b. *Discuss the department's faculty diversity within the context of college, university, and academic discipline(s) goals for diversity, any efforts the department is making to maintain/increase faculty diversity, and how these efforts link to the overall hiring plans described in a (above).*

Although there are no national data on economics faculty diversity available for comparison, it would be fair to say that the department's faculty composition is fairly diverse. The majority of the faculty are female (53%), and several ethnic groups are represented. Importantly, the department's recruiting efforts are always fully compliant with the University's Equal Opportunities Policies.

- D. *Include information on all instructor participation in any self-support programs offered by the department.*

Currently, Professor Steimetz is co-director of the newly developed MS program in Global Supply Chain Management and the director of the MA in Global Logistics program that is being phased out. Other faculty members teach in self-support programs on an *ad hoc* basis.

Section VI. Student Services

- A. *Briefly describe how the department advises its majors, minors, and graduate students.*

Due to the budget crisis in the CSU system over the last five years the department has lost all but three units of assigned time per semester. The department made the decision to use that assigned time to support the director of the graduate programs as there was really no alternative for that position.

Once we lost support for an undergraduate advisor position we partnered with the College of Liberal Arts, Advising, Teaching Liberal Arts Students (ATLAS) advising center. The economics

department chair serves as the primary department representative for advising students with special requests or unusual circumstances. The primary advising for class schedules is done by ATLAS. ATLAS will identify students that are having problems in the major and intervene if there is not a good match between the student's skills and the requirements of an economics degree. This relationship has its pros and cons but, due to the lack of resources, we are working to make sure the student advising needs are met.

- B. Discuss the program's efforts to support the academic success of diverse learners (this may include any relevant information regarding, for example, quality of learning, retention and graduation rates, advising, etc.).*

The primary effort within the department to support diverse learners is the provision of free tutoring services for our intermediate theory classes and the mathematical skills necessary to do well in these classes. The intermediate theory classes are problematic for many students in both economics and environmental science and policy, particularly intermediate microeconomics theory. We have devoted several graduate assistant positions to support this effort. An objective of this effort is to improve the pass rate for the classes and to provide students with an alternative means to learning the material. These small tutoring sessions provide the opportunity for students to have one-on-one attention often necessary to master a complex subject such as economic theory.

- C. Describe opportunities for students to participate in honors programs, undergraduate or graduate research, service learning, internships, and so forth, and how these opportunities are supported. List the number of faculty and students participating in each type of opportunity, and indicate plans for the future in these endeavors (expand, maintain, decrease).*

The economics department no longer offers an honors program. This was a very resource intensive effort and due to the lack of resources it was no longer feasible to offer such a program within the department. Several faculty members have served as advisors to students seeking honors thesis credit through the university honors program.

Student involvement in research with faculty is done on an *ad hoc* basis, and some students are funded by external grants awarded to faculty. Due to resource constraints, however, the department does not have any regular mechanism in place for students to work directly with a member of the faculty on a particular project outside of a class requirement. Also, the department does not have any classes that have a service-learning component associated with the class. Through the activities of the department's Office of Economic Research, however, we are making progress with student participation in projects supported by the OER.

Finally, internships are available only on an *ad hoc* basis. We have a number of businesses and organizations that come to us requesting interns but it is not on a predictable schedule. When we receive a request we then announce the opportunity to all our students using our broadcast email capabilities through BeachBoard as well as posting the announcement on BeachBoard. Due to a lack of resources we are not able to track these efforts or actively seek these opportunities. A key priority for the department would be to establish a formal internship placement program if afforded

the assigned time necessary to do so. Such a program would also benefit from the activities and relationships established through the department’s Office of Economic Research.

D. Include information on student services provided to students enrolled in a Special Sessions self-support programs.

Professor Steimetz directs the MA in Global Logistics program, which is in its last year, and provides academic advising and mentoring to all enrolled students.

Section VII. Resources and Facilities

A. Describe the state-support and non-state resources received by the program since the last program review and the source of these revenues (e.g. state budget, UCES, external funding, etc.)

The support provided to the department from the general fund, self-support programs (primarily summer session), and external sources have been extremely variable. Table 14 provides a summary of the monies available since academic year 2008/9.

Table 13

<i>Academic Year</i>	<i>General Fund</i>	<i>CERF</i>	<i>External</i>	<i>Total</i>
2008-9	13,847	23,677		37,524
2009-10	102	24,232		24,334
2010-11	3,000	47,602		50,602
2011-12		67,076	2,035	69,111
2012-13	6,715	16,518	2,196	23,233

The source of the external funds is a university allocation categorized as a ‘chair’s fund’. The department has also received an endowment from the estate of a former faculty member, Eldon Dvorak. This endowment is approximately \$130,000 and the proceeds are used to support faculty research activities, such as conference attendance to present papers.

The economics department is also fortunate to have two staff support positions. The first position is an Administrative Analyst/Specialist. Ms. Karen Fawson holds this position. She is an invaluable asset to the department as she has 40 years of experience at CSULB and understands the institution very well. Ms. Fawson’s knowledge of the institution, ability to organize tasks, and to manage other office staff helps to improve the efficiency of the department office significantly. The second position is categorized as an ASC1 staff. Ms. Diane Stein currently holds this position. Ms. Stein all has significant experience as an employee of the university. Her ability to work with multiple faculty and students is very important to creating a positive atmosphere for our majors and the work environment for faculty.

B. Identify any special facilities and/or equipment used by the program, such as laboratories, computers, large classrooms, or performance spaces. Identify any changes since the last program review and priority needs for the future.

The only special facilities required by the department are computer labs to support the statistics, forecasting and econometrics classes. This requires about six sessions per semester to meet our needs, using facilities shared by other departments. We are also interested in the use of smart classrooms that allow for breakout sessions, group work, multiple monitors, etc. The College of Liberal Arts is in the process of developing such space but there will be significant demands on such a smart classroom since the CLA has over 30 departments and programs requiring such facilities.

C. Describe the current library resources for the program, the priorities for acquisitions in the period until the next program review, and any specialized needs such as collections, instruction, etc.

Library resources have been severely constrained due to the recent budget cuts. However, we are able to meet our current needs with the existing holdings and the improved access to online resources and inter-library loan support for the library. The library holdings may need to be improved if we are able to introduce a degree in Political Economy. This will be evaluated as the degree opportunities are analyzed.

Section VIII. Planning

A. Summarize all the major changes planned in the period until the next review.

The Department of Economics is at a critical point in our history. We are currently suffering from the effects of faculty departures in critical areas as discussed above and curricular decisions by the College of Business Administration as well as the College of Engineering. The resource constraints brought on by the economic recession and the funding decisions by the state have made it difficult to plan as the changes in our resources for year-to-year fluctuate significantly. As a result, the department has discussed how to develop programs that would make the department independent from the decisions of other colleges and help to stabilize our resource base.

There are two significant changes that the department is evaluating at this time. First, we are actively attempting to strengthen the MA in Economics. This was a decision that was made by the department based upon the results of our assessment data from the program. Although we have seen a decline in enrolments over the last few years, the quality of students has increased. We have modified the curriculum for the degree and have devoted additional resources to support graduate assistants. The department has also explored various methods to attract a larger pool of applicants to the program such as attending graduate fairs at local universities. All of these activities are being evaluated to determine the most effective strategies to strengthen the program.

Second, the department is currently evaluating the feasibility of offering a degree in Political Economy. This degree would be designed to meet the needs of students who want a degree that is more focused on the institutions of the economy versus the more quantitative analysis that is the focus of the current degree programs. As mentioned above, a subcommittee of the faculty is evaluating various programs, regional offerings of Political Economy degrees, career opportunities for the graduates of the program, and the additional resources that would be required to deliver a BA in Political Economy that would meet the quality established in our other programs.

B. Summarize all new or additional resources needed to support the planned major changes.

At a minimum, the department needs to hire at least three new tenured/tenure-track faculty members in the near future (within two years) to replace critical shortages due to retirements and resignations. As we strengthen the MA program, we will need to replace the loss of expertise in the areas of macroeconomics, transportation, and environmental/natural resources. We are still in the process of evaluating the resource needs for a new degree program in Political Economy. However, our initial belief is that a need for additional faculty to support this program would be in the longer term once the program is established and enrollment is sufficient to support a dedicated faculty position.

Appendix A: Assessment Reports

California State University Long Beach

Annual Assessment Report for September 1, 2010

Degree Program Name: BA Economics (ECONBA01), Option in Mathematical Economics and Economic Theory (ECONBA02), BA Business Economics (ECONBA03)

Department Name: Economics

Name of Chair: Wade Martin

Campus Extension: 5-5061 email: wmartin@csulb.edu

Program Assessment Coordinator: Steve Yamarik

Campus Extension: 5-4634 email: syamarik@csulb.edu

1. Which student learning outcomes for this degree program were assessed over the past year?

A. General Outcome 1: Students should understand economic theory and its application to past and present economic and social issues.

- Students should demonstrate the ability to explain core economic terms, concepts and theories.
- Students should use the 'economic way of thinking' to understand economic decisions.
- Students should demonstrate an awareness of global, historical and institutional forces and their role in economic decisions.
- Students should apply economic theories and concepts to contemporary social issues, as well as formulate and analyze public policy solutions.
- Students should distinguish positive and normative aspects of economic decisions.

B. General Outcome 2: Students should demonstrate proficiency in communication skills to explain economic theory and its application to past and present economic and social issues.

- Students should use written and oral skills to explain and apply economic theory.
- Students should use quantitative reasoning skills to understand and apply economic theory.
- Students should collect, compile and interpret economic data to analyze economic theory.
- Students should use statistical inference to test economic theory
- Students should apply critical thinking skills to economic reasoning.

2. How was student learning assessed for each outcome?

A. General Outcome 1 was assessed in two ways.

1. In fall 2009 and spring 2010, we embedded five common multiple choice questions in all sections of principles of macroeconomics (ECON 100). These questions addressed the macroeconomic concepts of real GDP, long-run economic growth, long-run impact of macroeconomic policy, short-run impact of monetary policy, and short-run impact of fiscal policy.

- In fall 2009 and spring 2010, we embedded five common multiple choice questions in all sections of principles of microeconomics (ECON 101). These questions addressed the microeconomic concepts of supply and demand, profit maximization of the firm, welfare economics and market externalities.

B. General Outcome 2 was assessed in three ways.

- In fall 2009 and spring 2010, a question was included in the final examination for microeconomic theory (ECON 310) to test ability to use written skills to explain and apply microeconomic theory. The question addressed the different economic outcomes under perfect competition vs. a monopoly market structure.
- In fall 2009 and spring 2010, a question was included in the final examination for macroeconomic theory (ECON 311) to test ability to use written skills to explain and apply macroeconomic theory. The question in macroeconomic theory addressed the short-run and long-run impact of either an expansionary fiscal policy (tax cuts) or monetary policy (interest rate cuts) on the macroeconomy.
- In fall 2009 and spring 2010, all economic statistics (ECON 380) classes conducted a final computer lab exercise that tests student proficiency in compiling and interpreting economic data. Students were tested on their ability to present data effectively (through construction of histograms and pivot tables) and well as the ability to calculate and interpret descriptive and inferential statistics.

3. *What were the results of the assessment for each learning outcome?*

A. General Outcome 1

- The students' performance in principles of macroeconomics course (ECON 100) is presented below:

Economics 100		Spring 10	Fall 09	Spring 09	Fall 08	Spring 08
Question	Type	Percent	Percent	Percent	Percent	Percent
real GDP / Unemployment	calculation	53.0%	34.1%	42.9%	48.5%	30.7%
LR growth	conceptual	63.5%	41.3%	34.0%	14.2%	14.7%
LR macroeconomic policy	conceptual	40.6%	68.9%	46.3%	13.6%	52.6%
SR monetary policy	application	62.9%	38.9%	49.1%	77.4%	42.6%
SR fiscal policy	application	58.0%	40.7%	38.9%	86.0%	61.4%
all five questions		55.6%	44.8%	42.2%	47.9%	40.4%

- The students' performance in principles of microeconomics course (ECON 100) is presented below:

Economics 101		Spring 10	Fall 09	Spring 09	Fall 08	Spring 08
Question	Type	Percent	Percent	Percent	Percent	Percent
supply and demand	application	64.3%	59.6%	67.8%	57.3%	60.2%
supply and demand	conceptual	68.1%	59.6%	60.4%	50.1%	66.5%
profit maximization	application	84.8%	80.6%	66.6%	71.2%	77.2%

welfare economics	application	66.9%	52.4%	49.3%	60.9%	31.2%
externalities	conceptual	81.3%	54.0%	55.0%	58.8%	47.1%
all five questions		73.1%	61.2%	59.8%	59.7%	49.8%

B. General Outcome 2

1. The students' performance in microeconomic theory (ECON 310) is presented below:

Question	Term	Obs.	Mean	Median	Std Dev
economic outcome of competition vs. monopoly	Spring 2010	21	56.0%	60.0%	25.2%
economic outcome of competition vs. monopoly	Fall 2009	25	63.0%	60.2%	19.5%
economic outcome of competition vs. monopoly	Spring 2009	48	65.6%	73.2%	27.5%

2. The students' performance in macroeconomic theory (ECON 311) is presented below:

Question	Term	Obs.	Mean	Median	Std Dev
macroeconomic effects of monetary policy	Spring 2010	50	62.5%	66.0%	18.2%
macroeconomic effects of fiscal policy	Fall 2009	22	48.7%	43.8%	20.3%
macroeconomic effects of monetary policy	Spring 2009	53	56.2%	58.3%	21.7%

3. The students' performance in economic statistics (ECON 380) is presented below:

Economics 380		Spring 10	Fall 09	Spring 09	Fall 08	Spring 08
Question	Type	Percent	Percent	Percent	Percent	Percent
create dummy variables	Excel	100.0%	91.0%	98.3%	100.0%	
generate descriptive statistics	Excel	98.6%	92.2%	90.2%	87.8%	86.8%
interpret descriptive statistics	interpretation	88.0%	94.2%	90.8%	69.0%	
create histograms	Excel	88.0%	91.2%	91.4%	44.9%	75.3%
create pivot table	Excel	75.5%	61.6%	86.2%	64.6%	90.3%
create confidence interval	Excel	76.6%	67.4%	75.7%	41.9%	72.2%
test confidence interval	interpretation	51.7%	46.6%	35.7%	20.5%	
correlation	interpretation	88.6%	74.9%	85.7%	45.3%	48.6%
scatter plot	Excel	65.0%	71.9%			
total		83.5%	79.8%	81.8%	52.6%	74.6%

4. *How were the results used for program improvement?*

During the 2008-09 academic year, the department implemented uniform curricular requirements for our principles of economics (ECON 100 and ECON 101) courses and intermediate theory (ECON 310, ECON 311 and ECON 380) courses. The uniform curricular requirements set common core topics and text(s) for each course, but allowed individual instructors to choose their own emphasis and teaching pedagogy.

The student learning outcomes for 2007-08 and before was used as a baseline to evaluate the impact of our course standardization on student learning outcomes. For each course, we compared the baseline results with those for the 2008-09 academic year. In general, there was very little change in student learning outcomes across the curriculum covered. In the principles of economics courses, there was a marginal increase in student learning outcomes. However, there was a marginal decrease in the intermediate theory courses.

In 2009-10, the department collected both student learning outcomes and basic pedagogical characteristics for our principles of economics (ECON 100 and ECON 101) courses. The pedagogical characteristics are course content, teaching devices and grading. These characteristics were collected from the syllabi. The following table shows the difference in means across each pedagogical characteristic:

<u>Economics 100 and 101</u>	<u>No</u>		<u>Yes</u>		Difference
	Obs	Mean	Obs	Mean	
Principles of Microeconomics	5	51.2%	10	65.9%	14.7%
Daytime course	2	50.0%	13	62.7%	12.7%
Hybrid course	13	61.4%	2	58.5%	-2.9%
Krugman and Wells text	11	65.3%	4	49.2%	-16.1%
Hubbard and O'Brien text	8	58.6%	7	63.8%	5.2%
Graded homework	3	66.2%	12	60.0%	-6.2%
Graded quizzes	9	58.8%	6	64.4%	5.6%
Graded software	8	60.7%	7	61.4%	0.7%
Three midterm exams	4	66.6%	11	59.0%	-7.6%

The biggest difference occurred in (1) Principles of Microeconomics vs. Principles of Macroeconomics course, (2) Daytime vs. Nighttime course, and (3) Hybrid (in-class and on-line instruction) vs. non-Hybrid (in-class only instruction) course.

These results will be shared with the economics faculty in an upcoming faculty meeting to discuss potential strategies to raise assessment.

Assessment Fall 2011 Spring 2012 Major in Economics Program

Learning assessment has been conducted since 2006 and is focused in measurement of the responses of students to embedded questions in the final exams across the curriculum. We report here the mean of correct answers results for two semesters, and we add a commentary that takes into consideration what has been observed since the assessment effort began.

MACRO PRINCIPLES (ECON 100)	Fall 11	Spring 12
unemployment	0.38	0.80
Keynesian policy	0.62	0.73
monetary policy	0.93	0.90
SR fiscal policy	0.37	0.20
LR fiscal policy	0.28	0.38
all five questions	0.52	0.60
MICRO PRINCIPLES (ECON 101)	Fall 11	Spring 12
supply and demand	0.66	0.72
theory of the firm	0.55	0.25
competition and profits	0.86	0.81
price ceiling	0.56	0.70
taxation and DWL	0.43	0.39
all five questions	0.61	0.57
PRINCIPLES OF ECONOMICS (ECON 300)	Fall 11	Spring 12
supply and demand	0.75	0.69
price ceiling	0.36	0.37
theory of the firm	0.27	0.24
LR fiscal policy	0.79	0.67
SR fiscal policy	0.60	0.54
all five questions	0.56	0.50

Learning Assessment in Principles courses over the last years leads us to the following conclusions:

- a) Students show remarkably similar performance across classes. This is an important finding because it indicates that we can learn more from a more thorough analysis of learning in two sections of one class than from a more superficial examination of data from four or more sections in one specific class.
- b) Low performance is more likely in applied questions compared to concept/definition questions.
- c) Low performance is more likely in questions with compounded answers, where students seem to be impatient and stop looking for answers when they recognize a correct statement even if the second part of the answer is wrong.
- d) It was surprising that assessment based on a question about the effect of a price ceiling turned out a very poor outcome. This is a simple concept but the analysis of the answers

indicates that students interpret a price “ceiling” as a “price above equilibrium,” which suggests that there is a fairly significant degree of guessing in taking these MC exams. We should test knowledge of the definition of a “price ceiling” separately from results on an applied question that tests if students understand the effect of such government intervention.

- e) We have seen that learning in Macro Principles is typically less effective than in Micro Principles. In particular, performance in monetary theory concepts and applications is poor. This is a subject that is covered late in the semester. It has often surprised faculty that students are unable to recall the material that is most recent. This is worth exploring.
- f) In conversations with faculty I heard the suggestion that Macro Principles courses could reduce the coverage of basic principles of supply and demand in an attempt to spend more time on macroeconomic principles.
- g) We have the impression that some repetition in Principles is good for learning. We tested this hypothesis with our assessment effort over Fall 11. We collected data on the previous work in principles of economics among students registered in Econ 100 and 101. The performance on the 101 assessment questions of students that had previously taken 100 was better by .36 of a point (out of a maximum of 5). However, this effect is fully explained by the improved performance of students that received a B or better in Econ 101. Similarly, in the case of 100, repetition alone does not seem to help. The learning impact is only apparent among students that received a B or better in 101. (see Appendix)
- h) The evidence gives support to the notion that good performance in a principles class will lead to good learning outcomes in a second principles class. However, the evidence does not give support to the notion that repetition will lead an average student to better learning in the second course.
- i) Therefore, faculty may want to explore the impact of removing part of the Micro Principles repetition that appears in the common syllabi of Econ 100 in an effort to extend the coverage of Macro-specific principles in an attempt to improve the learning outcomes in Econ 100.
- j) Learning outcomes in Econ 300 are fairly good, particularly in macro. The contrast with Econ 100 is worth investigating. In both classes, students are expected to learn micro- and macro-concepts. In Econ 100, students seem to be better prepared on micro-concepts by the end of the semester,. While in Econ 300 they seem to be better prepared on macro concepts. Learning outcomes in micro economics is less consistent in Econ 300. In part, this is due to the fact that faculty emphasize different micro applications.

MICRO THEORY (ECON 310)

Market structure (monopoly)	Problem	Fall 2011	61.40
Market structure (competition)	Problem	Fall 2011	46.80
Market structure (DWL)	Problem	Fall 2011	30.30
Market structure (sum)	Problem	Fall 2011	48.10
Market structure (monopoly)	Problem	Spring 201	82.00
Market structure (competition)	Problem	Spring 201	79.00
Market structure (DWL)	Problem	Spring 201	36.00
Market structure (sum)	Problem	Spring 201	65.70

In Micro Theory, there have been consistent attempts to measure students' learning of analytical results of market equilibrium models with competition and alternative assumptions. The results indicate that students are more knowledgeable of the solutions and less knowledgeable about the implications of the alternative solutions for general welfare.

MACRO THEORY (ECON 311)

Fall 2011 (IS-LM)	0.5
Fall 2011 (AD-AS)	0.48
Fall 2011 (Growth)	0.65
Fall 2011 (Growth)	0.33
Fall 2011 (All)	0.44
Spring 2012 (Open Market Operations OMO)	0.46
Spring 2012 (OMO and r)	0.57
Spring 2012 (OMO and I)	0.69
Spring 2012 (AD-AS)	0.59
Spring 2012 (all)	0.58

In Macro Theory, learning assessment has been increasingly targeted. In Spring 2012, unlike previous semesters, students were asked to define the concept of Open Market Operations and then asked about the implications of these operations on macro indicators. The results of the assessment suggest that students are learning this concept and its application correctly. It also suggests that the way questions are organized matters for students' performance. In particular, if they focus on the concept first, answering a definition question, they are more likely to get the application correctly.

Fall 2011 Assessment

ECON380	mean	percentage	median
Manipulate Data	18.54	84%	21
D stats	9.46	73%	10
Basic Graph	4.00	40%	4
Pivot Table	3.59	36%	2
Confidence Intervals Calculation	2.64	26%	2

Interpret CI	2.03	20%	0
Correlation Calculations & Interpretation	4.31	29%	2
Graph & Interpret	3.58	36%	3

In Fall 2011, the Professor wrote the lab final and gave it to the TAs the day of the final. In the past the TAs had written the final lab. Given the past results in terms of demonstrating wide-spread competency in basic graphing and pivot tables, there was more emphasis on extending their skills. A few things were different than in the past:

1. Students were asked to graph a more complicated pivot table than they practiced in lab. The goal was to determine whether past results were reflecting their memorization of the steps rather than an understanding of how an effective pivot table is set up. Initial results show that we need to help them move away from basic memorization of the pivot table (and graphing) command and towards more thoughtful consideration of how one visually displays data.
2. Students need more practice with manipulating data (more sorting, filtering, etc). This will be added into two new labs offered at the beginning of the semester. Currently there are no labs the first two weeks of class. By offering labs the first two weeks, we maximize the use of the TA resources and get students more engaged with Excel. These will be optional exercises, but will work with Mr. Trevezes to set a climate in class where students know they should be attending class. Will also institute pre-test administered to students the first week of lab and then repeated midway through the semester on basic Excel competence.
3. Students really cannot interpret CI. Will work with UG committee on SCO for 380 that emphasizes inferential statistics and also create additional lab repetition on calculation (both manually and using built-in Excel commands) and interpretation.
4. The SCO creation (and ideally enforcement) should help numbers on both confidence intervals and correlation. I believe from speaking with current and past TAs that the correlation problem is driven by faculty and not lab.
5. The data set used on this lab final was completely different than any they had seen this semester or in prior semesters. It was from Survey of Manufactures. Students showed an alarming inability to interpret economic data that they had not practiced with in the past. We need to incorporate more of this data in the labs and in the classroom setting, so they gain proficiency in bridging the material of 380 and that of 101 and 100.

Spring 2012

Following the assessment plan layout in Fall 2011, students in Econ 380 were given a lab final that required them to estimate and analyze data containing information on population, education, and median household income for the cities and communities within Los Angeles County. Their learning assessment results are summarized in the table below

		Mean	Percentage	Median
Graph	Series 1	8.83	83%	10
	Series 2	8.15	81%	10
New Variable	Sum or Excel equation	4.6	92%	5
Descriptive Statistics	Create	4.6	92%	5
	Skewness and Kutosis	6.5	65%	7

Dummy Variable	IF and Median	6.8	85%	8
	IF and Average	6.9	86%	7.5
Filter		7.1	71%	10
Pivot Table		2.1	69%	3
Confidence Intervals	Create	2.2	44%	2
	Interpret	1.8	37%	0
Regression Analysis	Create	2.5	82%	3
	Interpret	2.6	52%	2
	Test Statistical Significance	2.4	60%	4
	Develop Model	1.9	63%	2

The results were significantly better compared to Fall 2011.

THE EFFECT OF CHANGING MINIMUM GRADE REQUIREMENTS TO REGISTER IN 400 LEVEL ELECTIVES

Students in the major must take a minimum of two 400-level courses, which have micro and macro theory (Econ 310 and Econ 311) as prerequisites. Until Fall 2011, students could register in 400 level courses after approving the prerequisites, and that included a grade D in Econ 310 and/or Econ 311. We now require prerequisite courses must be completed with grades "C" or better prior to enrolling. This change in curriculum is expected to improve academic performance at the 400 level courses. As a first approach, we measured the fraction of students that earned an A, B or C, as a proportion of the students registered in the course. We estimated the fraction for the combined student body over all 400 level classes. As indicated in the table below, this fraction increased relative to the two previous semesters.

Overall Grades in 400 level courses

Semester	Fraction of students receiving As, Bs or Cs
Spring 2011	78
Fall 2011	75
Spring 2012	85

APPENDIX

SIMPLE REGRESSIONS

The variables 100_5 and 101_5 corresponds to the sum of correct points over the 5 assessment questions in the corresponding exam. We processed 121 individual cases for 101 and 242 individual exams for Econ 100.

The variable 100 (101) takes the value 1 if the student taking 101 (100) already approved Econ 100 (Econ 101). The variable 100_B (101_B) takes the value 1 if the student approved the corresponding course with a B or better.

```
. regress 101_5 100
```

Source	SS	df	MS	
Model	3.78563071	1	3.78563071	Number of obs = 121
				F(1, 119) = 3.49
				Prob > F = 0.0640

Residual		128.908584	119	1.08326541		R-squared	=	0.0285

Total		132.694215	120	1.10578512		Adj R-squared	=	0.0204

Root MSE = 1.0408								

101_5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
100		.3573021	.1911322	1.87	0.064	-.0211588	.735763
_cons		2.681159	.1252976	21.40	0.000	2.433058	2.929261

. regress 101_5 100 100_B

Source		SS	df	MS	Number of obs = 121		
Model		9.87341351	2	4.93670676	F(2, 118)	=	4.74
Residual		122.820801	118	1.04085425	Prob > F	=	0.0104

Total		132.694215	120	1.10578512	R-squared	=	0.0744

Adj R-squared = 0.0587							
Root MSE = 1.0202							

101_5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
100		.1188406	.2117157	0.56	0.576	-.3004141	.5380953
100_B		.7294118	.3016047	2.42	0.017	.1321523	1.326671
_cons		2.681159	.1228204	21.83	0.000	2.437942	2.924377

. regress 100_5 101

Source		SS	df	MS	Number of obs = 242		
Model		.157398971	1	.157398971	F(1, 240)	=	0.20
Residual		191.929378	240	.799705741	Prob > F	=	0.6577

Total		192.086777	241	.797040568	R-squared	=	0.0008

Adj R-squared = -0.0033							
Root MSE = .89426							

100_5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
101		.0537243	.1210975	0.44	0.658	-.1848253	.292274
_cons		2.440252	.0709196	34.41	0.000	2.300547	2.579956

. regress 100_5 101 101_B

Source		SS	df	MS	Number of obs = 242		
Model		4.45524477	2	2.22762238	F(2, 239)	=	2.84
Residual		187.631532	239	.785069172	Prob > F	=	0.0605

Total		192.086777	241	.797040568	R-squared	=	0.0232

Adj R-squared = 0.0150							
Root MSE = .88604							

100_5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
101		-.1265261	.142587	-0.89	0.376	-.4074138	.1543617
101_B		.4675245	.1998172	2.34	0.020	.0738967	.8611523
_cons		2.440252	.0702676	34.73	0.000	2.301829	2.578675

California State University Long Beach

Annual Assessment Report for June 10, 2013

Degree Program Name: BA Economics (ECONBA01), Option in Mathematical Economics and Economic Theory (ECONBA02), BA Business Economics (ECONBA03)
Department Name: Economics

Name of Chair: Wade Martin

Campus Extension: 5-5061 email: Wade.Martin@csulb.edu

Program Assessment Coordinator: Steve Yamarik

Campus Extension: 5-4634 email: Steve.Yamarik@csulb.edu

1. *Which student learning outcomes for this degree program were assessed over the past year?*

A. General Outcome 1: Students should understand economic theory and its application to past and present economic and social issues.

- Students should demonstrate the ability to explain core economic terms, concepts and theories.
- Students should use the ‘economic way of thinking’ to understand economic decisions.
- Students should demonstrate an awareness of global, historical and institutional forces and their role in economic decisions.
- Students should apply economic theories and concepts to contemporary social issues, as well as formulate and analyze public policy solutions.
- Students should distinguish positive and normative aspects of economic decisions.

B. General Outcome 2: Students should demonstrate proficiency in communication skills to explain economic theory and its application to past and present economic and social issues.

- Students should use written and oral skills to explain and apply economic theory.
- Students should use quantitative reasoning skills to understand and apply economic theory.
- Students should collect, compile and interpret economic data to analyze economic theory.
- Students should use statistical inference to test economic theory
- Students should apply critical thinking skills to economic reasoning.

2. *How was student learning assessed for each outcome?*

A. General Outcome 1 was assessed in three ways.

1. In fall 2012 and spring 2013, we embedded five common multiple choice questions in all sections of principles of macroeconomics (ECON 100). These questions addressed the macroeconomic concepts of gross domestic product (GDP), economic growth, monetary policy, gains from trade and the short- and long-run impact of macroeconomic policy.
2. In fall 2012 and spring 2013, we embedded five common multiple choice questions in all sections of principles of microeconomics (ECON 101). These questions addressed the microeconomic concepts of theory of the firm, profit maximization of the firm, competition in the marketplace and welfare economics.
3. In fall 2012 and spring 2013, we embedded five common multiple choice questions in all sections of fundamentals of economics (ECON 300). These questions addressed the microeconomic concepts of supply and demand, theory of the firm, welfare economics and macroeconomic concepts of the short- and long-run effects of fiscal policy.

B. General Outcome 2 was assessed in three ways.

1. In fall 2012 and spring 2013, a question was included in the final examination for microeconomic theory (ECON 310) to test ability to use written skills to explain and apply microeconomic theory. The question addressed the different economic outcomes under perfect competition vs. a monopoly market structure.
2. In fall 2012 and spring 2013, a question was included in the final examination for macroeconomic theory (ECON 311) to test ability to use written skills to explain and apply macroeconomic theory. The question in macroeconomic theory addressed the short-run and long-run impact of either an expansionary fiscal policy (tax cuts) or monetary policy (interest rate cuts) on the macroeconomy.
3. In fall 2012 and spring 2013, all economic statistics (ECON 380) classes conducted a final computer lab exercise that testing student proficiency in compiling and interpreting economic data. Students were tested on five learning objectives: (i) graphically describe data, (ii) numerically describe data, (iii) describe and interpret relationships among variables, (iv) construct and interpret interval estimates and (v) perform and interpret hypothesis tests.

3. *What were the results of the assessment for each learning outcome?*

A. General Outcome 1

1. The students' performance in principles of macroeconomics course (ECON 100) is presented below:

Economics 100		Spring 13	Fall 12	Spring 12	Fall 11	Spring 11
Question	Type	Percent	Percent	Percent	Percent	Percent
Gains from trade	application		55.6%	79.7%	38.3%	62.3%
Unemployment / GDP	application	58.1%		73.2%	61.7%	70.6%
GDP growth	Application	49.0%	63.0%			
fiscal policy	conceptual				92.8%	
monetary policy	conceptual	77.5%	66.7%	38.2%	37.0%	30.7%
SR macroeconomic policy	application	49.9%	59.3%	90.2%		54.5%
LR macroeconomic policy	application	39.4%	74.1%	19.9%	58.7%	58.7%
all five questions		54.8%	63.7%	60.3%	51.6%	55.6%

2. The students' performance in principles of microeconomics course (ECON 101) is presented below:

Economics 101		Spring 13	Fall 12	Spring 12	Fall 11	Spring 11
Question	Type	Percent	Percent	Percent	Percent	Percent
supply and demand	application			71.9%	66.1%	39.6%
theory of the firm	conceptual			70.0%	43.4%	93.9%
profit maximization	application	68.3%	78.2%			
competition	application	76.4%	80.4%%	38.8%	56.2%	
monopoly	application	73.0%	71.9%			
welfare economics	application	59.8%	64.4%	24.9%	55.4%	31.2%
taxation	conceptual	65.0%	71.3%	80.6%	86.0%	47.1%
all five questions		68.6%	73.2%	57.3%	61.4%	59.8%

3. The students' performance in fundamentals of economics course (ECON 300) is presented below:

Economics 300		Spring 13	Fall 12	Spring 12	Fall 11	Spring 11
Question	Type	Percent	Percent	Percent	Percent	Percent
supply and demand	application	74.4%	36.3%	68.7%	74.8%	40.5%
welfare economics	application	53.5%	75.0%	37.4%	36.2%	61.2%
taxation	concept				26.6%	
theory of the firm	application	93.0%	82.5%	23.8%		52.4%
SR macroeconomic policy	application	37.2%	27.5%	66.7%	78.6%	41.9%
LR macroeconomic policy	application	83.7%	43.8%	54.4%	60.0%	37.9%
all five questions		68.4%	53.0%	50.2%	59.7%	49.8%

B. General Outcome 2

2. The students' performance in microeconomic theory (ECON 310) is presented below:

Question	Term	Obs.	Mean	Median	Std Dev
economic outcome of competition vs. monopoly	Spring 2013	37	69.7%	70.0%	20.8%
economic outcome of competition vs. monopoly	Fall 2012	42	76.5%	81.0%	12.1%
economic outcome of competition vs. monopoly	Spring 2012	25	65.7%	72.0%	18.5%
economic outcome of competition vs. monopoly	Fall 2011	33	48.1%	75.0%	36.9%
economic outcome of competition vs. monopoly	Spring 2011	88	67.5%	75.0%	26.0%

2. The students' performance in macroeconomic theory (ECON 311) is presented below:

Question	Term	Obs.	Mean	Median	Std Dev
macroeconomic effects of fiscal policy	Spring 2013	75	66.4%	70.0%	18.9%
macroeconomic effects of monetary policy	Fall 2012	31	54.0%	66.7%	30.4%
macroeconomic effects of monetary policy	Spring 2012	30	58.0%	62.5%	32.0%
macroeconomic effects of fiscal policy	Fall 2011	60	44.0%	50.0%	29.0%
macroeconomic effects of monetary policy	Spring 2011	39	61.8%	n/a	29.7%

3. The students' performance in economic statistics (ECON 380) is presented below:

Economics 380		Spring 13	Fall 12	Spring 12	Fall 11
Question	Type	Percent	Percent	Percent	Percent
create dummy variables	Excel		66.8%	98.3%	100.0%
generate descriptive statistics	Excel		99.7%	90.2%	87.8%
interpret descriptive statistics	interpretation		87.7%	90.8%	69.0%
create histograms	Excel		66.3%	91.4%	44.9%
create pivot table	Excel		82.4%	86.2%	64.6%
create confidence interval	Excel		50.7%	75.7%	41.9%
test confidence interval	interpretation		47.6%	35.7%	20.5%
correlation / regression	interpretation		83.1%	85.7%	45.3%
scatter plot	Excel		76.5%		
total			79.8%	81.8%	52.6%

4. *How were the results used for program improvement?*

In 2012-13, the department collected both student learning outcomes and basic pedagogical characteristics for our principles of economics (ECON 100 and ECON 101) courses. The pedagogical characteristics are course content, teaching devices and grading. These characteristics were collected from the syllabi. The following table shows the difference in means across each pedagogical characteristic:

<u>Economics 100 and 101</u>		<u>No</u>		<u>Yes</u>		
Characteristic	Obs	Mean	Obs	Mean	Difference	
Principles of Microeconomics	5	56.4%	7	68.5%	12.1%	
Hybrid course	10	62.1%	2	70.4%	8.3%	
Mankiw text	9	66.7%	3	53.3%	-12.9%	
Hubbard and O'Brien text	5	56.2%	7	68.7%	12.5%	
Graded homework	5	68.5%	7	60.0%	-8.5%	
Graded quizzes	9	58.8%	6	64.4%	5.6%	
Graded software	9	62.8%	3	65.5%	2.7%	
Clicker in class	7	66.7%	5	59.0%	-7.7%	
Three midterm exams	2	63.3%	10	63.5%	0.2%	

The biggest difference occurred in (1) Principles of Macroeconomics vs. Principles of Microeconomics course, (2) non-Hybrid (in-class only instruction) course vs. Hybrid (in-class and on-line instruction), (3) use of text book, and (4) non-Graded homework vs. Graded homework.

These results will be shared with the economics faculty in an upcoming faculty meeting to discuss potential strategies to raise assessment. In addition, we will continue to collect basic pedagogical characteristics for our principles of economics courses in order to continue this line of analysis.

CSULB DEPARTMENT OF ECONOMICS

MA IN ECONOMICS (code 5-8510)

Progress Report 2011

Submitted by Alejandra C Edwards, Graduate Advisor

Master of Arts in Economics - General Description

The MA program in Economics at California State University, Long Beach, was first offered in 1969. It is designed to engage students in analytical thinking in preparation for positions in industry, government, consulting agencies, or teaching. It accommodates the working adult by offering required courses in the evening. Part-time students generally take two to three years to finish degree requirements, while full-time students usually complete the program in as little as three to four semesters.

The MA program consists of 10 courses (32 units), five of which are required, three of which are selected by students from a list of approved electives, and two are seminars in such fields as environmental economics, international trade and development, and transportation. Students complete the theory sequence first and must approve two qualifier exams in the early part of their program. These exams, one in microeconomics and one in macroeconomics, are prepared and graded by committees. Students may attempt these exams twice, but failure to pass these exams results in disqualification from the program. The course program has been carefully designed to achieve specific learning outcomes, and students advance only if they have mastered the required knowledge. The degree is conferred upon students who have demonstrated a mastery of microeconomic theory, macroeconomic theory, quantitative methods, and two elective fields of concentration. Students complete research papers in the two field seminars. Their final comprehensive examination consists in an oral defense of one the research papers.

I. Required Core Courses

Econ 503 - Mathematical Economics (3 units, summer)

Econ 510 - Advanced Microeconomics (3 units, fall)

Econ 511 - Advanced Macroeconomics (3 units, fall)

Econ 585 - Econometrics I (4 units, fall)

Econ 586 - Econometrics II (4 units, spring)

II. Elective Fields of Concentration

A field of concentration includes 600-level courses and at least one upper division or 500-level prerequisite course. The elective fields of concentration currently offered by the Department of Economics are:

International Trade and Development

Econ 570 – International Trade, or

Econ 571 - International Finance, or

Econ 565 - Economic Development, and

Econ 670 – Seminar in International Trade & Development

Transportation

Econ 555 – Transportation Economics, and

Econ 666 – Seminar in Transportation

Natural Resource and Environmental Economics

Econ 562 - Environmental Economics, or

Econ 563 - Energy Economics, or

Econ 564 - Natural Resource Economics, and

Econ 660 - Seminar in Natural Resources and the Environment

III. Additional Elective Courses

The remaining courses may be chosen from the department's 400-, 500-, or 600-level offerings. Masters students may not include 300-level economics courses in their program of study.

GOALS AND OUTCOMES

GOALS

The MA in Economics is designed to:

1. Engage students in analytical thinking in preparation for positions in industry, government, consulting agencies, or teaching.
2. Teach students applications of calculus and linear algebra to solve economic problems.
3. Teach students the most important models that economists use to explain the behavior of consumers and firms, and the determinants of market prices.
4. Teach students the most important economic models that economists use to understand the relationship between economic aggregates such as investment, consumption, and aggregate income.
5. Teach students how to test a hypothesis using economic data, how to evaluate similar work by others, and how to present empirical results in a research report.
6. Give students the opportunity to study special applications of economic analysis in two fields of specialization, including Environmental Economics, Economics Development, and Economics of Transportation.

OUTCOMES

By the end of their MA program students should be able to:

1. Demonstrate knowledge of the applications of calculus and linear algebra to solve economic problems by satisfactory completion of Econ 503 -- Mathematical Economics.
2. Demonstrate command over introductory and intermediate level microeconomics concepts covered at the undergraduate level as well as advanced topics, by satisfactory completion of Econ 510 -- Advanced Microeconomics and the Qualifier exam in Microeconomics.

3. Demonstrate command over introductory and intermediate level macroeconomics covered at the undergraduate level as well as advanced topics, by satisfactory completion of Econ 511 -- Advanced Macroeconomics and the Qualifier Exam in Macroeconomics.
4. Demonstrate understanding of the use of Econometric analysis in the testing of hypotheses with the use of cross-section data and time-series data by satisfactory completion of a two-course Econometrics sequence -- Econ 585 and Econ 586.
5. Demonstrate knowledge in two areas of applied economics --including Environmental Economics, Economics Development, or Economics of Transportation-- by completing course work in two elective fields of concentration with grades "B" or better in the relevant 600-level courses.

ADMISSIONS

Given our entry requirements, the majority of our MA students have an undergraduate degree in Economics. Students that do not meet our entry requirements fully, but show potential are offered "conditional admission" status. This avenue allows some students to complete English requirements or complete intermediate level economics courses as a pre-requisite for regular admission. Table 2 shows the number of applications received, acceptances (regular and conditional), and actual enrollment.

Table 1: MA in Economics: Applications and enrollment by semester of application *

Applications for Spring and Fall of calendar year	Applications Reviewed by Department	Admitted	Regular	Cond.	Enrolled	Enrolled International
2004	42	28	16	12	16	6
2005	51	48	30	18	34	18
2006	71	55	38	17	31	12
2007	45	36	23	13	22	6
2008	55	40	25	15	20	8
2009	67	49	37	12	23	2
2010	59	44	36	8	19	4
Total	390	300	205	95	165	56

* Data updated June 2011. Records reflect applications by academic semester of entry.

The numbers shown in Table 1 are based on applications reviewed by the Department of Economics. All of these applicants are admissible using the Graduate Admissions criteria established by the University. We further select from these students because we require an undergraduate degree in Economics, and a GPA equal or above 3.0. In the case of international students, the same policy on previous degree and grades applies in addition to the University English requirements.

We admit students in two categories, regular and conditional admissions. Students without a degree in Economics may be admitted conditionally and are required to complete the core courses of the

undergraduate degree. As indicated in Table 1, 68% of all admits are Regular admissions. These students have a degree in Economics from a US or an International school, have graduated with a GPA of 3.0 or more, and if International, have cleared the minimum English requirements. The remaining 32% are Conditional admissions. The conditional admissions policy opens a door to some students with degrees in other fields, and to international students with strong academic background and insufficient English skills. These students must fulfill American Language Institute (ALI) requirements and/or additional requirements from Economics, before they can be moved to Regular status.

In recent years we have admitted an average of 42 students per year, out of an average of 56 applicants per year. **The take-up rate (enrolled/admitted) is 55%**, suggesting that *if our target class size is 25-30 students per cohort, we should aim at admitting 45-55 students per year*. The combined impact of our applicant's pool, our selection policy, and the take-up rate leads to a typical cohort of 24 students per year. On average, **33% of the each entry cohort is International**.

ASSESSMENT MEASURES

The Economics Department continuously assesses the MA in Economics at two levels. First, a Graduate Admissions Committee examines all applications and admits the students that meet previously established criteria. The progress of these students through the program, as well as completion rates are tracked by the graduate coordinator. Second, every semester appointed Qualifier Exam Committees prepare and grade the corresponding exams, including an **assessment** of previously agreed **specific learning outcomes**.

After a full revision of the program in 2010, the graduate committee proposed and got approval for the introduction of an additional assessment method in the form of an oral comprehensive exam that will take place at the end of the program. This comprehensive exam will be based on students' research papers.

(1) Progression through the Program.

Our universe of analysis is the total number of students that start the program by cohort.

We follow each cohort and find how many of the students that start, actually complete the Macro and Micro theory sequence. Then we ask how many of the students that completed the two theory courses, clear the qualifier examinations.

Students take the qualifier exams the semester they complete the corresponding advanced theory course. Students that pass the corresponding exam in their first attempt are counted in column P1. If they pass in the second attempt, they are counted in column P2. The column P, shows the sum from columns P1 and P2.

Table 2a: Qualifier Exams Performance by Cohort – Regular Admits

Admission Year	Started Program	Completed 510 & 511	Micro-Comp Exam			Macro-Comp Exam			Cleared both	
			P1	P2	P	P1	P2	P		
2004	8	6	4	2	6	4	2	6	6	100%
2005	20	13	10	2	12	10	3	13	12	92%
2006	19	10	4	2	6	5	2	7	6	60%
2007	14	12	9	2	10	7	5	12	10	92%
2008	11	7	6	1	7	5	2	7	7	100%
2009	19	7	7	0	7	7	0	7	7	100%
2010	17	7	7	0	7	7	0	7	7	100%
Total	108	62			55			59	55	89%

Table 2b:

Qualifier Exams Performance by Cohort – Conditional Admits

Admission Year	Started Program	Completed 510 & 511	Micro-Comp Exam			Macro-Comp Exam			Cleared both	Qualified/a ttempted
			P1	P2	P	P1	P2	P		
2004	8	1	0	1	1	0	1	1	1	100%
2005	14	8	5	3	8	6	1	7	6	75%
2006	12	5	2	1	3	1	2	3	3	60%
2007	8	2	0	2	2	0	1	1	1	50%
2008	9	2	1	0	1	2	0	2	1	50%
2009	4	1	1	0	1	1	0	1	1	100%
2010	2	0								-
Total	57	19							13	68%

The data shown on Tables 2a and 2b indicate that:

1. There is **a significant degree of attrition** between program initiation and the completion of the core Micro and Macro courses. On average, first year attrition is 42% among regular admits, 67% among conditional admits. Some of the students drop out after the summer class, but many others quit the program after failing the first qualifier or after failing one of the Theory classes.
2. Once students complete the economic theory sequence (Econ 510 and 511), their chances of clearing the qualifying exams are **89%** among regular admits, and lower –at **68%** -- among conditional admits. The cohort reduction via attrition or failure to clear the qualifiers has important implications for the relative size of our student population. In particular, our summer and first semester graduate courses enroll an average of 24 graduate students per class, while our seminars enroll no more than 9.

We have classroom size constraints to expand the size of the entering cohort. At the same time, the reduced enrollment in seminars offers an easy target for course elimination, especially at times of budget cuts. (This has prompted the graduate committee to tighten up the admissions policy, adding GRE scores – This is still under discussion)

3. In the last seven years, the MA program has enrolled an average of 24 students per cohort, with about one out of three on conditional status. The evidence accumulated over seven cohorts indicates that success rates among conditional admits is significantly lower than among regular admits. On average, 8 of the 16 regularly admitted, and only 1 of the 8 conditionally admitted earned the MA degree.

(The low rate of success among conditional admits prompted the graduate committee to eliminate the conditional admission procedure. Starting in Fall 2012, students that do not qualify for regular admission will be advised on how to qualify for admission. ---- This is still under discussion.)

Table 3

Graduates Per Year

2003	4
2004	6
2005	5
2006	12
2007	13
2008	14
2009	7

(2) Learning outcomes

Learning outcomes are currently assessed through the two qualifier exams, which are prepared and graded by a committee of faculty. These exams provide an independent assessment of Outcomes #1 #2 and #3. (see Assessment Report 2011)

Starting in December 2011, a comprehensive exam will expand assessment to Outcomes #4 and #5.