



ANNUAL PROGRAM REPORT

College	Business and Economics
Department	Economics
Program	BA Economics
Reporting for Academic Year	2016-2017
Last 5-Year Review	2013-2014
Next 5-Year Review	2018-2019
Department Chair	Jed DeVaro
Date Submitted	October 20, 2017

I. **SELF-STUDY** *(suggested length of 1-3 pages)*

A. **Five-Year Review Planning Goals**

The major goal of the last five-year plan was to rebuild the depleted ranks of the Department’s faculty. The Department had wasted away due to a combination of retirements, quits, and failures to replace vacated positions (due to budget cuts and other reasons). Another major goal was to revise the BA Economics program, which had not undergone a major review for quite some time.

B. **Progress Toward Five-Year Review Planning Goals**

Great progress was made achieving the planning goal of rebuilding the Department. Christian Roessler, Ryan Lampe, Brian Adams, Joseph Kuehn, Jung You, Filippo Rebessi, Kai Ding, and Wes Blundell were all hired in the last 5 years, and only 1 of them (Brian Adams) has left, plus a few people completed FERPs and 2 more started them. On the issue of program revision, great progress has been made. The core of the BA Economics program was changed in some key ways ... Economics 4895/4896 were eliminated because they were no longer meeting students’ needs and (due to their rigid scheduling) they were delaying students’ graduations by impinging unduly on students’ schedules, particularly working students. Additionally, Economics 4000 was changed from a core course to an elective, because it wasn’t serving its intended purpose. In its place, a new core course was created, Economics 3001, that expands intermediate microeconomic theory (the heart and soul of the major) into a 2-quarter sequence that allows the critical material to be developed fully and without being rushed.

C. **Program Changes and Needs**

Report on changes and emerging needs not already discussed above. Include any changes related to SB1440, significant events which have occurred or are imminent, program demand projections, notable changes in resources, retirements/new hires, curricular changes, honors received, etc., and their implications for attaining program goals. Organize your discussion using the following subheadings.

Overview:

The program has changed significantly during the last few years, and more radical changes will go into effect in Fall 2018 when the University opens its doors under the semester system. The biggest program change that we are most excited about is the addition of Economics 210, which should “level the quantitative playing field” for our majors, and help with the GI2025 initiative by identifying hurdles very early on in a student’s trajectory through the Economics major. Development of the course commences this summer.

Curriculum:

The curriculum has been discussed in the preceding points. In addition to Economics 210, there is a new programming class that is now part of the core. This course will either be taught in the Computer Science Department or the Economics Department, and the motivation is to ensure that all Economics majors of CSUEB have sufficiently applied skills (i.e., data analysis and computer programming) to be marketable in today’s economy.

Students:

It is anticipated that the students will be (at least when they graduate from our program, if not when they enter it) more technically inclined, and skilled, than in past generations of students. This is consistent with the shift of the program towards a more quantitative direction (indeed, it is being remained “Bachelor of Science” from “Bachelor of Arts”).

Faculty:

The faculty are the Department’s core strength at the moment. The rebuilding effort (after the Department lost many of its best faculty) took 5 years, but the Department is now finally operating reasonably close to a fully-staffed level. The faculty’s expertise is concentrated most heavily in the area of applied microeconomics, but two recent hires in macroeconomics have that field well covered too.

Staff:

The Department continues to have the support of Denise Crozier, who is the Department Assistant. She is fantastic and is an essential element of the Department’s operational success. Additionally, the Department is supported by the team in the College of Business and Economics’s Undergraduate Office of Student Services, which provides top-notch support.

Resources: *(facilities, space, equipment, etc.)*

Facilities are adequate for our needs. Space is not a concern because the program is not large, so room size is only an issue for Economics 2301 and 2302, but even those courses (which are

the Department's largest courses) are capped at 65 and always find a suitable room on campus. In terms of equipment, the Department's needs are modest, and so far those needs are being met.

Assessment:

Assessment is taken extremely seriously the Department, in large part because every 5 years the College comes up for AACSB accreditation, and assessment is the centerpiece of that review. Assessment is well developed in the economics major. Formal assessment protocols are in the process of being developed within the College, and Economics is actively a part in all of those.

Other: (e.g., major program modifications)

The major program modifications have been discussed earlier in this report.

II. **SUMMARY OF ASSESSMENT** (suggested length of 1-2 pages)

A. **Program Learning Outcomes (PLOs)**

List all your PLO in this box. Indicate for each PLO its alignment with one or more institutional learning outcomes (ILO). For example: "PLO 1. Apply advanced computer science theory to computation problems (ILO 2 & 6)."

1. Formulate mathematical models to solve microeconomic problems. (ILO 1: Thinking & Reasoning)
2. Formulate mathematical models to solve macroeconomic problems.
3. Analyze research data using modern statistical software packages.
4. Construct coherent economic policy arguments, grounded in economic theory. (ILO 2: Communication)

B. **Program Learning Outcome(s) Assessed**

List the PLO(s) assessed. Provide a brief background on your program's history of assessing the PLO(s) (e.g., annually, first time, part of other assessments, etc.)

CBE underwent a complete assurance of learning system redesign in 2012-2013. As a result, multiple rounds of assessments were conducted as new processes and procedures were being implemented. Low sample sizes, logistical hurdles, and introducing additional faculty to assessment all contributed to the need for additional rounds of assessment. Moving forward, we plan on conducting two rounds of data collection for each learning objective for every 5-year cycle.

PLO 1: Formulate mathematical models to solve microeconomic problems.

- o Round 1 Assessed in Winter 2015
- o Round 2 Assessed in Fall 2015
- o Round 3 Assessed in Winter 2017

PLO 2: Formulate mathematical models to solve macroeconomic problems.

- o Round 1 Assessed in Winter 2015
- o Round 2 Assessed in Fall 2015
- o Round 3 Assessed in Winter 2017

PLO 3: Analyze research data using modern statistical software packages.

- o Round 1 Assessed in Winter 2016
- o Round 2 Assessed in Winter 2017

PLO 4: Construct coherent economic policy arguments, grounded in economic theory.

- Round 1 Assessed in Winter 2016
- Round 2 Assessed in Winter 2017

C. Summary of Assessment Process

Summarize your assessment process briefly using the following sub-headings.

Instrument(s): *(include if new or old instrument, how developed, description of content)*

CBE measures each student's work using a rubric, which lists certain parameters or traits on which to assess the student work. Each work is then scored on each rubric trait as "below expectations," "meets expectations," or "exceeds expectations" (rubrics may have more scoring categories depending on faculty desires) relative to a benchmark level of performance agreed upon by the faculty. As programs undergo revisions, rubrics are revised and/or modified with faculty consultation for effectiveness. To download the rubrics for BA Econ, click [here](#).

Sampling Procedure / Sample Characteristics:

CBE follows the guidelines set by our discipline-specific accreditation body, AACSB, when it comes to sampling. AACSB requires a "statistically significant" sample, as defined by the college. That being said, CBE has made efforts to increase sample sizes where they have been historically low. Overtime, as we continue to develop our assurance of learning system and continue to work towards creating a culture of assessment throughout the college, we hope to involve more and more faculty in our assessment activities. This will allow us to steadily increase sample sizes (where they are low) over time. Where sample sizes are sufficient, an increase in the number of participating faculty will allow for a reduction in the number of assignments assessed by any one individual faculty, making the overall workload more manageable.

Data Collection: *(include when, who, and how collected)*

Each quarter or semester, the Director of Assessment contacts the Department Chair where faculty are scheduled to do assessments in their courses. The Department Chair, with input as needed from the Director of Assessment, will arrange for faculty to do assessments. These faculty members are responsible for using the pre-approved assessment measures (rubrics, test questions, etc.) as supplied by the AOL Director.

Data Analysis:

Faculty provide the results of their assessments to the Director of Assessment within four weeks of the end of term. The Director of Assessment then analyzes the assessment findings for each learning objective and prepares a report of the results that show, at a minimum, the number of students assessed and the percentage of students meeting or not meeting the benchmark by rubric trait.

D. Summary of Assessment Results

Summarize your assessment results briefly using the following sub-headings.

Main Findings:

PLO 1: Formulate mathematical models to solve microeconomic problems.

- Round 1 Assessed in Winter 2015
 - 72% of students met expectations (Click [here](#), for assessment report)
- Round 2 Assessed in Fall 2015
 - 22% of students met expectations (Click [here](#), for assessment report)
- Round 3 Assessed in Winter 2017
 - 22% of students met expectations (Click [here](#), for assessment report)

PLO 2: Formulate mathematical models to solve macroeconomic problems.

- Round 1 Assessed in Winter 2015
 - 23% of students met expectations (Click [here](#), for assessment report)
 - Round 2 Assessed in Fall 2015
 - 42% of students met expectations (Click [here](#), for assessment report)
 - Round 3 Assessed in Winter 2017
 - 54% of students met expectations (Click [here](#), for assessment report)
- PLO 3: Analyze research data using modern statistical software packages.
- Round 1 Assessed in Winter 2016
 - 50% of students met expectations (Click [here](#), for assessment report)
 - Round 2 Assessed in Winter 2017
 - 69% of students met expectations (Click [here](#), for assessment report)
- PLO 4: Construct coherent economic policy arguments, grounded in economic theory.
- Round 1 Assessed in Winter 2016
 - 44% of students met expectations (Click [here](#), for assessment report)
 - Round 2 Assessed in Winter 2017
 - 72% of students met expectations (Click [here](#), for assessment report)

Recommendations for Program Improvement: (*changes in course content, course sequence, student advising*)

PLO 1: Formulate mathematical models to solve microeconomic problems.

- 2013/2014: ECON 3555 and ECON 3560 added as electives.
- 2014/2015: Added prerequisites for ECON 3000
- 2015/2016: Starting in Fall 2015, ECON 3000 split into two courses: ECON 3000 and ECON 3001 to facilitate the introduction more rigorous, calculus-based, modeling techniques. / Econ 4000 dropped to an elective. Material reallocated to 3000 and 3001 to allow for more time to cover material.
- Starting in Fall 2016 ECON 3000 added six quizzes worth 30% (as opposed to midterm/final only). Also hired a TA from the economics masters program to give weekly help sessions in Winter 2017.
- Added 300-level classes as prerequisites to several upper division electives in the Q2S redesign. Upper division classes with a 300-level pre-requisite will have a 400-level prefix. This will allow faculty to teach more advanced problem-solving skills.

PLO 2: Formulate mathematical models to solve macroeconomic problems.

- 2015/2016: ECON 3005 changed the textbook. Original textbook was unclear, with several errors and not very systematic. Also provided supplemental materials (for deeper understanding of certain core concepts, such as prices indices, growth calculus, etc., as well as more practice problems, and more expanded questions for quizzes) starting in same quarter (Winter quarter 2016) and continuing in Fall of 2016 and Winter of 2017.
- Added 300-level classes as prerequisites to several upper division electives in the Q2S redesign. Upper division classes with a 300-level pre-requisite will have a 400-level prefix. This will allow faculty to teach more advanced problem-solving skills.

PLO 3: Analyze research data using modern statistical software packages.

- 2015/2016: Switched statistical software package from EVIEWS to STATA.
- Winter 2016: ECON 4400 added an empirical exercise with a write-up.
- Several courses, including ECON 305: Macroeconomic Theory and ECON 431: Economics of Innovation and Intellectual Property, will feature Microsoft Excel-based assignments, e.g. to estimate the various contributors to economic growth under a Solow growth model.

PLO 4: Construct coherent economic policy arguments, grounded in economic theory.

- 2015/2016: Added written component to develop student qualitative skills.
- Winter 2016: ECON 4400 added an empirical exercise with a write-up.

Next Step(s) for Closing the Loop: *(recommendations to address findings, how & when)*

PLO 1: Formulate mathematical models to solve microeconomic problems.

- Starting in Fall 2018, students taking ECON 3000 (to be renumbered ECON 300) will be required to take an additional class in mathematics and statistics that is taught by the economics faculty: ECON 210: Quantitative Methods for Economists. The class builds upon a required class in calculus (or business calculus) and offers the economics department an opportunity for remediation (if necessary) and the introduction of more advanced skills before students take upper-division economics classes, in particular ECON 300. Problem-solving skills relevant to this objective require algebra, basic graphing, and calculus. These skills will be emphasized in ECON 210.

PLO 2: Formulate mathematical models to solve macroeconomic problems.

- Starting in Fall 2018, students taking ECON 3005 (to be renumbered ECON 305) will be required to take an additional class in mathematics and statistics that is taught by the economics faculty: ECON 210: Quantitative Methods for Economists. The class builds upon a required class in calculus (or business calculus) and offers the economics department an opportunity for remediation (if necessary) and the introduction of more advanced skills before students take upper-division economics classes, in particular ECON 305. Problem-solving skills relevant to this objective require algebra, basic graphing, and calculus. These skills will be emphasized in ECON 210.

PLO 3: Analyze research data using modern statistical software packages.

- Starting in 2018, we will be creating a second required course in econometrics: ECON 499: Empirical Analysis. It will be the new course in which we assess Objectives 3 and 4. The class will provide an additional opportunity to teach software skills.
- Starting in 2018, students will be required to take a class in programming fundamentals that is taught by the economics faculty: ECON 211: Programming for Data Analysts. Students can substitute this class with another programming fundamentals class offered by the computer science department. This class will be a pre-requisite for ECON 499: Empirical Analysis.
- Starting in Fall 2018, economics students will be required to take an additional class in mathematics and statistics that is taught by the economics faculty: ECON 210: Quantitative Methods for Economists. The class builds upon a required class in calculus (or business calculus) and offers the economics department an opportunity for remediation (if necessary) and the introduction of more advanced skills before students take upper-division economics classes. The class will feature a large component using Microsoft Excel to illustrate mathematics and statistics problems.

PLO 4: Construct coherent economic policy arguments, grounded in economic theory.

- Starting in 2018, we will be creating a second required course in econometrics: ECON 499: Empirical Analysis. It will be the new course in which we assess Objectives 3 and 4. This class will feature several (e.g. 3-4) large assignments giving students practice in conducting and communicating economic research. It will also give faculty several opportunities to give meaningful feedback on students' communication skills (in this case written communication skills).

Other Reflections: N/A

E. Assessment Plans for Next Year

Summarize your assessment plans for the next year, including the PLO(s) you plan to assess, any revisions to the program assessment plan presented in your last five-year plan self-study, and any other relevant information.

In 2013/2014 the BA Economics program began to redesign its assurance of learning system. Since 2014, CBE underwent a number of changes, which coupled with the quarter to semester conversion, allowed for a reevaluation of various aspects of the program's assessment processes

and procedures. As a result, the following AOL components have been developed for the BA Economics program.

1. A curriculum map that indicates in which courses each learning objective is being introduced, developed and mastered.
2. Assessment Tools – Identified, customized by departments
3. Assignments – To be used for each learning goal assessment.
4. A 5-year plan for assessment activity, including:
 - When learning objectives will be assessed.
 - In which course they will be assessed.
 - Which assignments will be used as artifacts.
 - When there will be program review of (1) assessment plans, (2) tools, (3) processes, (4) mappings, and (5) goals/objectives.
 - When reports of assessment results will be produced and shared w/Chairs & Program Directors (who would then share with faculty).
 - When assessment results will be reviewed and improvement actions are discussed.
 - When improvement actions will be tracked for impact.
 - These 5-year plans also align with the university quarter to semester conversion timeline, as well as the timeline for the university program review board (CAPR).

Currently, the BA Econ program has completed all scheduled assessments to fulfill its accreditation requirement that each learning objective is assessed twice in a five-year period. There are no scheduled assessments for any PLO for the 2017-2018 academic year.

The BA Econ program will (1) continue to implement the assurance of learning system in place by following appropriate processes and protocols and (2) prepare for the upcoming quarter-to-semester conversion.

III. **DISCUSSION OF PROGRAM DATA & RESOURCE REQUESTS**

Each program should provide a one-page discussion of the program data available through CAPR. This discussion should include an analysis of trends and areas of concern. Programs should also include in this discussion requests for additional resources including space and tenure-track hires. Resource requests must be supported by reference to CAPR data only. Requests for tenure-track hires should indicate the area and rank that the program is requesting to hire. If a program is not requesting resources in that year, indicate that no resources are requested.

A. **Discussion of Trends & Reflections**

Notable Trends:

One notable and welcome trend that bears mentioning is the increasing racial and ethnic diversity of the students attracted to the Economics major. A particularly encouraging trend is that the percentage of Black/African American students in the major has increased in each of the last 5 years and is now well over double what it was 5 years ago (12.9% versus 5.4%). This is a great sign, because this group in particular has been very under-represented in Economics.

A far less exciting trend concerning women in the major. The percentage of females in the major hovers around 39 to 40% both at the beginning and at the end of the 5-year period. Women are another group that has been historically underrepresented in the Economics profession (though that has been changing over time) so it is not surprising that men in the major outnumber women by a significant margin. But if one looks at CSUEB undergraduate student body as a whole, the women outnumber the men by a clear margin, so there are definitely lots of women on campus who could potentially be recruited to the Economics major, and the Department needs to do more in the way of outreach to try to encourage more women to try out Economics and possibly go for the major.

Reflections on Trends and Program Statistics:

The enrollment data do not show an increasing trend, and that is perhaps the primary challenge facing the program at this time. The focus of the last 5 years was replenishing the depleted faculty stock, and reconstructing the undergraduate program fundamentally, with an eye towards Q2S. A challenge is that while the program has become more quantitative, this can be a deterrent to some students. And the major is already not large. Ideally, the Department would like to see an increasing trend of growing enrollments over the next 5 years. Moreover, it is not just the number of students that is of interest ... the Department also would like to see the encouraging trends continue concerning the racial composition of the students (in particular, a continued increase in the percentage of majors who identify as Black/African American). The Department would also like to see an increase in the percentage of majors who are women.

B. Request for Resources (*suggested length of 1 page*)

1. Request for Tenure-Track Hires

The Department is not requesting any tenure-track hire (or any other resources) at this time. Some of the curricular changes that are forthcoming or intended are likely to create a need for new faculty, but such needs will not become clear until after conversion to semesters in 2018.

2. Request for Other Resources

No planned requests for other resources.