

INSTRUCTION PROGRAM REVIEW: SPRING 2013 SUBMISSION CYCLE

Program Name: Building Inspection
Faculty Contact: Lilya Vorobey

Academic Year: 2011-2012
Program Review Submission Date: March 2013

I. Description of Program

Provide a brief description of the program and how it supports the college's [College Mission and Diversity Statements](#), [Institutional Priorities, 2008-2013](#), [5 in 5 College Strategies, Spring 2011](#), and other [institutional planning documents](#) as appropriate.

The College of San Mateo Building Inspection program is for those new to and experienced in the field. As a graduate, students may qualify for certification as a building inspector or plans examiner at the residential and/or commercial level, depending upon experience and the number/type of State Building Inspector exams taken and passed. The curriculum covers various codes, plan review, inspection techniques, blueprint reading, plumbing as well as electrical inspection and construction materials. These courses are preparatory for taking the State exams for each specialty area – each specialty (e.g., electrical, plumbing, etc.) has its own State test/certification. Ours is the only dedicated Building Inspection Program in Northern California – although there are construction programs in other colleges that offer a few courses that provide some overview of the building code. This program is also a CSU and California University transferable program.

II. Summary of Student and Program Data

A. Student Learning Outcomes Assessment

Summarize recent SLO assessments, identify trends, and discuss areas in need of improvement.

Our program attempts to give students a real world assessment of detailed work experiences using the latest building codes. Providing students with access to classroom objectives for courses is limited with a reduction in course offerings.

All courses have SLOs and identified assessment methods. SLOs will be assessed and reported as the courses come up in rotation.

Student Success Indicators

1. Review [Student Success and Core Program Indicators](#) and discuss any differences in student success indicators across demographic variables. Also refer to the [College Index](#) and other relevant sections of the [Educational Master Plan: Update, 2012](#), e.g., Student Outcomes and Student Outcomes: Transfer. Basic Skills programs should also refer to [ARCC](#) data.

The curriculum in Building Inspection is rigorous as it is preparatory to passing the State of California Building Inspection examinations for a variety of certifications (e.g., plumbing, electrical, etc.). The student success measurements are reflective of the challenging coursework.

The demographics for this program reflect racial diversity with Asian students representing 12.0% - 18.9% of the enrollment over the last three years. Hispanic students constitute 14.6% - 18.0% of the enrollment between 2009-10 and 2011-12. White students were the

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majority (in line with their representation in the community) with 40.3% – 50.6% of the enrollment over the same three year period.

In addition, this program has predominantly male students – the female student population has been rising but remains small. Between 2009 and 2011 the female student enrollment was only 10.4%, 15.5% and 17.4% respectively. However, the instructors for BI are encouraged that the headcount for female students has maintained a slight upward trend during three years of struggle in the real estate industry (which drives the demand for BI services) while overall enrollment dipped.

Turning to the age related demographics, this program has a profile similar to that of other CTE programs that support a significant population of displaced workers, career changers or people upgrading their skills. This program attracts an older than average (for the college) student group with approximately 66.8% of the enrolled students are over 34 years old.

Turning to the Student Success Indicators the overall program numbers are encouraging. In the three academic years between 2009 and 2011, the success rate of students in the BI program was 77.2%, 77.2% and 84.2% respectively. Turning to the retention statistics, those have also been rising over the last three years with program results of 85.8%, 90.3% and 93.3% over the same three academic years.

Examining the success and retention statistics as related to the demographics reflects some mixed results. Asian students have achieved a steadily increasing level of success in this program with a three year record of 71.1%, 76.9 and 92.3% between 2009 and 2011. The retention rate for these same Asian students was 81.6%, 97.4% and 96.1%.

During that same period Hispanic students achieved a success record of 78.2%, 54.1% and 73.1% and a retention rate of 85.4%, 83.8% and 84.6%. These are somewhat below the program overall averages and the student success results for 2010 are puzzling to the instructors – they questioned the statistic and felt if accurate it was an anomaly.

The largest segment of students is white. In the three year period from 2009 to 2011, the success rate in this case was 76.6%, 88% and 86.7%. Retention measurements in this period were 84.8%, 95.2%, and 96.7% over the three years. These statistics reflect a student success level above that of the overall program and a retention rate that is slightly above the average.

The department has noted the very low enrollment level (not enough enrollment to provide a valid statistical measurement) for both Blacks and Pacific Islanders. Outreach to these populations will be under discussion in the Fall.

2. Discuss any differences in student success indicators across modes of delivery (on-campus versus distance education). Refer to [Delivery Mode Course Comparison](#).

The program is very traditional and does not offer a distance education option at this time.

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B. Program Efficiency Indicators. Do we deliver programs efficiently given our resources?

Summarize trends in program efficiency as indicated in the [Student Success and Core Program Indicators](#) (LOAD, Full-time and Part-Time FTEF, etc.).

The core indicators for student success and retention were discussed in detail above in Section II Part B. However as a summary statement we would again point out that in the latest year reported, 2011-12, the Building Inspection program was well above the college averages in student success (84.3%), retention (93.3%) and a withdraw rate of a mere 6.7%. There has been a marked improvement of these numbers over the past three years.

Turning to the Core Program indicators measuring the efficiency of the program, the Load statistics reflect the impact of an elongated recession that has been particularly hard on all real estate related employment. Load in the BI program for the three years from 2009 to 2011 was 427.8, 542 and 485.3 respectively. The 542 load in 2010 seems to be an anomaly and we recommend that the loads of 427.8 and 485.3 be accepted of the trend toward improved efficiency. The BI jobs in Northern California were severely restricted during the depths of the recession due to the lack of building starts. The need for inspectors is driven by construction and that was the hardest hit industry in the credit crisis. The drop in enrollment validates this decrease in employment opportunities. In the three years reported headcount in enrollment has been 316, 206 and 178.

There are only adjuncts teaching in this program and with the compression of the program down to only 3 – 4 courses per semester adjunct FTEF has dropped from 2.4 in 2009 to 1.2. It has been recently reported in the news that some communities have recently experienced a large increase in the number of building permits being issued. As this activity increases demand for these courses will also increase.

This is an evening only program taught by senior building officials from the local city and county building departments. Many of the building inspectors in the Bay Area are graduates of this program and it is highly regarded within the real estate industry.

C. Course Outline Updates

Review the [course outline update record](#). List the courses that will be updated in the next academic year. For each course that will be updated, provide a faculty contact and the planned submission month. See the [Committee on Instruction website](#) for [course submission instructions](#). Contact your division's [COI representatives](#) if you have questions about submission deadlines. Career and Technical Education courses must be updated every two years.

The State of California re-wrote the Building Code to include all the "green" technology about 24 months ago. As the regulations and rules have been finalized, the courses have been updated.

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Courses to be updated	Faculty contact	Submission month
All BLDG. courses	Lilya Vorobey	November 2014

D. Website Review

Review the program's website(s) annually and update as needed.

Faculty contact(s)	Date of next review/update
Lilya Vorobey	November 2014

E. Additional Career Technical Education Data – CTE programs only. (This information is required by California Ed. Code 78016.)

1. Review the program's [Gainful Employment Disclosure Data](#), [External Community](#), and other institutional research or labor market data as applicable. Explain how the program meets a documented labor market demand without unnecessary duplication of other training programs in the area. Summarize student outcomes in terms of degrees, certificates, and employment. Identify areas of accomplishment and areas of concern.

Graduates of this program are qualified for positions as building inspectors and code enforcement officials with municipal governments, national and state agencies, and private firms. This is an "evening only" program taught by senior building inspectors from the surrounding cities within San Mateo and San Francisco Counties. The data in the Gainful Employment Disclosure website reflects only four graduates for 2009-10. However, most of the students in the program are at least part time employed and over 35 years old. A higher percentage of these students are full time employed than is the average for the college.

Jobs in this field are expected to grow up to 18 percent by 2016, according to the U.S. Occupational Outlook Handbook. Data from Economic Modeling Systems International projects that in the immediate Bay Area there will be an average of 98 job openings per year between 2009 and 2015.

2. Review and update the program's Advisory Committee information. Provide the date of most recent advisory committee meeting.

This program benefits from two Advisory Councils. They have one (traditional Council) made up of local building officials and people in the construction industry. The second Advisory Council is comprised of senior members of the Peninsula Chapter of the International Code Council which is part of the network of professionals that interpret, edit and write the national code for building standards. This Advisory Council provides input on employment trends and scholarships for BI students. The traditional Council last met in November 2012 and the ICC Advisory Council met in December 2012.

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III. Student Learning Outcomes Scheduling and Alignment

A. Course SLO Assessment

Explain any recent or projected modifications to the course SLO assessment process or schedule.

The BI courses all have SLOs in place. The assessment process has been slower in development as the adjunct instructors only teach certain courses and those are on rotation. A particular course may not be offered more than once every fourth semester. In addition all the courses are being revised for updating as the new green and sustainability portions of California Building Code are integrated into the curriculum. Updated course outlines are expected in 2013-14.

B. Program SLO Assessment

Explain any recent or projected modifications to the program SLO assessment process or schedule.

Most of the SLOs have not been assessed and there is still a need to develop SLOs for the certificates and the overall program. Faculty will be working on these items during the summer.

C. SLO Alignment

Discuss how Course SLOs support Program SLOs. Discuss how Course and/or Program SLOs support Institutional/GE SLOs. Refer to [TracDat](#) related Program and Institutional SLO reports.

Please see above. This will be amended at the end of summer 2013.

IV. Additional Factors

Discuss additional factors as applicable that impact the program, including changes in student populations, state-wide initiatives, transfer requirements, advisory committee recommendations, legal mandates, workforce development and employment opportunities, community needs. See [Institutional Research](#) as needed.

Jobs for building inspectors or plans examiners at the residential and/or commercial level are expected to grow as construction in the Bay Area increases. This is a non-transfer program (although courses are eligible for CSU credit as electives). Referencing the data in Section II Part F, the data from EMSI indicates that there will be a steady demand for building inspectors in the immediate Bay Area – averaging 98 openings per year. CSM has the only full Building Inspection program in Northern California and cannot produce enough graduates to meet this demand.

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V. Institutional Planning

A. Results of Plans and Actions

Describe results, including measurable outcomes, from plans and actions in recent program reviews.

The last Building Inspection Program Review was conducted several years ago. The environment and teaching staff have been relatively stable for the last five years. The major impact to this program was the Program Viability and Improvement process that the department focused on for the last two years.

Although the program survived the PIV process it was altered in significant ways. Where the program had historically offered 8 -9 courses per semester, it was compressed to only three courses. This has elongated the time to completion to approximately six semesters. This happened simultaneously with the downward acceleration of the recession. There have been numerous student complaints to the Dean regarding the lack of availability of courses due to the elongated rotation schedule.

The result is a planned realignment of the entire program. The first courses that will start the new certificates and degrees have been submitted to the Committee on Instruction for approval. It is expected that the new certificates will be submitted shortly and a planned submission for a realigned degree will come in the Fall.

B. Program Vision

What is the program's vision for sustaining and improving student learning and success during the *next six years*? Make connections to the [College Mission and Diversity Statements](#), [Institutional Priorities, 2008-2013](#), and other [institutional planning documents](#) as appropriate. Address trends in the SLO assessment results and student success indicators and data noted in Section II. Summary of Student and Program Data.

[*Note*: CTE programs must address changes in the context of completion and employment rates, anticipated labor demand, and any overlap with similar programs in the area as noted in Sections II.F.1 and II.F.2.]

[*Note*: Specific plans to be implemented in the *next year* should be entered in Section V.C.]

Once the program is realigned to create "stackable" credentials" and move students into the workforce more expeditiously, marketing the program to the community is of utmost importance. There will be a need to educated the city/county building departments of the increased value our curriculum. Subsequently we will need to fill classes, increase class offerings per semester and thereby demonstrate the value of these changes. Course content complies with local industry standards and includes recommendations from the Advisory Committee.

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1. To guide future faculty and staff development initiatives, describe the professional enrichment activities that would be most effective in carrying out the program's vision to improve student learning and success.

Instructors are required by the state to stay current with governing codes. In addition, we encourage all instructors to participate in the Peninsula Chapter of the International Code Council. This is a nationally recognized professional association that works to improve building codes within the International level. The local chapter of the IBC is an additional advisory committee for the department.

2. To guide future collaboration across student services, learning support centers, and instructional programs, describe the interactions that would help the program to improve student success.

The first collaborative work completed for the BI program was a joint effort with the Electronics Dept. The Certificate of Achievement for Fundamentals of Smart Building Systems is a 15 unit certificate that includes the Introduction to the Building Code and the course in Blueprint Reading for Construction. Additional work is planned to create a Certificate of Achievement that would build on this CA curriculum to delve into more advanced building code and electronics material.

3. To guide the [Institutional Planning Committee](#) (IPC) in long-range planning, discuss any major changes in resource needs anticipated in the *next six years*. Examples: faculty retirements, equipment obsolescence, space allocation. Leave sections blank if no major changes are anticipated. Specific resource requests for the next academic year should be itemized in Section VI.A below.

Faculty: The Building Inspection program has been supported only by adjunct faculty. As the program grows, a fulltime faculty member who is knowledgeable about construction (and could be shared with another department) would be valuable in assisting with program review, marketing, etc. Because the building inspection program already has links to our electronics department, it might be possible to share a fulltime instructor with electronics.

Equipment and Technology: 4T

Instructional Materials: 4T

Classified Staff: 4T

Facilities: 4T

C. *Plans and Actions to Improve Student Success*

Prioritize the plans to be carried out next year to sustain and improve student success. Briefly describe each plan and how it supports the [Institutional Priorities, 2008-2013](#). For each plan, list actions and measurable outcomes.

Plan 1

Title: _____

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Curriculum Redesign

Description

Create smaller, updated stackable credentials that will move students into the workforce faster

Action(s)	Completion Date	Measurable Outcome(s)
Create new curriculum that is updated to support the changes in sustainability and green technology entering the construction industry	Spring 2014	Establish one Certificate of Specialization; one Certificate of Achievement; design an advanced certificate (size unknown) for building inspectors wanting to advance

Plan 2

Title:

Marketing

Description

Provide flyers, posters to aid in publicizing the program to the community.

Action(s)	Completion Date	Measurable Outcome(s)
Meet with marketing department	Fall 2013	Higher student enrollment will increase number of course offerings.

[Note: Itemize in Section VI.A. Any additional resources required to implement plans.]

VI. Resource Requests

A. *Itemized Resource Requests*

List the resources needed for ongoing program operation and to implement the plans listed above.

Faculty

Full-time faculty requests (identify specialty if applicable)	Number of positions
One-half fulltime faculty, shared with the electronics department	.5

Complete [Full-Time Faculty Position Request Form](#) for each position.

Description of reassigned or hourly time for prioritized plans	Plan #(s)	Cost

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Equipment and Technology

Description (for ongoing program operation)	Cost

Description (for prioritized plans)	Plan # #(s)	Cost

Instructional Materials

Description (for ongoing program operation)	Cost

Description (for prioritized plans)	Plan # #(s)	Cost

Classified Staff

Description (for ongoing program operation)	Cost

Description (for prioritized plans)	Plan # #(s)	Cost

Facilities

For immediate or routine facilities requests, submit a [CSM Facility Project Request Form](#).

Description (for prioritized plans)	Plan # #(s)	Cost

Use the resources costs from Section VI.A. above to provide the total cost for each plan.

Plan #	Plan Title	Total Cost
1		
2		
	For additional plans, add rows and number accordingly.	