Honolulu Community College
Comprehensive Program Review Report

Occupational & Environmental Safety Management
Assessment Period: Academic Year 2006-2010

Honolulu Community College’s mission is to

Serve the community as an affordable, flexible, learning-centered, open-door comprehensive community college that meets the post-secondary educational needs of individuals, businesses, and the community, and,

Serve the Pacific Region as the primary technical training center in areas such as transportation, information technology, education, communications, construction, and public and personal services.

The OESM Program’s mission is to

Provide the community with affordable, flexible, and up-to-date training on occupational and environmental safety and health.

Promote workplace health & safety and environmental protection through education and training.

Program Description and Goals

The OESM Program is the only academic occupational/environmental safety training program within the University of Hawaii System. Besides an Associate Degree, the program offers a Certificate of Achievement and non-credit training.

The Program is designed to provide practical training on occupational/environmental safety and health through knowledge-based and hands-on learning experiences. Its curriculum offers a broad background on safety and health program administration, workplace hazard recognition/evaluation/control, workers’ compensation principles, hazardous chemical risk assessment, and environmental management. All OESM classes are offered in the evening or on Saturdays to accommodate career-minded working individuals.

The goals of the Program are:

To prepare students with foundation knowledge and competencies to succeed as occupational/environmental safety professionals;

To provide students with opportunities to gain on-the-job experience through Cooperative Education;

To instill in students professional ethics critical for the safety and health field; and,

To assist students with professional networking opportunities.
Graduates from the OESM program are qualified to work as occupational safety and health inspectors, safety officers, and environmental technicians in governmental agencies, academic institutions, health care industry, environmental consultant firms, construction companies, insurance companies, and other types of private industries. Job placement opportunities are announced throughout the year.

The cost of supplies and textbooks is approximately $200-$500 per semester, depending on the number of classes enrolled.

Program SLOs

Upon graduation, students will demonstrate an ability to:

- Recognize and evaluate workplace and environmental hazards;
- Recommend control measures and accident prevention strategies;
- Identify and apply appropriate OSHA/HIOSH and EPA regulatory requirements;
- Analyze proximate and root causes of work-related accidents;
- Develop a written accident prevention and safety management program;
- Conduct training and presentations on occupational/environmental safety & health topics;
- Exercise choices, explain reasons for choices, and analyze potential consequences when dealing with ethical dilemmas concerning health and safety professionals; and,
- Demonstrate necessary knowledge and skills for employment in the field of occupational and environmental safety and health.

Program Data

Measures of SLOs:

Standardized test

[ ] Locally produced test

- Portfolios
- Artifacts
- Final project based on real-life experience
- Capstone experience/course
- Survey
- Focus group

[ ] Other: Class projects, exercises, written reports, and class presentations.
Examples: develop site-specific safety inspection checklists; conduct safety surveys of actual workplaces; investigate accidents and analyze for root causes; plan and
conduct environmental monitoring of actual workplaces; select, use, and maintain personal protective equipment; prepare a response plan and conduct a response to a mock chemical incident; develop a site-specific written safety program in compliance with OSHA/NIOSH requirements; conduct hazard analyses; identify and analyze hazards, and recommend control measures; conduct training and oral presentations; and, participate in facilitated class discussions.

**Assessment Results:**

<table>
<thead>
<tr>
<th>Program SLO assessed</th>
<th>Method of assessing</th>
<th>Outcome¹</th>
<th>Changes made as a result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize and evaluate workplace and environmental hazards</td>
<td>Successful completion of locally produced tests.</td>
<td>Satisfactory</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conducting workplace inspections to identify hazards and recommend control measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Planning and conducting industrial hygiene sampling to assess environmental hazards and recommend control methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend control measures and accident prevention strategies</td>
<td>Successful completion of locally produced tests.</td>
<td>Satisfactory</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Identify and apply appropriate OSHA/NIOSH and EPA regulatory requirements</td>
<td>Successful completion of locally produced tests.</td>
<td>Satisfactory</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conducting workplace inspections to identify hazards and recommend control measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correctly applying the HIOSH/EPA standards to the scenarios given by the instructor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Outcomes of assessments are considered “satisfactory” when students can accurately and successfully complete the assigned tasks meeting professional standards as widely practiced in the workplace.
**Assessment Results (continued):**

<table>
<thead>
<tr>
<th>Program SLO assessed</th>
<th>Method of assessing</th>
<th>Outcome(^1)</th>
<th>Changes made as a result</th>
</tr>
</thead>
</table>
| Analyze proximate and root causes of a work-related accident | Successful completion of locally produced tests.  
Identifying root causes of the accidents based on scenarios discussed during class exercises  
Conducting a mock accident investigation to identify proximate and root causes and to recommend preventive measures. | Satisfactory | None                      |
| Develop a written accident prevention and safety management program | Development of a written safety and health program in compliance with regulatory standards  
Preparation of an implementation plan for the written safety program that includes accountability, objectives, time line, and evaluation methods. | Satisfactory | None                      |
| Conduct training and presentations on occupational/environmental safety & health topics | Development of a training plan that includes needs assessment, training topics, learning objectives, lesson planning, and student evaluation.  
Conducting training | Satisfactory | None                      |
| Exercise choices, explain reasons for choices, and analyze for potential consequences when dealing with ethical dilemmas concerning health and safety professionals | Successful completion of locally produced tests.  
Reviewing professional codes of ethics available on the Internet and applying the Codes to given scenarios.  
Identifying potential ethical issues, developing options of actions, identifying potential consequences for each action, and exercising choices based on given scenarios | Satisfactory | None                      |
| Demonstrate necessary knowledge and skills for employment in the field of occupational and environmental safety and health | Conducting employer satisfaction surveys  
Conducting surveys of students and alumni currently employed in the safety and health field. | Unable to conduct surveys of students, alumni, and employers due to lack of resources.                                                                 |               |                          |

\(^1\) Outcomes of assessments are considered “satisfactory” when students can accurately and successfully complete the assigned tasks meeting professional standards as widely practiced in the workplace.
**Measures of Effectiveness:**

Ms. Chulee Grove, a full-time faculty member, acts as the OESM Program Liaison. However, her responsibilities also include coordinating health and safety activities and teaching two OESM classes each semester. As part of the job description, the College requires that about 50% of her duties be concentrated on improving the College’s occupational health and safety compliance.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of OESM majors enrolled in at least one program course²</td>
</tr>
<tr>
<td>Fall 2006</td>
</tr>
<tr>
<td>53</td>
</tr>
</tbody>
</table>

² Majors who completely withdrew but counted for census removed from tally

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unduplicated Degrees and Certificates</td>
</tr>
<tr>
<td>Fiscal Year 2007 - 2011</td>
</tr>
<tr>
<td>2007</td>
</tr>
<tr>
<td>9</td>
</tr>
</tbody>
</table>

Based on the student surveys conducted by OESM instructors at the beginning of each semester, majority of the OESM students are employed full-time and attending school on a part-time basis. Many do not register continuously, skipping up to a few years before returning due to work scheduling and family responsibilities.

No official surveys have been conducted to identify reasons for low rates of degree and certificate awards. However, based on informal communications with student and alumni, these are some possible reasons:

- Since most OESM students register for two or three classes each semester, it could take four to five years to graduate with an associate degree. Students’ priorities could have easily changed during these years including obtaining an employment in the safety and health field.
- About 30% of the students are fully-employed safety professionals. These students take a few selected classes to improve certain professional skills. They do not intend to earn either a certificate or degree.
- Certain OESM majors are full-time employees who are exploring new careers. Some choose not to continue with the degree since the OESM field does not fit their needs.

In order to validate these reasons, a College-supported systematic survey of OESM students and alumni is needed to determine their reasons for not continuing, students’ educational objectives, and average time taken to meet the objectives.
In addition, the following data are needed to allow a more comprehensive analysis of program effectiveness:

- Attainment of educational objective
- Placement in employment or further education
- Performance at a transfer institution
- Retention in employment

**Demand:**

The College requires that “Demand” be analyzed based on these data:

- Current and projected number of positions in the state workforce.
- Number of Majors
- SSHs taught/number of student FTEs

Since only the “Number of Majors” and “SSHs taught” data have been provided, it is not possible to complete this section of the report. Information on Hawaii safety job demand and the number of student FTEs has not been provided.

Nationally, the National Institute for Occupational Safety and Health (NIOSH) has predicted a shortage of trained safety professionals during the next five years.

"Although employers plan to hire at least 25,000 occupational safety and health professionals over the next five years, only about 12,000 new graduates are expected to be available from the academic programs that provide the needed pool of expertise nationally."  

**Measures of Efficiency:**

The College requires that the following data be used to evaluate efficiency:

- Number of FTE faculty
- Faculty to student ratio
- No. of courses offered
- Course fill rate/ average class size/percentage of low-enrolled classes taught
- Retention from 1st to 2nd year
- Average time to completion of degree
- Budget allocation
- Cost of program:
  - Faculty
  - Lecturers
  - Student Assistants
  - Equipment
  - Supplies
  - Cost per SSH
However, none of the above data has been provided except the number of courses offered, course fill rate, average class size, and retention.

In order to complete this section, the missing data as well as results of satisfaction surveys of OESM students/alumni and employers are needed.

<table>
<thead>
<tr>
<th>Number of Classes&lt;sup&gt;3&lt;/sup&gt;</th>
<th>7</th>
<th>6</th>
<th>8</th>
<th>6</th>
<th>12&lt;sup&gt;5&lt;/sup&gt;</th>
<th>6</th>
<th>13&lt;sup&gt;3&lt;/sup&gt;</th>
<th>6</th>
<th>12&lt;sup&gt;5&lt;/sup&gt;</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Class Size&lt;sup&gt;4&lt;/sup&gt;</td>
<td>15.9</td>
<td>15.7</td>
<td>14.8</td>
<td>15.5</td>
<td>18.8</td>
<td>18.0</td>
<td>20.5</td>
<td>20.5</td>
<td>20.8</td>
<td>21.0</td>
</tr>
<tr>
<td>Fill Rate&lt;sup&gt;4&lt;/sup&gt;</td>
<td>54%</td>
<td>52%</td>
<td>52%</td>
<td>56%</td>
<td>66%</td>
<td>68%</td>
<td>71%</td>
<td>72%</td>
<td>76%</td>
<td>76%</td>
</tr>
<tr>
<td>Student Semester Hours&lt;sup&gt;4&lt;/sup&gt;</td>
<td>339</td>
<td>305</td>
<td>366</td>
<td>288</td>
<td>692</td>
<td>327</td>
<td>798</td>
<td>372</td>
<td>763</td>
<td>381</td>
</tr>
</tbody>
</table>

<sup>3</sup> Excluding Co-op and Directed Studies courses, excluding SOCAD terms

<sup>4</sup> Excluding Co-op and Directed Studies courses, excluding SOCAD terms, 'W' grades removed

<sup>5</sup> Including additional sessions of OESM 101 offered for the students attending the Apprenticeship Program at the Pearl Harbor Naval Shipyard. OESM 101 is no longer required by the Apprenticeship Program, starting January 2012.

Average class sizes as well as fill rates (Table 3) have grown during the past five years as a result of growing enrollments. Student semester hours (SSHs) surged in the Fall semesters due to additional OESM 101 sections offered at the Pearl Harbor Apprenticeship Program. However, the Apprenticeships are not OESM majors. Starting in the Fall 2012, OESM 101 will no longer be offered for the Apprenticeship students, so the future SSH figures should reflect a more realistic enrollment picture for the OESM program.

<table>
<thead>
<tr>
<th>Table 4 Persistence Rate (%)</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>Fall 2008</th>
<th>Fall 2009</th>
<th>Fall 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2006</td>
<td>60</td>
<td>70</td>
<td>62</td>
<td>61</td>
<td>71</td>
</tr>
</tbody>
</table>

<sup>6</sup> Using majors as defined in Table 1, accounting for completers in the Fall semester

Persistence rates (Table 4) have ranged between 60%-70%. A college-supported survey can help determine reasons for student attrition and results can be used to improve the persistence rates.
Advisory Committee members and meeting schedule:

Members:
- Jim Beavers  President, Jim Beavers, LLC
- Nira Cooray  Principal, Principal, Apex Environmental Safety & Health, Inc
- Harlan Hashimoto  Environment & Safety Manager, Hawaiian Telcom
- Tracy Lawson  Principal, Lawson & Associates
- Rusty Niau  Vice President of Human Resources, Grace Pacific Corporation
- John Ramos  Safety & Health Manager, Su-Mo Builders, Inc.
- Jennifer Shishido  Former Administrator (retired), Hawaii Occupational Safety & Health

Meetings of the Advisory Committee were held during the following semesters:
- Fall 2007
- Spring 2009
- Fall 2011
- Next meeting planned: Fall 2012

In addition to the meetings, Ms Grove keep regular contacts with members of the Advisory Committee through professional activities and electronic communications. Most of the Advisory Committee’s members also support the OESM Program as guest speakers, internship hosts, mentors, and as potential employers.

Curriculum Revision:

No curricular changes were implemented during the review period.
Course Assessment:

Student learning outcomes (SLOs) for each OESM class are available online through the College’s website (http://www2.honolulu.hawaii.edu/?q=courses&alpha=OESM). Various methods are used to ensure that students meet the designated SLOs.

<table>
<thead>
<tr>
<th>Course SLO assessed</th>
<th>Method of assessing</th>
<th>Outcome</th>
<th>Changes made as a result</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Successful completion of locally produced tests. Class exercises and discussions Individual and group projects designed to evaluate students’ ability to apply knowledge, exercise analytical skill, and demonstrate specific competencies as required for each study subject.</td>
<td>Satisfactory</td>
<td>None</td>
</tr>
</tbody>
</table>

ANALYSIS

1. *Is the program mission aligned with the campus mission?*

   Yes. The OESM Program’s mission runs parallel with that of the College in terms of providing affordable technical training that meets the community’s needs.

2. *Are the goals and SLOs current, relevant, and appropriate to our community’s needs?*

   Yes. The Program’s goals and SLOs have been reviewed by the OESM advisory committee and the OESM lecturers. They reflect comments and suggestions from these constituencies. The committee members and lecturers are practicing health and safety professionals and represent potential employers in the local employment market.

3. *Who are the students enrolling in this program?*

   The majority of OESM majors are full-time working adults who register for one to three classes each semester. About thirty percent of the students are fully employed safety professionals and the rest is returning to school to pursue a new career in the safety and health field.

   Actual data on the OESM student population have not been provided by the College.

   *Are the educational services provided by this program sufficient to meet the students’ needs?*

   Yes. The classes are offered either in the evening or on Saturdays to accommodate the majority of students who are employed full-time. Students attend the OESM program for professional development or to gain competencies for future employment in health and
safety. Since the health and safety field is regulatory driven, all OESM classes follow regulatory requirements. Classes focus on hands-on and practical learning to allow students to develop safety and health skills required by employers. These skills include identification and evaluation of workplace and environmental hazards, determination of appropriate hazard control methods, safety program development, knowledge of OSHA and EPA regulations, analysis of hazardous conditions and accidents, safety & health training, etc. SLOs for each class are designed to evaluate students’ competencies based on these skills.

Are the support services provided by the college sufficient to meet the students’ needs?

Yes. Services for evening students have been improving. For example, the library, bookstore, computer lab, cafeteria, and business office have the evening office hours to accommodate evening students. Evening lighting of the main campus has been improved and evening security services have become more proactive and visible.

4. How well are the students progressing through the program?

The majority of students are able to perform well, despite their work and personal responsibilities. Prerequisites and “recommended preparation”, including science and general education classes, allow students to build up foundation knowledge prior to taking higher level classes.

Various evaluation techniques, in addition to the traditional written tests, allow students to develop the safety and health competencies as required in the workplace.

5. Are the SLO measures providing adequate information to evaluate student learning or should new measures be adopted?

Yes the current SLO measures are adequate. The current course SLOs have been developed by instructors who are practicing safety and health professionals. They follow regulatory requirements and the industry’s best practices.

6. Are they learning all the SLOs set for them?

Yes. The majority of students have demonstrated that they are able to master the required competencies as stated in each class’ SLOs. Class/field exercises and written tests are major methods used to assess students’ competencies. Additional course assessment methods will be used in the future to document students’ learning.

Do the employers agree?

No formal employers’ surveys have been conducted. However, informal feedbacks from employers have been positive. These are examples of organizations that have employed multiple OESM graduates/alumni: DCK Worldwide, Hawaiian Dredging, Healy Tibbitt Construction, Marisco, Swinerton, Delta Construction, Goodfellow Brothers, Bureau Veritas, A.C. Kobayashi Construction, HEMIC Insurance, Island Insurance, First Insurance, Keiser Permanente, US Navy, US Army, US Airforce, Hawaii Marine Cleaning, BEI Environmental, Young Brothers, Actus Lend Lease, the Gas Company, The Bus, Hawaiian

Do transfer statistics agree?
Data on transferred students are not available.

7. Does the program have sufficient resources to promote student learning?

Resources remain limited due to the economic situation. However, the level of funding has improved significantly during the past few years. The College has systematically used the information from the program review process to prioritize needs and allocate budget accordingly.

Physical Resources:
Since the previous five-year comprehensive review, additional funding has been provided to acquire monitoring instruments, safety supplies as well as computers and audio visual equipment. Although physical resources are currently adequate, budgetary support remains a concern since the equipment need to be replaced every 5-7 years.

Personnel Resources:
Besides teaching and managing the OESM Program, the Program Liaison is the College’s Health and Safety Coordinator. She teaches two classes each semester while managing the Program. The College does not allow assigned time for any program management activities. These activities include scheduling and staffing OESM classes; selecting appropriate textbooks; facilitating lecturers’ and students’ instructional needs; acquiring appropriate instruments and equipment; maintaining, repairing and calibrating equipment; keeping inventory of equipment; ensuring that curriculum is up-to-date and follows regulatory requirements; assisting students with academic planning; keeping visible and being active in the business and professional community; advising the OESM student club; tracking and announcing employment opportunities to students and alumni; assisting students with job placement; regularly communicating with students and alumni; and preparing program review reports. The College should consider granting at least a 3-credit assigned time to faculty members managing a one-person program.

The College is striving to provide a safe and healthful learning environment in compliance with the Hawaii Occupational Safety and Health’s requirements. At least one full-time safety officer is needed to administer the safety program. Recognizing this importance, the College has included two full-time occupational/environmental safety positions in its Strategic Plan (listed on the following page). The College should consider hiring a full-time safety officer as a high priority.
Honolulu Community College’s Strategic Plan, 2008-2015

<table>
<thead>
<tr>
<th>Activity</th>
<th>Develop and implement a workplace safety management system to comply with HIOSH/OSHA regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>Administration, Academic Programs, Faculty, Staff</td>
</tr>
<tr>
<td>Activity Dates</td>
<td>2002-2009</td>
</tr>
</tbody>
</table>
| Cost | • 1 APT position APT # 27  
• Provide assigned time to faculty and staff members representing their academic units as the designated Safety Liaison |
| Relationship to HonCC Mission and Goals | Serve the community as a comprehensive community college |
| Justification | • Need to provide safe environment.  
• The success of HCC’s Health and Safety Program relies partly on the designated Safety Liaisons. Assigned time will allow the Safety Liaisons to effectively perform their duties, as listed in HonCC’s Health and Safety Program (October 2005). It will also demonstrate the College’s committeemen to providing a safe and healthful learning |
| Possible Consequences if not met | Safe environment may not be provided |

Are resources used efficiently?

Yes. Instruments and training tools are shared among several classes. Many of them are purchased at educational discounted prices. When possible, equipment is borrowed from safety vendors at no cost. Lecturers lend or donate equipment when circumstances allow.

As much as possible, instruments are calibrated, maintained, and repaired by Ms Grove instead of manufacturing calibration. Regular inventory allows efficient use and just-on-time purchase.

8. Are facilities adequate for the program’s needs?

No. The classroom, Bldg 5 Room 204, is too small for certain class exercises such as accident investigations, environmental monitoring, and chemical emergency responses. The storage room, connected to 5/204, is not large enough to store instruments and equipment used for hands-on training. Part of the classroom is being used for storage, further limiting the space needed for instructional activities.
9. Are all safety issues addressed?

Yes. There are minimal hazards associated with instruction. No hazardous chemicals or machinery are used in class. Most hazards are associated with the physical facilities, which have been improved significantly during the past few years. Students are not allowed to use equipment that might pose a health hazard (e.g. self-contained breathing apparatus) without proper training. Students are allowed to use the equipment only when the instructor is present.

10. Has the program addressed any prior recommendations made by ACCJC and/or advisory committees?

There were no prior recommendations made by the ACCJC regarding the OESM Program.

11. What are the program’s strengths and where does it need improvement?

Strengths:

• The OESM curriculum meets the current needs of the employment market. Most OESM graduates/alumni are able to find and maintain employment in the field.
• Classes are offered in the evening and on Saturdays, allowing full-time employees to attend classes.
• Instructors are practicing safety professional, thus bringing with them a wealth of practical and up-to-date knowledge.
• The OESM Program consists of a tightly-knitted group of students and alumni. They stay in touch and assist each other in finding jobs.

Weaknesses:

• Low retention and graduation rates.

12. What challenges and opportunities exist for this program?

Opportunities:

• Acquiring state and federal grants to provide non-credit safety classes for small businesses.
• Taking the opportunity to increase the Program’s visibility through various professional activities.
• Offering classes that address other job aspects of safety professional such as emergency management, security, etc.

Challenges:

• Balancing instructional and safety responsibilities while seeking extramural funding opportunities.
• Obtaining adequate resources to acquire and maintain up-to-date equipment.
• Improving graduation rates, retention rates and student recruitment.
• Tracking students’ and alumni professional success and obtaining information on employers’ satisfaction.
PLANNING

1. What are the department’s plans for strengthening this program?

- Seeking assistance from the College to identify causes for low retention and graduation rates. This could be done through surveys and other means to obtain information from students and alumni.
- Seeking assistance from the College to conduct regular employers’ satisfaction surveys. Results can be used to revise the OESM curriculum that meets the needs of the professional and business communities.
- Convincing the College that qualified full-time health & safety professionals are needed to manage the College’s health, safety, environment, and emergency preparedness programs.

2. What resources are needed: personnel, facilities, finances?

Personnel:

- At least one full-time safety professional to manage the College’s health, safety, environment, and emergency preparedness programs.
- At least three-credits of assigned time for program management activities.

Facilities:

- Larger classroom and storage spaces

Finances:

- Budget specifically allocated for monitoring instruments and safety equipment necessary for classroom and practical instruction.

2. Is there a sequence for making the changes? What are the time lines?

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>ITEM</th>
<th>TIME LINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Finance</em>: Budget specifically allocated for monitoring instruments and safety equipment necessary for classroom and practical instruction.</td>
<td>On-going</td>
</tr>
<tr>
<td>2</td>
<td><em>Personnel</em>: At least three-credits of assigned time for program management activities.</td>
<td>As soon as feasible</td>
</tr>
<tr>
<td>3</td>
<td><em>Personnel</em>: One full-time safety officer to manage the College’s Health &amp; Safety Program.</td>
<td>As soon as feasible</td>
</tr>
<tr>
<td>4</td>
<td><em>Facilities</em>: Larger classroom and storage</td>
<td>As soon as feasible</td>
</tr>
</tbody>
</table>
4. **What other departments of the institution need to be involved in the plan?**

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>OTHER DEPARTMENTS INVOLVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct surveys of students and leavers to identify causes for low retention and graduation rates</td>
<td>Management Information and Research; Institutional Research; Admissions and Counseling</td>
</tr>
<tr>
<td>Conduct employer’s satisfaction surveys to ensure that the OESM curriculum meets the needs in the community and the OESM students/graduates are well-prepared for employment.</td>
<td>Management Information and Research</td>
</tr>
</tbody>
</table>

5. **What changes must the institution make in the short and long term to address this plan?**

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>ITEM</th>
<th>TIME LINE</th>
</tr>
</thead>
<tbody>
<tr>
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<td>On-going</td>
</tr>
<tr>
<td>2</td>
<td><strong>Personnel:</strong> At least three-credits of assigned time for program management activities.</td>
<td>As soon as feasible</td>
</tr>
<tr>
<td>3</td>
<td><strong>Personnel:</strong> One full-time safety officer to manage the College’s Health &amp; Safety Program.</td>
<td>As soon as feasible</td>
</tr>
<tr>
<td>4</td>
<td><strong>Facilities:</strong> Larger classroom and storage</td>
<td>As soon as feasible</td>
</tr>
</tbody>
</table>

6. **Who will be responsible for carrying out the plan?**

The OESM Program Liaison and other HCC personnel depending on the activities. For details, please refer to the answers to Item # 4 and the “Action Plan” at the end of this report.

7. **What is the short-term budgetary impact of this plan? What is the long-term budgetary impact?**

**Short-term.**

- Continue the current level (AY 2011) of funding during the next twelve months.
- Grant three-credit assigned time for the program coordinating activities, approximately 20% of the Program Liaison’s salary.
Long-term.

- **Equipment:** Approximately $80,000, prorated for a seven-year period, should be allocated for instruments and equipment.
- **Facilities:** Uncertain. Larger spaces are needed for classroom and equipment storage.
- **Personnel:** Approximately $60,000 annual salary for a full-time safety officer, plus fringe benefits.

**ACTION PLAN**

<table>
<thead>
<tr>
<th>TASKS</th>
<th>PERSON(S) RESPONSIBLE</th>
<th>DEADLINE FOR COMPLETION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop and conduct surveys of OESM students and alumni</td>
<td>Not sure. Administration must identify personnel.</td>
<td>As soon as possible.</td>
</tr>
<tr>
<td>2. Develop and conduct employer’s satisfaction survey.</td>
<td>Not sure. Administration must identify personnel.</td>
<td>As soon as possible.</td>
</tr>
<tr>
<td>3. Provide assigned time to faculty and staff members representing</td>
<td>Administration</td>
<td>As soon as feasible.</td>
</tr>
<tr>
<td>their academic units as the designated Safety Liaison.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Add a full-time APT position for the College’s health and safety</td>
<td>Administration</td>
<td>As soon as feasible.</td>
</tr>
<tr>
<td>manager.</td>
<td></td>
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</tr>
</tbody>
</table>

Prepared by:
Chulee C. Grove  
Professor  
OESM Program  
May 8, 2012