Additional Data

As reflected in available data for the 04/05 academic year, the department awarded a total of 4 degrees.

Student Persistence within the subject code OESM from Fall 2004 to Spring 2005 was 54.4%; persistence of majors in the same period (whether enrolled in department courses or not) was 66.7%.

Review of department major’s performance on the Perkins Core Indicators indicates.....

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1P1</th>
<th>1P2</th>
<th>2P1</th>
<th>3P1</th>
<th>3P2</th>
<th>4P1</th>
<th>4P2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2003-2004 Core Standard</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>81.56%</td>
<td>91.53%</td>
<td>35.7%</td>
<td>70.52%</td>
<td>90.13%</td>
<td>15.94%</td>
<td>14.34%</td>
</tr>
<tr>
<td>OESM Actual Performance 03/04</td>
<td>70.59%</td>
<td>100%</td>
<td>21.05%</td>
<td>0%</td>
<td>n/a</td>
<td>37.04%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>2004-2005 Core Standard</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>81.81%</td>
<td>90.00%</td>
<td>36.00%</td>
<td>71.00%</td>
<td>90.00%</td>
<td>14.18%</td>
<td>12.86%</td>
</tr>
<tr>
<td>OESM Actual Performance 04/05</td>
<td>84.21%</td>
<td>95.00%</td>
<td>20.00%</td>
<td>75.00%</td>
<td>100%</td>
<td>32.79%</td>
<td>25.00%</td>
</tr>
</tbody>
</table>

OVERALL

Department demand for the 04/05 academic year was calculated at 1.1, which translates to an unhealthy (below minimum) demand status.

Department efficiency for the 04/05 academic year was calculated at 57.3, which translates to an unhealthy (below minimum) efficiency status.

Department Outcome for the 04/05 academic year was calculated at 6.7, which translates to an unhealthy (below minimum) outcome status.

- Given consideration of these demand, efficiency, and outcomes indicator data together, our sense of overall program health is that we are currently an unhealthy program based on the calculations currently utilized for measures of demand, efficiency, and outcomes.
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 safety training program in the State of Hawaii. 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.

The OESM program is fully articulated with the Environmental Resource Management Department, California State University-Bakersfield. This provides OESM majors with an opportunity to obtain a baccalaureate degree in Environmental Resource Management via the Internet.
Graduates from the OESM program are qualified to work as occupational safety and health inspectors, safety officers, and environmental technicians in governmental agencies, 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-$400 per semester.

**Program SLOs**

**Associate Degree and Certificate Programs:** Upon graduation, students will demonstrate an ability to:

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

**Program Data**

*Measures of SLOs:*

- [ ] Standardized test
- [X] Locally produced test
- [ ] Portfolios
- [ ] Artifacts
- [ ] Final project based on real-life experience
- [ ] Capstone experience/course
- [ ] Survey/Focus group
- [X] 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; develop a written safety program and site-specific safety plans in compliance with OSHA/HIOSH 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>
</tr>
</thead>
</table>
| 1. Recognize and evaluate workplace and environmental hazards | • Successful completion of locally produced tests.  
• Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.  
• Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.  
• Conducting workplace inspections to identify hazards and recommend control measures  
• Planning and conducting industrial hygiene sampling to assess environmental hazards and recommend control methods |
| 2. Recommend control measures and accident prevention strategies | • Successful completion of locally produced tests.  
• Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.  
• Conducting workplace inspections to identify hazards and recommend control measures  
• Planning and conducting industrial hygiene sampling to assess environmental hazards and recommend control methods |
| 3. Identify and apply appropriate OSHA/NIOSH and EPA regulatory requirements | • Successful completion of locally produced tests.  
• Development of inspection checklists and industrial hygiene sampling plans in compliance with regulatory requirements.  
• Conducting workplace inspections to identify hazards and recommend control measures  
• Correctly applying the HIOSH/EPA standards to the scenarios given by the instructor |
| 4. 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. |
| 5. 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. |
Program SLO assessed | Method of Assessing
--- | ---
6. 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

7. 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

8. 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.

**Changes made based on assessment:**

An assessment plan for the Program’s SLOs will be developed. Appropriate actions will be taken based on results of the assessment.

**Measures of Effectiveness:**

| Yr | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| #  | 25 | 26 | 25 | 18 | 21 | 23 | 41 | 63 | 72 | 77 | 87 | 96 | 79 | 88 | 68 | 46 | 50 | 49 | 62 |

In order to provide readers with a better understanding of OESM Program enrollment trends, data prior to academic year 2000 are provided in Table 1 and Table 2.

A full-time faculty member, whose responsibilities include coordinating health and safety activities, manages the OESM Program. As part of the job description, the College requires that about 50% of the OESM Program Liaison’s duties be concentrated on improving the College’s occupational health and safety compliance.

Table 1 lists the headcount enrollment for the OESM Program from the 1986 academic year. Since the beginning of the current Program Liaison’s employment at the College in Fall 1991, an upward trend in enrollment is shown. During the Liaison’s sabbatical leave, enrollment dropped by 23% in 2000 and 48% in 2001. There was no replacement during her absence. Although, a
A temporary full-time instructor was hired to manage the OESM program and the College safety program, that person resigned within a few weeks after his duty had begun.

Since the Liaison’s return, the program has shown a sign of recovery. This demonstrates the need for having a program liaison and better personnel planning during future sabbatical leaves.

Based on an OESM survey conducted each semester, the majority of the OESM students are employed full-time and attending school on a part-time basis. Many of the students tend not to register continuously. Some students may skip up to two to three semesters before returning, due to work scheduling and family responsibilities.

| Table 2 |
| Degree & Certificate Earned, Academic Years 1986 - 2002 |
| Yr | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 |
| # | 3  | 3  | 7  | 5  | 2  | 3  | 1  | 7  | 4  | 6  | 7  | 15 | 12 | 17 | 15 | 6  | 6  | 16 |

Table 2 shows the number of OESM degrees and certificates earned since the academic year 1986. The majority of OESM students are enrolled in one to two classes each semester. This means that an average OESM student could take three to four years to graduate with an AS degree. The higher number of degrees earned in the late-1990's follows the upward trend in enrollment in the early and mid-1990's.

Considering the enrollment, the number of degrees earned has been disproportionately low. Possible explanations for this include:

- OESM students’ academic goals do not include earning a degree or certificate. Some of them are already employed in the safety & health field. They are taking selected classes for professional development, and do not intend to earn the degree.
- Many 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.
- OESM students have found employment in the field before graduating. Due to the traditional heavy workload for beginning safety professionals, students are not able to continue with their course work.

However, HCC-supported systematic surveys of OESM students and alumni are needed to validate the reasons for poor retention and low number of degree earned.
Measures of Efficiency:

Table 3  
Employment Outlook for Health & Safety Professionals*

<table>
<thead>
<tr>
<th>Occupational Title</th>
<th>Employment</th>
<th>Change</th>
<th>Average Annual Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2012</td>
<td>Number</td>
</tr>
<tr>
<td>Health &amp; Safety Engineers</td>
<td>90</td>
<td>120</td>
<td>30</td>
</tr>
</tbody>
</table>

* Source: Employment Outlook for Industries & Occupations, 2002-2012, Department of Labor & Industrial Relations, State of Hawaii

Table 3 represents the current and projected numbers of safety and health positions in the state workforce. Based on job announcements in the newspaper and personal contacts, the annual demand for safety and health professionals has exceeded DLIR’s estimates. A rapid growth in the construction industry, expected to continue during the next ten years, has resulted in an expanded employment market for safety professionals. In addition, the environmental impact of natural disasters, such as those caused by the hurricane Katrina, has increased employment for environmental technicians nationwide.

Table 4  
Measures of Efficiency

<table>
<thead>
<tr>
<th>Semester</th>
<th>No. Major</th>
<th>No. Crse Offered</th>
<th>Av. Class Size</th>
<th>SSHs Taught/ No. Student FTE</th>
<th>No. FTE Faculty</th>
<th>Faculty to Student Ratio</th>
<th>Average Course Fill Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2000</td>
<td>68</td>
<td>5</td>
<td>17</td>
<td>15</td>
<td>1.07</td>
<td>16.75</td>
<td>N/A^1</td>
</tr>
<tr>
<td>Spring 2001</td>
<td>54</td>
<td>7</td>
<td>13</td>
<td>14.73</td>
<td>N/A^2</td>
<td>N/A^2</td>
<td>N/A^1</td>
</tr>
<tr>
<td>Fall 2001</td>
<td>46</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>1.00</td>
<td>10.60</td>
<td>N/A^1</td>
</tr>
<tr>
<td>Spring 2002</td>
<td>44</td>
<td>4</td>
<td>14</td>
<td>15.27</td>
<td>N/A^2</td>
<td>N/A^2</td>
<td>N/A^1</td>
</tr>
<tr>
<td>Fall 2002</td>
<td>50</td>
<td>7</td>
<td>16</td>
<td>15</td>
<td>1.53</td>
<td>15.87</td>
<td>60</td>
</tr>
<tr>
<td>Spring 2003</td>
<td>50</td>
<td>6</td>
<td>14</td>
<td>15.41</td>
<td>1.60</td>
<td>10.63</td>
<td>43</td>
</tr>
<tr>
<td>Fall 2003</td>
<td>49</td>
<td>6</td>
<td>12</td>
<td>15</td>
<td>1.20</td>
<td>16.55</td>
<td>39</td>
</tr>
<tr>
<td>Spring 2004</td>
<td>40</td>
<td>7</td>
<td>13</td>
<td>15.16</td>
<td>1.40</td>
<td>12.86</td>
<td>43</td>
</tr>
<tr>
<td>Fall 2004</td>
<td>44</td>
<td>7</td>
<td>16</td>
<td>15.05</td>
<td>1.24</td>
<td>16.13</td>
<td>57</td>
</tr>
<tr>
<td>Spring 2005</td>
<td>50</td>
<td>6</td>
<td>19</td>
<td>15.83</td>
<td>1.33</td>
<td>13.57</td>
<td>63</td>
</tr>
<tr>
<td>Fall 2005</td>
<td>46</td>
<td>8</td>
<td>13</td>
<td>15.28</td>
<td>1.40</td>
<td>15.00</td>
<td>53</td>
</tr>
</tbody>
</table>

^1 Pre-Banner years, data were not available.

^2 IRO discontinued reporting the measures for Spring semesters.
The Program’s efficiency has been fairly consistent over the last 5-year period when looking at Student Semester hours taught/Number of FTE Students with the range being from 14.73 – 15.83. The fill rate for courses is lower than expected, but this can be explained by the fact that many OESM students are taking one or two courses a semester; therefore some classes are low enrolled while others are close to full. There are implications here for scheduling classes on a rotating yearly basis, but more research needs to be done on this before any action is taken.

Retention from 1st to 2nd year:

<table>
<thead>
<tr>
<th>Years</th>
<th>% Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2000- Fall 2001</td>
<td>81</td>
</tr>
<tr>
<td>Fall 2001- Fall 2002</td>
<td>65</td>
</tr>
<tr>
<td>Fall 2002- Fall 2003</td>
<td>85</td>
</tr>
<tr>
<td>Fall 2003- Fall 2004</td>
<td>70</td>
</tr>
<tr>
<td>Fall 2004- Fall 2005</td>
<td>73</td>
</tr>
</tbody>
</table>

Table 5 shows retention figures. Attrition from first to second year ranges from 35% to 19%. Increased employment opportunities in construction safety and the military deployment to the Middle East may have contributed to the attrition. In addition, many OESM students do not enroll continuously. They tend to skip semesters to fulfill work and personal responsibilities. According to the on-line student survey conducted in November 2005, approximately 20% of the respondents indicated that they were not currently enrolled, but intending to return. A college-supported systematic survey of students is necessary to determine their reasons for not continuing, students’ educational objectives, and average time taken to meet the objectives.
Budget Allocation:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Faculty</th>
<th>Lecturers</th>
<th>Supplies</th>
<th>Equipment</th>
<th>Total Cost</th>
<th>SSH</th>
<th>Cost per SSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26,703</td>
<td>39,334</td>
<td>378</td>
<td>1,024</td>
<td>67439</td>
<td>548</td>
<td>123.06</td>
</tr>
<tr>
<td>2001</td>
<td>49,567</td>
<td>12,984</td>
<td>4418</td>
<td>-</td>
<td>66969</td>
<td>327</td>
<td>204.80</td>
</tr>
<tr>
<td>2002</td>
<td>54,462</td>
<td>36,307</td>
<td>4185</td>
<td>-</td>
<td>94954</td>
<td>627</td>
<td>151.44</td>
</tr>
<tr>
<td>2003</td>
<td>55,226</td>
<td>29,899</td>
<td>4248</td>
<td>1,774</td>
<td>91147</td>
<td>492</td>
<td>185.26</td>
</tr>
<tr>
<td>2004</td>
<td>51,099</td>
<td>27,192</td>
<td>2628</td>
<td>350</td>
<td>81269</td>
<td>565</td>
<td>143.84</td>
</tr>
</tbody>
</table>

Table 6 contains information regarding the program’s cost. The average “Cost per SSH” during academic years 2000-2004 is $161.68. The lower faculty cost and higher lecturer cost for the academic year 2000 were due to the Program Liaison’s sabbatical leave. No replacement was hired for the Program Liaison position during that period of time.

The OESM program was awarded a training grant from the U.S. Environmental Protection Agency (EPA) in the beginning of the 2004 academic year. The grant funded 20% of the Program Liaison’s salary. Because of this and a reduction in the supply budget, the program’s cost dropped in the academic year 2004.

Student Satisfaction Survey results:

Approximately 100 OESM students and alumni were asked to complete an on-line student satisfaction survey in November 2005. Seventy-nine students and alumni responded to the survey. An overwhelming majority rated the program as either excellent or good and felt that the program had prepared them well for employment. Below is the summary of the survey’s results.

- Academic status of the respondents: 33.8% currently enrolled, 35.1% graduated, 19.5% not currently enrolled but intend to return, 11.7% did not graduate.
- Approximately 90% of the respondents are employed either full or part time. Nearly 66% of them are employed in the occupational/environmental safety field. Employers include agencies both in the public and private sectors. Public employers are the federal, state, and local government. Employers in the private sectors represent various industries including construction and related trades, land & marine transportation, airlines, health care, insurance, safety product retails, safety and environmental consulting services, and nonprofit organization.
- Approximately 84% the respondents earn an annual income of $31,000 or greater and 26% earn in excess of $60,000 annually.
- Among the OESM graduates, more than 80% are employed in the safety & health field, and about 46% earn more than $60,000 annually. Approximately, 8% of the graduates
earn an annual income of $30,000 or less.

- More than 65% of the graduates indicated that the OESM degree, certificate or classes were “very important” or “important” in getting their current jobs, while about 27% rated it “somewhat important”.
- For respondents who are employed in the safety and health field, approximately 80% stated that the OESM program had prepared them “extremely well” or “well” for employment. Approximately 16 to 20% felt that they were “somewhat prepared” and none indicated that they were “poorly prepared”.
- Nearly 36% have continued their education since graduating. Comments included expanding the OESM program into a four-year baccalaureate program.
- Approximately 97% rated the quality of the Program either “excellent” or “good”. None rated it “poor”.
- The Survey results included a long list of suggestions and comments on program improvement.

Advisory Committee members and meeting schedule:

Members:
- Jim Beavers, Director, Safety/Security & Facility, Hawaiian Electric Company
- Pat Conroy, Vice President, Risk Control Services, King & Neel, Inc.
- Harlan Hashimoto, Environmental Compliance Administrator, Hawaiian TelCom
- Fred Nakamura, Senior Loss Control Consultant, First Insurance Company
- Rusty Niau, Manager, Human Resources/Safety, Grace Pacific Corporation
- Jennifer Shishido, HIOSH Administrator, Hawaii Occupational Safety & Health

Starting Fall 2005, a new member has been added to the advisory board: John Ramos, Executive Loss Control Specialist, Fairmont Specialty Group.

Last meeting: May 2005

Next meeting: Spring 2006

Curriculum Revision:

An industry-sponsored “brainstorming meeting” of safety professionals was held in Spring 2002. More than forty safety and health professionals gathered at the Honolulu Club to provide inputs on the OESM curriculum. The 2002 curriculum revision, effective Fall 2003, reflects the inputs from the advisory committee and the safety professionals attending this meeting. The changes included increasing the AS degree requirements from 61 to 65 and the Certificate of Achievement requirements from 41 to 43. In addition, an on-the-job internship (OESM 193V: Cooperative Education) became a requirement. Classes on speech and safety-labor relations were added as well as the deletion of classes with overlapping contents.
Courses reviewed:

Each class is usually reviewed regularly to ensure that the information is current and reflects recent changes on safety and environmental regulations. Comprehensive reviews of all classes were conducted in the Spring and Fall of 2002 for their content, performance objectives and relevancy to the local employment market.

Courses updated:

Course materials for each class are normally updated each time the course is taught, by the instructor, to reflect changes in safety and environmental regulations.

Review of degree requirements:

The review was conducted in the Spring and Fall of 2002. The following changes, effective Fall 2003, were made:

- Increasing the AS degree requirements from 61 to 65 credits
- Increasing the CA requirements from 41 to 43 credits
- Adding three required classes:
  SP 151: Personal and Public Speech (3)
  OESM 160: Labor and Management - Safety Partners (3)
  OESM 299V: Cooperative Education (1-4)
- Deleting elective and cross-listed classes with overlapping contents:
  OESM 107: Introduction to Environmental Hazardous Materials Technology (3)
  OESM 206: Health Effects of Hazardous Materials (3)
  OESM 204: Hazardous Waste Generation/Reduction/Treatment (3)
  OESM/FIRE 203: Introduction to Hazardous Substances in Emergency Response (3)
  OESM/FIRE 207: Hazardous Material Awareness and Operations (3)

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 and 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?**

Analysis of the 2000 through 2004 surveys showed that the majority of students were thirty-one years of age or older, employed full-time, and earning the AS degree on a part-time basis. The fastest growing group was those changing career or returning from the workforce for professional development. The number of female students has steadily increased since Fall 2002. In Spring 2004, female students made up almost 50% of the OESM students.

According to the November 2005 student/alumni survey results, OESM majors are ethnically mixed:

- 47% Asian (Japanese, Filipino, Chinese)
- 19% Caucasian
- 16% Hawaiian & Pacific Islander
- 12% Other
- 3% African American

**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. Performance objectives for each class are designed to evaluate students’ competencies are based on these skills.

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

Yes. Services for evening students have improved during the past few years. 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 course SLOs were 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 companies that have employed multiple OESM graduates/alumni: Dick Pacific Construction, Hawaiian Dredging, Hawaiian Airlines, Aloha Airlines, Healy Tibbitt Construction, Bureau Veritas, A.C. Kobayashi Construction, HEMIC Insurance, and Hawaii Occupational Safety and Health (HIOSH).

*Do transfer statistics agree?*

Currently, data on transferred students are not available. However, according to the November 2005 survey, 38.5 % for the OESM graduates have continued their education since graduation, including taking classes from other programs at HCC, pursuing a baccalaureate degree in safety from an on-line university, obtaining professional certification, transferring to the University of Hawaii’s mechanical engineering program.

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

No. The Program does not have adequate physical and personnel resources.

*Physical Resources:*

The Program does not have an equipment budget. Monitoring instruments and safety equipment have been acquired through extramural funding from federal and state agencies and businesses. Computer equipment was purchased using the supply budget.

*Personnel Resources:*

Besides teaching and managing the OESM Program, the Program Liaison is the College’s Health and Safety Coordinator. She teaches one or 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; tracking and announcing employment opportunities to students and alumni; assisting students with job placement; and
regularly communicating with students and alumni. 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 a full-time safety officer in its Strategic Plan*. The College should consider hiring a full-time safety officer as a high priority.

* Honolulu Community College’s Strategic Plan, 2/7/06 draft.

<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>Activity Dates</td>
<td>2002-2009</td>
</tr>
<tr>
<td>Cost</td>
<td>• 1 APT position APT # 27 • Provide assigned time to faculty and staff members representing their academic units as the designated Safety Liaison</td>
</tr>
<tr>
<td>Justification</td>
<td>• 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 tot providing a safe and healthful learning</td>
</tr>
</tbody>
</table>

**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 the Program Liaison 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.

As recommended by the Advisory Committee in Spring 2002, a meeting with the local safety professionals was held. The purpose of the meeting was to gather feedback on the OESM curriculum. As a result of this meeting, the OESM curriculum was revised in Spring and Fall 2002, which became effective in the Fall 2003 catalog year.

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-knotted group of students and alumni. They stay in touch and assist each other in finding jobs.

Weaknesses:

• Low retention and graduation rates.
• No assessment activities to ensure that students have achieved course or Program SLOs.

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 during the current “construction boom” (to improve recruitment).

Challenges:

• Balancing instructional and safety responsibilities while seeking extramural funding opportunities.
• Obtaining adequate resources to acquire and maintain up-to-date equipment.
• Improving graduation & retention rates.
• Improving student recruitment.
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. This will help the OESM curriculum stay abreast with the needs in the community.
- Developing an equipment budget with estimated cost and life-cycle.
- Scheduling assessment activities for OESM classes to ensure that students have achieved course SLOs for each class.
- Scheduling assessment activities to ensure that students have achieved Program’s SLOs.

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

Personnel:

- One full-time safety officer to manage the College’s Health & Safety Program.
- 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.

3. 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>Finance: Budget specifically allocated for monitoring instruments and safety equipment necessary for classroom and practical instruction.</td>
<td>Fiscal year 2006</td>
</tr>
<tr>
<td>2</td>
<td>Personnel: At least three-credits of assigned time for program management activities.</td>
<td>Fiscal year 2006</td>
</tr>
<tr>
<td>3</td>
<td>Personnel: One full-time safety officer to manage the College’s Health &amp; Safety Program.</td>
<td>Fiscal year 2007</td>
</tr>
<tr>
<td>4</td>
<td>Facilities: Larger classroom and storage</td>
<td>Fiscal year 2007</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 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>
<tr>
<td>Develop an equipment budget with estimated cost and life-cycle.</td>
<td>Fiscal Office; Administration, especially the Division Chair and Dean</td>
</tr>
<tr>
<td>Schedule assessment activities for OESM classes to ensure that students have achieved course SLOs for each class</td>
<td>Management Information and Research; Assessment Committee</td>
</tr>
<tr>
<td>Schedule assessment activities to ensure that students have achieved Program’s SLOs.</td>
<td>Management Information and Research; Assessment Committee</td>
</tr>
</tbody>
</table>

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

<table>
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</tr>
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<td>4</td>
<td>Facilities: Larger classroom and storage</td>
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</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.**

- Increase the OESM budget by about $100,000 in the next twelve months to purchase monitoring instruments and safety equipment. A detailed list of items and estimated costs is available upon request.
- 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 $55,000 annual salary and fringe benefits for a full-time safety officer.

**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 a budget for equipment &amp; life cycle</td>
<td>Chulee Grove</td>
<td>December 20, 2006</td>
</tr>
<tr>
<td>2. Develop an assessment plan for course and program SLOs</td>
<td>Chulee Grove</td>
<td>May 15, 2006</td>
</tr>
<tr>
<td>3. Conduct assessment for at least one OESM class (course SLOs)</td>
<td>Chulee Grove</td>
<td>December 20, 2006</td>
</tr>
<tr>
<td>4. With assistance from the College, conduct employer and student/alumni surveys.</td>
<td>Chulee Grove and HCC personnel</td>
<td>May 15, 2007</td>
</tr>
</tbody>
</table>

*Prepared by Chulee C. Grove*

*February 21, 2006*