Program Evaluation

Date: January 23, 2012

This is an update of the earlier program review carried out on September 24, 2008.

Prepared by: Pablo H. Lamsis, Jr.

Program Evaluated:

Certificate of Achievement in Small Engine, Equipment and Outboard Motor Repair

A. Program Goals:

Students will be introduced to small engines operation; and be given practice on maintenance, repair and troubleshooting.

Student Learning Outcomes:

1. Practice proper safety procedures to ensure healthy work environment.
2. Use small engine tools and equipment.
3. Perform small engine preventative maintenance.
4. Demonstrate basic troubleshooting and repair of small engines.
5. Overhaul two and four-stroke small engines.

B. Program History

Substantive change proposal was made for the program during 2004 and 2005. Approval to offer the program ensued and it was first offered in Fall 2006 – Spring 2007. There were 12 students who enrolled for the program that year. The program was not offered again in the Fall of 2008 due to low enrollment, students were moved to the more popular certificate program - Career Education with emphasis on Motor Vehicle Mechanics.

Milestones:

Students have been involved in the fabrication of small engine test stands including several trainers shown during the Technology & Trade Exhibit in Spring 2007.

C. Program Description

The program was designed to provide training for entry-level work to students interested in becoming small engine repair technician, parts salesman, or providing their own business.

D. Program Admission Requirements

High school graduate or GED certificate holder. Applicants must take the COM-FSM Entrance Test (COMET) and be accepted by the Admissions Board. Acceptance by the Admissions Board is based on the applicant's score on the COMET and other criteria as defined by the Admissions Board.

E. Program Certificate Requirements

General Education Requirements:

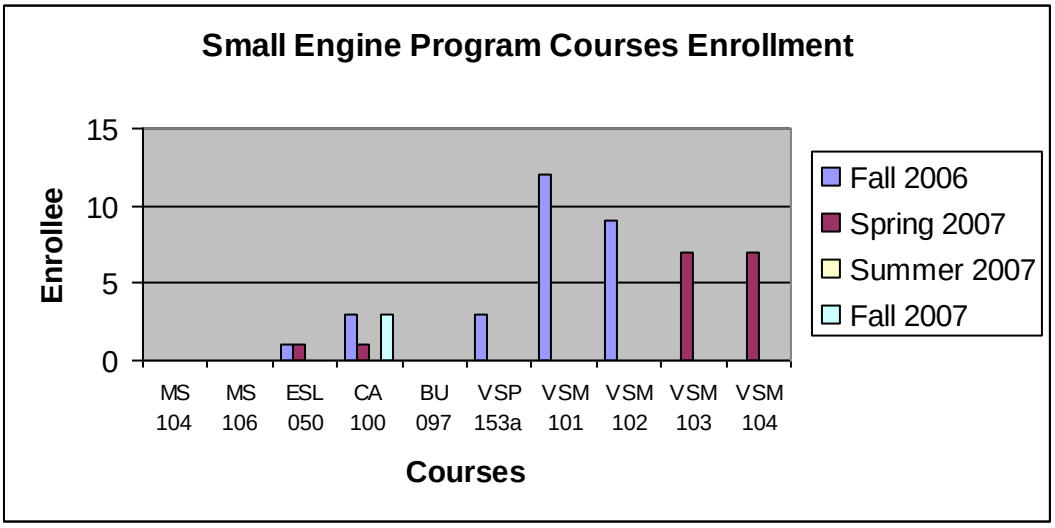
BU 097 Intro to Entrepreneurship (3)
ESL 050 Technical English (3)
MS 104 Technical Math (4)
CA 100 Computer Literacy (3)
MS 106 Technical Math (4)

Technical Requirements:

VSM 101 Introduction to Small Engine Repair (4)
VSM 102 Fuel, lubrication, carburetor & ignition (4)
VSM 103 Engine dismantling, inspection, and assembly (4)
VSM 104 Starters, engine maintenance, and troubleshooting (4)
VSP 153a Industrial Safety (1.5)

Total requirements: 34.5 credits

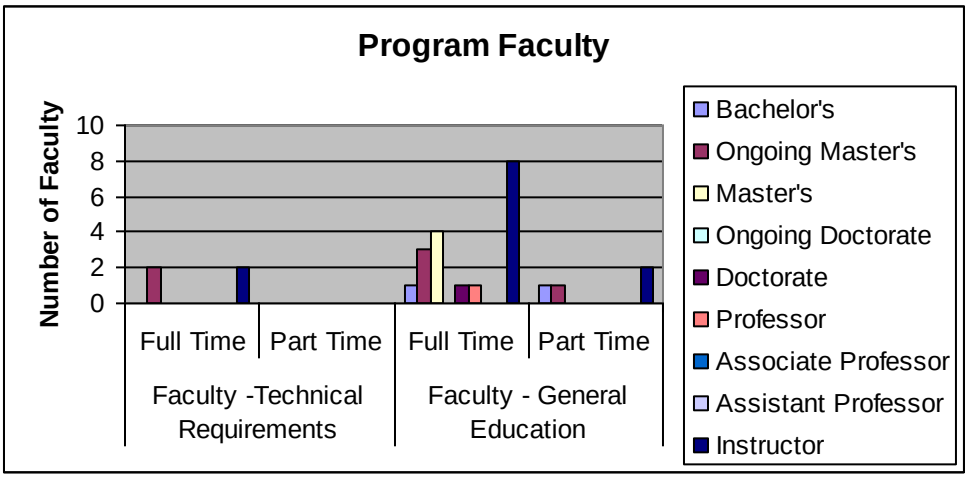
F. Program Courses and Enrollment



Source: COM-FSM Student Information System Record Fall 2005 – Spring 2008

G. Program Faculty

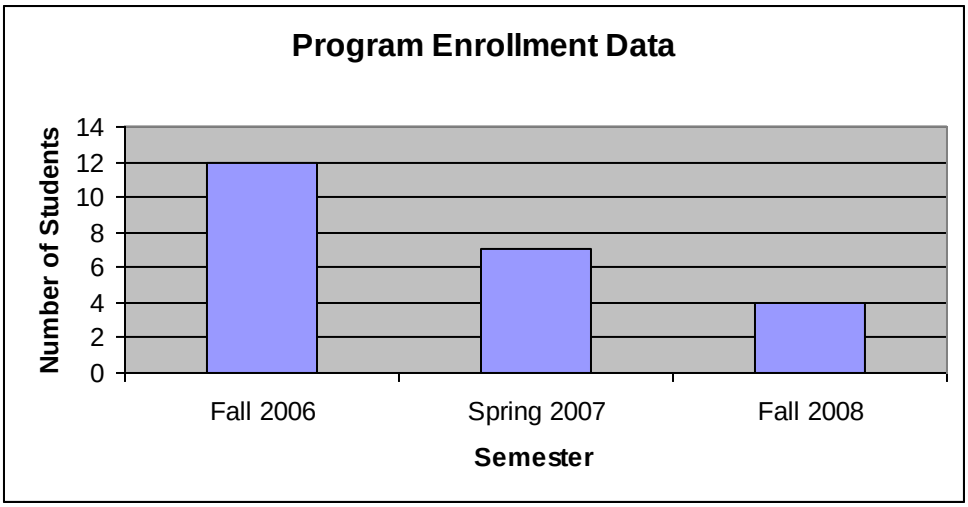
The chart below show program faculty, their ranks and degrees for both full time and part time who taught in the program.



Source: COM-FSM Student Information System Record Fall 2005 – Spring 2008

H. Program Outcome Analysis

The following are sets of health indicators data that were collected and analyzed:



Source: COM-FSM Student Information System Record Fall 2005-Summer 2008

Note: *During Fall 2008, low enrollment number occurred on Small Engine, Equipment and Outboard Motor Repair Program. These enrollees (4) were combined with eleven (11) enrollees of Motor Vehicle Mechanics program making a total of fifteen (15) enrollees.*

Graduation Rate:

As of this writing, out of the 12 students who enrolled in 2006, no student graduated in this program.

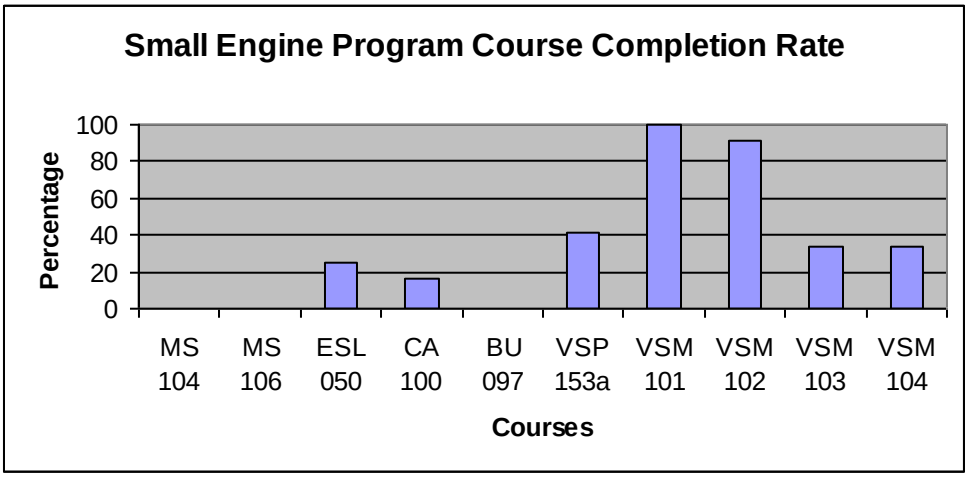
Average Class Size

Average class size for the program is 10 students.

Students' Seat Cost

No data collected during the making of this report.

Course Completion Rate



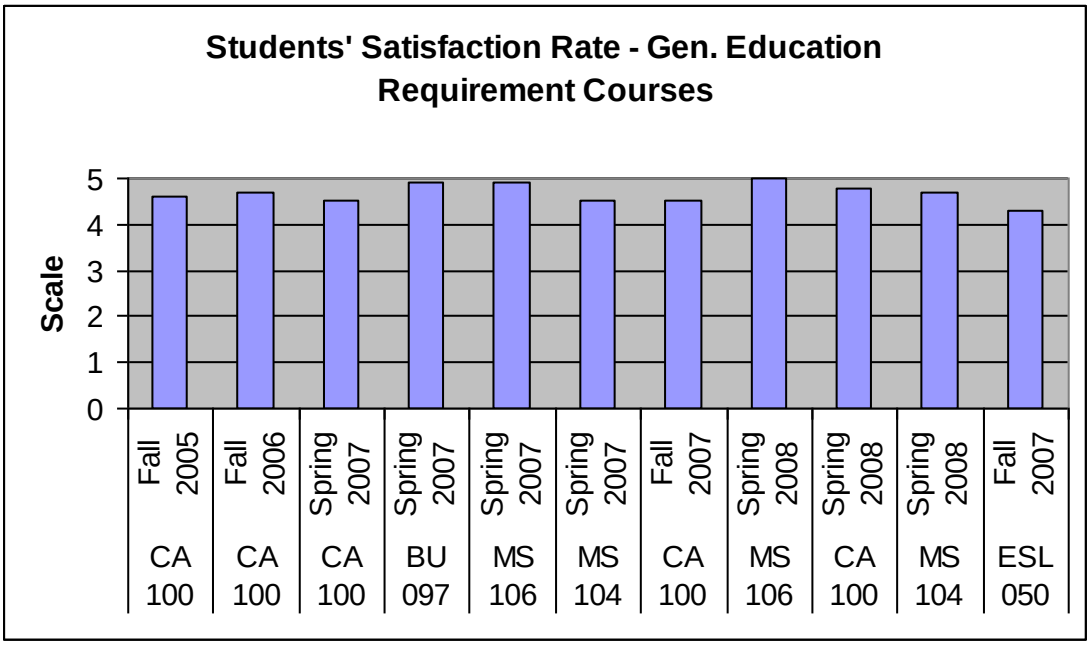
Source: COM-FSM Student Information System Record Fall 2005 – Summer 2008

Students' Satisfaction Rate

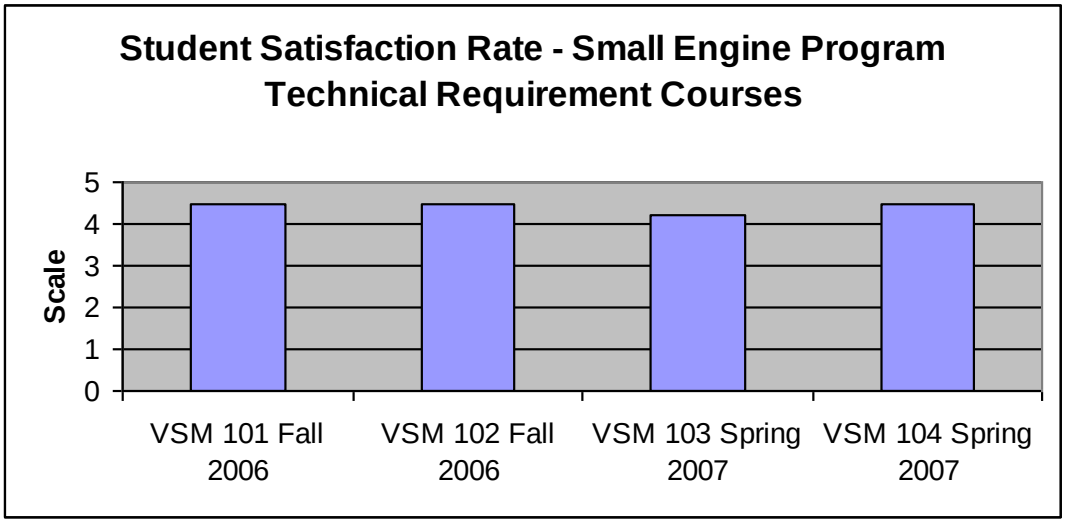
Students' satisfaction rate was based on the Student Evaluation record which students filled up and commented every semester. Students were asked to comment or rate the Instructor and course delivery on a five-point scale: 1 = Never; 2= Rarely; 3= Sometimes; 4= Usually; 5= Always, from the following criteria:

1. Keeps regular schedule every class day.
2. Shows interest in the subject.
3. Gives individual help as needed.
4. Avails himself/herself for student conference.
5. Welcomes questions, suggestions and discussion from students.
6. Shows interest and respect for students.
7. Helps the students in meeting individual learning needs.
8. Uses classroom lab fully.
9. Provides clear directions for assignment and instruction.
10. Grades fairly and frequently.
11. Makes the purpose of the course clear.
12. Talks clearly at an easy-to-follow speed.
13. Lessons are well paced with activity as well as lecture.
14. Makes the course interesting.
15. Textbooks were appropriate and helpful.

Satisfaction rate for the general education courses are shown on the charts below according to available data.



Source: Student Evaluation Record from Instructional Coordinator's Office COM-FSM, Pohnpei Campus Fall 2005 - Spring 2008



Source: Student Evaluation Record Fall 2005 – Summer 2008

Employment Data

Out of 12 students that enrolled in this program, below are the recent updates on students' employment or advance to further studies:

1 – joined the US Military

1 – put up own business repairing small engines although has not yet graduated.

1 – employed as a policeman in Pohnpei

1 – went to the US mainland to find a job.

1 – pursuing AS degree at COM-FSM, Pohnpei Campus

Transfer Rate

8.33%

Out of twelve (12) students that enrolled in this program in the Fall 2006, one (1) student transferred to AS degree in construction electricity in 2008 after passing the COMET.

Program's Student Learning Outcomes

1. Practice proper safety procedures to ensure healthy work environment.
2. Use small engine tools and equipment.
3. Perform small engine preventative maintenance.
4. Demonstrate basic troubleshooting and repair of small engines.
5. Overhaul two and four-stroke small engines

Students' Learning Outcomes for Program Courses

VSM 101 Introduction to Small Engine Repair

1. Demonstrate an understanding of general workshop rules.
2. Demonstrate safety common sense when working with shop equipment and engines.
3. Identify hand tools, measuring tools and specialized tools and demonstrate or explain their application and safe use..
4. Identify internal combustion engine types and their classification and explain engine power factors.

VSM 102 Fuel, Lubrication, Carburetor & Ignition

1. Explain the types of fuel systems used in small engines.
2. Explain what is a gasoline and the other fuels used in small engine operation.
3. Describe the function of the lubricating system in a small engine.

4. Identify main parts of the carburetor and explain their function.
5. Identify ignition components, explain their functions and demonstrate how to perform basic maintenance.

VSM 103 Engine Dismantling, Inspection & Assembly

1. Explain the purpose and function of the governor system in a small engine.
2. Demonstrate how to carry out engine failure analysis.
3. Perform engine disassembly and inspection following teardown procedures.
4. Prepare engine parts and carry out assembly operations.

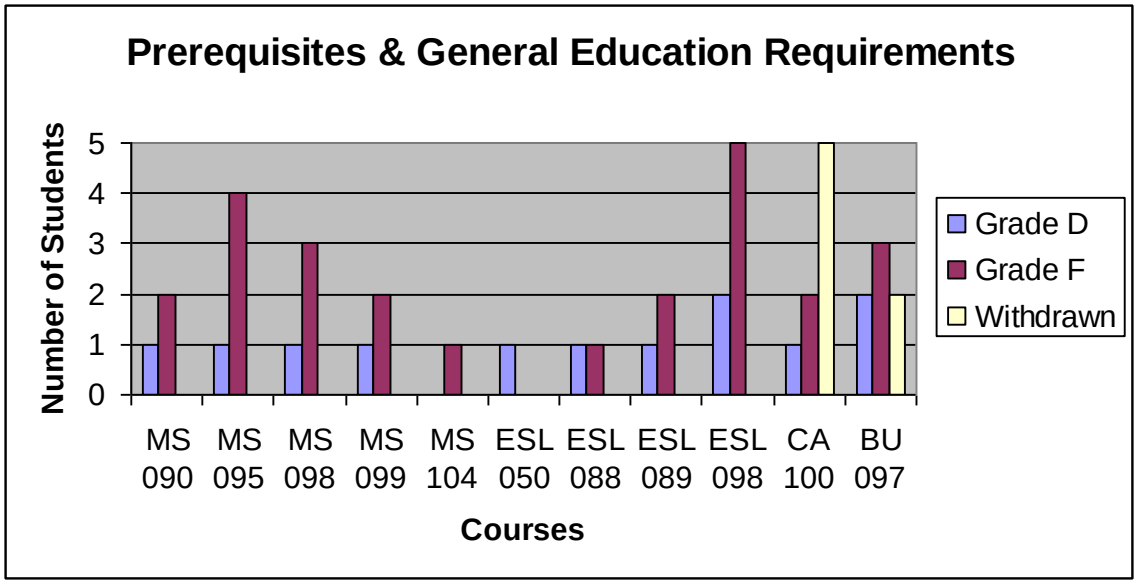
VSM 104 Engine Maintenance & Troubleshooting

1. Explain the theory and operation of manual and electrical starters used in small engines.
2. Explain what is preventative maintenance and enumerate PM schedules.
3. Describe the procedures for off season storage.
4. Demonstrate a systematic check sequence and discuss some engine performance problems and remedies.

Discussion of Findings

The above program evaluation has resulted in the following findings:

1. Majority of students entering the program encountered difficulties in passing the course prerequisites and general education course requirements for courses in the program. The chart below show number of students who obtained either a D or F grades and those who withdrawn (W) from the courses.



Source: COM-FSM Student Information System Record Fall 2005-Summer 2008

As a result, student numbers are generally high during fall semesters but after obtaining failing grades from general education and prerequisite courses, they either shy away or get financial aid warning or probation and the enrollment number dropped during the spring semester.

According to the SIS data, most of these students who failed the prerequisite courses and general education requirements also failed in the English courses.

Recommendations

1. Students entering the program find difficulty in passing general education requirements of the program. It is suggested to review and modify the courses offered in the program to enable these students to graduate at a specified amount of time considering the renewed financial aid policies and requirements.
2. Since the program require more “hands-on” skills, the program should be modified to select only general education courses that are appropriate for certificate level students.
3. It is felt that some courses like the BU 097, CA 100, and MS 106 require higher English language proficiency and since majority of students entering this program have low levels of English language, these courses would not be appropriate in the certificate level.

Note: Initial program review had been made on September 24, 2008 suggesting to merge this program with motor vehicle mechanics program but the move was not approved at the Curriculum Committee.