



SEM

#1 Plan cycle - 1
Plan cycle 2020/2021
7/1/20 - 6/30/21

Introduction

The primary purpose of the College of Science, Engineering, and Mathematics (SEM) is to offer quality undergraduate and graduate programs and courses in science, engineering, and mathematics. Course offerings in the sciences, engineering, and mathematics are designed to satisfy requirements of degrees for science, engineering, or mathematics majors; for the core curriculum; and for the requirements of other degrees and programs.

In addition to courses and programs, the College of SEM is charged with the responsibility for providing expertise, resources, and additional learning opportunities necessary for each student to progress in meeting academic, personal, and career goals. Laboratories and equipment holdings are a necessary part in providing learning opportunities in science, engineering, and mathematics.

College of SEM faculty are encouraged to concentrate on excellence in teaching, as well as to pursue research, scholarly activity, and grant writing. Participation in community service activities such as science fairs, career days, engineering/science week, and talks are among activities encouraged to enhance community learning in science, engineering, and mathematics. Research areas related to the regional environment, local industries, as well as basic science also provide enrichment for science, engineering, mathematics, the University, and Southwest Louisiana.

Performance Objective 1 Departments in the college will complete sufficient graduates to maintain viable programs.

1 Assessment and Benchmark

CoSEM will produce a minimum of 200 completers in an academic year. Exceptions are made for certain necessary core areas.

1.1 Data

Academic Year	Completers
2020-2021	Mathematical Sciences: 10 Chemistry & Physics: 5 Engineering & Computer Science: 149 Biology: 46 Total: 210

1.1.1 Analysis of Data

2020-2021:

For the academic year CoSEM meant the goal of having 200 completers. This goal may be more difficult to obtain in the next few years due to enrollment numbers going down.

1.1.2 Plan for Continuous Improvement

2020-2021:

To improve on these numbers recruitment needs to be increased for CoSEM. The college will also need to look into possibly learning the number of completers to 180, this decision though should be made with more than one year of academic data.

Performance Objective 2 Departments in the college will offer sufficient courses to meet students' needs and to best utilize faculty resources.

1 Assessment and Benchmark

Benchmark: Student credit hours (SCHs) will be examined by looking at fluctuations in each department to determine needs in terms of instructors and class offerings.

1.1 Data

Academic Year	Biology	Mathematical Sciences	Chemistry & Physics	Engineering & Computer Science
2020-2021	Summer20: 610 Fall 20: 5,435 Spring 21:5,186 Total: 11,231	Summer 20: 963 Fall 20: 6,101 Spring 21: 4,487 Total:11,551	Summer 20: 755 Fall 20: 4,416 Spring 21: 4,059 Total: 9,230	Summer 20: 657 Fall 20: 5,110 Spring 21: 4,845 Total: 10,612

1.1.1 Analysis of Data

2020-2021:

This data is being used as the baseline data for the College of SEM. Further data analysis will happen once more data comes in.

1.1.2 Plan for Continuous Improvement

2020-2021:

No plan for continuous improvement due to the data being a baseline. Will expand further in next years report.

Performance Objective 3 Departments in the college will recruit sufficient majors in their departments in order to sustain their degree programs.

1 Assessment and Benchmark

Benchmark: CoSEM will increase recruitment by 5% per year.

1.1 Data

Academic Year	Engineering & Computer Science	Chemistry & Physics	Mathematical Sciences	Biology
2020-2021	713	48	43	280

1.1.1 Analysis of Data

2020-2021:

The data above is the starting point for CoSEM. We will start judging enrollment and recruitment after this academic year.

1.1.2 Plan for Continuous Improvement

2020-2021:

Work with the baseline data and try to increase it by 5% every year.

Performance Objective 4 Demonstrate student success.

1 Assessment and Benchmark

Benchmark: 35% of graduates will have at least one coop or internship experience in their field by the time of graduation as well as a job in their field.

1.1 Data

Academic Year	Number of Students who participated in a Co-op's	Completers	Percentage
2020-2021	20	210	9.5%

1.1.1 Analysis of Data

2020-2021:

The data shows that just less than 10% of students participated in Co-op or internships for the College of SEM. The primary factor here is that students don't have to sign up for internships and the college cannot force industry to take interns.

1.1.2 Plan for Continuous Improvement

2020-2021:

The best way to get a better representation of how many students are participating in co-op's/internships is to make a course that is zero credit hours, so that students don't have to pay for the course at all and the college receives this valuable data.

Performance Objective 5 Improve the CoSEM's financial resources.

1 Assessment and Benchmark

Benchmark: Attract a minimum of \$100,000 external funding per year.

1.1 Data

Academic Year	Grant	Total Amount Funded
2020-2021	Board of Regents Grant, Lamp Grant, Code.org, PCI, LaACES, and LaSpace.	\$436,000

1.1.1 Analysis of Data

2020-2021:

CoSEM applied for multiple grants and has one board of regents grant that will be funded that will help with the electrical engineering and computer science programs (grant written by Dr. Davarkia). CoSEM also renewed our LAMP grant which will help the Academic and Computing learning center with hiring tutors from minority groups. The college as a whole has reached it's goal for grants for the 2020-2021 academic year. Other grants include the LaACES and LaSpace grants with Dr. Li as well as several subcontracted grants with the department of engineering and computer science.

1.1.2 Plan for Continuous Improvement

2020-2021:

To improve further, we need to make sure that we continue getting board of regents grants and expand outward to other types of grants so that the college can grow. We currently have other professors in the departments of chemistry & physics as well as in engineering and computer science working on grant applications for the upcoming academic year. We need to work on getting all departments involved in grant writing.