Summary

In the past year the School of Environmental and Biological Sciences continued to make significant progress toward adoption of a “culture of assessment” in undergraduate education. Highlights from 2015-2016 include:

1. SEBS adopts the Rutgers New Brunswick- learning-goal-based Core Curriculum, which is active for the class of 2019.
2. SEBS joins the Core Requirements Committee (CRC) and participates in administration of assessment of the learning-goal based Core Curriculum.
3. The SEBS Core includes an additional learning goal, Experience-Based Education (EBE), with the objective of examining and evaluating ideas within a discipline. A plan is created for EBE assessment, separate and apart from the CRC process.
4. An Instructional Assessment Committee (IAC), activated in 2015, now serves as the touchstone for assessment activities at the school.
5. The IAC review of undergraduate major programs in 2016 revealed a marked improvement in the assessment index of the school. Most programs enthusiastically participated in the overall increase, but a minority of programs requires further engagement.
6. A number of programs have established exemplary assessment protocols and these serve more than half of the declared majors at SEBS. Other programs, that together serve the remaining declared majors, show significant forward momentum on assessment practices.
7. The results indicate SEBS steady advancement toward meaningful review and evidence-based assessment of our students’ attainment of the learning goals we set for them; and that we act on the evidence to improve our programs and our students’ learning experiences.
8. Assessment of a SEBS school-wide undergraduate signature course for at-risk first-year students, named Portals to Academic Study Success (PASS)(11:015:103), shows positive learning outcomes and also points the way to course improvement.
9. The IAC and the Academic Dean’s office have energized the program assessment conversation at the School by scheduling workshops and best-practices sessions.
Background

The aim of undergraduate education at the Rutgers School of Environmental and Biological Sciences (SEBS) is to offer professionally-focused, science-based, university education of the highest quality. Our undergraduate programs offer multidisciplinary study of societal challenges in areas that cover the biological spectrum from organisms to ecosystems and from environments to governmental policies.

The underpinning of the SEBS undergraduate mission is a strong liberal arts foundation provided by the Rutgers New Brunswick learning-goal-based Core Curriculum\(^1\). SEBS adopted the Core Curriculum in 2015 with the incoming first-year class (the class of 2019).

Bolstered by liberal arts groundwork, SEBS undergraduates choose one of 21 different major programs. Student achievement in these disciplinary programs is defined by programmatic learning goals. Of the 21 programs available to SEBS students 18 are hosted at the School, including: Agriculture and Food Systems, Animal Science, Biochemistry, Bioenvironmental Engineering, Biotechnology, Ecology Evolution and Natural Resources, Entomology, Environmental Business Economics, Environmental Planning and Design, Environmental Policy Institutions and Behavior, Environmental Sciences, Food Science, Landscape Architecture, Marine Sciences, Meteorology, Microbiology, Nutritional Sciences, and Plant Biology. Program assessment at SEBS focuses on these locally controlled majors. The remaining programs: Biological Sciences, Exercise Science and Sports Studies and Public Health are hosted and independently assessed by the School of Arts and Sciences.

At SEBS the Instructional Assessment Committee (IAC), in cooperation with the SEBS Academic Dean’s office, oversees educational program assessment of disciplinary learning goals. The current members (and their programmatic affiliations) include: Uta Krogmann (Bioenvironmental Engineering), Ines Rauschenbach (Microbiology), James White (Plant Biology), Kyle Murphy (Biochemistry), Lena Struwe (Ecology Evolution and Natural Resources), and Karl Nordstrom (Marine Sciences), and Tom Leustek serving as the Chair and representing the Dean of Academic Programs. The Academic Dean’s office energizes the assessment conversation by scheduling discussions at staff meetings, workshops and best-practices sessions. In addition, the Dean’s office is available at all times to assist programs with any/all aspects of their assessment efforts.

\(^1\) Assessment of the Core Curriculum is reported in a separate annual report to the Executive Council on Assessment by the Core Requirements Committee, an SAS-based committee on which SEBS is represented and through which SEBS courses are certified and offered to students matriculating in participating schools at Rutgers New Brunswick that have adopted the Core Curriculum. A number of new SEBS courses have been certified over the past year and the CRC continues reviewing additional SEBS proposals for certification. Certified SEBS courses are submitting assessment reports to the CRC and evaluation of these reports is ongoing.
In addition to major programs, SEBS students are encouraged, but not required, to pursue secondary areas of disciplinary study in minor programs. They are able to declare any minor program available to them at any Rutgers New Brunswick school. Among these offerings are 23 SEBS hosted minor programs and 10 certificate programs\(^2\). The IAC oversees assessment of SEBS minors and certificates. This effort is still in the initial stages.

A signature Core Curriculum requirement at SEBS is experience-based education (EBE)\(^3\). Students are required to engage in one semester of an applied experience in which they examine and evaluate ideas within a discipline. The opportunities for EBE include departmental basic and applied research (in groups hosted at SEBS and elsewhere) as well as applied research programs at the laboratories, farms, business incubators, and marine stations of the *New Jersey Agricultural Experiment Station*. The NJAES facilities, located throughout the State, offer both on-campus and off-campus experiences. EBE is also offered in off-campus settings such as corporations and agencies through the Student to Professional Internship Network (SPIN) Program\(^4\). In addition, short- or long-term study abroad programs bring *international* EBE opportunities to our students.

Owing to the fact that the new goal-based Core Curriculum was recently adopted the class of 2019 has not yet encountered EBE, so the outcomes of this core goal have not yet been assessed. But preparation for the assessment is well underway. A policy document detailing the requirements for EBE, including an assessment mechanism, was adopted by the SEBS faculty on April 20, 2015\(^5\) after discussion and consensus at the *Curriculum and Educational Policy Committee* and the entire faculty at the *Academic Forum*. The IAC will administer assessment of this Core learning goal beginning with the first anticipated students in the Spring semester of 2017. In addition, plans are underway to assess the outcomes of the SPIN. This program is expected to provide a key mechanism for students to complete their EBE requirement.


\(^3\) Certificates - Environmental Geomatics, Environmental Planning, Evolutionary Medicine, Food Systems Education and Administration, Horticultural Therapy, International Agriculture/Environment, Medicinal and Economic Botany, Plant Biosecurity, Professional Youth Work, and Urban/Community Forestry

\(^4\) In this regard the SEBS Core Curriculum differs slightly from the Rutgers New Brunswick Core Curriculum. The SEBS Core has one additional requirement in Experience Based Education focusing on practical application of disciplinary knowledge. The learning goals are to complete and report on an applied experience (e.g., professional practice, service learning, or research) in order to examine and evaluate ideas within a discipline. The EBE Core Curriculum goal will be assessed by the Instructional Assessment Committee (IAC).

\(^5\) [http://sebsspin.rutgers.edu/](http://sebsspin.rutgers.edu/)

[http://sebscourseapproval.rutgers.edu/docs/Experience-Based%20Education%20Course%20Policy.pdf](http://sebscourseapproval.rutgers.edu/docs/Experience-Based%20Education%20Course%20Policy.pdf)
Another signature component of the SEBS undergraduate experience is a study skills training class that is mandatory for all first-years with GPA less than 2.0 after their incoming Fall semester. The course, named *Portals to Academic Study Success* (PASS)(11:015:103), is taught in the Spring semester to small focused student class sections of six to eight by a group of volunteer faculty and staff. The Learning Goals for PASS focus on mastery of: 1) Class attendance and note-taking skills, 2) Learning strategies, 3) Time and stress management skills, and 4) Development of individualized 4-year study plan towards graduation. Formal assessment of PASS outcome has been carried out for the first time this year.

**Results from 2016 Major Program Assessment Review**

The IAC reviews major program assessment semi-annually. Annual reports are requested from the Major programs at the end of the last full week in May. Each year the reports are prompted by a form that is derived from the University's Assessment Checklist for Academic Programs. This year’s form is in Attachment A.

The reports are reviewed by the IAC and a summary report is written that includes constructive feedback. A summary of all program evaluations at the School is also written. Both the feedback and summary are shared with the undergraduate majors in order to provide them with direction and a context for their activities relative to all the major programs. When programs are identified that are in special need of encouragement the IAC requests an interim progress report due by the end of the second week in January. These interim reports are also reviewed by the IAC and feedback is provided to the programs.

SEBS initiated a systematic annual review of program assessment in 2015. Whereas the University required assessment of learning outcome several years ago, SEBS lagged behind, in part, because of the more recent adoption of the goal-based Core Curriculum. The concept of review and feedback is that in the absence of guidance it is difficult for programs to comply with institutional directives. With 2 years of results available after the 2016 review it was possible in this report to evaluate the progress made by SEBS programs. The results are encouraging. They show that the strategy of formal review has had a strong positive influence on assessment practices at the school.

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6 Assessment reports are requested from Major programs, rather than departments, because some departments at SEBS host up to three different major programs. For example, the Department of Environmental Sciences hosts the Environmental Sciences Major, as well as Meteorology and Bioenvironmental Engineering. By contrast, Agriculture and Food Systems is not affiliated solely with any one department.
The reports were reviewed in 2016 similarly to how they were reviewed in 2015. Each report was reviewed by 3 IAC members. To avoid conflict-of-interest issues, IAC members did not review the report submitted by their affiliated programs. The reports were reviewed based on a set of four rubric-scored criteria (Attachment B) ranging in scale from 1 (worst) to either 3 or 4 (best). The IAC then met to discuss the reviews and agree on a feedback summary that was returned to the programs. The rubric scores were averaged and this information was also shared with the programs. The rubrics score, referred to as the “assessment index,” ranges from 4 (worst) to 14 (best).

All undergraduate major programs submitted an assessment report in 2015 and also in 2016. The chart entitled “Assessment Index - SEBS Undergraduate Majors,” shows the ranking of SEBS undergraduate programs comparing the 2015 and 2016 reviews. The burgundy bars show the 2015 score with the programs sorted from best to worst. The green bars indicate the increase in assessment index in 2016. The data reveals a marked improvement in the 2016 assessment index of most programs that ranked low or intermediate in 2015. The average assessment index for all of the programs increased from an average of 9.25 in 2015 to 11.6 in 2016.
Part of the reason for the increase in assessment index was a flurry of activity prompted by the 2015 review centered on webpage revision, rethinking of program learning goals, and collection of syllabi with course learning goals. The increase indicates that major programs wish to comply with assessment directives, and they appreciate receiving guidance.

Despite the overall increase in assessment index the programs varied significantly in their efforts. The four highest ranked programs in 2015 were again among the top ranked in 2016, including: Bioenvironmental Engineering, Environmental Sciences, Meteorology, and Food Science. Four programs that ranked in the intermediate or low range in 2015 stand out as having made exceptional efforts to upgrade their assessment practices in 2016, including: Landscape Architecture (plus Environmental Planning and Design), Marine Sciences, Ecology Evolution and Natural Resources, and Microbiology. The assessment index for Agriculture and Food Systems also increased significantly. An assessment plan was nonexistent for this program in 2015. During the past year Agriculture and Food Systems initiated an active program-building effort with the development of learning goals, addition of many new courses, and creation of a program webpage. Moderate, but vital increases in assessment index were made by Animal Science, Environmental Policy Institutions and Behavior, Meteorology, Environmental Business Economics, Biotechnology, Nutritional Sciences, and Entomology. At the other end of the spectrum, two programs, Biochemistry and Plant Biology showed 2016 assessment index values very close to what it was in 2015. These two programs have been asked to submit interim reports.

On average the increase in assessment index between 2015 and 2016 was fairly evenly distributed among the four criteria used by the IAC to evaluate the programs. The chart entitled “Increase in Assessment Indices – Averages for All Majors” shows the mean increase for all SEBS programs in 2016 compared with the 2015 scores for each of the four evaluation criteria. Nearly all of the programs have their program learning goals posted online, front and center. Most programs have their learning goals clearly and simply defined. On average, SEBS undergraduate programs are still challenged by the requirement for online posting of course syllabi with course learning goals, and the need for a clearly articulated blueprint of program assessment. However, there was significant improvement for both of these indices at SEBS in the past year, which is a clear indication that our undergraduate programs are making strong progress on program outcome assessment practices.

7 Landscape Architecture and Environmental Planning and Design submitted a single joint report, arguing that these two programs administered by the Department of Landscape Architecture share graduation requirements and learning goals. The report did not clarify or justify the existence of two separate programs that have identical learning goals and share significant graduation requirements. We will be engaging them on this question.

8 Entomology became a major in 2015. It was reviewed last year as a minor program in anticipation of being reviewed this year as a major.
With respect to the goal of establishing a “culture of assessment” at SEBS the development of a clear and well-articulated plan for program assessment is by far the most important review criterion. How well the programs engaged in this activity over the past year is indicated in the chart entitled: “Clearly Articulated Blueprint of Program Assessment.”

The chart shows the SEBS undergraduate programs ranked from best to worst with respect to their 2015 score (burgundy bars). The effort that mid- and low- ranked programs put into their assessment plan after the 2015 review is indicated by the green bars. It should be noted that the score for this evaluation criterion is an amalgamation of several factors including whether an active assessment committee is in place, that a genuine plan is articulated and is being implemented, and whether data are being collected and used for program improvement.

The four top ranked programs after the 2015 review, including Bioenvironmental Engineering, Food Science, Environmental Sciences, and Meteorology, were again top ranked in 2016. These programs have well established authentic outcome assessment programs. Bioenvironmental Engineering has led the way on this front at SEBS because program outcome assessment has for many years been required by their professional accreditation organization ABET.
Another seven programs showed marked increase on the program assessment plan criterion including *Environmental Policy Institutions and Behavior, Animal Science, Microbiology, Biotechnology, Landscape Architecture* (and *Environmental Planning and Design*), and *Marine Sciences*. These programs are either fully engaged or at the threshold of realizing an authentic assessment program. Therefore, 61% of SEBS programs are fully engaged or well on-the-way with respect to their program assessment blueprint. The remaining programs (39%) are at various stages of developing authentic assessment plans including *Biochemistry, Entomology, Environmental Business Economics, Nutritional Sciences, Ecology Evolution and Natural Resources, Plant Biology and Agriculture & Food Systems*. Some of these show significant forward momentum as evidenced by the increase in score for this criterion between 2015 and 2016. It is anticipated that these programs can be urged forward with continued direction and support from the IAC and the Academic Deans Office.

In conclusion, the 2015 to 2016 comparative results of undergraduate program assessment at SEBS indicate that the strategy that was initiated last year of formal review by the IAC and the return of feedback, has positively influenced assessment practices at the school. The results encourage us to look forward to further progress next year. The concept of
review and feedback is based upon the idea that it is difficult for programs to comply with institutional directives in the absence of guidance.

The review strategy has also resulted in positive effects beyond and in support of assessment. After the 2015 review all the programs engaged in long-overdue updating of their program webpages. Many used the program template that was commission last year by the SEBS Office of Academic Programs and developed by the SEBS Office of Information Technology (OIT). SEBS now has a full suite of clear and easy to navigate undergraduate program webpages that are consistent, across the school in format and information. Our new webpages are a resource to students and they offer the possibility for program marketing.

Another benefit derived from the review effort has been to stimulate faculty engagement in their undergraduate programs. The data supporting this conclusion comes from the review itself and also indirect evidence based on the interactions of program faculty with the Associate Dean of Academic Administration. The best undergraduate programs are those with actively engaged faculty.

The 2015 assessment review, and ensuing program activity, produced a third benefit, a comprehensive updating of the 2015-2017 Rutgers New Brunswick Undergraduate Catalog. In the summer and fall of 2015 the Office of Creative Services/University Communications and Marketing was in the midst of updating the catalog, which coincided with our programs updating to their assessment practices. Currently, all of the catalog entries for SEBS major programs have program learning goals listed and also include a url link to the program webpage so that the most current program requirements can be accessed, as well as course syllabi with course learning goals.

Looking forward to next year a number of initiatives are planned. The IAC and the Office of Academic Programs plans to hold several seminars/workshops in 2016/2017. Last year, two well attended workshops where held in order to keep the idea of program assessment foremost in the minds of program faculty. One workshop held in the summer of 2015, focused on assessment best practices and was presented by, Dr. Lisa Rodenburg, the Undergraduate Program Director of Environmental Sciences, one of SEBS top ranked programs on the assessment front. She described the blueprint for program assessment in Environmental Sciences. A second workshop held on May 3rd, 2016 entitled “What Are Measurable Program Learning Goals?” was presented by IAC member Dr. Ines Rauschenbach, a faculty member in the Department of Biochemistry and Microbiology. Ines is a Science Teaching Fellow and an Assessment Resident of the Biology Scholars Program. She regularly presents her Learning Goals Workshop at the American Society for
Microbiology. The IAC will be meeting early in the Fall 2016 semester to plan for future workshops.

The IAC is also in the midst of writing the rubric for assessment of the EBE (Experience Based Education Core learning goal). This rubric will be used by instructors/supervisors of students completing their EBE requirement. The rubric will be distributed to the major programs at the end of 2016 in preparation for Class of 2019 students, the first to have matriculated under the newly adopted Core Curriculum.

The IAC plans to begin assessment of certain SEBS-hosted minor and certificate programs in 2018. Of the 33 minors/certificates sixteen (16) are stand-alone- meaning they are not directly affiliated with a major program and do not share program learning goals with a major program. Such programs should be independently assessed. The challenge presented by minors/certificates for assessment of learning outcomes is the development of courses that specifically define the program and that all enrolled students must take. Toward this goal the Office of Academic Programs has been working with individual “stand-alone” minors/certificates. A good example of a program that is working toward an assessment blueprint is Sustainability⁹ that now has program learning goals and a capstone course Practicum in Sustainability (11:374:399; 3 credits).

Results from Assessment of Portals to Academic Study Success (PASS)

PASS class (11:015:103) is an effort to support first-year students who are academically at-risk. Those students with a term GPA less than 2.0 after their first semester are required to take PASS in the subsequent spring term. PASS is a 1 credit, graded, study skills class. The students are organized into small, highly participatory groups of six to eight taught by faculty and staff volunteers. The volunteers are organized by a faculty coordinator, Dr. Suzanne Sukhdeo, a member in Ecology Evolution and Natural Resources. The Learning Goals for PASS focus on mastery of: 1) Class attendance and note-taking skills, 2) Learning strategies, 3) Time and stress management skills, and 4) Development of individualized 4-year study plan towards graduation.

PASS was initiated in the Spring 2010 term. Since then the learning goals have not been individually assessed. The only evidence of the effectiveness of PASS was indirect, and based on feedback from some students. For example, former PASS student who took the class in Spring 2010, Tim Caulfield recently wrote in an email:

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⁹ [http://sciencelearning.rutgers.edu/sustainability.html](http://sciencelearning.rutgers.edu/sustainability.html)
Subject: Re: Thank you
From: "Tim Caulfield" <tjcaul@gmail.com>
Date: Mon, June 13, 2016 6:20 pm
To: "Mark A. Miller" <m.miller@envsci.rutgers.edu>

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Professor Miller,

This email may come as a surprise for you, as stumbling upon this string of emails did come as a surprise to me.

You may not remember me, but I certainly remember you and the life changing service you provided me.

Way back in 2010 at Rutgers, after a rough 1st 2009 fall semester as a freshman I fell into academic probation by my own neglect. Following that, I was placed into your class; meant to educate students who were on academic probation how to "survive" and "strive" at a university like Rutgers. You were my teacher, you also wrote me a letter of recommendation for my transfer to Arizona State University. Following that spring semester I attended ASU for only a year before transferring back to Rutgers due to family issues.

I finished up Rutgers with a BS in Exercise Science, and a minor in Psychology graduating in 2014.

If you remember, I entered your class with a 1.79 GPA, I graduated Rutgers with a 3.3(something) GPA.
I am now on track to graduate with my Doctorate of Physical Therapy in 2017 from Mercy College with a 3.9 GPA and am currently on my clinical affiliations at Kessler Rehabilitation.

I now want to send you a LONG overdue email saying thank you. Thank you for taking your time to help me, and those in your class who were also on academic probation. I can truly say you provided me with my first step to academic success, and my first step to a successful career, and life.

I hope this email finds you well.

Sincerely,

Timothy Caulfield

Because PASS is a key component of the undergraduate experience at SEBS and champions our “learning community” culture, it became necessary to assess whether the learning goals were being achieved. One direct measure of student achievement exists in the student
records database. For example, one would expect that achievement in PASS would be reflected in a marked improvement in term GPA and in cumulative GPA after taking the class. One difficulty of assessing PASS is that all SEBS first-years on academic probation are required to take the class. Therefore, there is no school population of students that are on academic probation, but who do not take PASS; that is, no control group. A proper control population is needed to differentiate between the effects of PASS class from the effects of students on academic probation. Therefore, we compared the SEBS PASS students from the Spring 2015 class with a similar cohort of SAS students. The majority of first-year SAS students on academic probation are not exposed to a formal study skills class. SAS does not offer such a mandatory study skills course, although they do offer voluntary study skills class to which selected, small group of students are invited. A special thanks is given to SAS Associate Dean Dr. Lenore Neigeborn for providing the data on SAS students.

The chart entitled: “Improvement of Term GPA” shows that the average term GPA increase both for SEBS PASS students and SAS students in the Spring semester after notification of academic probation. This result indicates that academic probation alone is a strong motivator of voluntary improvement of study skills as both SAS and SEBS students significantly improved their GPA in their following semester. However, although both cohorts had nearly identical GPA in Fall 2014, the GPA of PASS students in Spring 2015 increased to 2.522 compared with 2.266 for SAS students. The increase was statistically significant. Application of the T-Test for two independent means calculated a p value of 0.005512, which is significant at p=0.01 Therefore, the higher spring term GPA for SEBS students correlates well with the skills learned in PASS class.
On the other hand, the increase is not as significant as was hoped for. The chart entitled: “Mean Term GPA Increase F14 to Sp15” compares the magnitude of the increase at SEBS and SAS. Calculating the Hedge’s effect size value for the difference gives 0.248446, which is considered a slight effect. A value of 0.5 in the Hedge’s test is considered moderate and 0.8 is considered a large effect. This analysis revealed that if Spring term GPA is to be used as the index for achievement in PASS class that it will be worthwhile to analyze the individual learning outcomes in order to optimize the class activities that underpin the learning goals. A measurement rubric is now being written for this purpose.

Spring semester GPA may not be a good measure of PASS class outcome because it may not be reasonable to assume that PASS students will be able to effectively apply what they have learned in the same semester that they are learning about study skills. Perhaps they may apply what they have learned more efficiently over several semesters post-PASS class. To begin addressing this question data were gathered for an initial analysis from the first cohort of students who took PASS in the Spring term of 2010. The average GPA for this group in the Fall of 2009 was 1.320 and it increased to 2.426 in Spring (values nearly identical to the 2014-2015 data shown in the charts above). From this cohort, 39 students from 6 PASS sections were randomly selected. Of these 11 graduated with a Bachelor’s Degree in 2013, 11 graduated in 2014, and 5 graduated in 2015. The total thus far is 27 graduated (out of 39) for a 69.2% graduation rate. Only 12 students have not completed their Bachelor’s Degree, although 2 are still continuing at SEBS and are expected to graduate. Therefore, the “drop-out rate” for this group of PASS students is 25.6%. Further extraction of data will be necessary to compare these results with other groups of students to determine the effectiveness of PASS. The results described here are our initial effort to assess PASS class in an effort to guide and improve to course.
This report was prepared by Tom Leustek, Associate Dean for Academic Administration and Assessment, on behalf of the SEBS Instructional Assessment Committee and the report was submitted to the Executive Council on Assessment on July 1, 2016.
## SEBS Assessment Report

### Undergraduate Program:

Submitted by: _____________________________ Date: ____________

This report is on the assessment of:

- [ ] Major - please specify: _____________________________
- [ ] Minor - please specify: _____________________________

### Program (Major, Minor) Learning Goal(s)

**Indicate the URL at which the Program Learning Goals are publicly posted.**

If last year’s evaluation of your program with regard to simple and measurable learning goals was less than outstanding explain what efforts have been made for improvement.

### Where/How Are Program Learning Goals Achieved?

**Describe strategy or site for student achievement of goal(s):** e.g., major requirements, specific courses, internships.

- Indicate the URL where the major requirements are described.
- Indicate the URL where program courses and syllabi are listed.

The IAC will be looking for current course syllabi that include course learning goals. Self-evaluate your program’s compliance with the posting of course syllabi and learning goals (overwhelming majority >90%, most 75%-90%, some 50%-75%, less than half).

If last year’s evaluation of your program was less than outstanding explain what efforts have been made for improvement.

### How are Program Learning Goals Assessed?

**Identify and briefly describe the direct measure of student achievement of each program learning goal. How does your program collect the assessment data? What is the benchmark?**

**For each program learning goal list the courses that your program uses to assess that learning goal. Briefly describe how each course contributes to the assessment of that goal. If courses are weighted with respect to assessment of a learning goal please indicate the weight.**

Describe how the assessment data are being collected. How the assessment data are being evaluated? Who evaluates the data? How often is the data evaluated?

### Use of Results; Plan/Schedule for Going Forward

**Any planned or implemented changes in light of results, and projected timeline for the follow-up re-assessment of student outcomes on this goal.**

**Describe one assessment result that has, in the last year, led to a change in the program or will lead to a change? What is the change? Explain the reasoning for the change. If it was determined that a program learning goal is being met explain how this was determined.**

**Explain the process that was used to evaluate the assessment data. Did an assessment committee meet to evaluate the data? Who is on the committee?**

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1 Benchmarks are what you establish as the minimum satisfactory outcome for the goal.
2016 Assessment Report Review criteria:

A. Are program learning goals posted publicly and are they easily found?
B. If there are program learning goals are they clearly defined?
C. Are course syllabi publicly posted and available for ALL taught program courses? Do the courses have publicly posted learning goals?
D. Is there a clearly articulated blueprint of program assessment?

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<thead>
<tr>
<th>Are program learning goals posted publicly and are they easily found?</th>
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<tbody>
<tr>
<td><strong>OUTSTANDING (3)</strong></td>
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<tr>
<td>LG easily found, posted front and center for everyone, most importantly the students</td>
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<th>Are program learning goals clearly and simply defined and are they measureable?</th>
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<td><strong>OUTSTANDING (3)</strong></td>
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<th>Are course syllabi publicly posted and available for ALL taught program courses? Do the courses have publicly posted learning goals?</th>
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<td><strong>OUTSTANDING (4)</strong></td>
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<td>≥90% of program courses have posted syllabi with learning goals The learning goals are measurable</td>
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<th>Is there a clearly articulated blueprint of program assessment?</th>
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<tr>
<td>Based on the program report have you been convinced that there is faculty committee oversight of curriculum assessment, that the committee has developed an assessment plan, that the plan is being implemented, that data from assessment is being used to improve the program?</td>
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<tr>
<td><strong>OUTSTANDING (4)</strong></td>
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<td>•An active committee is in place</td>
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<td>•A genuine assessment plan has been developed and is being implemented</td>
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<td>•Genuine assessment data has been collected</td>
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<td>•Assessment data are being used for program improvement</td>
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