

# UNIVERSITY OF ROCHESTER: Arts, Sciences and Engineering (AS&E) Executive Summary Assessment Plan 2019

## Assessment of the Rochester Curriculum

A comprehensive student learning assessment plan that uses both direct and indirect assessment evidence to inform continuous improvement in teaching and learning exists in Arts, Sciences and Engineering. The assessment plan encompasses overall undergraduate and graduate educational learning outcomes achievement including both curricular and co-curricular learning experiences. The student learning assessment plan is an evergreen plan, reviewed annually, and coordinated by the College Director of Educational Effectiveness, the College Associate Dean, the Associate Dean of the Hajim School of Engineering, and the College Advisory Committee for Educational Effectiveness (CACEE). Of note, CACEE membership is rotating and includes representatives from all divisions across AS&E.

Assessment of the student learning outcomes is supported through assessment of: degree program learning outcomes, undergraduate core curriculum learning outcomes (based on the MSCHE core curriculum requirements); the College (Co-Curricular) Competencies; and graduate student programs and initiatives. Assessment initiatives and plans are more fully detailed in the following sections.

## AS&E Assessment Initiatives and Assessment Plans

Degree majors routinely review and assess program learning outcomes and prepare assessment action forms that utilize student assessment and achievement data. Direct assessment of core curriculum learning outcomes is incorporated as part of degree program learning outcomes assessment and through targeted direct and indirect assessment initiatives. The Director of Educational Effectiveness routinely supports the design of learning initiatives, assessment plans, and pre/post surveys with faculty to promote greater student achievement.

The College Competencies (<https://www.rochester.edu/college/academics/competencies.html>) form the framework for a comprehensive set of learning outcomes to guide co-curricular learning experiences and assessment across AS&E. A working group has been formed to identify and implement plans for both tracking student participation and assessing student learning achievement with respect to the College Competencies. The College co-curricular units/departments design and implement student surveys and pre/post assessments for programs and initiatives, with the support of the Director of Educational Effectiveness, to evaluate the extent to which students achieve the intended outcomes.

## Data Collection Tools and Approaches

AS&E's assessment plan for the degree majors, minors, and the cluster system within the Rochester Curriculum is based on both direct and indirect measures of learning objective achievement including the following:

- Direct assessment of program learning achievement supporting continual improvement of programs. Degree programs are asked to assess all program learning outcomes with findings, evaluations, recommendations and actions documented for review and follow-up.
- Direct assessment of core learning outcomes is both embedded in program learning outcomes assessment and included as part of targeted assessment initiatives. For example, faculty

teaching specific courses (e.g. senior level, part of degree requirements, and/or part of a cluster) are asked to choose an assessment (e.g. final exam question, project, presentation, etc.) that best represents student achievement of the Rochester Curriculum core learning outcomes. Both quantitative and qualitative data can be used in analyses.

- Indirect assessment data is collected via COFHE (SNS, ESS, and SENIOR) Surveys, and also through the AS&E Senior Survey and AS&E Graduate Student Surveys wherein students self-assess learning. The surveys allow the AS&E team to gain a student-centered sense of areas of potential strengths and challenges in achievement of intended learning outcomes. Our plan includes mapping question items across the surveys for the purposes of grouping feedback related to similar outcomes across survey instruments. This will likely be an iterative process with the goal of supporting more comprehensive and/or historical review of data, interpretation of data trends, and the potential to inform needed follow up action.
- Alumni surveys that include the COFHE Alumni Survey and the Simpson-Scarborough Alumni Survey have also been implemented in order to gather additional (indirect) assessment data.
- Department/program faculty/staff members review and revise learning experiences, courses, and programs based on assessment data findings, evaluations, and recommendations.

### Use of the Evidence

All Arts & Sciences programs develop a three-year assessment plan with direct and indirect measures, routinely complete a data collection and analysis process, identify areas for specific improvements, and prepare an annual learning outcomes assessment report. The annual program report documents the cycles of continuous improvement wherein assessment data are reviewed, areas of success and concern identified, and curricular improvements identified and recommended. Program faculty/staff then discuss and implement recommendations to “close the loop”.

### AS&E Assessment Reports

In consultation with CACEE and the Associate Dean of the College and the Associate Dean of the Hajim School of Engineering, the Director of Educational Effectiveness prepares an annual assessment report reviewing and analyzing all assessment data against program learning objectives. The reports identify areas key assessment initiatives, findings and action plans developed to support achievement of learning goals. These data are often combined with demographic data and/or retention/graduation data to provide greater insight into how best to support learning outcomes achievement and continual improvement of programs. Once the data are reviewed with the Deans Office in AS&E, the Director of Educational Effectiveness consults with faculty and staff in developing pilot education innovation projects that address areas of need, and prepare to assess the impact of the these initiatives .

### On the Horizon: Review of AS&E Learning Outcomes

Future assessment initiatives to include review of AS&E intended learning outcomes that will formally confirm a combination of general education learning outcomes and co-curricular learning outcomes as appropriate for each of undergraduate and graduate student populations. This will be accomplished via a collaborative effort including faculty and staff from across the departments and program in AS&E with the guidance of CACEE and the CDC. Following this review, departments and programs will be asked to ensure alignment and support for the re-confirmed AS&E intended learning outcomes.