

**Degree Program: Mathematics (B.A.)**

<b>Student Learning Outcome</b>	<b>ULG</b>	<b>Measures/Instruments</b>	<b>How Information is used</b>
Students will demonstrate knowledge of core mathematical content in differential and integral Calculus and its applications	CT-4, 5, 6 QR-1, 2, 3, 4, 5, 6	Course grades from MAT 2443 – Calculus and Analytic Geometry III MAT 3501 – Differential Equations I	This data are collected by the course faculty and the department chair. Course grade data are shared informally among course instructors and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward.
Students will demonstrate knowledge of core mathematical content in algebraic structures	CT-4, 5, 6 QR-1, 2, 3, 4, 5, 6	Course grades from MAT 3530 – Abstract Algebra MAT 4760 – Linear Algebra	This data are collected by the course faculty and the department chair. Course grade data are shared informally among course instructors and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward.

<p>Students will be able to communicate about reasoning and proof in both oral and written forms</p>	<p>WCR – 1, 2, 3, 4 SL – 3, 7</p>	<p>Course grades from MAT 2800 – Foundations of Mathematics MAT 4860 – Mathematical Analysis</p>	<p>This data are collected by the course faculty and the department chair. Course grade data are shared informally among course instructors and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward.</p>
<p>Students will demonstrate critical thinking skills</p>	<p>CT – 1, 2, 3, 4, 5, 6 RC-4</p>	<p>Presentations in MAT 4700</p>	<p>Students are required to write and present mathematical ideas. A rubric is used to assess at least significant presentation of this work.</p>

Notes

- We are discussing the use of a rubric to assess one or more assignments in MAT 2800. We think such an assessment will help us better individually assess communication.
- The department has a developed exit survey for graduates that was implemented a few years ago but has not been used the past couple of years. It will be implemented once again in the next year or so now that we can consistently offer face to face or online versions of classes. The purpose of the survey is to gain student feedback on learning experiences in the classroom and with the professors.

**Degree Program: Computer Science (B.S.)**

Student Learning Outcome	ULG	Measures/Instruments	How Information is used
Students will demonstrate knowledge of core mathematical content	CT-4, 5, 6  QR-1, 2, 3, 4, 5, 6	Course grades from MAT 2442 – Calculus and Analytic Geometry II MAT 2345 – Discrete Mathematics MAT 2550 – Introduction to Linear Algebra MAT 3701 – Probability and Statistics I	The data are collected by the course faculty and the department chair. Course grade data are shared informally among course instructors and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward.
Students will become proficient in programming in a high-level object-oriented language.	CT-3, 4 QR - 4	Course grades and individual labs from CSM 2670 – Object Oriented Programming	The data are collected by the course faculty and the department chair. Course grade data are shared informally among computer science faculty and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward.

			Labs are examined and discussed each summer prior to next course offering.
Students will understand the architecture, organization, and programming of modern computing systems.	CT-3, 4 QR - 4	Assessments projects from CSM 3670 – Principles of Computer Systems CSM 4970 – Principles of Operating Systems	The data are collected by the course faculty and the department chair. Course grade data are shared informally among computer science faculty and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and deficiencies that may be present moving forward. Labs are examined and discussed each summer prior to next course offering.
Students will learn the foundations of computer science, algorithm efficiency, and computational complexity	QR - 4	Assignments from CSM 4880 – Design and Analysis of Algorithms	The data are collected by the course faculty and the department chair. Course grade data are shared informally among computer science faculty and the department chair. Students who earn a “C” or lower typically are required to meet with their advisor to discuss potential issues and

			deficiencies that may be present moving forward. Labs are examined and discussed each summer prior to next course offering.
Students will use current techniques, skills, and tools necessary for the practice of the discipline.	CT-3, 4 QR - 6	Completion of internship or similar applied experience (CSM 4275 – Internship in Computer Science). During the internship the student is evaluated the site internship supervisor. In most cases there is a site visit or other regular communication between the student and the intern coordinator. The student must complete a report about the internship that details what work was done, how problems were overcome, and how the experience allowed him/her to apply what has been learned in the classroom to the field.	Data are collected by the departmental internship coordinator. Data are shared informally among the computer science faculty.

## CLAS Deans' comments on Math B.A. report

**Reviewer: Michael Cornebise**

***Please note:*** This is a **STARTING POINT** for conversation, with no rubric per se. We will be developing a rubric collaboratively (amongst chairs, Associate Deans, and our new EIU Assessment Coordinator, Yvette Smith) in the spring of 2021 based on peer/aspirant institution models, then we'll evaluate it by that. Meanwhile, if you'd like to modify your document based on these comments, feel free. We appreciate your patience with this process as it evolves!

1. SLOs are generally clear and measurable, though the faculty might consider developing additional outcome goals that relate to the assessment of student development (e.g., the ability to apply and/or evaluate knowledge).
2. The precision of the learning goals (as per CAA's document) is appreciated; however, it is not necessary — only need “C,” “W,” “S,” and/or “R” (or “NA”) as per the footnote on the template. But if the precision makes it easier for you to analyze your data, by all means keep it. Either way, the undergraduate learning goals are clearly and appropriately identified for each learning objective.
3. While the department plans to relaunch an exit survey for graduates and is considering a rubric to assess assignments in MAT 2800 (which I think are both great ideas), the bulk of the assessment plan focuses on grades in specified courses to assess many of the SLOs. How will the department determine the extent to which learning outcomes are met (or not, as the case may be)? To drill down a bit deeper, the department might consider the use of targeted exam questions that every student will answer or pre- and post-tests to more fully address and evaluate the desired outcomes.
4. The feedback loop is clearly identified in the plan and includes pathways for students to shore up deficiencies. However, it would be useful to know how the data can be used by the faculty as a means to inform program improvement.

Overall, though, I think with the addition of the exit survey and the development of the MAT 2800 rubric, the program will be ready for data collection.

## CLAS Deans' comments on Computer Science B.S. report

**Reviewer: Michael Cornebise**

***Please note:*** This is a **STARTING POINT** for conversation, with no rubric per se. We will be developing a rubric collaboratively (amongst chairs, Associate Deans, and our new EIU Assessment Coordinator, Yvette Smith) in the spring of 2021 based on peer/aspirant institution models, then we'll evaluate it by that. Meanwhile, if you'd like to modify your document based on these comments, feel free. We appreciate your patience with this process as it evolves!

1. SLOs are generally clear and measurable, though the faculty might consider developing additional outcome goals that relate to the assessment of student development (e.g., the ability to apply and/or evaluate knowledge).
2. The precision of the learning goals (as per CAA's document) is appreciated; however, it is not necessary — only need “C,” “W,” “S,” and/or “R” (or “NA”) as per the footnote on the template. But if the precision makes it easier for you to analyze your data, by all means keep it. Either way, the undergraduate learning goals are clearly and appropriately identified for each learning objective.
3. The measures/instruments used for assessment of the Computer Science B.S. report include projects and assignments from several upper division courses along with outcomes from an internship or similar applied experience. The plan also relies on grades in specified courses to assess two of the SLOs. How will the department determine the extent to which learning outcomes are met (or not, as the case may be)? To drill down a bit deeper, the department might consider the use of targeted exam questions that every student will answer or pre- and post-tests to more fully address and evaluate the desired outcomes.
4. The feedback loop is clearly identified in the plan and includes pathways for students to shore up deficiencies. However, it would be useful to know how the data can be used by the faculty as a means to inform program improvement.

Overall, though, I think the program is ready for data collection.