Slippery Rock University
Department of Computer Science

Computing Program Educational Objectives:

The Computing program prepares students for computing jobs. They are going to be exposed to and solve all sorts of problems in the field, such as software development, system integration, and system administration. Being a team player is necessary to work on and solve a complex problem. Graduates also need to recognize the pros and cons of different technologies and solutions, including their negative impact on society. Thus, the program's educational objectives are consistent with the university's mission to transform the intellectual, social, physical, and leadership capacities of students in order to prepare them for life and career success.

Computing is one of the most dynamic and evolving disciplines. The inclusion of electives and constant curricular updates imply a lifelong learning process, which is consistent with the university's mission to provide lifelong learning opportunities.

Moreover, the program educational objectives are directly aligned with the university wide learning outcomes:

Table 1 Alignment of PEO with University Outcomes

Program Educational Objectives	University Wide Learning Outcomes
PEO#1: Graduates apply their knowledge of computing to solve technology-related problems in the public sector, private sector, or academia.	Apply critical thinking to argument and problem solving
PEO#2: Graduates demonstrate leadership qualities when working in diverse teams and environments.	Act as effective communicators
PEO#3: Graduates demonstrate knowledge of the ethical responsibilities required of computing professionals.	Act ethically

Student Outcomes, Performance Indicators and Associate Courses:

Table 2 Computing Student Outcomes with their Performance Indicators and the courses from which assessment data is collected and evaluated for each concentration.

Student Outcome (SO)	Performance Indicator (PI)	Concentration	Course
SO#1 Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.	PI#1. Analyze a complex computing problem	CS and CA IT	CPSC 374 CPSC 315
	PI#2. Apply principles of computing and other relevant disciplines to identify solutions	CS and CA IT	CPSC 374 CPSC 317
SO#2 Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	PI#1. Design a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	CS, CA and IT	CPSC 146 CPSC 323
	PI#2. Implement a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	CS, CA and IT	CPSC 146 CPSC 323
	PI#3. Evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	CS, CA and IT	CPSC 146 CPSC 323
SO#3 Communicate effectively in a variety of professional contexts.	PI#1. Write reports for final projects.	CS CA IT	CPSC 488 CPSC 405 CPSC 427
	PI#2. Give oral presentations for final projects.	CS CA IT	CPSC 488 CPSC 405 CPSC 427
SO#4 Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.	PI#1. Recognize professional responsibilities	CS, CA and IT	CPSC 300
	PI#2. Make informed judgments in computing practice based on legal and ethical principles	CS, CA and IT	CPSC 300
SO#5 Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	PI#1. Attend team meetings PI#2. Make contributions in group meetings PI#3. Cooperate with the group effort PI#4. Listen to his/her teammates' ideas and opinions respectfully and give them careful consideration PI#5. Make a serious effort to fulfill his/her team role responsibilities on assignments	CS CA IT	CPSC 488 CPSC 405 CPSC 427