List of Files on SoCS Undergrad Curriculum Mapping Survey
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1) List of CIS courses to be surveyed for CPR
   SurveyCourseList.pdf

2) Program learning outcomes for BComp CS, SENG, and General
   BCcompGeneral.pdf
   BCompCS.pdf
   BCompSoftEng.pdf

3) Survey options on program learning outcomes
   SurveyCS_PLO.pdf
   SurveyGeneral_PLO.pdf
   SurveySENG_PLO.pdf

4) Survey options on how program PLOs are taught in a course
   PloTeachingOption.pdf

5) Survey options on how program PLOs are assessed in a course
   PloAssessOption.pdf

6) Survey options on what depth program PLOs are assessed in a course
   PloAssessLevel.pdf

Courses To Be Surveyed on BComp CS, SENG, and Genearal

1 CIS*1050
2 CIS*1250
3 CIS*1300
4 CIS*1910
5 CIS*2170
6 CIS*2250
7 CIS*2500
8 CIS*2910
9 CIS*2030
10 CIS*2430
11 CIS*2520
12 CIS*2750
13 CIS*3110
14 CIS*3490
15 CIS*3150
16 CIS*3250
17 CIS*3260
18 CIS*3530
19 CIS*3750
20 CIS*3760
21 CIS*4150
22 CIS*4250
23 CIS*4300
24 CIS*4650

Survey Options on BComp-CS PLOs

1 Problem Solving: Develop, test, document, deploy, and maintain secure program code to meet given specifications.
2 Creativity: Design, implement, and evaluate computerÂbased solutions to meet needs and constraints of client.
3 Depth and Breadth of Understanding: Apply knowledge of computing and mathematics to a discipline outside of computing.
4 Information Literacy: Apply knowledge from at least one specialized area of CS (Human Factors, Security, Graphics, Networks, Databases) to design/development of software.
5 Quantitative Literacy: Understand use and structure of common mechanisms for formally describing software and algorithms. Execute standard measuring and analysis techniques in evaluation of computing algorithms.
6 Technological Literacy: Demonstrate technological fluency. Evaluate and test new technologies systematically.
7 Global Understanding: Analyze local and global impact of computing on individuals, organizations, the environment, and society.
8 Civic Knowledge and Engagement: Enumerate common workplace expectations found in information technology (IT) environments.
9 Oral Communication: Communicate confidently and effectively to audiences of a varying technological ability.
10 Written Communication: Produce high quality programming documentation for libraries and reusable code modules.
11 Reading Comprehension: Interpret and use written documentation and programming interface specifications.
12 Integrative Communication: Interpret, produce, and present workÂrelated documents and information effectively and accurately.
13 Ethical Reasoning: Explain the legal and securityÂrelated issues arising from design choices for a software system.
14 Leadership: Provide technical leadership to software teams.

Survey Options on BComp-SENG PLOs

1 Inquiry and Analysis: Use a variety of proven techniques when analysing software development problems.
2 Problem Solving: Evaluate possible approaches to solving a problem and explain the benefits and drawbacks to each approach.
3 Depth & Breadth of Understanding: Describe broad engineering considerations that are background for developing complex, softwareÂintensive systems.
4 Information Literacy: Translate software specifications into wellÂdocumented designs.
5 Quantitative Literacy: Collect, analyse and interpret metrics for software and software development teams.
6 Technological Literacy: Plan and execute software engineering processes that effectively use available technology and tools.
7 Visual Literacy: Produce and interpret a variety of diagrams to represent beginning, middle and final stages of software projects.
8 Global Understanding: Identify ways in which advances in software development pose new ethical questions, require new standards, and introduces moral problems and dilemmas.
9 Sense of Historical Development: Reflect on the appropriateness of different software engineering methodologies for different contexts.
10 Civic Knowledge and Engagement: Describe the additional design considerations required for critical software systems.
11 Intercultural Knowledge and Competence: Work effectively on multidisciplinary teams.
12 Oral Communication: Interact with a project client to elicit input and communicate project progress.
13 Written Communication: Produce written documentation for the design, development, and testing of a complex software project.
14 Integrative Communication: Create and present software project proposals for clients and funding agencies who may not be software professionals.
15 Teamwork: Employ groupÂworking skills to provide leadership and mentoring to teamates.
16 Ethical Reasoning: Make defensible judgements about actions and policies when presented with competing ethical perspectives.
17 Leadership: Manage a software project including planning, scheduling, and risk assessment/management.

Survey Options on BComp-General PLOs

1 Independent Inquiry and Analysis: Examine complex real-world problems. Devise efficient, well-documented computer-based solutions for those problems.
2 Problem Solving: Analyze a software development problem. Consider a range of possible approaches to its solution and identify the most promising approaches.
3 Creativity: Apply a knowledge of fundamental algorithms, programming techniques, and design to create software systems.
4 Depth and Breadth of Understanding: Design, correctly implement, and document solutions to significant computational problems.
5 Information Literacy: Apply the core areas of software development. (data structures, programming languages, computer architecture).
6 Quantitative Literacy: Apply mathematical foundations, algorithmic principles, design of computer-based systems.
7 Technological Literacy: Evaluate current techniques, hardware, software, and tools required for the production of software systems.
8 Visual Literacy: Understand the use and structure of the common mechanisms for formally describing software and hardware structures and graphical user interfaces.
9 Global Understanding: Explain how technical constraints limit solutions desired by society in both local and global contexts.
10 Sense of Historical Development: Discuss the history of software and the evolution of computer technology.
11 Civic Knowledge and Engagement: Describe the local and global impact of computing on individuals, organizations, and society.
12 Intercultural Competence: Relate the social and cultural responsibilities of a professional working in the discipline of computer science.
13 Oral Communication: Explain software requirements using appropriate technical language.
14 Written Communication: Compose written reports to convey technical material meeting accepted standards for writing style.
15 Reading Comprehension: Locate and evaluate relevant written information related to a software development project.
16 Integrative Communication: Apply appropriate user interface techniques to design systems that are usable by people.
17 Teamwork: Recognize the different roles and responsibilities within a team.
18 Ethical Reasoning: Explain the professional and ethical responsibilities surrounding software development.
19 Leadership: Use goals and milestones and recommend task breakdowns for software projects.
20 Personal Organization/Time Management: Recognize the need for, and have the ability to engage in, life-long learning. Consistently organize time and commitments to ensure success.

Survey Options on How Program PLOs Are Taught in a Course

1 Lecture;
2 Discussions / exercises / activities (e.g. think-pair-share);
3 In-lab or assignment activities (active, hands-on, or experiential learning opportunities);
4 Community engaged design or development;
5 E-portfolios;
6 Guest lectures;
7 Clicker questions / responses;
8 Multimedia presentations (e.g. video, film, YouTube);
9 Assigned readings;
10 Reflective writing / journaling;
11 Research Projects (proposals, literature reviews, data collection & analysis, reports);
12 Self-assessment (student compares own progress toward intended learning goal);
13 Workshop sessions (e.g. writing, peer-review, time management sessions);

Survey Options on How Program PLOs Are Assessed in a Course

1 Exam or quiz;
2 Lab exam or quiz> with hands-on components;
3 Written assignment> Literature Review;
4 Written assignment> Research Proposal;
5 Written assignment> Case study analysis;
6 Written assignment> Laboratory Project / Report;
7 Written assignment> Media / content analysis;
8 Written assignment> Reflective Writing / journaling;
9 Learning Portfolio (e.g. ePortfolio, LinkedIn account);
10 Oral exam;
11 Oral presentation (excluding poster);
12 Poster presentation;
13 Multimedia presentation (e.g. creating video, podcast);
14 Participation / Engagement> Discussion;
15 Participation / Engagement> Peer evaluation;
16 Participation / Engagement> Self-assessment;
17 Practicum;
18 Problem solving assignments;
19 Community engagement;

Survey Options on What Depth Program PLOs Are Assessed in a Course

1 Introduce: Students are expected to define, recall, restate, arrange, repeat, report, or identify fundamental concepts and skills related to the outcome.
2 Reinforce: Students are expected investigate, differentiate, compare, revise, estimate core concepts and skills related to the outcome.
3 Master: Students are expected to analyze, evaluate, apply, create, integrate, extrapolate core concepts and skills related to the outcome.