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| **Program/Discipline Learning Outcomes** | | | | |
| **Academic Year: 2017-18** | | | | |
| **Program/Discipline: Computer Programming Specialist** | | | | |
| **PROGRAM/DISCIPLINE CONTACT** | | | | |
| **FACULTY: Dianne Hill** | | | **OFFICE: WA 226E** | |
| **EMAIL: hilldiannem@jccmi.edu** | | | **PHONE: 796-8546** | |
| **Learning Outcome:**  **(Successful students will be able to)** | | **Course(s) in which the assessment will be performed** | **Semesters the outcome will be assessed** | **Assessment tools used for learning outcome** |
| 1 | Apply the five phases of the systems development life cycle (SDLC) in problem solving: systems planning, systems analysis, systems design, systems implementation, and systems operations, support, and security. | CIS 273 | Winter | Exams, Final Project |
| 2 | Design, implement, and analyze algorithms for solving problems*.* | CIS 158, 160, 165, 170, 244, 273 | Fall, Winter | Homework, Exams, Final Project |
| 3 | Plan and design business oriented computer programs using logic diagrams | CIS 158, 273 | Fall, Winter | Homework |
| 4 | Design and write sequence, selection, and repetition structures | CIS 158, 160, 165, 170 | Fall, Winter | Homework, Exams, Final Project |
| 5 | Design, write, and test procedural computer programs using several different programming languages | CIS 160, 165, 170 | Fall, Winter | Homework, Final Project |
| 6 | Design, write, and test object-oriented computer programs using several different programming languages | CIS 160, 165, 170 | Fall, Winter | Homework, Final Project |
| 7 | Experience maintenance programming by altering existing programs | CIS 158, 160, 165, 170, 143, 244 | Fall, Winter | Homework |
| 8 | Create a web site using both server-side and client-side scripting | CIS 143, 244 | Fall, Winter | Homework, Final Project |
| 9 | Write both internal and external documentation | CIS 160, 170, 273 | Fall, Winter | Homework, Final Project |