



# School of Business Services & Informational Technology

## Occupation/Field: Computer Science



### National Career Cluster: Information Technology

| GRADE       | SUBJECT | Required Courses for Core 40 Diploma |                              |                                     |                             |                  | Recommended Courses and Electives  |                         |            |
|-------------|---------|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|------------------|------------------------------------|-------------------------|------------|
|             |         | English/<br>Language Arts            | Math                         | Social Studies                      | Science                     | Electives        | Electives                          | Electives               | Electives  |
| HIGH SCHOOL | 9       | s1                                   | English 9                    | Algebra I                           | College and Careers         | Biology I        | PE                                 | Health                  |            |
|             |         | s2                                   | English 9                    | Algebra I                           | Study Hall                  | Biology I        | PE                                 | Health                  |            |
|             | 10      | s1                                   | English 10<br>Enr. Eng 10    | Geometry                            | World History               | ICP<br>Chemistry | World<br>Language                  | Computer Programming II |            |
|             |         | s2                                   | English 10<br>Enr. Eng 10    | Geometry                            | World History               | ICP<br>Chemistry | World<br>Language                  | Computer Programming II | Web Design |
|             | 11      | s1                                   | English 11<br>AP English 11  | Algebra II                          | US History<br>AP US History | Core 40 Science  | Porter County Career Center Course |                         |            |
|             |         | s2                                   | English 11<br>AP English 11  | Algebra II                          | US History<br>AP US History | Core 40 Science  |                                    |                         |            |
|             | 12      | s1                                   | Senior Comp<br>AP English 12 | Quantitative<br>Reasoning<br>Course | Government                  | World Language   | Porter County Career Center Course |                         |            |
|             |         | s2                                   | Senior Comp<br>AP English 12 | Quantitative<br>Reasoning<br>Course | Economics                   | World Language   |                                    |                         |            |

### Bachelor of Science in Computer Science from University of Evansville, Evansville, IN

| POSTSECONDARY | Yr    | S1 | S2 | Required Courses for Core 40 Diploma                             |                                                |                                                   |                                            | Recommended Courses and Electives |           |                                   |
|---------------|-------|----|----|------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------|--------------------------------------------|-----------------------------------|-----------|-----------------------------------|
|               |       |    |    | English/<br>Language Arts                                        | Math                                           | Social Studies                                    | Science                                    | Electives                         | Electives | Electives                         |
|               | Yr 13 | S1 |    | Principles of Chemistry (CHEM 118) or General Biology (BIOL 107) | Introduction to Computer Science (CS 101)      | First-Year Seminar (FYS 111/112)                  | Calculus I (MATH 221)                      | Foreign Language 111              |           |                                   |
|               |       | S2 |    | Fundamentals of Programming I (CS 210)                           | First-Year Seminar or Elective (FYS 112)       | Calculus II (MATH 222)                            | Calculus Physics I (PHYS 210)              | Foreign Language 112              |           |                                   |
|               | Yr 14 | S1 |    | The British Experience (ID H282/382)                             | Calculus III (MATH 323)                        | General Education Elective                        | General Education Elective                 |                                   |           |                                   |
|               |       | S2 |    | Fundamentals of Programming II (CS 215)                          | Logic Design and Machine Organization (CS 220) | Discrete and Combinatorial Mathematics (MATH 370) | Applied Engineering Mathematics (ENGR 390) | General Education Elective        |           | Free Elective                     |
|               | Yr 15 | S1 |    | Programming Languages (CS 380)                                   | Formal Languages (CS 381)                      | Software Engineering (CS 390)                     | Calculus Physics II (PHYS 211)             | Computer Science Elective         |           |                                   |
|               |       | S2 |    | Object-Oriented Design (CS 290)                                  | Algorithms and Data Structures (CS 315)        | Computer Architecture (CS 320)                    | Operating Systems (CS 470)                 | Senior Project Seminar            |           | Free Elective/Health and Wellness |
|               | Yr 16 | S1 |    | Senior Project Phase I (CS 495)                                  | Computer Science Elective                      | Computer Science Elective                         | Free Elective                              | Free Elective                     |           |                                   |
|               |       | S2 |    | Senior Project Phase II (CS 497)                                 | Computer Science Elective                      | Free Elective                                     | Free Elective                              | Professional Development Elective |           |                                   |

Hobart High School offers numerous DUAL CREDIT courses. See your counselor for more information.

