

# MODEL ROUTE

| <b>School:</b>                | School of Engineering Technology and Applied Science  | <b>Program Number:</b>  | 3449                                 |  |   |   |  |              |             |
|-------------------------------|---|---|--------------------------------------|--|---|---|--|--------------|-------------|
| <b>Program Title:</b>         | <b>Software Engineering Technology Co-op</b>  | <b>Credential:</b>  | <input type="checkbox"/> Certificate | <input type="checkbox"/> Graduate Certificate        | <input type="checkbox"/> Degree                         |   |  |              |             |
|                               |   |   | <input type="checkbox"/> Diploma     | <input checked="" type="checkbox"/> Advanced Diploma | <input type="checkbox"/> Centennial College Certificate |   |  |              |             |
| <b>Program Delivery Mode:</b> | <input checked="" type="checkbox"/> Co-Op <input checked="" type="checkbox"/> Online<br><input type="checkbox"/> Fast Track <input type="checkbox"/> Hybrid<br><input type="checkbox"/> Non Co-op | <b>Duration :</b>   | <input type="checkbox"/> 1 Semesters | <input type="checkbox"/> 4 Semesters                 |   |   |  |              |             |
|                               |   |   | <input type="checkbox"/> 2 Semesters | <input checked="" type="checkbox"/> 6 Semesters      |   |   |  |              |             |
|                               |   |   | <input type="checkbox"/> 3 Semesters | <input type="checkbox"/> 8 Semesters                 |   |   |  |              |             |
| <b>Campus:</b>                | <b>ONLINE</b>   | <b>Department Code:</b>   | <b>3515</b>                          |  |   |   |  |              |             |
| <b>Intake:</b>                | <b>Fall 2021 and Winter 2022</b>  |   |                                      |  |   |   |  |              |             |
| Course Code                   | Course Title  | Co/Pre Requisite (Course Code)  | Lab Hours                            | Lecture Hours  | Field Placement Hours                                   | Course Delivery ODL=Online BLD=Blended HYB = Hybrid | Total Course Hrs (Lab + Lecture + Field) | Weeks (14)   | Total Hours |
| <b>Semester 1</b>             | <b>Fall 2021 or Winter 2022</b>   |   |                                      |  |   |   |  |              |             |
| COMM160/161                   | College Communications 1  |   |                                      | 3  |   | ODL   | 3  | 14           | 42          |
| COMP100                       | Programming 1   |   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP120                       | Software Engineering Fundamentals   |   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP213                       | Web Interface Design  |   | 4                                    |  |   | ODL   | 4  | 14           | 56          |
| GNEDE                         | General Education Elective  |   |                                      | 3  |   | ODL   | 3  | 14           | 42          |
| MATH175                       | Functions and Number Systems  |   |                                      | 3  |   | ODL   | 3  | 14           | 42          |
|                               |   |   |                                      |  |   |   |  | <b>Total</b> | <b>294</b>  |
| <b>Semester 2</b>             | <b>Winter 2022 or Summer 2022</b>   |   |                                      |  |   |   |  |              |             |
| COMM170/171                   | College Communications 2  | P=COMM160 or COMM161  |                                      | 3  |   | ODL   | 3  | 14           | 42          |
| COMP122                       | Introduction to Database Concepts   |   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP123                       | Programming 2   | P=COMP100   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP125                       | Client-Side Web Development   | P=COMP100 and COMP213   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP225                       | Software Requirements Engineering   | P=COMP100, and, COMP120 or COMP391                                      | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP301                       | UNIX/Linux Operating Systems  | P=COMP100   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| MATH185                       | Discrete Mathematics  |   |                                      | 3  |   | ODL   | 3  | 14           | 42          |
|                               |   |   |                                      |  |   |   |  | <b>Total</b> | <b>364</b>  |
| <b>Break</b>                  | <b>Summer 2022</b>  |   |                                      |  |   |   |  |              |             |
| <b>Semester 3</b>             | <b>Fall 2022</b>  |   |                                      |  |   |   |  |              |             |
| COMP214                       | Advanced Database Concepts  | P=COMP122   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP228                       | Java Programming  | P=COMP123   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP229                       | Web Application Development   | P=COMP123 and COMP125   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COMP246                       | Software Systems Design   | P=COMP123 and COMP225   | 2                                    | 2  |   | ODL   | 4  | 14           | 56          |
| COOP321/421                   | Employment Preplacement   | P=COMM170/171 minimum "C" grade; CGPA 2.5; 80% year 1 courses completed |                                      | 1  |   | ODL   | 1  | 14           | 14          |
| ENGL253                       | Advanced Business Communications  | P=COMM170 or COMM171  |                                      | 3  |   | ODL   | 3  | 14           | 42          |
| GNEDE500                      | Global Citizenship: from Social Analysis to Social Action   |   |                                      | 3  |   | ODL   | 3  | 14           | 42          |
|                               |   |   |                                      |  |   |   |  | <b>Total</b> | <b>322</b>  |
| <b>Work Term 1</b>            | <b>Winter 2023</b>  |   |                                      |  |   |   |  |              |             |

|   |   |  |   |   |  |     |                             |    |             |
|---|---|--|---|---|--|-----|-----------------------------|----|-------------|
| COOP222   | Co-op Work Placement 1  |  |   |   |  | ODL |                             |    |             |
| <b>Semester 4 Summer 2023</b>   |   |  |   |   |  |     |                             |    |             |
| COMP212   | Programming 3   | P=COMP123  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP216   | Networking for Software Developers                                | P=COMP100  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP254   | Data Structures and Algorithms                                    | P=COMP228  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP304   | Mobile Apps Development   | P=COMP228  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP311   | Software Testing and Quality Assurance                            | P=COMP123  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| MATH210   | Linear Algebra and Statistics                                     | P=MATH175 and MATH185  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
|   |   |  |   |   |  |     | <b>Total</b>                |    | <b>336</b>  |
| <b>Work Term 2 Fall 2023</b>  |   |  |   |   |  |     |                             |    |             |
| COOP331   | Co-op Work Placement 2  |  |   |   |  | ODL |                             |    |             |
| <b>Semester 5 Winter 2024</b>   |   |  |   |   |  |     |                             |    |             |
| CNET307   | IT Project Management   | P=COMM170 or COMM171, and, CNET229 or COMP246  | 1 | 2 |  | ODL | 3                           | 14 | 42          |
| COMP231   | Software Development Project 1                                    | P=COMP228 and COMP229 and COMP246  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP303   | Java EE Programming   | P=COMP214 and COMP228  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP308   | Emerging Technologies   | P=COMP228 and COMP229  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP321   | Enterprise Systems Integration                                    | P=COMP246  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| ELECT1  | Technical Elective 1  |  | 2 | 1 |  | ODL | 3                           | 14 | 42          |
|   |   |  |   |   |  |     | <b>Total</b>                |    | <b>308</b>  |
| <b>Work Term 3 Summer 2024</b>  |   |  |   |   |  |     |                             |    |             |
| COOP332   | Co-op Work Placement 3  |  |   |   |  | ODL |                             |    |             |
| <b>Semester 6 Fall 2024</b>   |   |  |   |   |  |     |                             |    |             |
| COMP255   | Business and Entrepreneurship for Software Engineering Technology | P=COMP225  | 3 |   |  | ODL | 3                           | 14 | 42          |
| COMP306   | API Engineering and Cloud Computing                               | P=COMP212 and COMP229  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP307   | Software Security   | P=COMP212 and COMP228  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP309   | Data Warehousing and Predictive Analytics                         | P=COMP214  | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| COMP313   | Software Development Project 2                                    | P=COMP231 and COMP303 and COMP304, or, COMP231 and COMP381, or, COMP231 and COMP305 and COMP391, or, COMP246 and COMP258 | 2 | 2 |  | ODL | 4                           | 14 | 56          |
| GNEDE   | General Education Elective  |  |   | 3 |  | ODL | 3                           | 14 | 42          |
|   |   |  |   |   |  |     | <b>Total</b>                |    | <b>308</b>  |
| <b>Minimum Grade Required: D</b>  |   |  |   |   |  |     |                             |    |             |
|   |   |  |   |   |  |     | <b>Total Program Hours:</b> |    | <b>1932</b> |
| <b>C = Co-Requisite; P = Pre-Requisite</b>  |   |  |   |   |  |     |                             |    |             |
| <b>Notes:</b>   |   |  |   |   |  |     |                             |    |             |
| ◆ This course may be offered in one of the following modalities (Online, Hybrid or Blended) |   |  |   |   |  |     |                             |    |             |
| <u>Technical Electives:</u>   |   |  |   |   |  |     |                             |    |             |

|         |                                    |   |   |     |   |    |    |
|---------|------------------------------------|---|---|-----|---|----|----|
| COMP367 | DevOps Implementation              | 2 | 1 | ODL | 3 | 14 | 42 |
| COMP377 | AI for Software Developers         | 2 | 1 | ODL | 3 | 14 | 42 |
| COMP387 | Clinical Workflow and IT Solutions | 2 | 1 | ODL | 3 | 14 | 42 |