

### 3. Civil Engineering

#### YEAR 1

| Semester 1  |              | Semester 2  |              |
|---|--------------|---|--------------|
| CHEM181 Chemistry for Engineers 1A<br>or CHEM163 Chemistry & Society 1    | (8)<br>(8)   | CHEM191 Chemistry for Engineers 1B<br>or CHEM173 Chemistry & Society 2                | (8)<br>(8)   |
| ENCH1TC Tech. Comm. for Engineers   | (8)          | ENME1EM Intro. to Engineering Materials<br>or ENAG1MT Intro. to Engineering Materials | (8)<br>(8)   |
| ENME1DR Engineering Drawing   | (8)          | ENCV1ED Introduction to Civil Design<br>or ENAG1DE Engineering Design                 | (8)<br>(8)   |
| MATH131 Mathematics 1A (Eng)  | (16)         | MATH141 Mathematics 1B (Eng)  | (16)         |
| MATH132 Applied Mathematics 1A (Eng)                                      | (16)         | MATH142 Applied Mathematics 1B (Eng)  | (16)         |
| PHYS151 Engineering Physics 1A<br>or PHYS110 Mech., Optics & Thermal Phys | (16)<br>(16) | PHYS152 Engineering Physics 1B<br>or PHYS120 Electromag, Waves & Mod. Phys            | (16)<br>(16) |
|   |              | ENCV1EP Engineering Practice Workshop   | (DP)         |

#### YEAR 2

| Semester 1  |      | Semester 2                                 |      |
|---|------|--|------|
| ENCV2MT Civil Engineering Materials                       | (8)  | ENCV2FL Fluids 1                           | (8)  |
| ENCV2SA Structures 1                                      | (16) | ENCV2SB Structures 2                       | (16) |
| ENS2SE Surveying Engineering                              | (16) | ENCV2SD Structural Design 1                | (16) |
| MATH238 Mathematics 2A (Eng)                              | (16) | GEOL215 Elements of Geology for Civil Eng. | (16) |
| ZULUN101 Basic isiZulu Language Studies A or<br>Electives | (16) | MATH248 Mathematics 2B (Eng)               | (16) |
|   |      | ENCV2MW Materials workshop                 | (DP) |

#### YEAR 3

| Semester 1       |      | Semester 2       |      |
|------------------|------|------------------|------|
| ENCV3FA Fluids 2 | (16) | ENCV3FB Fluids 3 | (16) |

|   |   |
|---|---|
| ENCV3G1 Geotech. Engineering Studies 1 (16) | ENCV3G2 Geotech. Engineering Studies 2 (16) |
| ENCV3ST Structures 3 (16)                   | MATH360 Numerical Methods (8)               |
| ENCV3TT Transport 1 (16)                    | ENCV3SD Structural Design 2 (16)            |
| STAT370 Engineering Statistics (8)          | ENCV3TP Transport 2 (8)                     |
|   | Elective (8)                                |
|   | ENCV3CW Civil CADD workshop (DP)            |

#### YEAR 4

| Semester 1                                   | Semester 2                                    |
|--|---|
| ENCH4ML Eng. Management & Labour Relatns (8) | ENCV4DE Civil Engineering Design Project (24) |
| ENCV4GS Ground & Structural Engineering (16) | ENCV4DS Dissertation (24)                     |
| ENCV4TE Transport & Environmental Mgmt (16)  | ENPD7CL Mgmt. of Construction Contracts (8)   |
| ENCV4WE Water & Environmental Eng. (16)      | Electives (16)                                |
| ENPD7PP Professional Practice (8)            | ENCV4VW Practical Vacation Work (DP)          |
| Electives (8)                                |   |

Civil Engineering candidates must complete 48 credits of elective modules of which at least 32 credits must be in Social Studies and Humanities. A minimum of 8 credits of electives will be required at 4<sup>th</sup> year level. The Dean and Head of School must approve all electives.