REMARKS

a. Admission requirement(s) and selection criteria:

• APPLICANTS WITH A SENIOR CERTIFICATE OBTAINED BEFORE 2008:

Admission requirement(s):
A Senior Certificate or an equivalent qualification, with C symbols at Standard or D symbols at Higher Grade for English and Mathematics, and a D symbol at Standard Grade or an E symbol at Higher Grade for Physical Science.

Selection criteria:
To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least 20.

Recommended subject(s):
None.

• APPLICANTS WITH A NATIONAL SENIOR CERTIFICATE OBTAINED IN OR AFTER 2008:

Admission requirement(s):
A National Senior Certificate with a bachelor’s degree, or a diploma, or a higher certificate endorsement or an equivalent qualification, with an achievement level of at least 4 for English (home language or first additional language) and Mathematics or Technical Mathematics, and at least a 3 for Physical Sciences or Technical Sciences.

Applicants who do not meet the requirements for Mathematics, Physical Sciences, or any of the two additional subjects may enroll for these subjects at any Technical and Vocational Education and Training (TVET) College (see National N Certificate requirements), and if these are successfully passed at a performance level of at least 50%, they may re-apply for admission to the University.

Selection criteria:
To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least 20 (excluding Life Orientation).

Recommended subject(s):
Civil Technology and Engineering Graphics and Design.

• APPLICANTS WITH A NATIONAL CERTIFICATE (VOCATIONAL) AT NQF LEVEL 4:

Admission requirement(s):
A National Certificate (Vocational) at NQF Level 4, with a bachelor’s degree or a diploma, or a higher certificate endorsement, issued by the Council for Quality Assurance in General and Further Education and Training (Umalusi), with at least 50% (APS of 4) for English and Mathematics, and 50% for Life Orientation (excluded for APS calculation) and 50% (APS of 4) for Science, and any other three compulsory vocational subjects.

Selection criteria:
To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least 20 (excluding Life Orientation).
Recommended subject(s):
None.

- **APPLICANTS WITH A NATIONAL N CERTIFICATE/NATIONAL SENIOR CERTIFICATE AS PUBLISHED IN REPORT 191: N3 (NQF LEVEL 4):**

  **Admission requirement(s):**
  A National Senior Certificate or a National N Certificate with languages as published in Report 191: N3 (NQF Level 4) issued by both the Department of Higher Education and Training (DHET) and the Council for Quality Assurance in General and Further Education and Training (Umalusi), with at least 50% for English, Mathematics N3, Engineering Sciences N3 and any other two additional subjects.

  **Selection criteria:**
  To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least 20 (excluding Life Orientation).

  **Recommended subject(s):**
  None.

- **APPLICANTS WITH A N4 CERTIFICATE IN A RELATED ENGINEERING FIELD AS PUBLISHED IN REPORT 191: N4:**

  **Admission requirement(s):**
  A N4 Certificate in a related Engineering field as published in Report 191: N4 issued by both the Department of Higher Education and Training (DHET) and the Council for Quality Assurance in General and Further Education and Training (Umalusi), with at least an average of 50% for the qualification, and successful completion of an English Language Proficiency Assessment (done by the University).

  b.  **Assessment Procedure:**
  No further assessment will be done (except for candidates with a N4 Certificate). Applicants who achieve the minimum APS will be considered until the programme complement is full. All completed applications received within the published due dates will be ranked. After consideration of the Departmental Student Enrolment Plan, only the top ranking applicants will be selected. Once a programme is full, a waiting list will be in place to provide an opportunity for applicants to fill places of those who did not register on time. Applicants will be informed of their status per official letter from the Office of the Registrar, alternatively, they can check their application status on the TUT website, www.tut.ac.za.

  c.  **Recognition of Prior Learning (RPL), equivalence and status:**
  See Chapter 30 of Students’ Rules and Regulations.

  d.  **Intake for the qualification:**
  January only.

  e.  **Minimum duration:**
  One year.

  f.  **Presentation:**
  Day classes. Classes and assessments may take place on Friday afternoons and/or Saturdays.

  g.  **Exclusion and readmission:**
  See Chapter 2 of Students’ Rules and Regulations.
CURRICULUM

ATTENDANCE

<table>
<thead>
<tr>
<th>CODE</th>
<th>MODULE</th>
<th>NQF-L</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM105X</td>
<td>Communication Skills</td>
<td>(5)</td>
<td>(8)</td>
</tr>
<tr>
<td>CML105X</td>
<td>Computer Literacy</td>
<td>(5)</td>
<td>(10)</td>
</tr>
<tr>
<td>CPM105C</td>
<td>Construction Management</td>
<td>(5)</td>
<td>(21)</td>
</tr>
<tr>
<td>EGC105C</td>
<td>Engineering Graphics</td>
<td>(5)</td>
<td>(14)</td>
</tr>
<tr>
<td>EPH105C</td>
<td>Engineering Physics</td>
<td>(5)</td>
<td>(14)</td>
</tr>
<tr>
<td>INL125C</td>
<td>Information Literacy (block module)</td>
<td>(5)</td>
<td>(1)</td>
</tr>
<tr>
<td>LFS125X</td>
<td>Life Skills (block module)</td>
<td>(5)</td>
<td>(2)</td>
</tr>
<tr>
<td>TMA105C</td>
<td>Technical Mathematics</td>
<td>(5)</td>
<td>(21)</td>
</tr>
</tbody>
</table>

plus one of the following options:

Option 1: Construction Material Testing (HCCM18)

FIRST SEMESTER

ENC115C  Engineering Chemistry          (5)  (7)
STC115C  Soil Technology                (5)  (14)

SECOND SEMESTER

BAT115C  Bitumen and Asphalt Technology (5)  (14)
ECC115C  Concrete and Aggregate Technology (5)  (14)

Option 2: Water and Wastewater Engineering Infrastructural Operations and Maintenance (HCCW18)

FIRST SEMESTER

ENC115C  Engineering Chemistry          (5)  (7)
WRO115C  Water Reticulation Operation and Maintenance (5)  (14)

SECOND SEMESTER

WSO115C  Water System Operation and Maintenance (5)  (14)
WWS115C  Wastewater System Operation and Maintenance (5)  (14)

TOTAL CREDITS FOR THE QUALIFICATION: 140

MODULE INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular module. On 01 October 2019, the syllabus content was defined as follows:

BITUMEN AND ASPHALT TECHNOLOGY (BAT115C)  1 X 3-HOUR PAPER

(Module custodian: Department of Civil Engineering)

Bitumen and asphalt properties. Bitumen and asphalt tests and result interpretation and safety system. (Total tuition time: ± 140 hours)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM105X</td>
<td>COMMUNICATION SKILLS</td>
<td>1 X 2-HOUR PAPER</td>
<td>± 40 hours</td>
</tr>
<tr>
<td>CML105X</td>
<td>COMPUTER LITERACY</td>
<td>CONTINUOUS ASSESSMENT</td>
<td>Total tuition time: not available</td>
</tr>
<tr>
<td>ECC115C</td>
<td>CONCRETE AND AGGREGATE TECHNOLOGY</td>
<td>1 X 3-HOUR PAPER</td>
<td>± 140 hours</td>
</tr>
<tr>
<td>CPM105C</td>
<td>CONSTRUCTION MANAGEMENT</td>
<td>1 X 3-HOUR PAPER</td>
<td>± 210 hours</td>
</tr>
<tr>
<td>ENC115C</td>
<td>ENGINEERING CHEMISTRY</td>
<td>1 X 3-HOUR PAPER</td>
<td>Total Tuition time: not available</td>
</tr>
<tr>
<td>EGC105C</td>
<td>ENGINEERING GRAPHICS</td>
<td>CONTINUOUS ASSESSMENT</td>
<td>± 140 hours</td>
</tr>
<tr>
<td>EPH105C</td>
<td>ENGINEERING PHYSICS</td>
<td>1 X 3-HOUR PAPER</td>
<td>± 140 hours</td>
</tr>
<tr>
<td>INL125C</td>
<td>INFORMATION LITERACY</td>
<td>CONTINUOUS ASSESSMENT</td>
<td>± 10 hours</td>
</tr>
</tbody>
</table>
LIFE SKILLS (LFS125X)  CONTINUOUS ASSESSMENT
(Module custodian: Directorate of Student Development and Support)
Academic, personal and socio-emotional skills development for students in higher education. Personal and social dimensions address: Effective planning and self-management (goal setting and time management); Adjusting to university life (student life, diversity and change); Intra- and interpersonal skills development (conflict management, self-esteem, relationship management); Effective living (healthy living, HIV education, substance abuse). Academic dimension addresses: Academic skills for university (e.g. critical thinking, creativity, managing assignments and assessments). (Total tuition time: ± 20 hours)

SOIL TECHNOLOGY (STC115C)  1 X 3-HOUR PAPER
(Module custodian: Department of Civil Engineering)
Soil properties. Geotechnical site investigation. Soil tests and result interpretation and safety system. (Total tuition time: ± 140 hours)

TECHNICAL MATHEMATICS (TMA105C)  1 X 3-HOUR PAPER
(Module custodian: Department of Mathematics and Statistics)
Matrices, engineering calculations, functions for engineers, trigonometry, geometry, vectors, Introduction to differentiation and integration, applications of differentiation and integration, data handling. (Total tuition time: not available)

WATER RETICULATION OPERATION AND MAINTENANCE (WRO115C)  1 X 3-HOUR PAPER
(Module custodian: Department of Civil Engineering)
Storage facilities. Reticulation facilities. Water quality characteristics in reticulation networks and reticulation network operation and maintenance. (Total Tuition time: not available)

WATER SYSTEM OPERATION AND MAINTENANCE (WSO115C)  1 X 3-HOUR PAPER
(Module custodian: Department of Civil Engineering)
Water Sources and treatment. Wells. Water treatment plants and disinfection. (Total tuition time: ± 140 hours)

WORKSHOP PRACTICE (WOP115C)  CONTINUOUS ASSESSMENT
(Module custodian: Department of Mechanical and Mechatronics Engineering)
To equip the student with a fundamental knowledge of the use of hand tools and how to use them to manufacture parts using different materials. (Total tuition time: ± 140 hours)