DESCRIPTION
During your studies, you will learn about safety measures, taking and testing samples, elementary properties and the natural water cycle. Furthermore, you will gain insight into water resources, use of water, and water supplies. You will gain an understanding of the term 'quality of water' in relation to causes of water pollution, legislation, and serious diseases. You will also develop insight into certain aspects of the treatment of water and waste. Lastly, you will get to know the different sanitation systems and how to record information at treatment plants.

CAREER FIELDS/FURTHER STUDIES
Successful students will gain basic knowledge and skills in water and waste–water treatment practice. Please enquire at your nearest Damelin Correspondence College branch for the prospectus containing information with regard to further studies.

PROGRAMME OUTLINE:

<table>
<thead>
<tr>
<th>Core subjects:</th>
<th>Choose ONE of the following elective subjects:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mathematics N1: mathematics: basic principles for mathematical calculations; exponents and logarithms - the laws and application thereof; the four algebraic operations</td>
<td>• Engineering Science N1: mechanics; heat – effects of heat and temperature; electricity – simple calculations, resistance and chemical effect of current; and magnetic effect</td>
</tr>
<tr>
<td>• Plant Operation Theory N1: introduction to chemistry, pipes, valves, fittings, meters and regulators, pumps, pumps terminology, distillation, treatment of water, storage and fire protection</td>
<td>• Engineering Drawing N1: use and care of drawing instruments; different line and lettering types and the use thereof; geometry; construction and reproduction of figures</td>
</tr>
<tr>
<td>• Water and Waste-water Treatment Practice N1: properties of water, water resources, uses of water, water supplies, water resources, quality of water, treatment of water, treatment of waste water, sanitation systems, record keeping at treatment plants, safety measures at treatment plants, taking and testing samples</td>
<td></td>
</tr>
</tbody>
</table>

TYPE OF PROGRAMME
The National Certificate: N1 Water and Waste–water Treatment Practice (SAQA ID 67171) is a National Qualification delivered under the auspices of the Department of Higher Education and Training.

DURATION
You should be able to complete in 12 months.

ADMISSION REQUIREMENTS
Grade 9 (Std. 7) with Mathematics and Physical Science.

LEARNING MATERIAL AND TEXTBOOKS
Quality learning materials designed specifically for distance study are provided to you via the college’s Online Student Portal. Please access through www.dcc.edu.za.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Title</th>
<th>ISBN Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>D10054559-E1</td>
<td>Engineering Drawing N1 Textbook</td>
<td>9781868531332</td>
</tr>
<tr>
<td>D10054550-E1</td>
<td>Mathematics N1 Textbook</td>
<td>9781868538065</td>
</tr>
<tr>
<td>D10054562-E2</td>
<td>Engineering Science N1 Textbook</td>
<td>9781430800422</td>
</tr>
</tbody>
</table>

PRICING
Enquire at your nearest Damelin Correspondence College branch for a current programme pricelist.
FET 2019 FACT SHEET
FIELD OF STUDY: CHEMICAL ENGINEERING

SCHOOL OF TECHNICAL STUDIES

National Certificate: N1
Water and Waste-water Treatment Practice

ADDITIONAL COSTS
Registration/course fees do not include (where applicable) membership costs with professional bodies and/or exam costs (internal and/or external).

ASSESSMENT
The Department of Higher Education and Training (DHET) is the examining body for these courses. At the conclusion of your studies, you will have to write an external examination set by DHET. You will only be able to register to write the external examination if you pass your formative assessment component by the registration cut-off date(s) that the College will communicate to you. The College will use the formative assessment component to generate a term mark for each of your subjects. The formative assessments refer to the two control tests indicated in the table below.

If you pass your formative assessment component by the specified cut-off date(s), you can then register to write your external examinations at a FET College Exam Centre. The College will assist you to fill in the examination entry form and assign you to the relevant exam centre (venue) but accepts no responsibility therefore, and the sole responsibility in respect thereof lies with the student. You may be required to pay to write the two control tests and an examination fee at the exam centre. Please note that this test and examination fee is not included in your course fee.

Please note that all the assignments in the study guides are for self-assessment to enable you to prepare for the upcoming control tests and examination. You do not need to submit the assignments for marking. The two tests will contribute towards your term marks on 30 to 70 ratio for test 1 and test 2 respectively. The term mark contributes a 40% towards your final mark; whereas the external examination mark contributes 60%.

It is your responsibility to check with the college or relevant exam centre that you have the correct dates for your examinations, BEFORE the registration cut off dates for the examinations. Please note that all exam centres have their own cut-off registration dates as per their own academic calendar and it is your responsibility to make yourself aware of and comply with those deadlines/timelines.

Please note: Examination fees are not included in your tuition fee.

<table>
<thead>
<tr>
<th>Subject/Module Title</th>
<th>Assignment</th>
<th>Formative and Summative Assessment</th>
<th>External Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Test 1</td>
<td>Test 2</td>
</tr>
<tr>
<td>Mathematics N1</td>
<td>Self-assessment</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plant Operation Theory N1</td>
<td>Self-assessment</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water and Waste-water Treatment Practice N1</td>
<td>Self-assessment</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Choose ONE of the following elective subjects

<table>
<thead>
<tr>
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<th>Assignment</th>
<th>Formative and Summative Assessment</th>
<th>External Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Science N1</td>
<td>Self-assessment</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Engineering Drawing N1</td>
<td>Self-assessment</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

CERTIFICATION
Upon successful completion of your required examinations for each subject, you will be awarded your National Certificate: N1 Engineering Studies by the Department of Higher Education and Training.

COLLEGE ACCREDITATION AND REGISTRATION
Damelin Correspondence College (Pty) Ltd is provisionally registered as a private college with the Department of Higher Education and Training under the Continuing Education and Training Act, No. 16 of 2006. Registration Certificate Number: 2008/FE07/037. Damelin Correspondence College (Pty) Ltd. is provisionally accredited by Umalusi, the Quality Council for General and Further Education and Training. Accreditation number: 18 FET02 00134 PA. Damelin Correspondence College (Pty) Ltd is further accredited by the Quality Council for Trades and Occupations (QCTO) Accreditation number: 13/0005.

Disclaimer
The information contained in this fact sheet is accurate at the time of printing. However, factors beyond Damelin Correspondence College’s control (such as environmental, regulatory, or technical changes) may cause the contents of this fact sheet or of the programme to change. In the event of any such change, Damelin Correspondence College will attempt to formally notify current students. All possible measures will be taken to minimise inconvenience to students. All course requirements, including hardware and software requirements, should be acknowledged and adhered to, as per the course brochure. Damelin Correspondence College reserves the right to change kit items without prior notification.
STUDENT ACKNOWLEDGEMENT

Name of student: I………………………………………………………………………, hereby acknowledge that I understand the information stated in this document and fully comprehend the specifics explained above and below pertaining to this course. I understand that the programme I am enrolling for is a/an:

☐ National Qualification
☐ Agent Programme
☐ DCC Programme

Student’s Initials: ………………………………

The value and status of the course type is explained in the course brochure, which I have read.

Name of student: …………………………………………. Signature: ……………………………………….

Name of legal guardian: …………………………………….. Signature: ……………………………………….
(If applicable)

Name of student consultant: ……………………………. Signature: ……………………………………….

Date: …………………………………………………………….

* Please note the original signed copy should be kept on the student’s record file.