

# Admission Requirements and Selection Criteria for BEng Programmes for 2021

#### 1 DUE DATES AND THE USE OF GRADE 11 RESULTS

#### 1.1 Conditional Admission

If prospective students, at the time of their application, are in Grade 12, their final Grade 11 marks are used to decide whether they qualify for conditional admission. This conditional admission will be changed to final admission after the Grade 12 results have become available if their final Grade 12 results are the same or better than their Grade 11 marks. If the applicants' Grade 12 results are weaker, but still meet the admission requirements and selection criteria for the relevant BEng programme, their conditional admission also will be changed to final admission.

#### 1.2 Final Admission

If prospective students, at the time of application, have already completed Grade 12, their final Grade 12 results are used to determine their admission and, if selected, may be granted final admission.

# 1.3 Application Due Dates

Applications close 30 June of the year before the intended start of study. Late applications close 30 September and are only considered if there are still places available in the particular programme.

#### 2 MINIMUM ADMISSION REQUIREMENTS

Prospective students who meet the below-mentioned admission requirements are nonetheless subject to the selection criteria below.

# 2.1 Language of Tuition

The admission requirements for language are given below, but applicants should note that the lectures in all undergraduate modules are presented in English, and Afrikaans lectures are also offered (in parallel sessions) in most of the modules of the first three semesters of the BEng programmes. In the first year of study, simultaneous interpreting (where English lectures are interpreted into Afrikaans) is offered when parallel sessions are not offered. All question papers of major assessments are available in both English and Afrikaans up to the third year and thereafter in English. Students are free to write any paper or assignment in either English or Afrikaans. Further details about the language of tuition in BEng programmes are given at http://www.eng.sun.ac.za.



# 2.2 National Senior Certificate (NSC) or Independent Examination Board (IEB)

Only applicants who meet the following requirements will be considered for selection:

- Have a NSC or IEB pass with admission to bachelor's studies or an exemption certificate issued by the Matriculation Board; and
- Have obtained an average of at least 70% in the relevant final school examination; and
- Have passed the National Senior Certificate or equivalent examination in Mathematics with at least 70% and Physical Sciences with at least 60%; and
- Have, in the National Senior Certificate examination, or equivalent, obtained the following minimum achievements in language subjects:
  - English Home Language: 50% (with no Afrikaans requirement) or
  - English First Additional Language: 60% (with no Afrikaans requirement) or
  - English First Additional Language: 50%, together with Afrikaans Home Language: 50% or
  - English First Additional Language: 50%, together with Afrikaans Second Additional Language: 60%.

# 2.3 Foreign Schools

Please note that you may apply for an exemption certificate within the first year of study at SU.

For applicants from foreign schools, the following table gives the requirements equivalent to that for the NSC.

| MINIMUM REQUIREMENTS FOR ADMISSION TO THE BEng PROGRAMME: CANDIDATES APPLYING WITH FOREIGN SCHOOL QUALIFICATION |   |  |  |   |  |   |  |
|---|---|--|--|---|--|---|--|
| CURRICULUM  | GERMANY -<br>ABITUR   | IB DIPLOMA   | CAMBRIDGE<br>AS LEVELS +<br>IGCSES/GCSE/<br>O-LEVELS   | CAMBRIDGE<br>A LEVELS +<br>IGCES/GCSES/<br>O-LEVELS   | Namibia<br>(HL/OL)   | American High School<br>Diploma   |  |
| Matriculation<br>board<br>requirements  | Matriculation<br>Board<br>requires:<br>ABITUR   | Matriculation Board requires: 3 HL (pass marks 4 - 7); 3 SL (pass marks 4 - 7). At least 24 points required.   | Matriculation Board requires: 4 AS Levels (pass marks A - D) + 1 IGCSE (pass marks A - C).   | Matriculation Board requires: 2 A Levels (Pass marks A - E) + 3 IGCSE/GCSE/O Levels (Pass marks A - C).   | Matriculation Board requires: Higher and Ordinary Levels: 4 HL (pass marks 1-3); 1 OL (pass marks A-C).  | ALL CORE SUBJECTS (Maths, Physics and Chemistry) must be completed in Year 12 or final school year. Matriculation Board requires: High School   |  |
| Faculty of<br>Engineering<br>requirements to<br>be considered<br>for admission to<br>BEng                       | Matric Exemption with at least 75%+ (Gr 08 +) average. Maths, Physical Science (Physics and Chemistry) with at least Gr 12/09 is required to be considered. | Matric Exemption with at least 75%+ average. Maths of at least 6/5 HL, Physical Science (Physics and Chemistry) of at least 4/3 HL is required to be considered. | Matric Exemption with at least 75%+ average. Maths of at least A/B, Physical Science (Physics and Chemistry) of at least A-C at AS level is required to be considered. | Matric Exemption with at least 75%+ average. Maths of at least A/B, Physical Science (Physics and Chemistry) of at least A-E at A level is required to be considered. | Matric Exemption with at least 75%+ average. Maths of at least 1/2 HL, Physical Science (Physics and Chemistry) of at least 2/3 HL is required to be considered. | Graduation Diploma accompanied by a certificate of eligibility for admission to study at any US university with valid senior college accreditation OR at least 2 subjects passed on grade 3, 4 or 5 for the AP exams of the American College Board OR SAT score of 1600 with subminimum of 550 for Critical Reading; 500 for Maths and 500 for Writing, together with |  |

|  |  |  |  |  |  | High School Graduation<br>Diploma. |
|--|--|--|--|--|--|------------------------------------|
|  |  |  |  |  |  |                                    |
|  |  |  |  |  |  |                                    |
|  |  |  |  |  |  |                                    |
|  |  |  |  |  |  |                                    |
|  |  |  |  |  |  |                                    |
|  |  |  |  |  |  |                                    |

ACE SCHOOL OF TOMORROW: Applications from candidates who follow the ACE school system are not accepted. However, in order to be considered for final admission the following is required:

- A letter of support from ACE schools head office
- 55% for NBT Mathematics
- SAT score of 1600 with subminimum of 550 for Critical Reading; 500 for Maths and 500 for Writing

## 3 **SELECTION CRITERIA**

Only students that meet the minimum admission requirements given above are considered for selection.

The results of the National Benchmark Tests (NBTs), together with the school results and other relevant information, are taken into account for students near the admission and selection thresholds.

The main selection mechanism is the selection score. To calculate the selection score, the percentages achieved in the respective subjects are used, as follows:

#### Selection score = Mathematics + Physical Science + 6 x Average

The maximum score is therefore 800. The average percentage is normally calculated using the applicant's six best matric subjects (excluding Life Orientation, but normally including Mathematics and Physical Science). For foreign schools with only 5 subjects (e.g. Cambridge), the percentage of the 5 school subjects are used to calculate the average percentage. For foreign schools where Chemistry and Physics are taken as separate subjects, the average of these two is used in the selection score instead of Physical Science. For the Cambridge system, Mathematics, Chemistry and Physics must be on A or AS levels.

# 4 SELECTION PROCESS FOR FOUR-YEAR BEng PROGRAMMES

The admission thresholds for each programme are influenced by the number of applicants and the number of student places available in the programme. The final selection thresholds for the respective BEng programmes are therefore only determined after the closing date for applications and in a given year, the admission thresholds can vary from programme to programme. The admission thresholds given below are revised annually.

# 4.1 Before 30 June (before the closing date of applications)

Applicants that meet the following selection provisional thresholds are selected upon receipt of a complete application (conditional, if based on Grade 11 results):

| 4-Year BEng<br>Programme    | Chemical | Civil | Electrical<br>&Electronic<br>(Data Eng) | Electrical<br>&Electronic<br>(other) | Industrial | Mecha-<br>nical | Mecha-<br>tronics |  |  |
|-----------------------------|----------|-------|---|--------------------------------------|------------|-----------------|-------------------|--|--|
| Minimum<br>Selection Score  | 620      | 600   | 620                                     | 600                                  | 600        | 620             | 620               |  |  |
| Minimum<br>Average          | 75%      |       |   |                                      |            |                 |                   |  |  |
| Minimum<br>Mathematics      | 75%      | 75%   | 80%                                     | 75%                                  | 75%        | 75%             | 75%               |  |  |
| Minimum<br>Physical Science |          |       |   | 65%                                  |            |                 |                   |  |  |

The selection of the following applications are not finalised and are considered further after 30 June:

- Applicants with selection scores above 560, and
- Applicants that have selection scores above 520 and that meet the requirements for admission to the extended degree programmes.

Applicants that do not meet the above requirements are informed that their applications were unsuccessful.

Please also refer to Section 4.4 regarding being considered for BEng programmes other than that given in the three preferences in the application.

# 4.2 After 30 June (after the closing date of applications)

Finalising applications and selection processes after the closing date of applications normally takes 6 to 8 weeks.

After the final selection thresholds have been determined (considering the number of places and applicants), applicants whose applications are still under consideration and that meet the final selection thresholds of the particular programme are informed that they have been selected (conditionally, if based on Grade 11 results). Alternatively they remain on the waiting list.

Acceptance of late applications and further consideration of applicants on the waiting list are determined by the availability of places in the programme concerned.

Please also refer to Section 4.4 regarding being considered for BEng programmes other than that given in the three preferences in the application.

# 4.3 After the Matric Results Have Been Released

The status of applicants that were previously finally selected remains unchanged. Applicants that were conditionally selected with Matric results the same or better than in Grade 11, are awarded final selection. If the applicants' Grade 12 results are weaker, but still meet the admission requirements and selection criteria for the relevant BEng programme, their conditional admission also will be changed to final admission. Other applicants that were conditionally selected, together with the applicants on the waiting list and late applicants, are thereafter considered for the places available in each of the programmes.

# 4.4 Changing the Preferred BEng Programmes in the Application

Applicants who applied for a BEng programme may request that one of the three preferences on their applications be changed to another BEng programme. Such requests should be submitted to info@sun.ac.za, also citing their student numbers and which of the three preferences should be changed. These applications will then be reconsidered for admission and selection for the newly indicated BEng preference according to the normal selection process given above.

Applicants should note that all of the four-year BEng programmes, except the Data Engineering specialisation of the BEng (Electrical & Electronic Engineering), share the same core modules in the first year. This common core allows students who passed all their first year modules to change at the end of the first year to any other BEng programme with the same core. If students did not pass all the modules in their first year, changing to another BEng programme is subject to a selection process.

#### 5 EXTENDED DEGREE PROGRAMMES

The Extended Degree Programmes (EDPs) were introduced to help students with an inadequate school background to master the BEng programmes. These EDPs offer alternative access to the programmes of the Faculty of Engineering. BEng EDPs require one extra year of study, which precedes the curriculum of the four year BEng programmes. Students who have completed this extra year successfully, and who meet certain additional requirements, may continue with the curriculum of the four year BEng programmes.

# **5.1 Application Process**

Students do not apply for the EDPS, but apply for the 4-year programmes. A limited number of students that are not selected for the 4-year programmes, but that do meet the admission requirements of the EDPs, are considered for admission to the EDPs. Preference is given to students from disadvantaged environments.

# 5.2 Admission Requirements for the Extended Degree Programmes

Only South African students that are in matric in the year they apply and meet the following requirements, are normally considered for admission:

- A NSC of IEB pass with admission to bachelor's studies, or an exemption certificate by the Matriculation Board
- An average of at least 60% in the NSC
- An NSC Mathematics mark of at least 60%
- An NSC Physical Sciences mark of at least 50%
- NSC language marks that meet one of the following:
  - English Home Language 50% (with no Afrikaans requirement) or
  - English First Additional Language 60% (with no Afrikaans requirement) or
  - English First Additional Language 50% and Afrikaans Home Language 50% or
  - English First Additional Language 50% and Afrikaans Second Additional Language 60%

## 5.3 Selection Criteria

Applicants that meet the above minimum admission requirements are selected for the EDPs using the same selection criteria that are applicable to the 4-year programmes, but with adjusted thresholds. The thresholds are only determined after the closing date for applications.

Applicants that are provisionally selected (based on Grade 11 marks) for an EDP and who do better in the Grade 12 examinations, will be reconsidered for admission to a 4-year programme during final selection.