

Engineering Faculty First-year Support Programme

2021

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1 Background and Objectives

This document presents the current format for the Engineering Faculty's support programme for students in the first year of the four-year BEng programmes, which includes the second year of the BEng EDPs. This format has been implemented since the second semester 2019.

The initiatives described in this document have the following general objectives:

- Encourage sound learning approaches:
 - Students accept responsibility for their own learning;
 - Students are encouraged to work from first principles;
 - Students are encouraged to learn from the prescribed text books or assigned readings;
 - Students are less reliant on worked examples, student assistants and tutors.
- Provide additional support to bridge the gap between school (characterised by a lot of help and a much slower pace) and university.
- Provide general advice and psycho-social support.
- Encourage and facilitate group learning, particularly for students that are not in a residence.
- Accommodate a greater variety of learning styles.
- Accommodate repeaters that cannot attend some lectures or tutorials.
- Maintain close alignment between the teaching staff and support programme.

2 Dean's Periods

The Dean's Periods are important elements of the support programme. These periods, which form part of the module Intercultural Communication 113, give students guidance on study methods and time management, inter alia.

The topics covered in the Dean's periods are, typically:

- Keys to success in engineering studies
- The engineering profession
- Study methods & time management
- Academic success strategies
- Flexible assessment, final marks & re-admission
- Test writing strategy
- Exam writing strategy
- An overview of each of the BEng programmes offered by the Faculty

The Dean's Periods are offered by the Dean and, where necessary, the Vice-deans.

3 Student Advice and Psycho-Social Support

Students can access the advice services at the students' initiative. The advice covers the whole range of a student's life and may entail referring a student to one of the other support services provided on campus or in professional practice.

The support services include one-on-one consultations with educational psychologists in the Engineering Faculty. The educational psychologists come to the Faculty on a regular basis and students can consult them confidentially. Students arrange appointments with the psychologists through the student support officers that provide the abovementioned advice. The educational psychologist provide a "first line" support and refer students to Centre for Student Counselling and Development (CSCD) or persons in private practice if the student's needs cannot be met in a few consultations (typically not more than four) in the Faculty. The educational psychologists are also required to maintain contact with the CSCD since the Faculty's service is aimed at augmenting those offered by CSCD.

Initiatives to improve student retention are also arranged, particularly for first generation students from distant provinces. This includes social events aimed at helping the students from a given province to get to know each other and thereby forming social networks where they can support each other.

4 Video Recordings of Key Concepts

- Links to the videos are placed on SUNLearn
- The primary purpose of the videos is to clarify **key concepts** (i.e. the concepts that are keys to mastering the major principles).
- These video recordings are only used where material is lectured. They are not offered for the project-based modules (i.e. some of the programme-specific modules).
- The video content will assume that the students have already attended the relevant lectures and studied the relevant parts of the text book or formal notes provided to students. In other words, the video will assume that the students have already been exposed to the work covered and can refer to the text book or notes.

5 Facilitated Group Learning Sessions

- The sessions are open to all students.
- The sessions are offered for each common first year module, except Intercultural Communication 113 since its tutorials are already in a similar format).
- The sessions' primary purpose is to create a space where:
 - Students **learn collaboratively in an environment conducive to active learning**. The intention is that students will work in groups of 4 to 6 students.
 - Students are encouraged to use sound learning approaches (as outlined under the Objectives above).
 - Teaching assistants (TAs) are available to help a group of students if they cannot collectively answer a question that one of the group members has.
 - Students that are not in university residences, including students that commute from outside Stellenbosch, can benefit from study groups.
- The sessions start in the second week of the semester.

- Where feasible, the sessions are offered on the day preceding the tutorial of the module. The schedule is determined by the Vice-dean: Teaching after consultation with the coordinating lecturers.
- The sessions are offered (facilitated) from 16:30 to 18:30, except for Engineering Physics 113 where the sessions are offered in a period scheduled in the time table. Students are free to join or leave the sessions at any time, to accommodate their various programmes.
- The sessions are offered in A503 A/B since it is a large venue suited to group work, except for Engineering Physics 113 9 venue to be arranged by Dept Physics), and Computer Programming 143 (either in A503 A/B, or one of the electronic classrooms)
- If Lockdown measures do not allow contact sessions they will be offered online, and details will be communicated on the SUNLearn platform.

6 Q&A Sessions before A2 and A3

- The sessions' primary purpose is to create a space where students can ask questions about the work covered in A2 and A3.
- Students will be encouraged to send their questions to the staff at least one hour before the session (e.g. by posting them on a SUNLearn forum so that all students can see what questions have already been asked). Questions sent before the session will be given preference, but the person presenting the session can give preference to the questions that in his/her view has most value to discuss in the session.
- The sessions will be at least one hour, but if students come in after the start and pose questions that have already been answered, those questions will not be answered again. The venue for the session will be available for two hours, but the staff offering the session will leave the venue as soon as there are no students with questions present.
- The sessions will typically be offered for 24 hours before A2 and A3.
- If Lockdown measures do not allow contact sessions they will be offered online, and details will be communicated on the SUNLearn platform.