

# Faculty of Engineering

## Augmented Remote Teaching, Learning, and Assessment (ARTLA)

### Undergraduate Offering: Second Semester 2021

*“In this time of great uncertainty and volatility, we nevertheless strive to provide the best possible service to all our stakeholders. SU offers world-class learning and teaching and unique campus experiences. By working together, we believe we can provide these opportunities and at the same time promote health and safety.”*

*Prof Stan du Plessis, COO, 26 February 2021*

For the academic offering in the 2<sup>nd</sup> semester of 2021, Stellenbosch University has planned for three scenarios, depending on the national and DHET lockdown level restrictions regarding the allowed number of students on campus and the allowed number of people in on-campus venues. In all three scenarios we will be offering **Augmented Remote Teaching, Learning, and Assessment (ARTLA)**.

In the Faculty of Engineering this means that a significant component of teaching and learning will continue **asynchronously** and all students will have the benefit of **synchronous teaching and learning activities on a rotational basis**. There is flexibility and differentiation in synchronous teaching and learning approaches. This is to accommodate the disciplinary differences, concerns about health and safety of staff and students, and the availability of COVID-compliant venues and labs with suitable access and technology. Together we will strive for an enriching teaching and learning experience while promoting our health and safety.

In practice, the **default approach** to ARTLA in the Faculty of Engineering will be:

All lectures will be offered **asynchronously**, that is, the lecture material and videos will be uploaded on the SUNLearn site for the module and students will be required to read/watch these in preparation for synchronous teaching and learning activities.

For the **synchronous teaching and learning activities** students will need to participate at a scheduled timetable slot in a

- f2f session (eg. practical, field work), or
- a live session via MS Teams.

There is no expectation that both modes are available for each teaching and learning activity during a scheduled timetable slot.

Further approaches include:

- **Face-to-face (f2f):** The teaching and learning activity is offered in a physical classroom or facility with lecturers/facilitators and students present in person. F2F learning allows for different teaching and learning methodologies to be used and can contain a blend of traditional classroom methods and online interaction.
- **Augmented**
  - **Type 1:** Synchronous (real-time) streaming and recording of f2f learning opportunities with limited number of students in venue.
  - **Type 2:** Asynchronous provision of material and f2f learning opportunities (with limited number of students in venue) are used to explain pre-recorded material.
  - **Type 3:** Asynchronous provision of material and f2f learning opportunities (with limited number of students in venue) are used for question and answer sessions.
- For some modules, a compulsory synchronous teaching and learning activity for the week may be offered as a f2f session during some timetable slots and as a live session via Team during some other timetable slots.

The tables hereafter indicate the teaching and learning approach that will be used for second semester undergraduate modules. **Further details will be available in the module frameworks on SUNLearn from 10 August 2021.** Additional information on the academic offering for the 2<sup>nd</sup> semester will be shared from time to time and therefore we encourage you to keep an eye on the [Faculty of Engineering Undergraduate Students website](#) and the [COVID-19 Latest Updates website](#).

Modules	Lectures	Tutorials	Practicals	Assessments
<b>All Engineering modules, unless specified below</b>	Lectures available asynchronously online	Tutorials where applicable f2f (Augmented Type 3)	Practicals where applicable f2f	Assessments in form of tests & exams: invigilated sit-down Formative: invigilated sit-down, Online
<b>Applied Mathematics B 154;</b> <b>Applied Mathematics B 242;</b> <b>Applied Mathematics B 252;</b> <b>Computer Science 334;</b> <b>Computer Science 344;</b> <b>Chemistry C 152;</b> <b>Chemistry C 254;</b> <b>Engineering Mathematics 145;</b> <b>Engineering Mathematics 242;</b> <b>Engineering Physics 152;</b> <b>Numerical Methods 262</b>	These modules are offered by the Faculty of Science. The ARTLA in Science module plans can be found here: <ul style="list-style-type: none"> <li>• <a href="http://www.sun.ac.za/english/faculty/science/Pages/For-Undergraduate-Students.aspx">http://www.sun.ac.za/english/faculty/science/Pages/For-Undergraduate-Students.aspx</a></li> </ul>			
<b>Data Science 141;</b> <b>Engineering Statistics 243;</b> <b>Mathematical Statistics 245;</b> <b>Mathematical Statistics 246;</b> <b>Mathematical Statistics 344;</b>	These modules are offered by the Faculty of Economic and Management Sciences. Their ARTLA module plans can be found at: <ul style="list-style-type: none"> <li>• <a href="http://www.sun.ac.za/english/faculty/economy/Pages">http://www.sun.ac.za/english/faculty/economy/Pages</a></li> </ul>			
<b>Final-year Project (C) 478</b> <b>Industrial Project 498;</b> <b>Mechanical Project 478;</b> <b>Mechatronic Project 478;</b> <b>Mechatronic Project 488;</b> <b>Project (Civil Engineering) 458;</b> <b>Project (E) 448</b>	There are no lectures for this module. Students see their lecturers in weekly one-on-one supervision meetings	n/a	f2f May only apply to certain students, depending on the project	Submission of report: Online  Oral presentation: Online / f2f