2019

Laptop requirement for chemical engineering students

Each student entering chemical engineering studies at UCT will be required to have a laptop for use during class sessions as well as after hours. The details of the minimum specifications are listed overleaf.

- Students will be able to purchase a laptop with these specifications at a significantly reduced price from the national Student Technology Programme (http://www.stp.ac.za). Microsoft Office 365 and McAfee antivirus are available for download for free for UCT students who already have a laptop meeting the required specifications.
- Students who are bursary holders should inform their sponsors of this requirement.
- First year students receiving NSFAS financial aid will be provided with a laptop.

The laptops acquired for 1st year chemical engineering are to be used throughout the four years of the degree. The specifications have been chosen so that they will be able to handle all the computing requirements in the senior years.

The undergraduate curriculum in chemical engineering at UCT has been extensively revised. In designing the new programme the Department drew on the latest educational and pedagogical innovations. A key part of this involves appropriate use of technology; working towards developing the kinds of graduates that are needed for 21st century engineering.

Students will use their laptops in the following ways:

- Simulations of chemical engineering problems and solving design projects using Microsoft Excel (in first year), Scilab and COCO simulator.
- Online quizzes and tests in class.
- Development of good writing skills with frequent written tasks requiring polishing and editing.
- Frequent download of materials from the course website and participation in online Q&A on this website.
- Regular use of email for receiving announcements and communicating with lecturers.
- Learning efficient typing (all first year students will be required to build a basic level of touch typing proficiency, to allow for efficient production of written documents thereafter). During the holidays you can start practising at any free online typing tutor you can find – we have found Rapid Typing fairly good for learning and practising.

Minimum specifications of required laptop

Intel Core i3 (i5 if you can afford it)

4 GB RAM (8 GB if you can afford it; more RAM & i3 is better than less RAM & i5 – by fourth year you will most probably need 8 GB to run the ASPEN simulation package)

Go for the longest battery life that you can afford. Machines with solid state drives have much longer battery life than machines with mechanical parts (e.g. disk drives and DVD drives) and also weigh much less.

IEEE 802.11 wireless

Microsoft Windows (8 or 10)

We discourage Apple Mac. Users running MacOS will have partition their hard drive and get virtual desktop software:

- VirtualBox: https://www.virtualbox.org/
  This is the recommended installation for MacOS users to run some of the Windows-specific software. You need to install Windows in the virtual box, Windows 7 is recommended.

For further queries please email:

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