

## Department of Computer Science and Information Systems



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### **Dear Student**

Recent studies show that there is a global shortage of qualified Computer Scientists and Information System Analysts. We would like to invite you to consider a possible career in the computing industry.

The Departments of CS & IS at the Nelson Mandela Metropolitan University (NMMU) provides excellent internationally recognised qualifications, and our students are highly sought after by employers. Our interesting and stimulating undergraduate courses ensure a strong foundation allowing students to confidently proceed into the workplace, or to pursue one of our exciting research fields at a postgraduate level.

### **What is CS & IS?**

Computer Science is the study of how a computer can be utilized to solve various problems, be it scientific computing, creating computer games or striving towards artificial intelligence.

Information Systems is concerned with creating computer programs that can be used by businesses or industry to perform their operations more effectively. The focus is on creating efficient software packages, which are easy to use, in a cost effective manner.

Naturally, the boundary between CS and IS is often blurred, which is why our department endorses a broad education in both Computer Science and Information Systems, ensuring that our students get the best of both worlds.

### **Department of CS & IS at NMMU**

The Department of CS & IS is located on the South Campus of NMMU, the former University of Port Elizabeth. We have well qualified staff and excellent facilities. Currently we have over 500 PCs spread over 9 laboratories. A wide variety of research equipment is available, including a usability lab, video conferencing facilities, a user interface robot, a sun server farm, XBox 360, PDAs and GPS devices, and eye tracking devices. Furthermore, research funds for the purchasing of Virtual Reality equipment was approved in February 2008! This will enable our students to do even more cutting edge research using the latest technology.

### **Studying CS & IS**

To study CS & IS, you have two main choices: You can either study a Bachelor of Science (BSc) degree where the focus is slightly more on Computer Science or a Bachelor of Commerce (BCom) degree where the focus is slightly more on Information Systems. If you study a BSc degree you will also take other science subjects like Mathematics, Applied

Mathematics and Physics. The BCom degree includes commerce subjects like Accounting, Business Management and Economics.

The bulk of the courses that are offered in the department are for both BSc and BCom students. First year consists of an introductory programming and an end user module (you can apply for exemption for these courses if you did computer studies at school or can show evidence of prior learning).

In second year, you will do an intermediate programming module, a computer architecture and networks module and an information systems module. Computer architecture deals with the physical workings of a computer. The information systems module focuses on applications using databases.

Third year consists of advanced programming and information systems modules and a small project. BSc students also do some theoretical computer science modules while BCom students do some business related information systems modules.

An alternative for which you may enrol is the BSc IS degree. The curriculum for the BSc IS is similar to that of the BCom, but with additional courses like Web design and Multimedia systems. These modules are available as electives in the normal BSc programme.

After third year you can opt to do a one year honours degree in CS & IS. The honours program requires students to select eight courses from a pool of advanced topics. Students also submit a substantial project and treatise. The honours degree provides students with valuable skills and insights into the various specialized areas of CS & IS. This gives students an edge in the work place, and also allows them to go into postgraduate study.

Please see the attached brochure for a detailed breakdown of our courses.

### **Entrance Requirements**

In order to enrol for a degree in CS & IS you need at least a Level 4 in Mathematics. IT and CAT as school subjects can help, but is not a necessity as our courses cover all the important concepts.

### **Additional Information**

Several bursaries are available for both undergraduate and postgraduate studies. If you have any queries regarding your opportunities within our department or would like to have a tour of our facilities, feel free to contact me at 041 5042247 or email at [jean.greyling@nmmu.ac.za](mailto:jean.greyling@nmmu.ac.za). We look forward to hearing from you.

Kind Regards



Prof J.H. Greyling

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