MSc Mathematical Statistics eScience

Programme code

02250197

The curriculum for the MSc (eScience) coursework degree programme comprises 180 credits of coursework and a research component.

One of the key features of the curriculum is a capstone project that runs parallel with coursework modules in the first year of study. During the capstone project, students will go through the entire cycles of solving a real-world data science problem, collecting and processing real-world data, designing methods to solve the problem, and implementing a solution. The capstone project and coursework prepare the student for the mini-dissertation problem supervised by an expert.

Students will register at their home institution, in this case UP, and will complete the coursework by attending classes at Wits, for which they will be credited - through this proposal - at UP. The coursework modules will be presented at the lead institution by experts from participating institutions within the consortium. The academic advisory committee of the programme, with representation from all participating institutions, will be responsible for the syllabuses of all the modules as well as assessment quality and standards thereof. Any alterations to content will be considered by this committee. The programme is managed, in collaboration with consortium members, by the programme director at the leading institution who will also act as the chair person of the academic advisory committee.

The research component, in totality, will be completed at the home institution (in this instance at UP) within students' area of interest in eScience and within the focus area of participating departments. Participating departments will be the custodians of the research component as well as the capstone project; this will render multidisciplinary joint supervision across departments a possibility.

For more information, please consult the Faculty webpage.

Faculty notes

The Faculty of Natural and Agricultural Sciences is home to more than 6 500 undergraduate and postgraduate students. The Faculty presents degrees in fields ranging from the proverbial A to Z – from actuaries to zoologists, and consists of 13 departments.

All degree programmes are designed to develop problem-solving individuals who can easily adapt to changing circumstances and take the lead in their chosen fields of specialisation. The qualifications awarded are of world-class and provide access to a multitude of career opportunities for dynamic and creative people. According to the latest Times Higher Education World University Rankings the University has achieved new world rankings in Physical Sciences, a discipline which features strongly in NAS and also maintains excellent positions on the ISI Web of Science (WOS) field rankings in Plant and Animal Sciences, Agricultural Sciences, and Environment and Ecology Sciences.

In the Faculty of Natural and Agricultural Sciences, we strive to continuously improve our high impact research and significantly address the national shortage of PhD graduates that respond to global and local challenges.

Minimum duration

2 years, full-time

Admission requirements

Honours degree in either Statistics, Mathematics, Computer Science, Physics, or related fields Demonstrable knowledge of basic principles of probability and statistics, computing, calculus and linear algebra or an admission examination may be required A weighted average of at least 65% at final-year level, but students with a weighted average of 70% or more will receive preference