



UNIVERSITY  
OF  
JOHANNESBURG

# The Future Reimagined

FACULTY OF SCIENCE

**2017/18 Postgraduate Programmes**

Degrees & Diplomas



# FACULTY OF SCIENCE

## INDEX – POSTGRADUATE PROGRAMMES

The University reserves the right, at any time, should circumstance dictate, to make changes to, or withdraw any of the opportunities on offer.

### BACHELOR OF TECHNOLOGY (BTech)

#### Name of programme

<b>BTech</b> (Biotechnology) _____	112
<b>BTech</b> (Food Technology) _____	112

### BACHELOR OF SCIENCE HONOURS (BSc Hons)

#### Degree PROGRAMMES

#### Name of programme

<b>BSc Hons</b> (Applied Mathematics) _____	112
<b>BSc Hons</b> (Biochemistry) _____	112
<b>BSc Hons</b> (Botany) _____	113
<b>BSc Hons</b> (Chemistry) _____	113
<b>BSc Hons</b> (Computer Science) _____	113
<b>BSc Hons</b> (Energy Studies) _____	113
<b>BSc Hons</b> (Geography) / <b>BA Hons</b> (Geography) _____	114
<b>BSc Hons</b> (Geology) _____	114
<b>BSc Hons</b> (Informatics) / <b>BCom Hons</b> (Informatics) _____	114
<b>BSc Hons</b> (Information Technology) _____	115
<b>BSc Hons</b> (Mathematical Statistics) _____	115
<b>BSc Hons</b> (Mathematics) _____	115
<b>BSc Hons</b> (Physics) _____	116
<b>BSc Hons</b> (Physiology) _____	116
<b>BSc Hons</b> (Zoology) _____	116

### MASTER OF TECHNOLOGY (MTech)

#### Name of programme

<b>MTech</b> (Biotechnology) _____	116
<b>MTech</b> (Chemistry) _____	116
<b>MTech</b> (Food Technology) _____	117

### MASTER OF PHILOSOPHY (MPhil)

Contact the Faculty of Science for more information.

#### Name of programme

<b>MPhil</b> (Energy Studies) Dissertation _____	117
--	-----

# Postgraduate Programmes [Degrees & Diplomas] at the University of Johannesburg | 2017/18

## MASTER OF SCIENCE (MSc)

### Name of programme

<b>MSc</b> (Applied Mathematics) Dissertation _____	117
<b>MSc</b> (Aquatic Health) Dissertation and Lectured _____	117
<b>MSc</b> (Biochemistry) Dissertation _____	118
<b>MSc</b> (Biodiversity and Conservation) Dissertation _____	118
<b>MSc</b> (Botany) Dissertation _____	118
<b>MSc</b> (Chemistry) Dissertation _____	118
<b>MSc</b> (Computer Science) Dissertation _____	118
<b>MSc</b> (Environmental Management) Lectured _____	119
<b>MA</b> (Environmental Management) Lectured _____	119
<b>MSc</b> (Geography) Dissertation / <b>MA</b> (Geography) Dissertation _____	119
<b>MSc</b> (Geology) Dissertation _____	119
<b>MSc</b> (Informatics) Dissertation / <b>MCom</b> (Informatics) Dissertation _____	119
<b>MSc</b> (Information Technology) Dissertation _____	119
<b>MSc</b> (Mathematical Statistics) Dissertation _____	120
<b>MSc</b> (Mathematics) Dissertation _____	120
<b>MSc</b> (Nanoscience) Lectured _____	120
<b>MSc</b> (Physics) Dissertation _____	120
<b>MSc</b> (Zoology) Dissertation _____	120

## DOCTOR OF TECHNOLOGY (DTech)

### Name of programme

DTech (Biotechnology) _____	121
-----------------------------	-----

## DOCTOR OF PHILOSOPHY (PhD)

### Name of programme

<b>PhD</b> (Applied Mathematics) _____	121
<b>PhD</b> (Aquatic Health) _____	121
<b>PhD</b> (Biochemistry) _____	121
<b>PhD</b> (Biodiversity and Conservation) _____	122
<b>PhD</b> (Botany) _____	122
<b>PhD</b> (Chemistry) _____	122
<b>PhD</b> (Computer Science) _____	122
<b>PhD</b> (Energy Studies) _____	122
<b>PhD</b> (Environmental Management) _____	122
<b>PhD</b> (Geography) _____	123
<b>PhD</b> (Geology) _____	123
<b>PhD</b> (Informatics) _____	123
<b>PhD</b> (Mathematical Statistics) _____	123
<b>PhD</b> (Mathematics) _____	123
<b>PhD</b> (Physics) _____	124
<b>PhD</b> (Zoology) _____	124

## FACULTY OF SCIENCE

### BACHELOR OF TECHNOLOGY (BTech)

**Name of programme:**

**BTech (Biotechnology)**

**Admission requirements:** National diploma in relevant field.

**Duration of programme:**

Full-time: 1 year

**Contact details:**

Name: Ms Kalay Venugopaul / Tel: 011 559 6456 / Email: kalayv@uj.ac.za

**Brief description of programme:** Graduates of this programme are able to devise and apply specialised strategies and relevant management principles in quality control (QC) and research and development (R & D). They may work as supervising technicians and technologists in product and process development, and quality control. Employment may be in a laboratory, or production or sales environments.

---

**Name of programme:**

**BTech (Food Technology)**

**Admission requirements:** National diploma in relevant field.

**Duration of programme:**

Full-time: 1 year

**Contact details:**

Name: Ms Kalay Venugopaul / Tel: 011 559 6456 / Email: kalayv@uj.ac.za

**Brief description of programme:** The Department of Food Technology equips students with skills and knowledge of a wide range of areas related to food science and technology. This will include food production, food chemistry, food quality assurance, food microbiology, food process engineering, food technology and basic research skills.

---

### BACHELOR OF SCIENCE HONOURS (BSc Honours)

**Name of programme:**

**BSc Hons (Applied Mathematics)**

**Admission requirements:** A bachelor's Degree with Applied Mathematics as major, a minimum average of 60% in the final year of undergraduate Applied Mathematics.

**Duration of programme:**

Full-time: 1 year

Part-time: 2 years

**Contact details:** Name: Mrs Sandra Geldenhuys / Tel: 011 559 2067 (mornings only) / Email: geldenhuys@uj.ac.za

**Brief description of programme:** The Honours programme in Applied Mathematics curriculum consists of NINE semester modules (own choice) and a short written project (compulsory). Semester modules are examined at the end of the semester in which they are presented. The project is supervised by a lecturer and presented by the student as a lecture at a predetermined time. The project has the weight of one semester module, examined internally. The choice of the semester modules is done in consultation with the Head of Department.

---

**Name of programme:**

**BSc Hons (Biochemistry)**

**Admission requirements:** A BSc Degree in Life and Environmental Sciences/ Physical Sciences (or equivalent thereof) with Biochemistry as one of the major subjects. A minimum mark of 65% at third year level Biochemistry is required. Ad hoc decisions may be made in meritorious cases, as well as for students from disadvantaged backgrounds.

**Duration of programme:** 1 year full-time

**Contact details:** Name: Ms Lynette de Kooker  
Tel: 011 559 2370 / Email: ldekooker@uj.ac.za

**Brief description of programme:** Admission to the Honours programme is subject to approval by the Department. A prospective candidate must have a minimum average mark of at least 65% for Biochemistry on the third year level.

The Honours programme in Biochemistry consists of four theory modules: Advanced Analytical Techniques Protein Biochemistry, Advanced Catalysis and Enzyme Technology and Current Advances in Biotechnology. Advanced theories in Biochemistry are dealt with. Practical work consists of selected advanced experiments as well as a short Research Project (one semester module).

---

**Name of programme:**

**BSc Hons (Botany)**

**Admission requirements:** BSc with Botany as a major subject, or equivalent. A minimum average mark of 60% is required in the final year.

**Duration of programme:** 1 year full-time

**Contact details:** Name: Mrs Maretha Schwim  
Tel: 011 559 2436 (mornings only) / Email: marethas@uj.ac.za

**Brief description of programme:** Admission to the Honours programme is subject to approval by the Department. A prospective candidate must have a minimum average mark of at least 60% for Botany on the third year level.

The Honours programme in Botany consists of six modules which must be passed individually. The modules for this programme are: Post-harvest Physiology, Plant Biotechnology, Plant Systematics and Molecular Evolution, Scientific Methods, Advanced Plant Taxonomy and Economic Botany and Project. In addition, one or more additional modules may be required by the Departmental Head. Participation in Departmental excursions may also be required. The examination consists of written papers or reports in each section. All sections carry equal weight and must all be passed individually.

---

**Name of programme:**

**BSc Hons (Chemistry)**

**Admission requirements:** BSc Degree with Chemistry as major subject, minimum of 60% for Advanced Physical Chemistry, Advanced Organic Chemistry, Instrumental Chemical Analysis and Coordination Chemistry.

**Duration of programme:** 1 year full-time

**Contact details:** Name: Mrs Eureka O'Rourke  
Tel: 011 559 2363 (mornings only) / Email: eurekao@uj.ac.za

**Brief description of programme:** The Head of the Department must approve admission to the Honours programme in Chemistry. The BSc Honours in Chemistry programme consists of eight modules. A BSc Degree with a major in Chemistry and at least 60% in third-year chemistry is required.

---

**Name of programme:**

**BSc Hons (Computer Science)**

**Admission requirements:** An average of at least 60% in the final year of study for Computer Science in a relevant BSc/BCom Degree.

**Duration of programme:**

Full-time: 9 modules in 1 year  
Part-time: 4/5 modules per year over 2 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za  
Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** The Honours Degree in Computer Science consists of seven semester modules and a practical year project, or nine semester modules. The scope of the practical year project is a minimum of 200 hours. The year project spans two consecutive semester modules. The continuation of the project in the second semester is dependent on satisfactory progress during the first semester. The project must be developed strictly according to the project development methodology as prescribed by the IT Academy.

The contents of the lectured semester modules are determined annually by the Academy of Computer Science and Software Development. The contents of the modules are not included in the regulation book but may be obtained directly from the Academy of Computer Science and Software Development.

---

**Name of programme:**

**BSc Hons (Energy Studies)**

**Admission requirements:** Admission to the programme requires the approval of the Head of the Department and is subject to appropriate undergraduate studies and experience in the energy industry.

**Duration of programme:** Part-time: 2 years

**Contact details:** Name: Ms Marcel Scott  
Tel: 011 559 2433 (mornings only) / Email: mscott@uj.ac.za

**Brief description of programme:** Admission to the programme requires the approval of the Programme Co-ordinator of Energy Studies and the Head of Department of Geography, Environmental Management and Energy Studies and is subject to appropriate undergraduate studies and experience in the energy industry. The BSc Honours in Energy Studies programme is only presented on a part-time basis (4 semesters).

The programme comprises SIX modules. There is a written examination for each module.

- 1 Energy Economics
- 2 Energy Technology
- 3 Energy Modelling
- 4 The International, Geographical and Political Aspects of Energy
- 5 Energy Policy Formulation
- 6 Research Project

---

**Name of programme:**

**BSc Hons (Geography) / BA Hons (Geography)**

**Admission requirements:** A B Degree with Geography as a major subject and an average pass rate of 65% for third year models. The Head of the Department approves admission to the Honours programme.

**Duration of programme:** Part-time: 2 years

**Contact details:** Name: Ms Marcel Scott / Tel: 011 559 2433 (mornings only) / Email: mscott@uj.ac.za

**Brief description of programme:** For admission to the Honours Programme, a Bachelors Degree with Geography or Environmental Management as one major (65% average in 3rd year) is required. The Head of the Department approves admission to the Honours programme.

Five semester modules are required for the BSc Honours in Geography degree, of which Module 3 (Philosophy and Methodology) and Module 7 (Research Project) are compulsory. Each module has an equal number of credits.

Examination is at the end of the semester of presentation, except Module 7, which is a year module. Module 3 and every other semester module must be passed with 50% in order to continue with study towards the Honours Degree.

A student must pass at least two modules per semester. Semester modules to be presented in a particular year of study are determined annually. One approved semester module from an Honours Degree other than Geography may also be followed in the Faculty of Science, Faculty of Humanities or Faculty of Management.

---

**Name of programme:**

**BSc Hons (Geology)**

**Admission requirements:** BSc (Geology) and a minimum average mark of 60% for all three years BSc core Geology modules.

**Duration of programme:** Full-time: 1 year

**Contact details:**

Name: Mrs Elaine Minnaar / Tel: 011 559 4701 / Email: elainem@uj.ac.za

**Brief description of programme:** To earn an Honours Degree in Geology, a student must successfully complete all nine modules outlined below or some of those, plus equivalent level modules from other related fields of earth or material sciences (at the discretion of the Head of the Department) to add up to a minimum of 170 credits. A minimum of 60% in all geology core modules and for all three field schools (UJ students) is required in order to apply to be considered for the Geology Honours programme.

---

**Name of programme:**

**BSc Hons (Informatics) / BCom Hons (Informatics)**

**Admission requirements:** An average of at least 60% in the final year of study for Computer Science or Informatics in a relevant BSc/ BCom Degree.

**Duration of programme:**

Full-time: 9 modules in 1 year

Part-time: 4/5 modules per year over 2 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** The Honours Degree in Informatics consists of SEVEN semester modules and a compulsory practical year project IT28X87 Project (2 modules). The following core semester module is compulsory: IT00247 Ethical and legal aspects of IT.

The scope of the practical year project is a minimum of 200 hours. The year project spans two consecutive semester modules. The continuation of the project in the second semester is dependent on satisfactory progress during the first semester. The project must be developed strictly according to the project development methodology as prescribed by the Academy of Computer Science and Software Engineering.

---

**Name of programme:****BSc Hons (Information Technology)**

**Admission requirements:** A BSc BSIT01/B2I01Q Degree or a BSc BSIT02/B2I02Q degree.

A pass mark of at least 60% in Computer Science or Informatics in the final year.

**Duration of programme:** The Honours Degree in Information Technology consists of SEVEN semester modules AND a compulsory practical year project.

Full-time: 10 modules in 1 year

Part-time: 4/5 modules per year over 2 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** Please note: Applicants may be required to pass a practical programming examination as set annually by the Academy.

The following core semester module is compulsory: IT28X47 Ethical and legal aspects of IT.

The scope of the compulsory practical year project (IT28X30 Project (3 modules)) is a minimum of 200 hours. The year project spans two consecutive semester modules. The continuation of the project in the second semester is dependent on satisfactory progress during the first semester. The project must be developed strictly according to the project development methodology as prescribed by the Academy of Computer Science and Software Engineering. The project development methodology subscribes to the software engineering systems life cycle as endorsed by the British Computer Society (BCS).

The following phases are differentiated: Business modelling, Requirements elicitation, Design, Development, Testing, Implementation (Deployment) and Implementation (Deployment).

**Name of programme:****BSc Hons (Mathematical Statistics)**

**Admission requirements:** Mathematical Statistics final-year modules are compulsory prerequisites. Students who do not comply with this requirement may be admitted at the discretion of the Head of the Department. Such students may be required to do additional work as prescribed by the Head of the Department.

**Duration of programme:** 1 year full-time

**Contact details:** Name: Mrs Lettie Bothma

Tel: 011 559 2852 / Email: lettieb@uj.ac.za

Name: Mrs C Luke / Tel: 559 3741 (afternoons only) / Email: caroll@uj.ac.za

**Brief description of programme:** The Honours Degree consists of a data analysis project (compulsory) and eight semester modules chosen in consultation with the Head of the Department.

**Name of programme:****BSc Hons (Mathematics)**

**Admission requirements:** A student must have a Bachelors Degree, majoring in Mathematics and obtained at least a 60% average for the third-year Mathematics modules. Furthermore, a student must pass a departmental entrance exam (internal candidates with an average mark of at least 65% in the final year of undergraduate Mathematics may be exempt from writing the entrance exam, at the sole discretion of the Department).

**Duration of programme:** 1 year full-time

**Contact details:**

Name: Mrs Ria Uys / Tel: 011 559 2848 / Email: riau@uj.ac.za

**Brief description of programme:** The Honours programme in Mathematics consists of 9 semester modules and a short written project. The project is done under the supervision of a member of the Department and must be presented as a lecture. It has the weight of one subject module and is examined internally. Modules are selected in consultation with the Department and may be exchanged with modules from other departments; for example from Applied Mathematics, Statistics and Economics and Econometrics.

Admission to the Honours programme is subject to approval by the Department. A prospective candidate must have a minimum average mark of at least 60% for Pure Mathematics on the third year level and pass an entrance exam as set by the Department.

Internal candidates with an average mark of at least 65% for Pure Mathematics on the third year level may be exempted from writing the entrance exam, at the sole discretion of the Department.

**Name of programme:****BSc Hons (Physics)**

**Admission requirements:** Admission to the Honours programme is subject to the permission of the Head of the Department. A minimum summative mark of 60% in Physics on NQF Level 7 (third year) plus 50% in Mathematics on NQF Level 6 (second year) is the standard entrance requirement.

**Duration of programme:** 1 year full-time

**Contact details:** Name: Dr Emanuela Carleschi (HoD)  
Tel: 011 559 2327 / Email: ecarleschi@uj.ac.za

**Brief description of programme:** Completion of the Physics Honours programme requires passing the project and 9 additional modules, including those compulsory for the chosen specialisation. Not all modules may be offered in any particular year.

In the case of modules that are spread across two semesters, the first semester module serves as a prerequisite for the second semester module.

As part of the electives, a student may choose a maximum of two modules from Faculty of Science Departments other than Physics, with permission from the Head of the Physics Department.

The final mark for each of the theory modules in the Physics Honours programme is calculated as follows: The examination mark contributes 70% and the semester mark 30% towards the final mark.

---

**BSc Hons (Physiology)**

**Admission requirements:** A BSc degree with Physiology as major or equivalent.

**Duration of programme:** Full-time: 1 year

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The BSc Hons Physiology comprises 8 modules and a Project which prepares the student for further postgraduate study. The department determined the availability of modules.

---

**Name of programme:****BSc Hons (Zoology)**

**Admission requirements:** A BSc Degree with Zoology as major.

**Duration of programme:** Full-time: 1 year

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** BSc Honours (Zoology) comprises 10 modules. The Department determines the availability of modules. A restricted number of learners (approx. 12) will be accepted annually. This number is determined by the available places in the department. Final acceptance will be based on final year results, obtaining a minimum of 65% in an English proficiency test and the outcome of a written easy type application, evaluated by academic staff of the Department of Zoology.

---

**MASTER OF TECHNOLOGY (MTech)****Name of programme:****MTech (Biotechnology)**

**Admission requirements:** Biotechnology or an equivalent qualification at an equivalent standard.

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Ms Kalay Venugopaul / Tel: 011 559 6456 / Email: kalayv@uj.ac.za

**Brief description of programme:** A dissertation and such additional research work as may be prescribed by the Departmental Head.

---

**Name of programme:****MTech (Chemistry)**

**Admission requirements:** A BTech (Chemistry) or an equivalent qualification as determined by a Status Committee. Enquiries must be made through the Head of Department, who will refer the application to the researcher specialising in the field.

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years



**Contact details:**

Name: Ms Leah Lethlage / Tel: 011 559 6148 / Email: lletlhage@uj.ac.za

**Brief description of programme:** The programme is a research-based study in an approved field. Students are expected to submit a dissertation which is examined both internally and externally.

---

**Name of programme:****MTech (Food Technology)**

**Admission requirements:** A B Tech (Food Technology) or an equivalent qualification at an equivalent standard.

**Duration of programme:**

Minimum: 1 year full-time or 2 years part-time  
Maximum: 2 years full-time or 4 years part-time

**Contact details:**

Name: Ms Kalay Venugopaul / Tel: 011 559 6456 / Email: kalayv@uj.ac.za

**Brief description of programme:** A dissertation and such additional research work as may be prescribed by the Departmental Head.

---

**MASTER OF PHILOSOPHY (MPhil)****Name of programme:****MPhil (Energy Studies)**

**Admission requirements:** Admission to the Master's in Energy Studies preferably requires an Honours Degree in Energy Studies, although a student with Honours in a related subject, together with appropriate experience in the energy industry, may be considered for admission. It may be required of a student in the latter category to register for, and successfully complete, one or more of the modules for the Honours programme in Energy Studies before the Master's study is commenced.

**Duration of programme:**

Minimum: 1 year  
Maximum: 2 years

**Contact details:**

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** A dissertation and such additional research work as may be prescribed by the Departmental Head.

---

**MASTER OF SCIENCE (MSc)****Name of programme:****MSc (Applied Mathematics) Dissertation**

**Admission requirements:** An Honours Degree in Applied Mathematics with a minimum average of 65%

**Duration of programme:**

Minimum: 1 year  
Maximum: 2 years

**Contact details:** Name: Mrs Sandra Geldenhuys

Tel: 011 559 2067 (mornings only) / Email: sgeldenhuys@uj.ac.za

**Brief description of programme:** A dissertation and such additional research work as may be prescribed by the Departmental Head.

Master's Degree studies consist of a guided research project that must be submitted in the form of a dissertation at the end of the study period.

---

**Name of programme:****MSc (Aquatic Health) Dissertation and Lectured**

**Admission requirements:** An Honours Degree in Zoology

**Duration of programme:**

Minimum: 1 year  
Maximum: 2 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The Master's examination in Zoology normally consists of a dissertation on an approved topic, a manuscript ready for publication and two seminar presentations.

Alternatively, depending on the nature of the topic, three examination papers and a short dissertation (carrying the weight of an exam paper) may be submitted for the Degree. To pass, a student must obtain at least 50% for each of the examination papers as well as the short dissertation. In the case of part-time students, the examination may be written in two parts: two papers in the first part and a paper and short dissertation in the final part. The two parts must be passed within the course of one academic year.

---

**Name of programme:****MSc (Biochemistry) Dissertation**

**Admission requirements:** An Honours Degree in Biochemistry. Admission to the Master's programme is subject to approval by the Department.

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Ms Lynette de Kooker / Tel: 011 559 2370 / Email: ldekooker@uj.ac.za

**Brief description of programme:** Master's Degree studies consist of a guided research project that must be submitted in the form of a dissertation at the end of the study period.

---

**Name of programme:****MSc (Biodiversity and Conservation) Dissertation**

**Admission requirements:** An Honours Degree in Zoology

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The Master's examination in Zoology normally consists of a dissertation on an approved topic, a manuscript ready for publication and two seminar presentations.

Alternatively, depending on the nature of the topic, three examination papers and a short dissertation (carrying the weight of an exam paper) may be submitted for the Degree. To pass, a student must obtain at least 50% for each of the examination papers as well as the short dissertation. In the case of part-time students, the examination may be written in two parts: two papers in the first part and a paper and short dissertation in the final part. The two parts must be passed within the course of one academic year.

---

**Name of programme:****MSc (Botany) Dissertation**

**Admission requirements:** An Honours Degree in Botany

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:** Name: Mrs Maretha Schwim

Tel: 011 559 2436 (mornings only) / Email: marethas@uj.ac.za

**Brief description of programme:** The Degree will be awarded following the successful completion of a dissertation based on an approved research topic.

In addition to the above, one or more additional modules may be required. The general regulations for Master's Degrees are also applicable.

---

**Name of programme:****MSc (Chemistry) Dissertation**

**Admission requirements:** An Honours Degree in Chemistry

**Duration of programme:**

Minimum: 1 year / Maximum: 2 years

**Contact details:**

Name: Mrs Eureka O'Rourke / Tel: 011 559 2363 / Email: eurekao@uj.ac.za

**Brief description of programme:** The Master's study programme comprises a research project based on an approved topic. A dissertation, which gives evidence of the research capability of the candidate, is required.

---

**Name of programme:****MSc (Computer Science) Dissertation**

**Admission requirements:** The Master's study programme comprises a dissertation based on an approved topic. In addition a minimum result of 65% in the preceding Honours Degree is required for admission. Furthermore, the general rules for Master's Degrees are applicable.

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** The Master's study programme comprises a dissertation based on an approved topic. In addition, the general rules for Master's Degrees are applicable.

---

# Postgraduate Programmes [Degrees & Diplomas] at the University of Johannesburg | 2017/18

## Name of programme:

**MSc (Environmental Management) Lectured**

**MA (Environmental Management) Lectured**

**Admission requirements:** An Honours Degree in Geography or Environmental Management or any relevant equivalent Honours degree is required

**Duration of programme:** The duration of the tutored Master's is a maximum of 18 months (three semesters) for full-time students and 2 years for part-time students.

Full-time students and part-time students follow Module 1 and 2 during the first and second semesters of the first study year. Module 3 must, in both cases, be completed at the end of the study, as specified above.

## Contact details:

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** The coursework Master's in Environmental Management consists of three modules. *Full-time students* and *part-time students* follow theory Module 1 and 2 during the first and second semesters of the first study year. Research Module 3 must, in both cases, be completed at the end of the study, as specified above.

---

## Name of programme:

**MSc (Geography) Dissertation / MA (Geography) Dissertation**

**Admission requirements:** For admission to the Master's Degree in Geography, a BSc/BA Honours degree in Geography is required. A research dissertation dealing with a topic chosen by the candidate, under the supervisor of his choice, but within the field of specialisation of that supervisor. Approved by the Departmental Head and the Faculty of Science. General rules of admission, as set out by the Faculty of Science and the University, apply.

## Duration of programme:

Minimum: 1 year

Maximum: 2 years

## Contact details:

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** The Master's study programme comprises a dissertation based on an approved topic. In addition, the general rules for Master's Degrees are applicable.

---

## Name of programme:

**MSc (Geology) Dissertation**

**Admission requirements:** An Honours Degree in Geology

## Duration of programme:

Minimum: 1 year

Maximum: 2 years

## Contact details:

Name: Mrs Elaine Minnaar / Tel: 011 559 4701 / Email: elainem@uj.ac.za

**Brief description of programme:** A research dissertation dealing with a topic chosen by the candidate under a supervisor of his choice; approved by the Departmental Head and the Faculty of Science. General rules of admission, as set out by the Faculty of Science and the University, apply.

---

## Name of programme:

**MSc (Informatics) Dissertation / MCom (Informatics) Dissertation**

**Admission requirements:** A minimum result of 65% in the preceding Honours Degree is required for admission

## Duration of programme:

Minimum: 1 year

Maximum: 2 years

## Contact details:

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** A dissertation on an approved topic. In addition the general rules for Master's Degrees are applicable.

---

## Name of programme:

**MSc (Information Technology) Dissertation**

**Admission requirements:** A BSc Hons in Information Technology with a minimum result of 65% is required for admission.

## Duration of programme:

Minimum: 1 year

Maximum: 2 years

## Contact details:

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** A dissertation on an approved topic. In addition, the general rules for Master's Degrees are applicable.

---

**Name of programme:**

**MSc (Mathematical Statistics) Dissertation**

**Admission requirements:** An Honours Degree in Mathematical Statistics

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Mrs Lettie Bothma / Tel: 011 559 2852 / Email: [lettieb@uj.ac.za](mailto:lettieb@uj.ac.za)

**Brief description of programme:** The curriculum consists of two programmes (containing at most, one from a related field and chosen in consultation with the Head of the Department) and a minor dissertation which has the weight of two modules, (the dissertation and each module must be passed separately),

**OR** a dissertation and such additional work as prescribed by the Head of the Department.

---

**Name of programme:**

**MSc (Mathematics) Dissertation**

**Admission requirements:** A minimum result of 65% for a relevant Honours Degree is required for admission, in addition to the approval of the application by the Department.

**Duration of programme:** The Master's study programme comprises a dissertation based on an approved topic.

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Mrs Ria Uys / Tel: 011 559 2848 / Email: [riau@uj.ac.za](mailto:riau@uj.ac.za)

**Brief description of programme:** The Master's programme normally consists of three year modules and a minor dissertation which has the weight of one subject module and which must be presented as a lecture. (Alternatively a dissertation may be done. An oral presentation of the dissertation is required.) In exceptional cases students may register for more modules than prescribed. Modules are chosen in consultation with the Department and may be exchanged with modules from other subjects.

---

**Name of programme:**

**MSc (Nanoscience) Lectured**

**Admission requirements:** An Honours Degree (or equivalent) in Chemistry, Physics or Biotechnology, with an aggregate final mark of 60% or higher. Admission is subject to approval by the relevant Head of Department and the Faculty of Science.

**Duration of programme:** Maximum: 2 years

**Contact details:**

Name: Ms Leah Lathlaga / Tel: 011 559 6148 / Email: [llethlaga@uj.ac.za](mailto:llethlaga@uj.ac.za)

**Brief description of programme:** The coursework Master's in Nanoscience consists of six modules and a minor dissertation. The three modules Fundamentals of Nanoscience, Instrumentation in and Management and Entrepreneurship are compulsory for all students and the remaining three modules are chosen in consultation with the Head of Department. The ratio of the course work modules to the research component is 40:60.

---

**Name of programme:**

**MSc (Physics) Dissertation**

**Admission requirements:** An Honours Degree in Physics

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:** Name: Dr Emanuela Carleschi (HoD)

Tel: 011 559 2327 / Email: [ecarleschi@uj.ac.za](mailto:ecarleschi@uj.ac.za)

**Brief description of programme:** Awarding of a Master's Degree in Physics involves successful examination of a written dissertation, based on experimental and/or theoretical work, depending on the nature and topic of the project selected for the Degree, subject to approval by the Head of the Department and the Faculty of Science.

---

**Name of programme:**

**MSc (Zoology) Dissertation**

**Admission requirements:** An Honours Degree in Zoology

**Duration of programme:**

Minimum: 1 year

Maximum: 2 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The Master's degree in Zoology consists of three programmes i.e. Aquatic Health, Biodiversity and Conservation and Zoology. The Master's examination in Zoology normally consists of a dissertation on an approved research topic, based on experimental work approved by the Head of the Department and the Faculty of Science, a manuscript ready for publication and two seminar presentations.

Alternatively, a Tutored Master's degree depending on the nature of the topic, consists of three examination papers (lectured component) that makes up 50% of the final mark and a research project in the form of a minor dissertation (making up the remaining 50% of the credits for the degree). To pass, a student must obtain at least 50% for each of the examination papers as well as the research project, based on a minor\_dissertation. The research-based minor dissertation makes up the remaining 50% of the final mark (i.e. a weight of 50% of the total course) and has to be passed (i.e. a mark of 50% or more) for the student to pass the degree. In the case of part-time students, the examination may be written in two parts: two papers in the first part and a paper and minor dissertation in the final part. The two parts must be passed within the course of one academic year. Candidates lacking adequate statistical awareness are required to complete a statistics awareness course.

---

## DOCTOR OF TECHNOLOGY (DTech)

**Name of programme:**

DTech (Biotechnology)

**Admission requirements:** A Master's Degree in relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Kalay Venugopaul / Tel: 011 559 6456 / Email: kalayv@uj.ac.za

**Brief description of programme:** Doctoral studies consist of an original research project to be submitted in the form of a thesis at the end of the study period. The DTech programme is offered at the Doornfontein Campus.

---

## PHILOSOPHIAE DOCTOR (PhD)

**Name of programme:**

PhD (Applied Mathematics)

**Admission requirements:** A Master's Degree in relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:** Name: Mrs Sandra Geldenhuys

Tel: 011 559 2067 / Email: sgeldenhuys@uj.ac.za

**Brief description of programme:** A thesis of original research work is required.

---

**Name of programme:**

PhD (Aquatic Health)

**Admission requirements:** A Master's Degree in a relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The general regulations for doctorates are applicable.

---

**Name of programme:**

PhD (Biochemistry)

**Admission requirements:** A Master's Degree in relevant field

**Duration of programme:**

Maximum: 4 years

**Contact details:** Name: Ms Lynette de Kooker

Tel: 011 559 2370 / Email: lynettedk@uj.ac.za

**Brief description of programme:** Doctoral studies consist of an original research project to be submitted in the form of a thesis at the end of the study period. The research project must be approved by the Departmental Head and the Faculty of Science.

---

**Name of programme:**

**PhD (Biodiversity and Conservation)**

**Admission requirements:** A Master's Degree in a relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: thumekan@uj.ac.za

**Brief description of programme:** The general regulations for doctorates are applicable.

---

**Name of programme:**

**PhD (Botany)**

**Admission requirements:** A Master's Degree in relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Mrs Maretha Schwim / Tel: 011 559 2436 / Email: marethas@uj.ac.za

**Brief description of programme:** A thesis based on original research. The general regulations for Doctoral Degrees are also applicable.

---

**Name of programme:**

**PhD (Chemistry)**

**Admission requirements:** A Master's Degree in the relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Eureka O'Rourke / Tel: 011 559 2363 / Email: eurekao@uj.ac.za

**Brief description of programme:** The doctoral study programme comprises a thesis that makes an original contribution to the research field approved for the study.

---

**Name of programme:**

**PhD (Computer Science)**

**Admission requirements:** A Master's Degree in the relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** The general rules for doctorates are applicable. In addition, a minimum result of 65% is required for the preceding Master's Degree.

---

**Name of programme:**

**PhD (Energy Studies)**

**Admission requirements:** A Master's in Energy Studies, although a student with a Master's Degree in a related subject, and with appropriate experience in the energy industry, may be considered for admission.

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** A thesis on a suitable subject, chosen after consultation with the Programme Co-ordinator for Energy Studies, is required for the Doctor's Degree. The Degree conferred will be the PhD (Energy Studies). General rules of admission, as set out by the Faculty of Science and the University, apply.

---

**Name of programme:**

**PhD (Environmental Management)**

**Admission requirements:** For admission to the PhD in Environmental Management a Master's Degree in Environmental Management is required, although as a result of the interfaculty nature of Environmental Management, another relevant and equivalent Master's qualification will also be considered.

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** General rules of admission, as set out by the Faculty of Science and the University, apply.

---

**Name of programme:****PhD (Geography)**

**Admission requirements:** For admission to the Doctorate in Geography a Master's in Geography is required.

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Marcel Scott / Tel: 011 559 2433 / Email: mscott@uj.ac.za

**Brief description of programme:** The Head of the Department has to approve admission to the Doctorate in Geography.

---

**Name of programme:****PhD (Geology)**

**Admission requirements:** A Master's Degree in relevant field. General rules of admission, as set out by the Faculty of Science and the University, apply.

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Mrs Elaine Minnaar / Tel: 011 559 4701 / Email: elainem@uj.ac.za

**Brief description of programme:** A thesis on a basic geological or earth science problem under a promoter of the student's choice; approved by the Departmental Head and the Faculty of Science.

General rules of admission, as set out by the Faculty of Science and the University, apply.

---

**Name of programme:****PhD (Informatics) / DCom (Informatics)**

**Admission requirements:** A minimum result of 65% is required for the preceding Master's Degree.

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Simangele Msibi / Tel: 011 559 2839 / Email: simangelem@uj.ac.za

Name: Ms Gugulethu Ndevu / Tel: 011 559 2967 / Email: gndevu@uj.ac.za

**Brief description of programme:** The general regulations for doctorates are applicable.

---

**Name of programme:****PhD (Mathematical Statistics)**

**Admission requirements:** A Master's Degree in a relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Lettie Bothma / Tel: 011 559 2852 / Email: lettieb@uj.ac.za

**Brief description of programme:** The general regulations for doctorates are applicable.

---

**Name of programme:****PhD (Mathematics)**

**Admission requirements:** Admission to the Doctoral programme is subject to approval by the Department, in addition to a minimum result of 65% for a relevant Master's degree.

**Duration of programme:**

Minimum: 2 years / Maximum: 4 years

**Contact details:**

Name: Ms Ria Uys / Tel: 011 559 2848 / Email: riau@uj.ac.za

**Brief description of programme:** The doctoral study programme comprises a thesis that makes an original contribution to the research field approved for the study.

---

**Name of programme:**

PhD (Physics)

**Admission requirements:** A Master's Degree in a relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:** Name: Dr Emanuela Carleschi (HoD)

Tel: 011 559 2327 / Email: [ecarleschi@uj.ac.za](mailto:ecarleschi@uj.ac.za)

**Brief description of programme:** The general regulations for doctorates are applicable.

---

**Name of programme:**

PhD (Zoology)

**Admission requirements:** A Master's Degree in a relevant field

**Duration of programme:**

Minimum: 2 years

Maximum: 4 years

**Contact details:**

Name: Ms Thumeka Nakani / Tel: 011 559 2441 / Email: [thumekan@uj.ac.za](mailto:thumekan@uj.ac.za)

**Brief description of programme:** The general regulations for doctorates are applicable.

---