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# **Programme Name: Bachelor of Science in Mathematics/Physics**

### **Programme Description**

This programme focuses on the laws of physics and fundamental mathematical concepts delivered through a coherent and interrelated structure of courses. The programme combines the study of mathematics and physics in a manner such that each discipline reinforces the other to give a strong and equal grounding in these two inextricably linked subjects. Students study the two majors in-depth with the content spanning across a range of topics across each discipline. The programme will equip students with skills that will allow them to interpret and extend observations related to many physical phenomena using the language of mathematics. This will open opportunities for careers in a wide range of areas including engineering, meteorology, mathematical modelling and energy advisors.

This Bachelor of Science in Mathematics/Physics programme consists of 24-course units amounting to 360 credit points. Students must complete all compulsory courses and elective courses.

#### **Admission Requirements:**

- a) Direct Entry Year 13 (FSFE) or Equivalent
- i. Persons shall be eligible to be admitted to study for a Bachelor of Science in Mathematics/Physics if they have:
- ii. Passed the University Foundation Programme; or
- iii. Passed Fiji Year 13 Examination with an aggregate of at least 200 marks in 4 subjects with a minimum of 50% in English and The individual must have taken Physics or related courses in Year 13 or equivalent; or
- iv. Pass in Fiji School Leaving Certificate (FSLC) or its equivalent (at least 200 marks in 4 subjects with 50% in English), the individual must have taken Physics or related courses in Year 12 or equivalent and 2 years of relevant work experience, OR
- v. Passed an examination deemed by the University to be equivalent to the University Foundation Education Certificate

## Duration of the programme:

Full-time 3 years with 4 courses per semester. Part-time basis students have a duration of 6 years with a minimum of 2 courses per semester.

Location: Samabula and Saweni Campus

Estimated Tuition Fees - Local (FJD): \$11,750.00 Estimated Tuition Fees –International (FJD): \$23,500.00

# Programme Structure

## Year 1 Semester 1

Course Title	Credit Points
MTH111 Calculus I and Linear Algebra	15
PHY111 Physics I	15
ITC100 Information Technology for the	
Workplace	15
LLC101 English for Academic Purposes	15

# Year 1 Semester 2

Course Title	Credit Points
MTH114 Calculus II and Differential Equations	15
PHY112 Physics II	15
ESC103 Introduction to Scientific Research	15
ITK111 Spoken iTaukei Language for Beginners/	
HIC111 Spoken Hindi for Beginners	15

#### Year 2 Semester 1

Course Title	Credit Points
MTH211 Advanced Calculus	15
PHY212 Atmospheric Physics	15
PHY214 Physics of the Environment	15
UUU200 Contemporary Fiji	15

# Year 2 Semester 2

Course Title	Credit Points
MTH201 Discrete Mathematics	15
MTH214 Linear Algebra	15
PHY213 Quantum Physics	15
ESC201 Climate Change and Society	15

### Year 3 Semester 1

Course Title	Credit Points
MTH315 Abstract Algebra	15
ESC300 Natural Resource Management	15
PHY313 Meteorological Physics/	
PHY315 Environmental Soil Physics/	15
PHY311 Research Topic in Physics	
UUU300 Governance and Ethics	15

## Year 3 Semester 2

Course Title	Credit Points
MTH312 Numerical Analysis and Optimisation	15
MTH314 Real and Complex Analysis	15
PHY312 Renewable Energy Resources	15
PHY314 Electricity and Electronics	15

**Disclaimer**: The University of Fiji reserves the right to amend the above programme document.