

## Year 3 Semester 2

LAW 313	Environmental Law
CHE 312	Aquatic Chemistry
BIO 313	Marine Biology
CHE 313	Environmental and Applied Chemistry

## Diploma in Environmental Science Programme

This programme is comprised of a total of 16 courses over a two year period. The programme follows the same structure as Year 1 and Year 2 in Bachelor of Environmental Science programme (given above).

## Postgraduate Diploma in Energy and Environment

The programme duration is 1 year full time or longer if part time.

### Compulsory course:

**REE 400** Research Methods in Energy and Environment, plus any one course from the following list:

- REE 401** Utilization of Renewable Energy Resources
- REE 402** Climate Change and Environment
- REE 403** Environment and Energy Policy,

as well as any two courses from the following list:

- REM 400** Renewable Energy Technologies I
- REM 401** Renewable Energy Technologies II
- REM 402** Renewable Energy and Sustainable Development
- REM404** Renewable Energy Technologies III

## Master's Degree in Renewable Energy Management

The programme duration is 2 years full time or longer if part time.

### Year 1 Semester 1

- REM 400** Renewable Energy Technologies I
- REM 401** Renewable Energy Technologies II

### Year 1 Semester 2

- REM 402** Renewable Energy and Sustainable Development
- REM 403** Energy Economic and Management

### Year 2 Semester 1

Students must choose any two of the following three courses.

- REM 404** Renewable Energy Technologies III
- REM 405** Sustainable and Environmental Chemistry
- REM 406** Energy Modeling and Forecasting

### Year 2 Semester 2

- REM 407** Research Thesis / Industrial Attachment and Report



# The University of Fiji

## School of Science & Technology

*"Envision, Innovate and Inspire"*

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# The University of Fiji



## Science

*Envision, Innovate and Inspire*

## Studying Science

The ultimate aim of science is to study the structure and behaviour of the physical and natural world through observations and experimentation. The contribution of science and technology to the development of mankind and our planet is obvious. In every aspect of life, we have benefitted from the great strides in science and technology.

Fiji, like all countries, needs people with good training, skills and knowledge in science and technology to assist in its development. UniFiji has now embarked on offerings in science to provide the opportunity to our young people to get a solid platform from which to embark on meaningful careers. The science programmes on offer are unique and adopt a multi-disciplinary approach.

## Programmes of Study

The Department of Science is offering double majors with emphasis in Biology, Chemistry and Physics as part of the Bachelor of Science (BSc) 3 year degree programme. Students can choose to combine these majors with each other and with other subjects, e.g. double majors in *Biology/Chemistry*, *Chemistry/Information Technology*, *Physics/Mathematics* etc.

The department is also offering Diploma/Bachelor in Environmental Science. That program has a unique interdisciplinary structure comprising of courses in Basic Natural Sciences, Agriculture, Geology and Mining, Natural resource management and Environmental Law.

In addition to this, Foundation science is offered as well where students can enroll for pure science foundation courses or combine few science courses with courses from other disciplines such as Mathematics and IT.

In higher education, the department is offering a Master's in Renewable Energy Management (REM) Degree programme. The programme was developed and implemented under the EU funded Renewable Energy in the Pacific Islands: Developing skills and Capacity (EPIC) project in collaboration with project partners from the University of Alicante, Spain and the University of Papua New Guinea.

## Admission Requirements

### Degree Programme

- Pass in the University Foundation Programme (or its equivalent) with Pass in LLCF11, LLCF12 and 5 other foundation courses.
- Pass in Fiji Seventh Form Examination (FSFE) or its equivalent (at least 200 marks in 4 subjects with 50% in English), OR

- Pass in Fiji School Leaving certificate (FSLC) or its equivalent (at least 200 marks in 4 subjects with 50% in English) and 2 years of relevant work experience, OR
- Admission with standing (mature entry admission). This will depend on the candidates satisfactory fulfillment of the stipulated regulations set out by the university.

### Postgraduate Diploma in Energy and Environment (PGDEE)

- BSc in physics, chemistry, environmental science, other sciences, engineering or in a closely related field. Candidates admission will depend upon satisfactory fulfillment of the stipulated regulations set out by the university.

### Master's Degree in Renewable Energy Management (REM)

- BSc in physics, chemistry, environmental science, engineering or in a closely related field. Candidates admission will depend upon satisfactory fulfillment of the stipulated regulations set out by the university.

## Courses Offered

### Bachelor of Science (BSc) programme

#### Biology

- Foundation:** **BIOF 11** Foundation Biology I  
**BIOF 12** Foundation Biology
- Year 1:** **BIO 111** Animal Biology  
**BIO 112** Plant Biology
- Year 2:** **BIO 211** Biodiversity & Conservation  
**BIO 212** Genetics  
**BIO 213** Ecology  
**BIO 214** Microbiology
- Year 3:** **BIO 311** Research Topics in Biology  
**BIO 312** Physiology  
**BIO 313** Marine Biology  
**BIO 314** Evolutionary Biology

#### Chemistry

- Foundation:** **CHEF 11** Foundation Chemistry I  
**CHEF 12** Foundation Chemistry II
- Year 1:** **CHE 111** Principles of Inorganic and Physical Chemistry
- Year 2:** **CHE 112** Principles of Organic Chemistry  
**CHE 211** Physical & Inorganic Chemistry  
**CHE 212** Organic and Analytical Chemistry
- Year 3:** **CHE 311** Quantitative & Qualitative Techniques  
**CHE 312** Aquatic Chemistry  
**CHE 313** Environmental & Applied

Chemistry  
CHE 314 Biochemistry

#### Physics

- Foundation:** **PHYF 11** Foundation Physics I  
**PHYF 12** Foundation Physics II
- Year 1:** **PHY 111** Physics 1  
**PHY 112** Physics 2
- Year 2:** **PHY 212** Atmospheric Physics  
**PHY 213** Quantum Physics  
**PHY 214** Physics of the Environment
- Year 3:** **PHY 311** Research Topic in Physics  
**PHY 312** Renewable Energy resources  
**PHY 313** Meteorological Physics  
**PHY 314** Electricity and Electronics  
**PHY 315** Environmental Soil Physics

#### Inter-Disciplinary Courses

- Year 2:** **ESC 201** Climate Change & Society

### Bachelor of Environmental Science Programme

This programme is comprised of a total of 24 courses over a three year period. Students are required to do 8 x 100 Level courses, 8 x 200 Level courses and 8 x 300 Level Courses.

#### Course Breakdown

##### Year 1 Semester 1

- BIO 111/BIO 112** Animal Biology/ Plant Biology  
**ITC 100** Information Technology for the Workplace  
**CHE 111** Principles of Inorganic and Physical Chemistry  
**PHY 111** Physics 1

##### Year 1 Semester 2

- HIC 111/ ITK 111** Spoken Hindi for Beginners/ Spoken Fijian for Beginners  
**LLC 101** English for Academic Purpose  
**CHE 112** Principles of Organic Chemistry  
**UUU 100** Social Research

##### Year 2 Semester 2

- UUU 200** Contemporary Fiji  
**ESC 201** Climate Change & Society  
**ESC 200/ CHE 212** Geographical Information Systems/ Organic and Analytical Chemistry  
**BIO 213** Ecology

##### Year 3 Semester 1

- UUU 300** Governance & Ethics  
**PHY 315** Environmental Soil Physics  
**ESC 301** Agricultural Biotechnology  
**ESC 300** Natural Resource Management