



**PACIFIC ISLANDS FORUM SECRETARIAT**

PIFS(06)FEDMN.04(c)

**EDUCATION MINISTERS MEETING**

*Nadi, Fiji  
26-27 September 2006*

**SESSION 2**

**REVIEW OF PRE-UNIVERSITY COURSES  
AVAILABLE TO PACIFIC ISLAND COUNTRIES**

**FINAL REPORT**

**April 2006**

This paper was prepared for the Forum Secretariat by Consultants, Dr Martin Grinsted and Mrs Diana Grinsted

# CONTENTS

<b>ACKNOWLEDGEMENTS .....</b>	<b>3</b>
<b>ACRONYMS .....</b>	<b>3</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>4</b>
<b>1. BACKGROUND .....</b>	<b>5</b>
<b>2. TERMS OF REFERENCE .....</b>	<b>7</b>
<b>3. METHODOLOGY .....</b>	<b>7</b>
<b>4. OTHER RELEVANT STUDIES.....</b>	<b>8</b>
<b>5. COMPARISON OF PRESCRIPTIONS, ANTICIPATED OUTCOMES AND COURSE STRUCTURES.....</b>	<b>9</b>
<b>6. COMPARISON OF COURSE MATERIALS/ CORRESPONDENCE VS TAUGHT COURSES.....</b>	<b>12</b>
<b>7. COMPARISON OF EXAMINATIONS .....</b>	<b>13</b>
<b>8. ENTRY CRITERIA INTO FORM 7/ FOUNDATION LEVEL .....</b>	<b>16</b>
<b>9. ADMISSION CRITERIA INTO DEGREE PROGRAMMES .....</b>	<b>16</b>
<b>10. QUALITY ASSURANCE AND QUALITY CONTROL OF ASSESSMENT .....</b>	<b>19</b>
<b>11. GENERAL OBSERVATIONS AND CONCLUSIONS .....</b>	<b>20</b>
<b>11. RECOMMENDATIONS.....</b>	<b>23</b>
<b>PEOPLE CONSULTED.....</b>	<b>24</b>
<b>REFERENCES.....</b>	<b>25</b>
<b>APPENDIX A: TERMS OF REFERENCE .....</b>	<b>27</b>
<b>APPENDIX B: PRESCRIPTION COMPARISON TABLES .....</b>	<b>30</b>
<b>APPENDIX C: COURSE MATERIAL COMPARISON TABLE.....</b>	<b>41</b>
<b>APPENDIX D: EXAMINATION PAPER COMPARISON TABLES.....</b>	<b>43</b>
<b>APPENDIX E: EXAMINATION PAPERS AND MARKING SCHEDULES USED TO COMPARE EXAMINATIONS.....</b>	<b>50</b>
<b>APPENDIX F: COMPARING PSSC AND FSLC ENGLISH WITH USP AND NUS FOUNDATION COMMUNICATION AND STUDY SKILLS.....</b>	<b>51</b>

## ACKNOWLEDGEMENTS

We thank the Pacific Islands Forum Secretariat for sponsoring this study, and Dr Helen Tavola, Social Policy Advisor for organizing the provision of much of the documentation reviewed and for helpful discussions. Thank you to the key contact people in each of the organizations involved: Ms Emily Moala, Pre-Degree Studies Unit Coordinator, The University of the South Pacific; Mrs Salote Rabuka, Director Examination and Assessment Unit, Fiji Ministry of Education; Ana Raivoce, Director, South Pacific Board for Educational Assessment; and Dr Juliet Boon, Research & Development Manager, National University of Samoa. We also had useful discussions with several other people from the above organizations and with Fiji School of Medicine representatives. Adrienne Frater, Lecturer, Nelson Marlborough Institute of Technology moderated our work with regard to the English Examination papers. A full list of the people we consulted is appended.

## ACRONYMS

DFL	Distance and Flexible Learning
ELSA	English Language Skills Assessment
FSM	Fiji School of Medicine
FSFC	Fiji Seventh Form Certificate
FSLC	Fiji School Leaving Certificate
Fiji MoE	Fiji Ministry of Education
NUS	National University of Samoa
PSSC	Pacific Senior Secondary Certificate
SPBEA	South Pacific Board for Educational Assessment
SPFSC	South Pacific Form Seven Certificate
USP	The University of the South Pacific

## EXECUTIVE SUMMARY

In this study the following qualifications are compared from the perspective of their use to satisfy the entry requirements into The University of the South Pacific's degree programmes:

- The University of the South Pacific (USP) Foundation Programme,
- The South Pacific Form Seven Certificate (SPFSC),
- The Fiji Seventh Form Certificate (FSFC), and
- The National University of Samoa (NUS) Foundation Year Programme.

Overall, the consultants found that it was difficult to compare the four authorities' qualifications because of their significant differences in focus, which are reflected in individual subject prescriptions and examinations. However, on the basis of the evidence collected, only for English do these differences seem significant.

There are significant differences between the USP and NUS Foundation Communication and Study Skills courses on the one hand and the SPFSC and FSFC English courses on the other. This reflects the fact that the former are specifically focused on preparing students for university study, whereas the latter have a more general focus.

There are differences between the proportion of the final marks allocated to examination results as opposed to internal assessment. Most of the USP and NUS prescriptions allocate 50% of the final marks to internal assessment, whereas the SPFSC and FSFC prescriptions allocate only between 0% and 25% of the final marks to internal assessment. These differences in the method of assessment could lead to significant differences in relative academic standards; this could warrant further study.

The fact that two of the authorities (SPFSC and FSFC) scale their raw marks, by a significant amount for some subjects, and the other two (NUS and USP) do not, increases the difficulty of making valid comparisons of academic standards<sup>1</sup>. The best way of making judgements about relative academic standards is to compare the performance of the various cohorts of students in the year(s) following the completion of their Form 7/ Foundation courses.

Previous studies have shown that students entering USP with FSFC perform better overall in Accounting, Biology, Chemistry and Physics 100 level degree courses than those entering from the USP Foundation programme. Several possible explanations are presented.

Ministers of Education are concerned that the USP requirement of SPFSC English is too high. However, the consultants concluded from the evidence submitted that the general admission requirements into USP degree programmes, with regard to the USP/NUS Foundation, FSFC and SPFSC, are fair as they stand. Nevertheless, the admission requirements with regard to English should be reviewed for reasons that include the fact that the results of USP's English Language Skills Assessment (ELSA) testing during the first year of study indicate that a high proportion of students are being admitted into USP degree programmes with inadequate English to complete their qualifications.

---

<sup>1</sup> The rationale behind scaling is to achieve comparable grading and acceptable pass rates from one year to the next.

The following recommendations are made:

1. That USP review its minimum English Language admission requirements into degree programmes, with the objective of setting minimum requirements for English Language that are likely to result in a higher proportion of students achieving during their degree studies. This review should include consideration of:
  - whether or not to accept, for admission into its degree programmes, a high grade in Form 6 English as an alternative to a pass grade in Form 7 English, thus giving the most able students a chance to broaden their education in Form 7;
  - whether or not to make a pass in the ELSA test, or equivalent, a requirement of entry into all degree programmes; and
  - whether or not to expand the English Language component of its Foundation Programme so that students are better prepared for study at degree level.
2. That, to avoid any confusion that may be occurring, all parties involved look for ways to ensure that entry requirements to USP degree programmes are clear to school teachers, parents and students at the Region's secondary schools.
3. That USP compare entry qualifications with success in year one degree courses annually over the next few years, and use any significant differences to enhance its admission criteria.

## **1. BACKGROUND**

Pacific Island countries have adopted a variety of qualifications to mark the end of secondary education. Tertiary institutions that use these as entry qualifications include Fiji School of Medicine, Fiji Institute of Technology, University of the South Pacific (USP); Universities in Papua New Guinea, National University of Samoa (NUS), Samoa Polytechnic and Teacher Institute for Higher Education in Tonga. In particular, the USP uses various qualifications for entry including USP Foundation Programmes, Fiji Seventh Form Certificate (Fiji Ministry of Education, Fiji MoE), South Pacific Form Seven Certificate (South Pacific Board of Educational Assessment, SPBEA), NUS Foundation Programmes, National Certificate of Educational Achievement (New Zealand Qualifications Authority) and others.

The Fiji Ministry of Education designed the Fiji Seventh Form Certificate (FSFC) examinations for students who will undertake further studies in a tertiary institution, as well as for those students who will complete their formal education at the end of the Form Seven year. It was first introduced in 1992 and is now available in secondary schools throughout Fiji. A total of 4,398 candidates enrolled for the FSFC examinations in 2004 (Ministry of Education – Fiji Islands, 2005).

The SPBEA was established in 1980. Its principle role, which remains a primary role, is to support national examinations in its member countries. When New Zealand withdrew its School Certificate and University Entrance examinations in the late 1980s, there was pressure for the SPBEA to develop a regional examination for the Form Six (Year 12) level. After a lengthy process of negotiation and development, the Pacific Senior Secondary Certificate (PSSC) was launched in 1989.

In the early 2000s, SPBEA member countries requested the Board to develop a further regional examination to mark the end of secondary education, and also to act as a pre-university qualification. The South Pacific Form Seven Certificate (SPFSC) was designed by SPBEA for

students who may undertake further studies in a tertiary institution, as well as for those students who will complete their formal education at the end of Form 7. Thus the SPFSC was developed<sup>2</sup> and launched in 2004 in four countries (Tonga, Vanuatu, Kiribati and Solomon Islands). It is currently offered by 12 schools in three countries, five in Tonga, three in Kiribati and four in Vanuatu. 473 candidates enrolled for the SPFSC examinations in 2004 and 515 in 2005 (SPBEA records).

The USP Foundation programmes (one in Science and one in Social Science) were initially established to provide a “bridge” between school and university, especially to cater for countries that did not have senior secondary schooling up to Form 7. They were also intended for adults who wanted to undertake university studies but who did not have the prerequisite level of education. While retaining that original intent, the Foundation programmes are now available throughout the region as a series of Distance and Flexible Learning (DFL) courses. They are also available at the USP Statham Street Campus in Suva as full time, face-to-face “augmented” programmes, and at accredited schools in some USP member countries (ten in Solomon Islands, two in Tonga, four in Kiribati and five in Vanuatu). There were a total of 9,386 enrolments in individual Foundation courses in the first semester of 2005, and 8,602 in the second semester (a total of about 4,000 students, each of whom enrolled in between one and ten courses) (USP College of Foundation Studies records).

In Samoa, NUS offers its own foundation programmes, which have been recently developed from those offered by USP. Cook Islands, Niue and Tokelau schools offer the New Zealand National Certificate for Educational Achievement Level 3.

The issue of acceptance of the South Pacific Form Seven Certificate (SPSFC) by USP as an entry criterion has been raised at successive USP Council and Forum Ministers of Education meetings. The concern is the comparability in the entry criteria of the different qualifications. The perception has been that the USP Foundation provided an easier pathway for entry to USP compared to the SPFSC. This disquiet among Ministers of Education surfaced again at their meeting in May 2005 and there was a strong feeling that the issue must be resolved once and for all. The following recommendation was passed:

*24. Ministers expressed concern that the USP had not accepted several students who had passed the South Pacific Form Seven Examination, whereas those who had sat the USP’s Foundation course appeared to gain easier access to the University. There is frustration over this issue as it has been ongoing for some time and has not been resolved.*

*25. Ministers recommended that the Forum Secretariat commission an independent body to conduct an independent benchmarking exercise to resolve the issue of the relative standard of both examinations and their grading systems.*

As a result, the Pacific Islands Forum Secretariat commissioned this study to provide information and recommendations on how to resolve the situation.

---

<sup>2</sup> It was derived from the New Zealand University Entrance, Bursary and Scholarship Examinations, which has now been superseded by NZQA’s National Certificate of Educational Achievement

In order to make the study more regional in nature, the Fiji Ministry of Education and the National University of Samoa were invited to submit their respective pre-university courses for the study. As both of these parties accepted this invitation, the study includes four pre-university courses:

- The University of the South Pacific Foundation Programme
- The South Pacific Form Seven Certificate
- The Fiji Seventh Form Certificate Examination
- The National University of Samoa Foundation Year Programme

## **2. TERMS OF REFERENCE**

The following is an extract from the full Terms of Reference, which are attached as Appendix A:

11. The Consultant is required to conduct an independent study of the comparability of the qualifications and the entry criteria for USP, for the different courses.

12. The Consultant should endeavour to utilize as wide a range of sources as possible, and should focus on:

- Prescriptions;
- Structure of courses;
- Course material for subjects and courses;
- Differences between correspondence and taught courses;
- Anticipated outcomes;
- Entry criteria to Form 7 / Foundation level;
- Quality Assurance and Quality Control of the assessment processes (which includes the authenticity of the results)

13. The final output will be a comprehensive report with clear conclusions on the comparability of the qualifications in particular in the light of entry requirements to USP. The report should make recommendations on how to achieve comparable entry requirements for USP for the qualifications under study.

## **3. METHODOLOGY**

In this review of pre-university courses available to Pacific Island countries, the USP Foundation, SPSFC, NUS Foundation Year and FSFC courses/subjects of Accounting, Physics, Chemistry, Biology, Mathematics, and Communication Studies/English, were compared. These subjects were selected because they are pre-requisites for degree programmes at USP. Students entering 100 level courses in other subjects such as Geography, History or Economics, are not required to study Geography, History or Economics at pre-university level as a pre-requisite of entry, but they are required to study one or more of the subjects compared in this study.

A contact person was nominated by each of USP, SPBEA, Fiji MoE and NUS, and these people were requested to submit prescriptions, past examination papers and marking schedules for years 2003, 2004, and 2005, where these were available, and other relevant material, for evaluation (see

Appendix E). Many of these papers were collected by the Forum Secretariat and forwarded to the consultants, and some were supplied directly by the controlling authorities. A few papers were missing, but it was decided that those supplied were adequate for the study.

Each contact person was consulted<sup>3</sup> on the quality assurance and quality control of the assessment processes, including the examination pass mark, examination preparation and marking, scaling of marks, and authenticity of results. Other matters discussed with the USP, Fiji MoE and SPBEA contact people were differences between correspondence and taught courses (where relevant) and anticipated outcomes. Discussions were also held with several other people whilst the consultants were in Suva – a full list is appended.

#### **4. OTHER RELEVANT STUDIES**

Since 2003, three studies have been completed in this area. Patel and Patel (2003) compared the affects of the way pre-degree accounting knowledge is obtained and the way first-year university accounting is delivered (face-to-face versus external) on student performance in first-year accounting. They found that students entering with Fiji Seventh Form Certificate (FSFC) performed better on average than students entering with a USP Foundation Programme Certificate.

USP's Pre-Degree Studies Unit (2004) followed up this study by commissioning Dr MGM Khan, a statistician from USP's Department of Mathematics and Computing Science. Dr Khan's study aimed to compare the performance of students who had entered the University with a USP Foundation Certificate, with the performance of students with other entry qualifications, including FSFC and New Zealand Bursary. The study considered examination results from 2001 to 2003. Overall, the pass rate of the students of FSFC, USP Foundation and Bursary were found to be 73.6%, 64.5% and 86.1% respectively, and the statistical analysis showed that the differences between these rates were statistically significant. Bursary students, being very low in numbers, were excluded from the studies of individual courses, although they had the highest pass rates and were performing well in all courses. For 12 out of 15 randomly selected USP first year level degree courses, it was found that students entering with FSFC performed better than students entering from USP Foundation. These results were statistically significant for 6 of the 12 courses.

Also in 2004, USP's Pre-Degree Studies Unit contracted Grinsted & Associates to compare the academic standards of key USP Foundation courses with equivalent New Zealand University Entrance, Bursary and Scholarship (NZ Bursary) and Fiji Form Seven courses. The subjects selected for comparison were Mathematics, English/ Communication & Study Skills, Physics, Chemistry, Biology, Geography, Accounting, Economics, and History/ Politics. As far as the subject matter of the prescriptions is concerned, it was found that there were differences in focus between, and in the topics covered by, the three types of courses, but none seemed significant. Most of these differences were related to where the courses were primarily being taught, and for what purpose they were being taught. The main differences between the NZ Bursary examination papers and the USP and Fiji Form Seven examination papers were, firstly, in the type of questions. There was a higher proportion of straight recall-type questions in the USP and Fiji Form Seven papers compared with NZ Bursary, and most NZ Bursary papers had a greater number of high level

---

<sup>3</sup> USP, SPBEA and Fiji MoE via email and personal meeting in Suva, and NUS via email only

problem solving/ analysis/ interpretation questions, often concerned with a particular situation, so that ideas had to be applied, not just recalled. Secondly, in some subjects, USP and Fiji Form Seven papers included very few resources, resulting in a different range of skills being tested than in corresponding NZ Bursary examinations. Thirdly, for most subjects, USP Foundation students only had to attain 40% (with no scaling) of the available marks for the examination papers in order to meet the minimum requirements, whereas Fiji Form Seven and NZ Bursary candidates had to attain 50% (after scaling) of the available marks for the examination papers in order to meet the minimum requirements.

In 2005, USP began a project aimed at improving the quality of the information being entered into its student management system, so as to enable better analysis of the data and the preparation of more useful reports for University managers. As part of this work, a major study on pass rates was initiated to help the University identify issues related to poor performance. This study included some initial comparisons between the entry qualifications of students and their performance in 100 level courses. A strong correlation was found between performance in both the FSFC and the USP Foundation programme and performance at 1<sup>st</sup> year degree (100) level. Also, students entering from the USP Foundation programme did not perform as well in aggregate as those with FSFC. These findings are only preliminary and further work is planned for 2006, including comparing Form 6 performance with 100 level performance, and studying the relationship (if any) between discipline and student results.<sup>4</sup>

## **5. COMPARISON OF PRESCRIPTIONS, ANTICIPATED OUTCOMES AND COURSE STRUCTURES**

For each subject, the aims, objectives and/or outcomes of each authority's prescriptions, the final marks breakdown, and notes about internal assessment components are presented in the tables in Appendix B. The examination papers for each subject, including the topics covered, are compared in Appendix D. Some overall comments about the prescriptions are made below.

### **5.1 Accounting**

The USP Foundation Accounting AFF01 & AFF02 course prescriptions aim to give students an understanding of basic accounting. No previous accounting study is required or expected, in contrast to the SPFSC prescription where students are recommended to have reached the level of PSSC Accounting or its equivalent.

FSFC Accounting aims to give students a basic understanding of Accounting, to make them aware of the role of Accounting in society, and to make them aware of possible career opportunities. There are differences in content from both the USP and the SPFSC courses.

SPFSC Accounting is at a higher level. Its aims include the promotion of knowledge and understanding of Accounting as a financial language, and the application of financial knowledge and skills to practical situations.

---

<sup>4</sup> Mary Henning, USP, personal communication

From the material provided, it was difficult to determine the relative level of the NUS Foundation Accounting courses.

A significant difference between the prescriptions is the fact that 40% of the final marks for the USP courses, and 50% of the final marks for the NUS courses, come from internal assessment, whereas the final marks for FSFC include only 10% from internal assessment, and for SPFSC the final marks include no marks from internal assessment.

## **5.2 Biology**

There are similarities between the four sets of prescriptions, but also some important differences. Both the SPFSC and FSFC prescriptions include genetics and evolution, covering gene expression, gene evolution and human evolution. The equivalent USP and NUS prescription sections cover the evolution of early life and basic genetics as applied to individuals and populations. Both SPFSC and FSFC prescriptions also cover contemporary biological issues, but this topic is not obviously covered by the USP and NUS prescriptions.

One of the main differences between the SPFSC and FSFC prescriptions is that the former covers “applications of biotechnology techniques to meet human demands”, which has no equivalent in FSFC. On the other hand, “similarities within diversity” in FSFC has no equivalent in SPFSC. However, this topic is covered in both the USP and NUS prescriptions, with the former considering “form and function in a diversity of plants and animals”, and the latter including “diversity and phylogenetic relationships among living organisms”.

A significant difference between the prescriptions is the fact that 50% of the final marks for the USP and NUS courses and 25% of the final marks for the SPFSC course come from internal assessment, whereas the final marks for FSFC include no marks from internal assessment.

Another important difference is in the assessment of practical work. For SPFSC, such assessment is based on one practical investigation, worth 15%. FSFC includes a one hour practical examination paper worth 20%. The internal assessment components of the NUS and USP courses include 20-25% of the marks for a series of laboratory practicals completed during the courses.

## **5.3 Chemistry**

The coverage of the USP prescription is very similar to the SPFSC prescription. Differences include the fact that the former covers gas laws, aromatic organic molecules, and resonance. Also the USP courses cover some more difficult topics such as quantum theory, spectra and co-ordinate bonding, but have less emphasis on oxidation/ reduction.

The coverage of the FSFC course prescription is also very similar to that of the SPFSC prescription, but there are some differences. The former covers topics such as gas laws, group 4 elements, Lewis acids and bases, and aromatic organic molecules. The FSFC prescription also includes some more difficult topics, such as quantum theory.

A significant difference between the prescriptions is the fact that 50% of the final marks for the USP and NUS courses come from internal assessment, whereas the final marks for FSFC include no marks from internal assessment, and the final marks for SPFSC include only 20% from internal assessment.

## **5.4 English**

The four sets of course prescriptions are very different in their broad aims. SPFSC aims to expose students to a wide range of language, oral and visual as well as written, and including literary works. The aim of both the USP Communications & Study Skills and the NUS Foundation English prescriptions is to prepare students for further study by developing their study skills. The FSFC prescription comes somewhere in between the others, with emphasis on study skills, but also on the study of literature.

One of the similarities between the FSFC and USP prescriptions is the inclusion in the former of note-taking, note-making and summarising skills, and teaching the ability to present an argument in a piece of prose, and the inclusion in the latter of note-taking, summary and essay writing. SPFSC students are expected to develop control over the processes associated with using and responding to English language purposefully and effectively through reading, writing, speaking, listening, viewing and presenting.

SPFSC English requires a high level of English expression, skill, critical analysis and sophisticated inferential reading knowledge. USP and NUS students have to make a critical examination of written texts, although not specifically literary texts. FSFC students must read with understanding a wide variety of writings, including some literary works.

A significant difference between the prescriptions is the fact that 50% of the final marks for the USP and NUS courses come from internal assessment, whereas the final marks for FSFC and SPFSC courses include only 10% and 20% respectively from internal assessment.

Pacific Secondary School Certificate (PSSC) English course and/or Fiji School Leaving Certificate (FSLC) English course are compared with USP and NUS Communication and Study Skills Foundation courses in Appendix F.

## **5.5 Mathematics**

The SPFSC Mathematics with Calculus course prescription was chosen for this comparison because it was more closely comparable with the USP and FSFC Mathematics course prescriptions than the SPFSC Mathematics with Statistics prescription which has a very different focus. The USP Foundation Mathematics and the NUS Foundation Mathematics and Foundation Calculus courses are all essentially calculus courses, whereas the FSFC course, although containing a significant proportion of calculus, is a general mathematics course that also covers topics such as statistics, geometry and computing.

A significant difference between the prescriptions is the fact that 40% of the final marks for the USP course, and 50% of the final marks for the NUS courses, come from internal assessment whereas the final marks for FSFC and SPFSC include no internal assessment.

## **5.6 Physics**

The FSFC course prescription covers some topics that are not covered by SPFSC prescription. These include some mechanics and forces topics, travelling wave equations and some electricity/electro-magnetism topics. Topics that are not covered at all in FSFC, but appear in SPFSC, include nuclear reactions, fission and fusion.

The USP course prescriptions are quite different from SPFSC. Material in the USP course, but not covered in SPFSC includes heat, thermodynamics and quantum theory, whereas the SPFSC course includes a more in depth coverage of atomic and nuclear physics.

A significant difference between the prescriptions is the fact that 50% of the final marks for the USP and 60% of the final marks for the NUS courses come from internal assessment, whereas the final marks for FSFC and SPFSC include only 10% and 20% respectively from internal assessment.

### **5.7 Prescription Review**

Most USP Foundation course prescriptions have not been recently reviewed. However, the College of Foundation Studies has developed a plan to review and upgrade all Foundation courses by 2008. Very few of the FSFC courses have been reviewed since the qualification was introduced in 1992. However, there is currently a general review of education underway and changes should impact on FSFC course prescriptions in a few years time. NUS course prescriptions were originally based on USP Foundation prescriptions. Some remain essentially the same, others have been modified, but no information was provided to the consultants on the review cycle for NUS prescriptions. SPBEA has only recently developed the SPFSC prescriptions (in 2003) and so these are the most up-to-date.

## **6. COMPARISON OF COURSE MATERIALS/ CORRESPONDENCE vs TAUGHT COURSES**

Of the four studied, the only programme available by correspondence is the USP Foundation Programme, which has all its courses available by Distance and Flexible Learning mode. As such it plays a key role in the islands and regions of the Pacific where taught courses at Form Seven level are not available. It is not surprising therefore that the course materials supporting the USP Foundation Programme are the most comprehensive of the four programmes.

USP Foundation courses are offered in three modes: Firstly, the distance mode, using DFL materials and including laboratory classes for science courses - a very limited number of tutorials are run by USP campuses to support this mode; secondly, the augmented full-time mode at the Statham Street (previously Laucala) Campus, which includes lectures and more tutorials than the standard DFL Distance mode; and thirdly, the school-based mode, which includes additional support by school teachers compared with DFL Distance mode. In past years, students enrolled in the augmented full-time Foundation programme have usually done better than those enrolled in the Distance mode. However, this was not the case for several courses in 2005 (USP College of Foundation Studies records, 2006).

For USP Science Foundation courses, students have to attend a laboratory block course at a USP Campus, or complete specified laboratory exercises at their own or a nearby school. Where school laboratories are used, USP upgrades each school's equipment and replenishes chemical supplies (against an inventory) to ensure that they are adequate. As a result, USP contracted schools often end up with better equipped laboratory facilities than their neighbours, to the benefit of both USP Foundation students and students completing non-USP programmes.

Most of the course material supporting individual FSFC and SPFSC courses should be directly supplied to students by their teachers. However, both FSFC and SPFSC prescriptions provide

details of course content and list recommended texts. SPFSC course prescriptions go further and provide additional background material and suggested teaching programmes. Since there was no provision for the consultants to visit any schools teaching these programmes, a detailed comparison of course material was not possible.

Course materials made available to students studying the various programmes are compared in Appendix C

## **7. COMPARISON OF EXAMINATIONS**

Between 40 and 100% of the marks for each USP, FSFC, SPFSC and NUS course are given for the end of course examination, so a comparison of examination papers is one of the most important factors to take into account when comparing academic standards. A careful study of all the available papers from each examining authority, for each subject area, revealed no major differences in format or content between the papers supplied (see Appendix E). It was therefore decided to make a detailed comparison of the papers for year 2005 only, where these were available. In cases where the 2005 paper was not available, another year was substituted. The papers were analysed in terms of question type (Multiple Choice, Short Answer, Longer Answer, and/or Essay) and the level of difficulty of the questions. The results for each subject are shown in Appendix E and overall summary comments are made below.

### **7.1 Accounting**

In all papers, there is a focus on questions requiring the preparation of simple accounts with straightforward calculations.

In the USP papers, students are required to make recommendations, identify and describe weaknesses and give some explanation, whereas in the SPFSC paper there is a requirement to explain and interpret and write reports.

The SPFSC paper requires the highest level of English in order to read the background material.

The NUS papers are less demanding. In contrast with the others, these papers include a multiple choice section with questions requiring mostly recall. Very little explanation is required in response to any of the questions in these papers.

Of note is the fact that the raw examination marks from SPFSC were scaled up by 9 marks in 2004, whereas no scaling was applied to the USP and NUS raw marks, and negligible scaling was done to the FSFC marks for that year. The pass marks were as follows: SPFSC 45% overall; FSFC 50% overall; USP 40% in the examination, 50% overall; NUS 50% overall.

### **7.2 Biology**

On the whole, all of the biology papers contain a similar level of straightforward questions requiring knowledge and understanding of biological facts, but very little explanation; the exception being the SPFSC paper which contains a large number of describe/explain/suggest questions as well as recall type. The NUS HB1012 paper has a greater requirement to explain and discuss than the HB 1011

paper. A higher level of English is required by the SPFSC paper, with detailed explanatory text to read about some graphs, tables and maps.

The standard of diagrams in the different papers varies with some of relatively poor quality in the NUS and FSFC papers.

Only the USP and FSFC papers contain essay questions; none of the topics are complicated.

The USP raw examination marks were not scaled, but the pass mark was 40%. In 2004, the FSFC raw examination marks were scaled up by a very significant 22 marks, and the SPFSC raw examination marks were scaled up by 9 marks.

### **7.3 Chemistry**

Both the USP Foundation and the FSFC papers include multi-choice sections, the others have none. The other questions in these papers, and all the questions in the SPFSC and NUS papers are short answer. The USP and NUS papers require a mixture of recall, calculation and explanation. The FSFC multi-choice questions require recall and understanding or simple explanation. The short answer questions have little straight recall, but explanation or calculation is required and some application of knowledge. All the questions in these three sets of papers are straightforward. There is no use of contextual questions so students should have had no difficulty in understanding what is required.

More information is given in many of the questions in the SPFSC paper than in the other papers so students must do more reading to work out their answers. More application of knowledge into new situations is needed, and there is a greater requirement for explanation and giving of reasons. However, a similar level of chemistry knowledge is required of students completing this paper as required by the other papers.

The USP and NUS examination marks were not scaled, but the USP examination pass mark was 40% and the NUS examination marks were significantly lower than the course work marks in 2004. In 2004, the FSFC raw examination marks were scaled up by a very significant 22 marks, and the SPFSC raw examination marks were scaled up by 11 marks.

### **7.4 English**

The USP Communication and Study Skills course is designed to teach skills for further study and not general English and differs from the FSFC and the SPFSC paper, both of which are general English papers containing substantial literature sections. Only one essay of 500-600 words is required by the USP paper, with a choice of topics all on the same theme, and with reference to be made to four readings. Criteria for assessment are noted on the paper and provide the students with useful guidelines to help them write their essay; they include the development of a clear point of view, relevance of argument to the set topic, good essay structure, appropriate referencing, and good English spelling, grammar and style of expression; all important skills for further study. The four readings were straightforward and students who carefully fulfilled the given criteria for assessment should be able to do well.

The NUS Communication and Study Skills paper is comparable with the USP paper since it is also designed for students who plan to continue with their studies. However, the NUS paper has less requirement for the application of study skills learnt than the USP paper. The comprehension section

has only simple multi-choice questions, and other questions require relatively simple summarising, paragraph writing, completion of fill-the-gap type questions, expository essay writing and the setting out of a bibliography.

Students taking the FSFC examination must write an expository and a “style” essay, a summary of a passage, and answer “Varieties of English” questions, unlike the SPFSC examination.

Comprehension questions in the SPFSC paper are more in-depth than in the FSFC paper. Detailed analysis of text (both prose and poetry) is required, with identification of a wide range of language features needed and explanation of their use. There is greater emphasis on literature, with such questions worth 60% and three essays required compared with two in FSFC; each worth 20 marks as opposed to 15 marks in FSFC. There is a choice of questions with Film being a genre not studied in FSFC. A student scoring well in either paper should be able to cope well with the English requirements of tertiary education.

In 2004, SPFSC raw examination marks were scaled up by 11 marks, and FSFC examination marks were scaled up by 8 marks. The pass mark for the USP examination was 40%, and raw marks were not scaled.

### **7.5 Mathematics**

The level of difficulty of the Mathematics examination papers set by all four authorities was found to be similar. Differences include the fact that no formulae or tables are included with the USP and FSFC papers, whereas these are included with the SPFSC and NUS papers. The only paper that uses contextual questions is the SPFSC paper, but the language level is not too demanding.

The USP raw examination marks were not scaled, but the pass rate was set at 40%. In 2004, the FSFC raw examination marks were scaled up by a significant 20 marks, and the SPFSC raw examination marks were scaled up by a significant 18 marks. No information was provided about the treatment of NUS examination marks.

### **7.6 Physics**

No formulae are supplied for the USP, NUS or FSFC papers, but a comprehensive set of formulae is supplied to SPFSC students.

There are no multi-choice questions in the USP or SPFSC papers, whereas 30% and 50% respectively of questions are multi-choice for FSFC and NUS. The questions for NUS have a choice of only one out of three answers, thus giving the possibility of gaining a third of the allotted marks by guesswork. Other than the multi-choice questions, all questions in all papers are short answer.

The NUS papers have very few contextual questions and there are none in the FSFC paper. There are a few in the USP papers, but the SPFSC paper contains largely contextual questions with a much greater amount of reading required than in the other papers.

All papers have straightforward questions requiring calculations, with a much higher requirement to explain in the SPFSC paper. The drawing of graphs is required in the FSFC and SPFSC papers only.

The USP and NUS raw examination marks were not scaled, but the USP examination pass mark was 40%. In 2004, the FSFC raw examination marks were scaled up by a very significant 18 marks. The SPFSC raw examination marks were scaled up by 2 marks.

## **8. ENTRY CRITERIA INTO FORM 7/ FOUNDATION LEVEL**

The entry requirements into each of the Form 7 Certificate and Foundation programmes, require study at Form 6 level or equivalent and are as follows<sup>5</sup>:

### **8.1 University of the South Pacific Foundation Programme**

Normally, a pass in a University Senate-approved Form 6 examination (or equivalent) is required, or the applicant must have completed a USP Preliminary Programme. A pass in the main Form 6 Examinations in the region, is defined as follows:

- *Fiji School Leaving Certificate (FSLC) Examination:* a) an aggregate of not less than 250 marks out of 400, and b) at least 50% in each of the four subjects, one of which is English.
- *Pacific Senior Secondary Certificate (PSSC) Examination:* a) an aggregate of 12 or better in English plus three other subjects, and b) a 4 or better in each of the four subjects, one of which is English.

To enter the Foundation Science Programme, one of the four subjects must be Mathematics, with a minimum pass of 50%. (USP Calendar 2006)

### **8.2 Fiji Seventh Form Certificate**

Requires FSLC for entry; FSFC science and mathematics subjects build on the experience students have had in the equivalent subject at FSLC level. (Fiji MoE Curriculum Development Unit examination prescriptions, mostly 1991/2)

### **8.3 South Pacific Form Seven Certificate**

The PSSC, or an equivalent certificate is required; including subjects which are related to the specific outcomes of the SPFSC prescriptions to be studied. (SPBEA prescriptions 2004)

### **8.4 National University of Samoa Foundation Year Programme**

Requires PSSC for entry with:

1. an aggregate of 15 or less in English and best three subjects for Foundation Arts, Commerce, Science and General; or
2. an aggregate of 20 or less in English and best three subjects for Foundation Education and Nursing. (NUS Website 2006)

## **9. ADMISSION CRITERIA INTO DEGREE PROGRAMMES**

### **9.1 The University of the South Pacific**

---

<sup>5</sup> For

most Form 7 certificate/ Foundation programme subjects (but excluding English), students can study a particular subject at Form 7/Foundation Level without having previously studied that subject at Form 6/Preliminary Level.

In common with most universities around the world, USP sets its own admission criteria. The criteria for admission with USP Foundation, FSFC and SPFSC pre-degree qualifications are summarized in the following table (USP Calendar, 2006<sup>6</sup>):

	<b>USP Foundation Programme</b>	<b>Fiji Seventh Form Certificate</b>	<b>South Pacific Form Seven Certificate</b>
<b>General admission requirement for all Bachelor Degrees, except BEd*</b>	A pass in the Foundation Programme (includes a grade C in LLF11, Communication and Study Skills)	Aggregate mark of not less than 250 out of 400, with a minimum of 50 marks each in English and 3 other subjects <sup>7</sup>	Grade C in English and a grade B in three other subjects
<b>BA, General</b>	Grade C in LLF11 and a grade C in six other courses	At least 50% in English and in each of three other subjects	As above; no additional requirements
<b>BA, Accounting &amp; Fin. Management</b>	Mathematics must be two of the six courses	Mathematics must be one of the three subjects	At least a B in Mathematics as one of the three subjects
<b>BA, Computing Science</b>	At least a C+ average in MAF11 and MAF12	At least 60% in Mathematics must be one of the 3 subjects	At least a B in Mathematics as one of the three subjects
<b>BA, Economics</b>	Mathematics must be two of the six courses	Economics or Mathematics must be one of the 3 subjects	At least a B in Mathematics as one of the three subjects
<b>BAgr</b>	Grade C in LLF11, BIF02, BIF03, CHF02, & CHF03, and a grade C in two of AGF01, MAF11, MAF12, MAF21, PHF02 & PHF03	At least 50% in English, Biology and Chemistry, and at least 50% in one of Agricultural Science, Mathematics or Physics	Biology and Chemistry, and one of Agricultural Science, Mathematics or Physics to make up the three subjects
<b>BTech</b>	Grade C in LLF11 and an average grade C in MAF11 & MAF12; and an average C grade in TEF02 & TEF03; and an average grade C in either Chemistry or Physics year long sequences	At least 60% in each of Mathematics and Physics, and at least 50% in each of English, and either Chemistry or Technology	At least a B in Mathematics and Physics, and either Chemistry or Technology to make up the three subjects
<b>LLB, BA/LLB combined</b>	Grade C in LLF11 and a grade C in six other courses	At least 60% in English and at least 50% in each of three other subjects	At least a Grade B in English
<b>LLB, Accounting &amp; Fin. Management</b>	Mathematics must be two of the six courses	Mathematics must be one of the three subjects	Mathematics must be one of the three subjects
<b>LLB, Computing Science</b>	At least a C+ average in MAF11 & MAF12	At least 60% in Mathematics must be one of the 3 subjects	At least a B in Mathematics as one of the three subjects
<b>LLB, Economics</b>	Mathematics must be two of the six courses	Economics or Mathematics must be one of the 3 subjects	Economics or Mathematics must be one of the 3 subjects
<b>BSc, General</b>	Grade C in LLF11 and an average grade C in MAF11 & MAF12; and an average grade C in two Biology, Chemistry, Physics or Technology year long sequences	At least 50% in English and Mathematics and any two of Biology, Chemistry, Physics or Technology	Mathematics and any two of Biology, Chemistry, Physics or Technology to make up the three subjects
<b>BSc, Computing Science</b>	Average grade of C+ in MAF11 & MAF12	At least 60% in Mathematics	At least a B in Mathematics as one of the three subjects

\*Only qualified teachers are admitted into the BEd.

<sup>6</sup>SPFSC admission criteria derived from the USP Calendar and discussions with the Registrar & Assistant Registrar. It is suggested that USP review the SPFSC admission criteria published in the Calendar and amend the wording so that minimum requirements are clearer to students and their advisors.

<sup>7</sup>Approximately one third of students completing the FSFC meet USP's minimum entry requirements.

It is noted that in the detailed entry requirements for candidates holding the SPFSC and entering degree programmes, USP has allocated marks for each SPFSC grade. The marks allocated are generous in that they are the top of each SPFSC scaled mark range (refer to Appendix D of SPBEA's Rules and Procedures, 2003). This mark allocation gives an aggregate mark of 250 out of 400 to a candidate with three B grades plus one C grade in SPFSC.

All USP degree students have to take USP's English Language Skills Assessment (ELSA) test during their first year of study. They have to achieve a minimum of a Grade 3 in ELSA, or pass the EL001 English Language Skills course, in order to be admitted to 200 level courses. Thus, those who do not pass ELSA have to complete EL001. In 2005, of 3522 student who sat the ELSA test, 2048 (58%) gained a Grade 3 or better. The remainder took EL001, and 91% of these students passed the course<sup>8</sup>.

### **9.2 Fiji School of Medicine**

FSM offers a range of health related programmes at Certificate, Diploma, Bachelor Degree and Postgraduate levels. A range of admission criteria have been set for these programmes. Because there are a limited number of places available on FSM programmes, most of the students admitted have qualifications that exceed the minimum entry requirements for their programme. As part of the selection process, each candidate's communication skills and empathy are considered in addition to their academic skills. Also, a great deal of thought goes into the "needs" of the different regions and the desirability of selecting numbers of students from different countries in proportion to the population. Moreover, in 2006, there were no places at all for full fee-paying students on the MBBS course as all students were on scholarships. This did mean that some very able students were not able to train in Fiji simply because their parents had too much money for them to qualify for a scholarship. Candidates are interviewed where possible.

FSM staff had not noticed any difference in achievement levels of first year students with different types of entry qualification, but, at present, sufficient data is not readily available to make a valid comparison. In 2006, out of the 70 MBBS students, 24 entered with the FSFC, 4 with the NUS Foundation, 15 with USP Foundation (including 14 from Fiji and one from Nauru); 12 with the SPFSC including 3 from Tonga, 3 from Solomon Islands, 2 from Vanuatu and 4 from Kiribati ; and the remaining 15 students entered with a variety of other qualifications.

FSM staff noted that problems with English tended to occur in students from Micronesia, including those from the Federated States of Micronesia, Kiribati and the Marshall Islands. This issue has also been recognized by USP Pre-Degree Studies staff, and a full time tutor coordinator has recently been appointed to help Kiribati students with their English.

### **9.3 Entry into New Zealand Universities**

Both the FSFC and the USP Foundation Certificate are recognized by New Zealand universities as meeting their minimum academic requirements for admission. In addition, a minimum English standard of IELTS 6.0 or equivalent (higher for some programmes) is required.

When the New Zealand Vice Chancellors' Committee evaluated the SPFSC prescriptions in 2003, they concluded that three or more B grades in SPFSC was equivalent to New Zealand university

---

<sup>8</sup> Bernadette Williamson, USP, Personal Communication

entrance. From 2004, a minimum literacy and numeracy standard was set for entrance into a university in New Zealand. The literacy standard is “a minimum of 8 literacy credits at level 2 (*on the National Qualifications Framework*) or higher in English or Te Reo Māori; 4 credits must be in Reading and 4 credits must be in Writing”.<sup>9</sup> This is approximately equivalent to a pass at the previous Year 12 (Form 6) level.

## **10. QUALITY ASSURANCE AND QUALITY CONTROL OF ASSESSMENT**

### **10.1 Internal Assessment**

SPBEA has very thorough checks to make sure that internal assessment is carried out properly. This includes SPBEA staff conducting regular verification visits to participating schools. Also, internal assessment results are statistically moderated against examination results.

Internal assessment for FSFC is less tightly controlled, although internal assessment results are monitored and recommendations made to schools annually.

For USP Foundation Programmes, tests are supervised at USP campuses and other test/examination centres throughout the Region. However, about 80% of internal assessment tests and assignments are marked by the Pre-Degree Unit at Statham Campus, Suva. Top and middle assignment and test scripts are check-marked by another marker, and each subject coordinator check marks randomly selected scripts. Science laboratory reports are marked, using an approved marking guide, by demonstrators approved by the appropriate Faculty.

### **10.2 Examinations**

SPBEA examinations are set by experienced teachers in the fields examined (some are ex New Zealand Bursary examiners and some are local). The papers are then moderated by experts recommended by the New Zealand Qualifications Authority. Examination scripts are marked under the supervision of chief markers and 10% are check marked.

The Fiji MoE Examinations and Assessment Unit has a similar system for setting and moderating its examinations, and for marking them, but with some additional checks. It also uses very thorough quality control mechanisms to ensure the security of examination papers and examination scripts, including sending papers to the local Police Station for collection by examination supervisors on a daily basis.

USP Foundation course examinations and marking schedules are prepared by College of Foundation Studies staff and moderated by Faculty staff. Examinations are held at USP campuses throughout the region and also at designated examination centres in schools. Test and examination supervisors are organized by the nearest USP campus. All assessment results are approved by the appropriate Faculty Board of Studies.

---

<sup>9</sup> To be qualified to enter a university in New Zealand, students must also have obtained: (i) a minimum of 42 credits at level 3 or higher on the National Qualifications Framework, including a minimum of 14 credits at level 3 or higher in each of two subjects from the "approved subject" list, with a further 14 credits at level 3 or higher taken from one or two additional domains on the National Qualifications Framework or approved subjects; and (ii) a minimum of 14 numeracy credits at level 1 or higher in Mathematics or Pangarau on the National Qualifications Framework

No specific information was provided to the consultants on the quality assurance and quality control of NUS examination papers. However, several spelling and grammatical errors were noted in some of this authority's papers<sup>10</sup>, unlike in the examination papers prepared by the other authorities.

A thorough audit would be necessary in order to make a full evaluation of the effectiveness of the quality assurance and quality control of assessment mechanisms used by the four authorities.

### **10.3 Scaling of Marks**

According to the information supplied, USP Foundation and NUS Foundation examination and internal assessment marks are not scaled. In contrast, both SPBEA and the Fiji MoE scale their Form Seven results, in some cases by over 20 percentage points. The rationale behind scaling is to achieve comparable grading and acceptable pass rates from one year to the next. (See section 7 and Appendix D)

USP, NUS and Fiji MoE report their results as percentages, whereas SPBEA gives their results in terms of grades only. The latter is done because scaling raw marks results in final marks being imprecise and only indicative of performance.

## **11. GENERAL OBSERVATIONS AND CONCLUSIONS**

### **11.1 Prescriptions**

The course prescriptions for FSFC and SPFSC are much more detailed than the USP and NUS Foundation course prescriptions, which, as is common university practice, only include an overall aim, or aims, and a list of topics. Because they are less detailed, it is hard to judge the relative coverage and depth of the USP and NUS Foundation courses. For individual subjects, there are differences in focus across the four authorities' prescriptions. However, on the basis of the evidence collected, only for English do these differences seem significant.

There are significant differences between the USP and NUS Foundation Communication and Study Skills prescriptions on the one hand and the FSFC and SPFSC English prescriptions on the other. This reflects the fact that the former are specifically focused on preparing students for university study, whereas the latter have a more general focus. The SPFSC prescription requires a particularly high level of English expression, skill, critical analysis and sophisticated inferential reading knowledge. Students who are successful in this course are likely to be successful at university, although it does not focus specifically on the English communication and study skills required for success at degree level. Such skills are covered in the PSSC English prescription, and in the FSLC English prescription, to the extent that a student achieving a high grade/mark in these papers should be well prepared for university study (see Appendix F).

### **11.2 Examinations**

There are differences between the proportion of the final marks allocated to examination results as opposed to internal assessment. Most of the USP and NUS prescriptions allocate 50% of the final marks to internal assessment, whereas the SPFSC and FSFC prescriptions allocate only between 0%

---

<sup>10</sup> Most notably in the HEN004 Foundation English 2004 examination paper

and 25% of the final marks to internal assessment. These differences in the method of assessment could lead to significant differences in relative academic standards; this could warrant further study.

### **11.3 Quality Assurance and Control**

Overall, the SPFSC examination papers were of an exceptionally high standard of presentation, the FSFC papers were mostly of a high standard, and the USP papers were well presented. The NUS examination papers stood out as being of a much lower standard of presentation and contained several errors.

The fact that two of the authorities (SPFSC and FSFC) scale their raw marks, by a significant amount for some subjects, and the other two (NUS and USP) do not, increases the difficulty of making valid comparisons of academic standards. The best way of making judgements about relative academic standards is to compare the performance of the various cohorts of students in the year(s) following the completion of their Form 7/ Foundation courses. (See Sections 4 and 11.5)

### **11.4 Admission Requirements for Entry into USP Programmes**

The Fiji MoE officials consulted were comfortable with the entry requirements into USP degree programmes, including the English requirement. The SPBEA officials consulted were satisfied with USP's base admission requirement of 3 B's and a C in SPFSC.

The consultants concluded from the evidence submitted that the general admission requirements into USP degree programmes, with regard to the USP/NUS Foundation, FSFC and SPFSC, are fair as they stand. However, the admission requirements with regard to English should be reviewed.

Also, as a result of this study, the consultants found that the admission criteria published in the USP Calendar 2006 (page 361) are not clear with regard to the grade requirements for SPFSC English and Mathematics for students entering specific degrees. It is suggested that USP review the SPFSC admission criteria published in the Calendar and amend the wording so that minimum requirements are clearer to students and their advisors.

### **11.5 Student Success at USP**

Previous studies have shown that students entering USP with FSFC perform better overall in Accounting, Biology, Chemistry and Physics 100 level degree courses than those entering from the USP Foundation programme (see Section 4). Several possible explanations have been put forward, including the following:

- School students studying FSFC are generally provided with more direct teacher support and guidance than Foundation students, and, as a result, may be better prepared for study at 100 level.
- Many Foundation tutors are young and inexperienced and do not have any specific training as teachers, whereas FSFC teachers are usually trained and experienced. (This issue has been recognized by USP, and the College of Foundation Studies has been running training programmes for tutors.)
- In some cases, Foundation students are provided with more detailed resource material than 100 level students (those doing the full-time augmented Foundation programme could particularly be said to be 'spoon fed'); and therefore could struggle when they have to depend more on finding their own resources at 100 level.

- The previous close relationship between 100 level lecturers and Foundation Course tutors and students no longer exists. Foundation course tutors have become increasingly isolated from degree lecturers.
- It has been suggested that it is easier to pass seven Foundation courses than to score 250 out of 400 in four FSFC courses.

Ministers of Education are concerned that the USP requirement of SPFSC English is too high. However, the results of USP's ELSA testing during the first year of study indicate that a high proportion of students are being admitted into USP degree programmes with inadequate English to complete their qualifications.

Fiji School of Medicine and USP staff have noted that students from the Marshall Islands, Federated States of Micronesia and Kiribati often have particular problems with English, and this reflects in the 100 level course results. This issue requires further study, but it seems likely to remain a problem until the overall standard of English language in schools in these countries, is upgraded.

It is of interest that the minimum admission requirement into New Zealand universities is Form 6 English (NCEA Level 2 or equivalent) rather than Form 7 English. For most first degree programmes, the minimum requirement for international students entering from non-English Language speaking countries is an IELTS score of 6.0.

After studying the available information, the consultants conclude that the USP's current General English/ Communication and Study Skills admission requirements are fair. However, the University should review its English Language admission requirements with a view to setting minimum requirements for English Language that are likely to result in a higher proportion of students achieving during their degree studies. There are a number of approaches that could be taken including:

- Requiring all Foundation Programme students to successfully complete two English courses rather than one; for example, LLF11 (Communication and Study Skills) plus a course that brings them up to the same level as USP's EL001 (English Language Skills).
- Requiring all applicants who have not completed a Foundation Programme to complete an ELSA test in the year prior to admission into a degree programme, and making successful completion of this test a condition of entry. (Such tests could be made available at USP campuses and examination centres throughout the region at the same time as other tests and examinations are being held at these centres).
- Recognizing students who gain a high mark in PSSC English or FSLC English as having fulfilled USP's minimum English admission requirement (see Appendix F). Such outstanding students could then choose to continue with English studies at Form 7 level, or choose to study a totally different subject in Form 7, thus broadening their education.

### **11.6 The Future of Pre-degree Programmes**

The clear direction of USP's management is to focus on increasing postgraduate enrolments and enhancing research activity. The University's management has indicated that it does not wish to further increase Foundation Programme numbers. However, there is likely to be increasing demand for Form Seven level courses in the future, particularly in the Solomon Islands. For secondary schools situated in the remoter areas of several Pacific islands, the only realistic alternative to the USP Foundation Programme is SPBEA's SPFSC. Thus it is in the University's interest to support

the offering of SPFSC to seventh form students in as many of these secondary schools as possible. Increasing the number of students studying at seventh form level will increase the pool of people in the Pacific who hold the minimum qualifications necessary to be admitted into a USP degree programme

SPBEA's main strength is in Examinations and Assessment at Form 6 and 7 level, whereas USP's main strength is in Curriculum Development. The consultants noted that USP's Pre-Degree Studies Unit had recently made use of SPBEA staff to help train their subject coordinators. Also, there have been some recent discussions about exchanging prescriptions. It is suggested that these links between SPBEA and USP's Pre-Degree Studies Unit be further enhanced so that their complementary strengths can be better utilized when prescriptions are reviewed.

## 11. RECOMMENDATIONS

A high level of English skills is required by all students studying at tertiary level in an English speaking institution. At USP, where the majority of students have English as their second or third language, English skills are particularly carefully monitored and rightly so. However, this does not necessarily mean that a school student should have to study English at Form seven level if an acceptable level of English can be reached at Form Six level. Recommendations:

**Recommendation 1:** That USP review its minimum English Language admission requirements into degree programmes, with the objective of setting minimum requirements for English Language that are likely to result in a higher proportion of students achieving during their degree studies. This review should include consideration of:

- whether or not to accept, for admission into its degree programmes, a high grade in Form 6 English as an alternative to a pass grade in Form 7 English, thus giving the most able students a chance to broaden their education in Form 7;
- whether or not to make a pass in the ELSA test, or equivalent, a requirement of entry into all degree programmes; and
- whether or not to expand the English Language component of its Foundation Programme so that students are better prepared for study at degree level.

**Recommendation 2:** That, to avoid any confusion that may be occurring, all parties involved look for ways to ensure that entry requirements to USP degree programmes are clear to school teachers, parents and students at the Region's secondary schools.

The best measure of the appropriateness of entry requirements into degree programmes, is to compare the performance of students in 100 Level course with their entry qualifications. As outlined in Section 4, USP is currently looking at the issue of entry qualifications as part of a major study on pass rates. Because of the small number of SPFSC graduates to date, a clear picture concerning students entering with this qualification is unlikely to emerge for some time.

**Recommendation 3:** That USP compare entry qualifications with success in year one degree courses annually over the next few years, and use any significant differences to enhance its admission criteria.

## PEOPLE CONSULTED

### *The University of the South Pacific*

Professor Anthony Tarr	Vice-Chancellor
Dr Esther Williams	Deputy Vice-Chancellor
Walter Fraser	Registrar
Mark Lewis	Director Planning and Development
Emily Moala	Director Foundation Studies
Father John Bonato	Acting Director, Centre for Educational Development & Technology
Arvind Patel	Head of Department of Accounting & Financial Management
Dr Anjeela Jokhan	Senior Lecturer, School of Biological Sciences
Dr Culwick Togamana	Lecturer in Chemistry
John Usaramo	Assistant Registrar
Bernadette Williamson	Lecturer, Centre for the Enhancement of Learning & Teaching
Mary Henning	Consultant

### *Fiji School of Medicine*

Professor David Brewster	Dean
Apenisa T. Ratu	Academic Director
Niraj Swami	Education Coordinator

### *South Pacific Board for Educational Assessment*

Ana Raivoce	Director
Steve Lusby	Senior Professional Officer

### *Fiji Ministry of Education*

Mrs Salote Rabuka	Director, Examinations and Assessment Unit
Apisalome Movomo	Principal Education Officer, Examinations
Emily Volavola	Senior Education Officer, Quality Assurance

### *National University of Samoa (via email)*

Dr Juliet Boon	Research & Development Manager, Centre for Samoan Studies
----------------	---

### *Nelson Marlborough Institute of Technology*

Adrienne Frater	English Language/ Creative Writing Lecturer
-----------------	---

## REFERENCES

- Fiji Ministry of Education, Youth and Sport (all 1991 except for Mathematics {1997} and Physics {1989}) *Fiji Seventh Form Examination Prescriptions for Accounting, Biology, Chemistry, Mathematics, English, Physics*
- Fiji Ministry of Education, Youth and Sport (undated) *English Course Prescription, Fiji School Leaving Certificate Examination*
- Fiji School of Medicine (undated) *Study at the Fiji School of Medicine - The Right Choice*. Publicity brochure
- Fiji School of Medicine (2006) *Student Selection and Enrolment Policy*
- Government of Fiji (Ministry of Education) (2000) *Learning Together: Directions for Education in the Fiji Islands*. Report of the Fiji Islands Education Commission/Panel
- Ministry of Education - Fiji Islands (2005) *Report on the Fiji Seventh Form Certificate Examination 2004*
- National University of Samoa (mostly undated) *Information Sheets, Laboratory Manuals and miscellaneous other documentation about Foundation Year courses*
- New Zealand Vice-Chancellors' Committee (2003) *Miscellaneous communications about the South Pacific Form Seven Certificate*
- Patel, A & Patel, R (2003) *Effects of the way pre-degree accounting knowledge is obtained and the way first-year university accounting is delivered (face-to-face versus external) on the performance in first-year university accounting*. Draft only
- South Pacific Board for Educational Assessment (1998) *Pacific Senior Secondary Certificate English Prescription*
- South Pacific Board for Educational Assessment (2003) *South Pacific Form Seven Certificate Prescriptions in Accounting, Biology, Chemistry, English, Mathematics with Calculus, Physics*
- South Pacific Board for Educational Assessment (2003) *Examination, Assessment and Certification Rules and Procedures*
- South Pacific Board for Educational Assessment (2005) *Quality Assurance Standard: Accreditation of Schools for PSSC and SPFSC*
- The University of the South Pacific Centre for Excellence in Learning and Teaching (2003) *EL001 English Language Skills: A course for first degree students Books 1, 2 & 3*

The University of the South Pacific Centre for Excellence in Learning and Teaching (undated) *English Language Skills Assessment information sheet and Sample ELSA Test Questions*

The University of the South Pacific (2005 and 2006) *Introduction and Assignments; Course handbooks for AFF01, AFF02, BIF02, BIF03, CHF02, CHF03, LLF11, MAF11, MAF12, PHF02, PHF03*

The University of the South Pacific (2006) *USP Calendar 2006*

The University of the South Pacific (2006) *Enrolment Guide*

The University of the South Pacific (2006) *Distance and Flexible Learning Handbook*

The University of the South Pacific (undated) *A Regional University of Excellence Weaving Past and Present for the Future-A vision for the Year 2020*

The University of the South Pacific Pre-Degree Studies Unit (2004) *Determining the Comparative Academic Standard of USP's Pre-Degree Foundation Studies Courses*. Report by Dr Martin Grinsted and Diana Grinsted

The University of the South Pacific Pre-Degree Studies Unit (2004) *A Study on the Performance of USP Foundation Studies Compared to other Providers*. Report by Dr MGM Khan

The University of the South Pacific Pre-Degree Studies Unit (2006) *Analyses of course assessment results for 2005*. Reports prepared by Subject Coordinators

# **APPENDIX A: TERMS OF REFERENCE**

## **REVIEW OF PRE-UNIVERSITY COURSES AVAILABLE TO PACIFIC ISLAND COUNTRIES**

### **Background**

1. Many formal education systems around the world employ external examinations to control admission to advanced levels of higher learning. This enables priority to be given to students who are most likely to profit from higher education. When resources as well as university places are scarce, such examinations carry high stakes.

2. Assessment serves many purposes in education systems and can be an effective tool for improving the quality of education. Screening and selection are, however, the dominant factors in pre-university examinations. The teaching and learning involved is influenced to a very large extent by the main purpose of the assessment and in this case is predominantly for selection.

3. Pacific Island countries adopt different qualifications to mark the end of secondary education. Tertiary institutions use these qualifications as an entry to their institutions including Fiji School of Medicine, Fiji Institute of Technology, University of the South Pacific (USP) in Fiji; Universities in PNG, NUS, Samoa Polytechnic and Teacher Institute for Higher Education in Tonga. The USP however uses various qualifications for entry to the University and these include the USP Foundation, Fiji Seventh Form Certificate (Fiji), South Pacific Form Seven Certificate (SPBEA), National University of Samoa (Samoa), National Certificate of Educational Achievement (NZQA) and others.

4. Until the 1970s, most Pacific Island countries used metropolitan examinations from New Zealand, Australia or the United Kingdom. For various reasons, there was a move away from these examinations to more localised ones.

5. The SPBEA was established in 1980. Its principal role, which remains a primary role, was to support national examinations in its member countries. When New Zealand withdrew its School Certificate and University Entrance examinations in the late 1980s, there was pressure for the SPBEA to develop a regional examination for the Form Six (Year 12) level. After a lengthy process of negotiation and development, the Pacific Senior Secondary Certificate (PSSC) was launched in 1989. SPBEA members requested the Board to develop a further regional examination to mark the end of secondary education and also to act as a pre-university qualification in the early 2000s. Thus the South Pacific Form Seven Certificate (SPFSC) was developed and launched in 2004 in four countries.

6. The USP Foundation courses were initially established to provide a pre-university 'bridge' between school and university, especially to cater for countries that did not have that level of schooling. They were also intended for adults who wanted to undertake university studies but who did not have the prerequisite level of education. While retaining that original intent, the Foundation

courses are now available throughout the region as an extension course although in some countries they are now being offered in schools.

### **Entry into USP**

7. The issue of acceptance of the SPSFC by USP as an entry criterion has been raised at successive USP Council and Forum Ministers of Education meetings. The concern is the comparability in the entry criteria of the different qualifications. The perception was that the USP Foundation provided an easier pathway for entry to USP compared to the SPSFC.

8. This disquiet among Ministers of Education surfaced again at their meeting in May 2005 and there was a strong feeling that the issue must be resolved once and for all. The following recommendation was passed:

*24. Ministers expressed concern that the USP had not accepted several students who had passed the South Pacific Form Seven Examination, whereas those who had sat the USP's Foundation course appeared to gain easier access to the university. There is frustration over this issue as it has been ongoing for some time and has not been resolved.*

*25. Ministers recommended that the Forum Secretariat commission an independent body to conduct an independent benchmarking exercise to resolve the issue of the relative standard of both examinations and their grading systems.*

9. As a result of the directive from Ministers of Education, the Pacific Islands Forum Secretariat is commissioning a study that will provide information and recommendations on how to resolve the situation.

10. In order to make this study more regional in nature, the Fiji Ministry of Education and the National University of Samoa have been invited to submit their respective pre-university courses for this study. As both of these parties have accepted this invitation, the study will include four pre-university courses:

- The University of the South Pacific's Foundation programme
- The South Pacific Form Seven Certificate
- The Fiji Form Seven Examination
- The National University of Samoa Foundation Year Programme

### **Required tasks**

11. The Consultant is required to conduct an independent study of the comparability of the qualifications and the entry criteria for USP, for the different courses.

12. The Consultant should endeavour to utilise as wide a range of sources as possible, and should focus on:

- Prescriptions;
- Structure of courses;
- Course material for subjects and courses;
- Differences between correspondence and taught courses;

- Anticipated outcomes;
- Entry criteria to Form 7 / Foundation level;
- Quality Assurance and Quality control of the assessment processes (which includes the authenticity of the results)

## **Outputs**

10. The final output will be a comprehensive report with clear conclusions on the comparability of the qualifications in particular in the light of entry requirements to USP. The report should make recommendations on how to achieve comparable entry requirements for USP for the qualifications under study.

## **Required competencies**

11. The Consultant should be professionally qualified in educational assessment with considerable experience in this area. He or she should be able to provide evidence of high-level analytical and report-writing skills.

## **Time-frame**

12. It is envisaged that the study should commence on 6 February 2006, and should last for duration of 20 working days. A draft should be presented to the Forum Secretariat by 17 March 2006. The Forum Secretariat should respond to the draft within ten working days and the final document should be presented by 15 April 2006.

## **Designation of Person to whom Consultant will Report**

13. The Deputy Secretary General, Sustainable Development and Good Governance, (through the Social Policy Adviser) of the Pacific Islands Forum Secretariat (PIFS).

## **APPENDIX B: PRESCRIPTION COMPARISON TABLES**

## ACCOUNTING

	USP Basic Accounting A & B	FFSFC Accounting	SPFSC Accounting	NUS Foundation Accounting HACOO1 & HACOO2
<b>Aims/ Objectives/ Outcomes</b>	<p><b>AFF01 Basic Accounting A</b> The aim of this course is to provide students with an understanding and skills in basic accounting procedures as a means of recording and reporting financial events and how they contribute to the orderly functioning of the business. Topics covered include the preparation of the final reports and some internal control procedures for cash and credit transactions. Examples from the South Pacific are used extensively.</p> <p><b>AFF02 Basic Accounting B</b> The aim of this course is to give students a further understanding of basic accounting. Topics covered include the internal control of assets, calculating of the ratios from the final reports for planning and control purposes, preparation of cash budgets, incomplete records and clubs and societies.</p>	<p>The course aims to:</p> <ul style="list-style-type: none"> <li>• help students to acquire knowledge of accounting concepts, principles, processes and systems which are applied to different types of business organisations</li> <li>• help students to understand the analysis of accounting systems and the methods of processing accounting data</li> <li>• provide students with an increased awareness of and access to career opportunities in accounting</li> <li>• enable students to understand the role accounting plays in society, human activities and the ways it may serve the individual.</li> </ul> <p><b>Objectives:</b> On completing this course of study, students should be able to further</p> <ol style="list-style-type: none"> <li>a) describe and apply the concepts and principles that govern the accounting systems of sole proprietor, partnership, limited liability company and non-profit organization.</li> <li>b) analyse and interpret accounting systems for the users of accounting information..</li> <li>c) evaluate and apply accounting principles and processes to the needs of financial and cost management</li> </ol>	<p><b>Aims:</b></p> <ul style="list-style-type: none"> <li>• promote knowledge and understanding of accounting as a financial language for partnerships and companies which may be service, trading or manufacturing businesses</li> <li>• apply financial knowledge and skills to practical situations.</li> </ul> <p><b>Outcomes:</b> To achieve these aims, students will, within the contexts of partnerships and companies:</p> <ul style="list-style-type: none"> <li>• examine, understand and apply the assumptions on which accounting is based</li> <li>• process financial data into meaningful information</li> <li>• develop a knowledge and understanding of the systems and controls required to ensure financial data is processed accurately and efficiently</li> <li>• prepare financial reports which meet user needs and professional and legal requirements</li> <li>• analyse and interpret financial reports</li> <li>• make informed decisions based on financial and non-financial information</li> <li>• develop skills in communication, numeracy, information, problem-solving</li> <li>• develop self-management and competitive, social and co-operative, and work and study skills.</li> </ul>	<p><b>HACOO1 Financial Accounting</b> The aim of this course is to provide a stimulus and foundation for the study of accounting at university or other tertiary institutions. It should provide some understanding of the conceptual basis of accounting and give an appreciation of how basic accounting concepts are applied to different types of organisation. Topics will include time value money, current value accounting, partnership accounting, corporate accounting and financial statements.</p> <p><b>HACOO2 Foundation Managerial Accounting</b> This course looks at providing students with a basic understanding of management accounting systems and the methods of processing accounting information for different groups of users. The main emphasis is on the decision-making methods that managers use to make important managerial and financial decisions in organisations.</p>
<b>Final Marks Breakdown</b>	60% Examination 40% Internal Assessment	90% Examination 10% Internal Assessment	100% Examination 0% Internal Assessment	Internal assessment 50% Examination 50%
<b>Internal Assessment Component</b>	Internal assessment includes: <ul style="list-style-type: none"> <li>• two assignments, 10% each</li> <li>• mid-semester test worth 20%</li> </ul>	Internal assessment is based on a research project which allows real-life experience of accounting situations	None	HACOO1 – two assignments, 15% each; test 10%; attendance 5% HACOO2 – two tests, 15% each; assignment 10%; attendance 10%

## BIOLOGY

	<b>USP Foundation Biology A &amp; B</b>	<b>FFSFC Biology</b>	<b>SPFSC Biology</b>	<b>NUS Foundation Biology 1 &amp; 2</b>
<b>Aims/ Objectives/ Outcomes</b>	<p><b>BIF02 Foundation Biology A</b> This course, together with BIF03, is designed to provide the students with a broad appreciation of some of the fundamental concepts of biology. It moves from the evolution of early life, through basic genetics as applied to individuals and populations, to the consideration of form &amp; function in a diversity of plants and animals.</p> <p><b>BIF03 Foundation Biology B</b> Some of the basic physiological processes of plants and animals are covered during this course. Special emphasis is placed on the relationship between structure and function. Behaviour and biogeography are introduced, together with a discussion on the cultural evolution of man and the impact he has on the environment.</p>	<p>The course aims to help students:</p> <ul style="list-style-type: none"> <li>• reinforce their understanding of basic principles of Biology</li> <li>• strengthen their appreciation of the relevance of Biology in making informed &amp; responsible decisions in personal situations &amp; in economic &amp; social issues</li> <li>• deepen their appreciation of the environment and become involved in issues related to it</li> <li>• enhance their understanding of the crucial role man plays in the biosphere</li> <li>• refine their skills in the use of the scientific method</li> <li>• become more adept in using the skills for independent study</li> <li>• critically evaluate their findings</li> <li>• communicate more effectively</li> <li>• better utilise in Biology the skills and knowledge gained from other disciplines</li> <li>• maintain an interest in Biology</li> </ul> <p><b>Objectives:</b></p> <p>a) demonstrate a knowledge of factual information relevant to the following aspects of biology:</p> <ul style="list-style-type: none"> <li>• the genetic basis for stability and change</li> <li>• the cell as the unit of life</li> <li>• the similarities within the diversity of organisms</li> <li>• the relationship between organisms and their environment</li> <li>• the biological and cultural evolution of man &amp; the effects of man's modification of the biosphere</li> </ul> <p>b) apply accurately biological concepts &amp; methods</p> <p>c) show competence in</p> <ul style="list-style-type: none"> <li>• the use of scientific method in solving problems in Biology</li> <li>• experimental techniques</li> <li>• using the microscope and other scientific equipment</li> </ul> <p>d) recognize the tentative nature of theories</p> <p>e) display honest, enquiring, objective &amp; open-minded approach</p> <p>f) maintain an interest in developments in Biology</p> <p>g) identify career opportunities related to the biological knowledge and skills they have acquired</p> <p>h) display a positive attitude towards maintaining a healthy environment</p>	<p><b>Aims:</b> Students will investigate, and develop their understanding of:</p> <ul style="list-style-type: none"> <li>• diversity, structure, function, and interrelationships of living organisms, and their interactions with the abiotic environment</li> <li>• genetics and evolution</li> <li>• interactions between humans and their environment, and how these are influenced by developments in biological knowledge and technology.</li> </ul> <p>Students will further develop their scientific investigative skills and deepen their appreciation of the environment and become involved in issues relating to it.</p> <p><b>Outcomes:</b> Students should be able to:</p> <ul style="list-style-type: none"> <li>• describe, explain and discuss biological concepts and processes relating animal behaviour and plant responses to environmental factors</li> <li>• explain and discuss how animal behaviour and plant responses contribute to the organism's survival</li> <li>• describe, explain and discuss biological concepts and processes relating to gene expression, as well as those relating to variation and patterns of evolution</li> <li>• describe, explain and discuss applications of biotechnological techniques to meet human needs and demands</li> <li>• carry out a practical investigation of the ecological niche of a plant or an animal</li> </ul>	<p><b>HBI011 Biology 1</b> The aims of the course are to: develop intellectual and practical skills which are relevant to an understanding of Biological Science. Develop and reinforce an understanding of major biological concepts and principles including</p> <ul style="list-style-type: none"> <li>• the origin of life</li> <li>• basic genetics as applied to individuals and populations</li> <li>• diversity and phylogenetic relationships among living organisms</li> </ul> <p><b>HBI012 Biology 2</b> The aims of the course are to: develop intellectual and practical skills which are relevant to an understanding of Biological Science. Develop and reinforce an understanding of major biological concepts and principles including</p> <ul style="list-style-type: none"> <li>• ultrastructure &amp; biochemistry of cells</li> <li>• structure and physiology of plants</li> <li>• structure and physiology of animals including humans</li> <li>• species distribution</li> </ul>

<b>Biology Final Marks Breakdown</b>	50% Examination 50% Internal Assessment	100% Examination 0% Internal Assessment	75% Examination 25% Internal Assessment	50% Examination 50% Internal Assessment
<b>Biology Internal Assessment Component</b>	Internal assessment for both involves: <ul style="list-style-type: none"> <li>• two tests worth 25% between them.</li> <li>• practical work worth 25%</li> </ul>	There are two examination papers: <ul style="list-style-type: none"> <li>• Paper One has a total of 100 marks and is a 3-hour theory paper</li> <li>• Paper Two is based on practical work, has a total of 40 marks and is a 1-hour paper.</li> </ul>	The internal assessment is on the following: <ul style="list-style-type: none"> <li>• Plant or Animal Investigation (15%)</li> <li>• Contemporary Biological Issue (10%)</li> </ul>	Three Tests 30% Practical work 20%

## CHEMISTRY

	USP Foundation Chemistry A & B	FSFC Chemistry	SPFSC Chemistry	NUS Foundation Chemistry 1 & 2
<b>Aims/ Objectives/ Outcomes</b>	<p><b>CHF02 Foundation Chemistry A</b> This laboratory-oriented course assumes satisfactory completion of a course in chemistry at Preliminary or Form 6 level. ( Topics covered : stoichiometry, atomic structure, chemical bonding and periodicity)</p> <p><b>CHF03 Foundation Chemistry B</b> This course concentrates on thermo-chemistry and chemical systems in equilibrium, theoretical and applied studies of acid-base systems, basic organic chemistry, in particular organic compounds with different functional groups and their comparative chemistry.</p>	<p>The aims of the course are to help students to:</p> <ul style="list-style-type: none"> <li>• acquire knowledge of the specified major patterns of chemical behaviour and to understand these patterns according to various chemical principles</li> <li>• develop an understanding of common chemical principles and their applications to a range of everyday situations and technology</li> <li>• further develop their skills in using the scientific method of solving problems</li> <li>• participate in practical work in order to ensure acquisition of practical and process skills</li> <li>• utilise textbooks and other sources of chemical knowledge in order to enhance understanding of science.</li> </ul> <p><b>Objectives</b> On completing this course of study, students should be able to:</p> <ol style="list-style-type: none"> <li>a) demonstrate knowledge of specific facts, terminology, conventions, scientific and chemical principles, their applications and generalizations</li> <li>b) perform simple chemical calculations, in particular those based on the composition of materials, stoichiometry, thermochemistry, solubility and concentration of solutions</li> <li>c) show competence in the use of scientific methods, such as experimentation, interpreting, evaluating and drawing valid conclusions</li> <li>d) show competence in using information from various sources such as text books, journals, and other publications</li> <li>e) demonstrate safe, accurate and efficient use of apparatus, chemicals and glassware</li> <li>f) display an honest, enquiring, objective and open-minded approach</li> <li>g) appreciate the contributions of chemistry to society and realise that modern technology has both advantages and disadvantages</li> </ol>	<p><b>Study in chemistry enables students to:</b></p> <ul style="list-style-type: none"> <li>• investigate, and develop their understanding of the nature and behaviour of matter</li> <li>• learn about the development of the major ideas in chemistry &amp; about people involved in their development</li> <li>• become aware of the ways that chemists today use their knowledge to meet particular needs of society</li> <li>• develop an understanding of the interactions between chemistry and technology</li> <li>• realise that an understanding of chemistry is fundamental in such diverse fields as medicine, agriculture, manufacturing and engineering, as well as in many other aspects of the lives of Pacific Islanders</li> <li>• raise questions and debate issues related to chemistry, society and the environment</li> <li>• develop scientific skills and attitudes</li> </ul> <p><b>Outcomes</b> On completing the course, students should be able to</p> <ul style="list-style-type: none"> <li>• describe &amp; relate structure &amp; selected properties of atoms ions &amp; compounds to atomic structure &amp; properties</li> <li>• analyse and interpret information about selected properties of atoms, ions and compounds</li> <li>• describe and use thermo-chemical principles and apply such principles to selected systems</li> <li>• interpret and explain information in terms of thermo-chemical principles</li> <li>• describe, use, apply, analyse and interpret information about aqueous equilibrium systems</li> <li>• identify and describe oxidation-reduction reactions</li> <li>• apply oxidation-reduction principles</li> <li>• analyse and interpret information about oxidation-reduction processes</li> <li>• describe the structure &amp; characteristic reactions of organic compounds containing selected functional groups &amp; apply principles of the organic chemistry to these groups</li> <li>• analyse information and apply principles of organic chemistry to problems that require integration of ideas</li> </ul>	<p><b>HCH031 Foundation Chemistry 1</b> This course is designed to prepare students for first year Chemistry studies in Samoa or overseas. The topics studied are atomic structure and bonding, redox chemistry and organic reactions.</p> <p><b>HCH032 Foundation Chemistry 2</b> This course is designed to prepare students for first year Chemistry studies in Samoa or overseas. The topics studied are energy changes, solubility equilibrium, aqueous solution chemistry, acids and bases, halogens, transition metals and inorganic chemistry.</p>

			<ul style="list-style-type: none"> <li>• carry out an extended practical investigation into variations in the amount of a substance</li> <li>• determine, using titration method, the concentration and composition of an oxidant or reductant with unknown concentration in an oxidation-reduction reaction</li> </ul>	
<b>Chemistry Final Marks Breakdown</b>	50% Examination 50% Internal Assessment	100% Examination 0% Internal Assessment	80% Examination 20% Internal Assessment	50% Examination 50% Internal Assessment
<b>Chemistry Internal Assessment Component</b>	Tests 30% Laboratory work/ reports 20%	There are two examination papers. Paper One has a total of 100 marks & is a 3-hour theory paper. Paper Two is based on practical work, has a total of 40 marks & is a 1-hour paper.	The internal assessment component includes: An extended practical investigation (15%) Practical skills (5%)	Topic tests 30% Practical work 20%

## ENGLISH

	USP Communication & Study Skills, LLF11	FSFC English	SPFSC English	NUS Foundation English & Introduction to Literature
<b>Aims/ Objectives/ Outcomes</b>	<p>This course is designed to help students increase their proficiency in various study skills and aspects of communication in preparation for studies at post-Foundation level.</p> <p><b>Topics include:</b></p> <ul style="list-style-type: none"> <li>• note taking</li> <li>• summary</li> <li>• paragraph structure</li> <li>• essay writing</li> <li>• comprehension</li> <li>• intensive and extensive reading</li> <li>• use of dictionary</li> <li>• effective use of the library</li> <li>• critical examination of written texts</li> <li>• oral expression</li> </ul> <p><b>Course aims</b></p> <p>By undertaking this course you will:</p> <ul style="list-style-type: none"> <li>• experience various ways of learning so that you develop positive attitudes and become an effective, independent learner</li> <li>• follow the process of producing a piece of academic writing so that you recognize this process as a powerful way of learning</li> <li>• practice methods of reading in order to learn effectively from written texts, both linear and non-linear</li> <li>• develop good speaking and listening techniques to use during oral presentations and in tutorial discussions</li> <li>• learn how to prepare for examinations</li> </ul>	<p>The course focuses on extending the students' skills in communication.</p> <p><b>The aims of the course are to:</b></p> <ul style="list-style-type: none"> <li>• help extend the ability of students to present an argument in a piece of prose</li> <li>• help extend the ability of students to respond to a topic in a more personal way</li> <li>• enable students to read with understanding a wide variety of writings</li> <li>• extend the students' range of vocabulary</li> <li>• teach students the skills of note-taking, note-making and summarizing</li> <li>• further develop the students' listening skills</li> <li>• create a greater awareness of how language is used for different purposes on different occasions</li> <li>• help students acquire greater insight into life by identifying with other people, and by exploring attitudes and experiences through literary works</li> <li>• help students develop research skills</li> </ul> <p><b>Objectives</b></p> <p>On completing this course, students should be able to:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of the main features of the language</li> <li>• use language appropriately for different purposes and in different situations</li> <li>• explore and describe how language can be used effectively in different situations</li> <li>• use the writing process (pre-writing, drafting, editing, proof-reading, rewriting, publication) and observe the conventions of language</li> <li>• listen to others with courtesy, respect and sensitivity, and to respond in an appropriate manner</li> <li>• adapt their spoken language to suit a range of audiences and situations using appropriate language and expressions</li> <li>• read widely for personal enjoyment and respond in personal ways to this reading</li> </ul>	<p>The broad aims are that students should be able to engage with and enjoy language in all its varieties, and understand, respond and use oral, written and visual language effectively in a range of contexts.</p> <p><b>Outcomes</b></p> <p>After completing this course students will be able to:</p> <ul style="list-style-type: none"> <li>• read, understand, analyse and evaluate key ideas and literary qualities in complex, unfamiliar texts</li> <li>• show awareness of the distinctive features of the language topic chosen for study</li> <li>• conduct research into an aspect of language use in the Pacific, form judgements and clearly present information and findings</li> <li>• analyse, interpret, and respond to language, meanings and ideas in a variety of texts from a range of genres, traditions, periods and styles; evaluating their literary qualities and effects in relation to purpose and audience</li> <li>• construct and deliver an effective presentation</li> </ul>	<p><b>HEN004 Foundation English</b></p> <p>Course objectives: By the end of this course, students should be able to :</p> <ul style="list-style-type: none"> <li>• listen and record selective and accurate information during lectures and tutorials</li> <li>• read comprehensively, take notes and summarise selected reading materials</li> <li>• analyse and evaluated structure and content of selected texts, particularly the skill of identifying ideas, supporting evidence and examples</li> <li>• write and present well-organised, unified, coherent academic essays</li> <li>• critically draw inferences from written texts, display an analysis of data for formal presentations and academic researches</li> <li>• develop and practice time management skills in submission of homework and exam preparations</li> <li>• learn the importance of understanding and following instructions</li> <li>• develop a sense of self-confidence through in-class participation and oral presentations</li> <li>• learn responsibility to meet deadlines and expectations.</li> </ul> <p><b>HEN005 Introduction to Literature</b></p> <p>No information on this course was received by the consultants on this course, but according to the NUS website, the course aims to provide an opportunity to study in depth the value of literature under five sections,</p>

		<ul style="list-style-type: none"> <li>• respond thoughtfully, critically and objectively to their reading from a range of genres</li> <li>• understand, appreciate and describe the complexity and subtlety of a literary genre's content, structure, style and form</li> <li>• undertake research tasks by searching for and sifting through information, drawing conclusions from information gathered, and presenting the results clearly and cogently in the form of an original paper</li> </ul>		namely: Oral literature, Poetry, Short Stories, Drama and Novel. The course is designed to prepare students who wish to pursue further studies in English Literature at the degree level. Foundation English HEN 004 is a prerequisite for this course.
<b>English Final Marks Breakdown</b>	50% Examination 50% Internal Assessment	90% Examination 10% Internal Assessment	80% Examination 20% Internal Assessment	<b>HEN004 Foundation English</b> 50% Examination 50% Internal Assessment <b>HEN005 Introduction to Literature</b> No information available
<b>English Internal Assessment Component</b>	Internal assessment organised as three assignments & a test: <ul style="list-style-type: none"> <li>• note-taking &amp; summarising skills 10%</li> <li>• essay 20%</li> <li>• report writing 10%</li> <li>• mid-semester test 10%</li> </ul>	The marks are allocated for one research study	Internal assessment component includes: Oral Presentation (8%) Research report (12%)	<b>HEN004 Foundation English</b> Quiz 2% In-class tests 15% Essay 5% Research paper 15% Oral presentation 5% Attendance 4% Homework 4% <b>HEN005 Introduction to Literature</b> No information available

## MATHEMATICS

	USP Foundation Mathematics A & B	FSFC Mathematics	SPFSC Mathematics with Calculus	NUS Foundation Mathematics, HMA010 & Foundation Calculus, HMA020
<b>Aims/ Objectives/ Outcomes</b>	<p><b>MAF11 Foundation Mathematics A</b> This one-semester course, in conjunction with MAF12 taken in Semester 2, is designed to give students the necessary background for further studies in mathematics at University.</p> <p><b>Topics:</b> Algebra, Functions and Graphs, Trigonometry, Complex Numbers</p> <p><b>MAF12 Foundation Mathematics B</b> This course is a continuation of MAF11 taken in Semester 1 and is designed to provide students with the necessary background for further studies in mathematics at degree level.</p> <p><b>Topics:</b> differentiation and integration of various functions and application of derivatives</p>	<p>The main aims of the course are to help students to:</p> <ul style="list-style-type: none"> <li>• gain a better understanding of mathematical concepts and their applications</li> <li>• acquire a much broader mathematical background that will enable them to proceed to higher education in mathematics and other subjects</li> <li>• appreciate the role of mathematics as a tool in our everyday existence</li> </ul> <p><b>Objectives</b> On completing the course, students should be able to:</p> <ul style="list-style-type: none"> <li>• refine their ability to apply their mathematical skills and knowledge in solving problems drawn from the physical, social and commercial environments</li> <li>• make better use of mathematical instruments such as mathematical tables, calculators and computers in problem solving</li> <li>• show greater competence in curve sketching and showing relationships of variables graphically</li> <li>• display a more logical approach to problem solving</li> <li>• classify information as either being relevant or irrelevant to the solving of a given problem</li> <li>• actively involve themselves in mathematical processes such as problem solving, logical reasoning, making connections, communicating results and findings and using tools</li> </ul>	<p>Candidates will be expected to:</p> <ul style="list-style-type: none"> <li>• demonstrate mathematical skills, concepts and understanding in the Mathematical Processes, Measurement &amp; Calculus, Geometry &amp; Algebra curriculum strands at a level that is equivalent to that required at any Form 7 qualification, including NCEA Level 3, USP Foundation, etc</li> <li>• apply these skills, concepts, and understanding to familiar and unfamiliar problems arising in real and simulated situations</li> <li>• demonstrate the ability to select &amp; use appropriate mathematical techniques in problem solving</li> <li>• demonstrate the ability to reason logically and systematically</li> <li>• demonstrate the ability to communicate mathematical ideas.</li> </ul> <p><b>Outcomes</b> On completing this course the student will be able to:</p> <ul style="list-style-type: none"> <li>• use algebraic methods to manipulate complex and real numbers to solve equations</li> <li>• use trigonometric functions to model situations and solve problems in context</li> <li>• use coordinate geometry to describe conic sections and solve problems in context</li> <li>• differentiate functions and use derivatives to solve problems</li> <li>• integrate functions and use integration to solve problems involving areas and volumes and find areas using numerical methods</li> <li>• model situations using differential equations</li> </ul>	<p>Both courses aim to prepare students to do future studies in Mathematics, Accounting, Economics, or Science at degree level.</p> <p><b>Objectives</b> Both courses will provide opportunities for students to:</p> <ul style="list-style-type: none"> <li>• develop flexibility and creativity in applying mathematical ideas and techniques to unfamiliar problems arising in everyday life, and develop the ability to reflect critically on the methods they have chosen.</li> <li>• become effective participants in problem-solving teams, learning to express ideas, and to listen and respond to the ideas of others.</li> <li>• develop the skills of presentation and critical appraisal of a mathematical argument or calculation, use mathematics to explore and conjecture, and learn from mistakes as well as successes.</li> <li>• develop the characteristics of logical and systematic thinking, and apply these in mathematical and other contexts, including other subjects like accounting and economics.</li> <li>• develop the skills and confidence to use their own language, and the language of mathematics, to express mathematical ideas.</li> <li>• develop the knowledge and skills to interpret written presentations of mathematics.</li> </ul> <p><i>(Note: The HST050 Foundation Statistics course was not reviewed.)</i></p>

<b>Mathematics Final Marks Breakdown</b>	60% Examination 40% Internal Assessment	100% Examination 0% Internal Assessment	100% Examination 0% Internal Assessment	50% Examination 50% Internal Assessment
<b>Mathematics Internal Assessment Component</b>	Three assignments worth 10% each; mid-semester test worth 10%	No internal assessment component	No internal assessment component	No details of internal assessment component provided

## PHYSICS

	USP Foundation Physics A & B	FSFC Physics	SPFSC Physics	NUS Foundation Physics 1 & 2
<b>Aims/ Objectives/ Outcomes</b>	<p><b>PHF02 Foundation Physics A</b> This is the first course in a two-semester series designed to establish the physical concepts necessary to study science at the degree level. Scientific method and principles are emphasised. Topics include measurement and interpretation of data, translational kinematics and dynamics, statics, rotation, conservation of energy and momentum, gravitation and planetary motion, heat and thermodynamics.</p> <p><b>PHF03 Foundation Physics B</b> This is the second of two courses in the Foundation Physics. Topics include geometrical optics, vibrations and mechanical waves, electricity, dc circuits, electrostatics, electromagnetism, applied chemistry, ac circuits, elementary quantum theory, spectra, photons and electrons.</p>	<p>The principle aim of this course is to develop in individuals a certain science literacy by helping them use Physics knowledge and concepts, skills and attitudes as they interact with other people and with their environment. An important component of the course is the preparation of students for tertiary level studies in Physics.</p> <p>To achieve these aims the course should be taught in such a way as to enable students to:</p> <ul style="list-style-type: none"> <li>• gain knowledge and understanding of the basic facts, principles, and theories of the subject</li> <li>• apply knowledge learned in Physics to familiar and unfamiliar situations within the bounds of the prescription</li> <li>• practise experimental procedures and skills associated with the course</li> <li>• understand and use mathematics as a language to describe relationships between physical quantities.</li> </ul>	<p>The course is designed to stimulate student interest in, and enjoyment of, physics by using a wide variety of strategies and contexts. This will be achieved by:</p> <ul style="list-style-type: none"> <li>• developing in students an appreciation of the nature of physics and its relevance to the everyday life of people</li> <li>• developing students' knowledge and understanding of concepts, principles and models in physics</li> <li>• developing students' investigative skills and attitudes in the determination of relationships, patterns and trends in physics.</li> </ul> <p><b>Outcomes</b> On completing this course, students will demonstrate knowledge and understanding, by explanation and solving problems:</p> <ul style="list-style-type: none"> <li>• of the physical phenomena, concepts, principles and relationships involved in translational motion, rotational motion and simple harmonic motion</li> <li>• of the physical phenomena, concepts, principles and relationships involved in wave motion</li> <li>• of DC circuits, Capacitance, Electromagnetic induction and Alternating Current (AC) circuits</li> <li>• of atomic and nuclear physics</li> </ul> <p>Students will also be able to carry out a practical investigation, with guidance, to determine relationships, patterns and trends in physical systems</p>	<p><b>HPH021 Physics 1</b> At the end of this course the student is expected to be able to:</p> <ul style="list-style-type: none"> <li>• use the SI system of units associated with physical measurements</li> <li>• understand and apply the laws of dynamics</li> <li>• define and apply the laws of conservation of momentum and energy</li> <li>• understand rotational motion and gravity</li> <li>• describe wave motion and associated wave phenomena such as interference and stationary wave</li> <li>• understand geometric and wave optics</li> </ul> <p><b>HPH022 Foundation Physics 2</b> At the end of this course the student is expected to be able to:</p> <ul style="list-style-type: none"> <li>• understand electricity and application</li> <li>• explain the involvement of heat in physical processes</li> <li>• understand and apply the 1st and 2nd law of thermodynamics</li> <li>• understand the principle of electromagnetism including electromagnetic waves</li> <li>• understand the theory of relativity</li> <li>• define the behaviour of an electron and a photon</li> <li>• understand the atomic structure</li> </ul>
<b>Final Marks Breakdown</b>	50% Examination 50% Internal Assessment	90% Examination 10% Internal Assessment	80% Examination 20% Internal Assessment	40% Examination 60% Internal Assessment
<b>Internal Assessment Component</b>	Tests worth 30%; laboratory sessions and workshop worth 20%	The internal assessment mark is based on about 20 written reports of experimental work done by students during the year	Internal assessment involves: A practical investigation (15%) A research report (5%)	Topic Tests 30% Assignment 10% Practical work 20%

## APPENDIX C: COURSE MATERIAL COMPARISON TABLE

	USP Foundation	Fiji Form Seven	South Pacific Form Seven	NUS Foundation
<b>Accounting</b>	<b>AFF01 and AFF02</b> <ul style="list-style-type: none"> <li>• Introduction and assignment booklets containing an introduction to the course, assessment and assignment details and practice test and examination papers.</li> <li>• Study Guides</li> <li>• Textbooks(1998)</li> </ul>	Comprehensive prescription document, including aims and objectives; details of course content; internal assessment and external examination details; recommended textbooks for students and teachers, and recommended reference material. (The document viewed was dated 1991 but was the most up to date available.)	A comprehensive prescription document including aims and learning outcomes; detailed course contents; assessment details; an appendix with detailed background information for the teacher; suggested resources including textbooks, videos/DVDs, news broadcasts and the Internet; and a suggested teaching programme. This is an up to date and useful resource for the teacher.	<b>HAC001 and HAC002</b> The only information provided was a course outline including a brief course description, an assessment breakdown, a brief outline of topics to be covered each week, and a recommended textbook.
<b>Biology</b>	<b>BIF02 and BIF03</b> <ul style="list-style-type: none"> <li>• Introduction and assignment books</li> <li>• Textbook (2003)</li> <li>• Study guides</li> <li>• Course guides including study advice &amp; weekly study programme.</li> <li>• Videotapes</li> <li>• Laboratory manuals giving detailed instructions for practical work and laboratory reports</li> </ul>	As above. 1992( revised 1991)	A comprehensive prescription document including aims and learning outcomes; assessment details, including particularly detailed assessment schedules for the internally assessed part of the course; an advisory section for teachers; suggested resources including a range of textbooks as well as journals, websites, computer software and video material. A useful resource.	<b>HBI011 and HBI012</b> A course outline, as above. Course materials included a textbook (1994) and practical handout. An HB1012 Laboratory Manual viewed, contained detailed instructions for all the course practicals
<b>Chemistry</b>	<b>CHF02 and CHF03</b> <ul style="list-style-type: none"> <li>• Introduction and assignments books</li> <li>• Course books containing topics covered with textbook references</li> <li>• Laboratory manuals</li> <li>• Textbooks including two the students are required to own.</li> <li>• Videos which must be viewed during the course.</li> </ul>	As above (1991)	A comprehensive prescription document including aims and learning outcomes; assessment details, including particularly detailed assessment schedules for the internally assessed part of the course; an advisory section for teachers; suggested resources including a range of textbooks and workbooks as well as video material. A useful resource.	<b>HCH031 and HCH032</b> A course outline, as above. Course materials included a textbook and recommended reading material. Laboratory assignment material was viewed for Foundation Chemistry1 and 2.

	USP Foundation	Fiji Form Seven	South Pacific Form Seven	NUS Foundation
<b>English/ Communication and Study Skills/Foundation English</b>	<b>LLF11 Communication and Study Skills</b> <ul style="list-style-type: none"> <li>• Introduction and Assignments Book</li> <li>• Two course books covering different study topics</li> <li>• One video tape/2 CDs</li> <li>• A textbook and CD-ROM</li> </ul>	<b>English</b> As above (1991)	<b>English</b> A comprehensive prescription document including aims and learning outcomes; assessment details, including particularly detailed assessment schedules for the internally assessed part of the course; an advisory section for teachers; suggested resources including a number of recommended texts for the Literature Study, teacher/student resource material and useful websites. Much of the material is also recommended for NZ bursary	<b>HEN004 Foundation English</b> A course outline (Tutor copy sighted) containing a brief outline of lecture topics, brief course objectives, and an assessment breakdown. Course reader for the students, containing aims and objectives, course outline, and tutorial readings and exercises
<b>Mathematics</b>	<b>MAF11 and MAF12</b> <ul style="list-style-type: none"> <li>• Introduction and assignments book</li> <li>• Course books</li> <li>• Mathematical and statistical tables</li> <li>• Scientific calculator</li> </ul>	As above (1997)	A comprehensive prescription document including aims and learning outcomes; assessment details, including particularly detailed assessment schedules for the internally assessed part of the course; an advisory section for teachers; suggested resources including a basic textbook, supplementary texts (including NZ Bursary papers and answers) and useful websites.	<b>HMA010 and HMA020</b> Course outlines containing a list of topics to be covered, lecture notes, handouts on partial fractions, systems of linear equations, and a recommended text.
<b>Physics</b>	<b>PHF02 and PHF03</b> <ul style="list-style-type: none"> <li>• Introduction and assignments book</li> <li>• Course books</li> <li>• Course guides</li> <li>• Laboratory manuals</li> <li>• Textbooks</li> <li>• Audio-video tapes to help with laboratory practicals, to be played by tutor at local centre</li> </ul>	As above (Undated)	A comprehensive prescription document including aims and learning outcomes; assessment details, including particularly detailed assessment schedules for the internally assessed part of the course; an advisory section for teachers; suggested resources including a range of possible textbooks and teacher reference material. A useful resource.	<b>HPH021/HPH022</b> A course outline containing a brief outline of lecture topics, brief course objectives, an assessment breakdown and recommended text. Laboratory manual containing procedures and questions

## **APPENDIX D: EXAMINATION PAPER COMPARISON TABLES**

## ACCOUNTING

	USP Foundation Basic Accounting A & B (AFF01 & AFF02)	Fiji Seventh Form Certificate (FSFC) Accounting	South Pacific Form Seven Certificate (SPFSC) Accounting	NUS Foundation Accounting (HAC001 & HAC002)
<b>Total Marks &amp; Length</b>	100 mark 3 hour examination for each	100 mark 3 hour examination	200 mark 3 hour examination (100mark in 2004)	100 mark 3 hour examination for each
<b>Pass Mark</b>	40% for exam only (no significant scaling) 50% of total marks (exam marks + internal assessment marks)	50%; mean mark scaled down by 1 mark in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 9 in 2004 before grades awarded	HAC001 - 50% of total marks (exam marks + course work marks) HAC002 - 50% for exam only Amount of scaling, if any, unknown.
<b>Short Answer Questions (up to 5% of marks)</b>	AFF01 - 36% approx: all questions compulsory AFF02 - 15% approx: all questions compulsory	66%: all questions compulsory No multiple choice	59.5%: all questions compulsory No multiple choice	HAC001 – 15% multiple choice: all questions compulsory HAC002 – 20% multi choice; 30% short answer; all questions compulsory
<b>Long Answer Questions (&gt; 5% of marks)</b>	AFF01 - 64%; AFF02 - 85%: all questions compulsory	34%: all questions compulsory	40.5%: all questions compulsory	HAC001 – 85%; HAC002 – 50%; all questions compulsory in both papers
<b>General Comments</b>	Questions require preparation of simple accounts with straightforward calculations. Students are required to make recommendations, identify and describe weaknesses and give some explanation.	Questions require simple calculation, recall and definition, explanation, graph interpretation, and preparation of accounts.	Higher level of English required to read background material. Questions require simple calculation and preparation of accounts. There is a requirement to explain and interpret and knowledge must be used to write reports.	Straightforward calculations and preparation of simple accounts. Multi-choice section with questions requiring mostly recall with a few simple calculations. Very little explanation required. Simple English level required. Paper less demanding than the others.

\*Note: SPFSC candidates are not categorised as passing or failing a particular subject. Rather, students are awarded letter grades (A+, A, B, C, D, E) and it is up to individual countries and users of the examination to decide on a selection criteria for higher education levels, employment or any other purposes. The mark boundaries for each grade band in all subjects are as follows:

Grade	Mark (%)	
A+	80-100%	(These mark boundaries were obtained after an extensive benchmarking exercise by SPBEA to ensure that the standards of the SPFSC are comparable to the standards of the New Zealand University Bursary and Scholarship qualification, which has now been discontinued.)
A	65-79	
B	55-64	
C	41-54	
D	28-40	
E	under 28	

## BIOLOGY

	USP Foundation Biology A & B (BIF02 & BIF03)	Fiji Seventh Form Certificate (FSFC) Biology	South Pacific Form Seven Certificate (SPFSC) Biology	NUS Foundation Biology 1 & 2 (HBI011 & HBI012)
<b>Total Marks &amp; Length</b>	100 mark 3 hour examination for each	Paper 1 - 100 mark 3 hour theory examination; Paper 2 - 40 mark 1 hour examination (theory paper, but based on practical work)	150 mark 3 hour examination	100 mark 3 hour examination for each
<b>Pass Mark</b>	40% for exam only (no significant scaling) 50% of total marks (exam marks + internal assessment marks)	50% overall; mean mark scaled up by 22 marks in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 9 in 2004 before grades awarded	No information provided
<b>Multiple Choice Questions</b>	20%; all compulsory questions; straight recall	Paper 1- 20%; all compulsory; 20 straightforward questions Paper 2 - none.	None	20%. Questions require some understanding, but mostly recall.
<b>Short Answer Questions (up to 5 marks)</b>	60%: Straightforward questions requiring knowledge and understanding of biological facts, but very little explanation. Questions require recall, definition and matching questions/answers. There are simple diagrams to label and tables to complete, and calculations for genetics problems.	Paper 1 - 60% Paper 2 - 100% All questions compulsory. Straightforward questions requiring largely recall with a small amount of interpretation of data and explanation. Graphs, diagrams and tables followed by straightforward questions. Some diagrams rather fuzzy in the paper viewed. English simpler than in SPFSC with less information to read.	100%; all compulsory. Large number of describe, explain, suggest questions as well as recall type questions. Higher level of English required to answer some questions. Clear graphs, tables and maps, several with detailed explanatory text to read.	80%. Questions all straightforward with no requirement to read detailed background material. Simple diagrams mainly requiring labeling of parts or naming of processes. No challenging graph or table interpretation. One diagram of poor quality in the papers viewed. HB 1012 had a greater requirement to explain and discuss than HB 1011 and some answers required drawing of diagrams, including flow diagrams.
<b>Essay Questions</b>	20% in each paper. BIF02 – one essay required; choice of 1 out of 4. BIF03 - four short essays worth 5 marks each; choice of 1 out of 3. Straightforward topics for each essay.	Paper 1 - 20%: Two questions, one worth 5 marks the other worth 15 marks; choice of topics (1 out of 4); easily prepared for; not required to answer a question, or give an opinion or pull information from a variety of areas; very straightforward. Paper 2 - None	None	None

\*Refer to the note above, under Accounting

## CHEMISTRY

	USP Foundation Chemistry A & B (CHF02 & CHF03)	Fiji Seventh Form Certificate (FSFC) Chemistry	South Pacific Form Seven Certificate (SPFSC) Chemistry	NUS Foundation Chemistry 1 & 2 (HCH031 & HCH032)
<b>Total Marks &amp; Length</b>	100 mark 3 hour examination for each	Paper 1 - 100 mark 3 hour theory examination; Paper 2 - 40 mark 1 hour examination (theory paper, but based on practical work)	160 mark 3 hour examination	3 hour examination for each: 150 marks for HCH 031 and 140 marks for HCH 032.
<b>Pass Mark</b>	40% for exam only (no significant scaling) 50% of total marks (exam + internal ass. marks)	50% overall; mean mark scaled up by 22 marks in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 11 in 2004 before grades awarded	50% of total marks (exam + course work)
<b>Multi-choice Questions</b>	20% of each paper; all questions compulsory	Paper 1 - 24%; all questions compulsory Paper 2 - none	None	None
<b>Short Answer Questions (up to 5 marks)</b>	80% for each paper; all questions compulsory	Paper 1 - 76%; all questions compulsory Paper 2 - 100%; all questions compulsory	100%; all questions compulsory	100%; all questions compulsory
<b>General Comments</b>	A mixture of recall, calculation and explanation required. All straightforward questions. Students should have no difficulty in understanding what is required. No use of contextual questions.	Multi choice questions required recall and understanding or simple explanation. Short answer questions had little straight recall, but explanation or calculation required and some application of knowledge. All straightforward questions. Students should have no difficulty in deciding what is required of them. A simple level of English. No use of contextual questions. The practical based paper, Paper 2 required more explanation than Paper 1.	More information given in many of the questions than in the other papers; students must do more reading to work out their answers. More application of knowledge into new situations. Similar level of chemistry knowledge required. Greater requirement for explanation and giving of reasons.	As for USP Foundation, a mixture of recall, calculation and explanation required. All straightforward questions. Students should have no difficulty in understanding what is required. No use of contextual questions.

\*Refer to the note above, under Accounting

## ENGLISH

	USP Foundation Communication & Study Skills (LLF11)	Fiji Seventh Form Certificate (FSFC) English	South Pacific Form Seven Certificate (SPFSC) English	NUS Foundation Communication & Study Skills (HEN004)
<b>Total Marks &amp; Length</b>	50 mark 3 hour examination	100 mark 3 hour examination	100 mark 3 hour examination	100 mark 3 hour examination
<b>Pass Mark</b>	40% for exam only (no significant scaling) 50% of total marks (exam marks + internal assessment marks)	50% overall; mean mark scaled up by 8 marks in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 11 in 2004 before grades awarded	No information provided
<b>Short Answer Questions</b>	none	37% approx; limited choice	40%; limited choice	20% true/false questions; 30% short answer; all compulsory
<b>Essays (&gt;5 marks)</b>	100%; One essay only required – choice 1 out of 4	63% approx; considerable choice	60%; considerable choice	50%; considerable choice
<b>General Comments</b>	Since the USP course is designed to teach skills for further study, not general English, the examination paper is not directly comparable to either the FSFC or the SPFSC paper, which both contain literature sections and are general English papers, but could be compared with the NUS paper. Only one essay of 500-600 words is required in the examination, with a choice of topics all on the same theme, and reference to be made to four readings. Criteria for assessment are noted on the paper and include development of a clear point of view, relevance of argument to the set topic, good essay structure, appropriate referencing, and good English spelling, grammar and style of expression. Similar skills are required to the NUS paper, but students have to apply these skills to writing one essay.	Students must write an expository/'style' essay with a wide choice of topics; answer multi-choice and short answer comprehension questions; write a summary of a given passage; complete a Varieties of English section with questions on vocabulary, verb forms, re-phrasing sentences, and explaining idioms; answer two questions out of four on different styles of writing; and complete a literature section worth 30%, with a wide choice of questions, on two out of three of drama, prose and poetry. A student scoring well on this paper should be well-prepared for further study at tertiary level.	There is no requirement to write an expository essay or a summary of a passage, or answer 'Varieties of English' questions, as in FSFC. Comprehension questions are more in-depth than in the FSFC paper. Detailed analysis of text (both prose and poetry) is required, with identification of a wide range of language features needed and explanation of their use. There is greater emphasis on literature, with questions worth 60% and three essays required compared with two in FSFC; each worth 20 marks as opposed to 15 marks in FSFC. There is a choice of questions with Film being a genre not studied in FSFC. Overall, a challenging paper. A student scoring well in this examination could be expected to cope well with the English requirements of tertiary education.	Communication and Study skills Semester 2 2005. The paper tests the skills which may be required for students who plan to continue with their studies, including note-taking, summarizing, reading comprehension, paragraph writing, expository essay writing and research skills. The paper is very straightforward. For example, the comprehension section has only simple multi-choice questions. Other answers require summarising, paragraph writing, completion of fill the gap type questions, expository essay writing and the setting out of a bibliography. Overall, a simple paper. Less requirement for application of study skills learnt than in the USP paper. <b>*Refer to the note above, under Accounting</b>

## MATHEMATICS

	USP Foundation Mathematics A & B (MAF11 & MAF12)	Fiji Seventh Form Certificate (FSFC) Mathematics	South Pacific Form Seven Certificate (SPFSC) Mathematics with Calculus	NUS Foundation Mathematics HA010 and Foundation Calculus HMA020
<b>Total Marks &amp; Length</b>	120 mark 3 hour examination for each	100 mark 3 hour examination	160 mark 3 hour examination	105-166 mark 3 hour examination (the total marks for the 2003, 2004 & 2005 papers submitted varied between these figures)
<b>Pass Mark</b>	40% for exam only (no significant scaling) 50% of total marks (exam + internal ass.)	50%; mean mark scaled up by 20 marks in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 18 in 2004 before grades awarded	No information provided
<b>Short Answer Questions (&lt; 5% of marks)</b>	MAF11 – 78%; all questions compulsory MAF12(^) – 75%; all questions compulsory	100%; 92.5% of questions compulsory, other 7.5% of questions allowed choice of 1 out of 2	100%; 50% of questions compulsory, other 50% of questions allowed choice of 5 out of 6	HMA010 – 57%; all questions compulsory (#) HMA020 – 57%; very limited choice of 3 out of 4 for 14% of questions (#)
<b>Longer Answer Questions (&gt; 5% of marks)</b>	MAF11 – 22%; all questions compulsory MAF12(^) – 25%; all questions compulsory	None	None	HMA010 – 43%; all questions compulsory (#) HMA020 – 43% limited choice – 1 out of 2 for 19% of questions (#)
<b>General Comments</b>	No formulae or tables provided. No use of contextual questions. Level of difficulty appears similar to the FSFC and SPFSC	No mathematical formulae or tables provided. Similar language levels, content and level of difficulty to USP and SPFSC	Booklet of mathematical formulae and tables provided. Several contextual questions.	Formulae provided. No contextual questions. Level of difficulty appears similar to USP, SPFSC and FSFC.

^2002 MAF12 paper evaluated

\*Refer to the note above, under Accounting

#Some variation noted between 2003, 2004 and 2005 papers; 2005 evaluated in detail for the purpose of completing this table

## PHYSICS

	USP Foundation Physics A & B (PHF02 & PHF03)	Fiji Seventh Form Certificate (FSFC) Physics	South Pacific Form Seven Certificate (SPFSC) Physics	NUS Foundation Physics 2 (HPH022)
<b>Total Marks &amp; Length</b>	100 mark 3 hour examination for each	Paper 1 - 100 mark 3 hour theory examination; Paper 2 - 40 mark 1 hour examination (theory paper, but based on practical work)	160 mark 3 hour examination	200 mark 3 hour examination (No NUS Foundation Physics 1 examination submitted for evaluation)
<b>Pass Mark</b>	30% for exam only 50% of total marks (exam marks + internal assessment marks)	50% overall; mean mark scaled up by 18 marks in 2004	The SPFSC is not a pass/fail examination*; minimum mark for C grade 41%; and for B grade 55%; mean raw marks scaled up by 2 in 2004 before grades awarded	50% of total marks (exam + course work)
<b>Multi-choice Questions</b>	None	Paper 1 - 30%; all questions compulsory Paper 2 - none	None	50%; all compulsory
<b>Short Answer Questions (up to 5 marks)</b>	100%; all questions compulsory	Paper 1 - 70%; 30% of questions compulsory; 40% with choice of 4 out of 7 Paper 2 - 100%; all questions compulsory	100%; all questions compulsory	50%; all compulsory
<b>General Comments</b>	No formulae supplied, only some physical data. No multi-choice. Several contextual questions, but less reading required than in SPFSC. Many calculations required. Straightforward questions with no drawing of graphs required and hardly any explanation.	Paper 1. 30 multi-choice questions requiring recall, simple calculation and basic understanding. Straightforward questions mostly requiring calculations with hardly any explanation required. No contextual questions. No formulae given, only some physical data. Paper 2. Based on practical. Includes recall, calculation and graph plotting. Very few higher order explanation questions.	No multi-choice questions. Comprehensive set of formulae given. The questions are largely contextual with a much greater amount of reading required than in the other papers. Straightforward calculations, but a much higher requirement to explain. Drawing of graphs required.	No formulae apparently given. Half multi-choice questions with a choice of only one out of three (so, therefore the possibility of gaining 33% of marks by simply guessing). The other questions are straightforward, mostly requiring calculations with hardly any explanation required. Very few contextual questions. Basic understanding required. A few diagrams required, but no drawing of graphs.

\*Refer to the note above, under Accounting

## APPENDIX E: EXAMINATION PAPERS AND MARKING SCHEDULES USED TO COMPARE EXAMINATIONS

Subject	USP Foundation	SPFSC	FSFC	NUS Foundation
<b>Accounting</b>	Exams:AFFO1, Semester 1, 2005 AFFO2, Semester 2, 2004	Exams:2004, 2005 Marking schedules: 2004, 2005	Exams: 2003, 2004, 2005 Marking schedule: 2005	Exams:HAC001, Semester 1, 2004, 2005 HAC002, Semester 2, 2004, 2005 Marking schedules HAC001: 2004, 5
<b>Biology</b>	Exams: BIF02, Semester 1, 2005 BIF03, Semester 2, 2004 Marking schedules: BIF02, Semester 1, 2005 BIF03, Semester 2, 2004	Exams and marking schedules for 2004 and 2005	Exams: Biology 1 and 2, 2003, 2004, 2005 Marking schedules: Biology 1 and 2, 2005	Exams: HB1011, Semester 1, 2004, 2005; HB1012, Semester 2, 2004, 2005; BIU01 and BIU02, 2003 Marking schedules: HB1011and HB1012, 2005
<b>Chemistry</b>	Exams and marking schedules for CHF02, Semester 1, 2005 and CHF03, Semester 2, 2004	Exams and marking schedules for 2004 and 2005	Exams: Chemistry 1 and 2, 2004,2005 Chemistry 1, 2003 Marking schedules: Chemistry 1 and 2, 2005; Chemistry 2, 2003	Exams: HCH 031, Sem 1, 2004 & 2005; CHU01, Sem 1, 2003; HCH 032, Sem 2, 2004 & 2005; HO032, Sem 2, 2003 Marking schedules for 2004 and 2005 exams
<b>English/ Communication &amp; Study Skills</b>	Exams: LLF11 Semester 1, 1999, 2002 and 2004; Semester 2, 2004	Exams and marking schedules for 2004 and 2005 <i>(Also PSSC exam papers for 2004 and 2005)</i>	Exams: 2003, 2004, 2005 Marking schedules for 2003 and 2004 <i>(Also, Fiji School Leaving Certificate Exam Paper, 2005)</i>	Exams: ENU01, Semester 1, 2003; HEN004, Semesters 1 and 2, 2005 Marking schedules: HEN004, Semesters 1 and 2, 2005
<b>Mathematics</b>	Exams: MAF11, Semester 1, 2005 only	Exams and marking schedules for 2004 and 2005	Exams: 2003, 2004, 2005 Marking schedules: 2003	Exams: HMA010, Sem 1, 2004 & 2005; HMA020 Sem 2, 2004 & 2005; MAU01, Sem 1, 2003; MAU02, Sem 2, 2003; HMA 030, Sem 1, 2004 & 2005; MAU03, Sem 1, 2003
<b>Physics</b>	Exams: PHF02, 2005 PHF03, 2004	Exams and marking schedules for 2004 and 2005	Exams: Physics 1 and 2, 2003, 2004, 2005 Marking schedules: Physics 1 & 2, 2005 Physics 2, 2003	Exams and Marking schedules: PHU02, Semester 2, 2003; HPH022, Semester 2, 2004 and 2005

(MS = Marking Schedule)

## **APPENDIX F: COMPARING PSSC AND FSLC ENGLISH WITH USP AND NUS FOUNDATION COMMUNICATION AND STUDY SKILLS**

To investigate whether the Pacific Secondary School Certificate (PSSC) English course and/or Fiji School Leaving Certificate (FSLC) English course were comparable to the USP and NUS Communication and Study Skills Foundation courses, from the perspective of their use as satisfying entry requirements into USP degree programmes, the consultants decided to compare PSSC and FSLC prescriptions and examinations with USP and NUS Foundation prescriptions and examinations.

It was found that there are similarities between the PSSC and the Fiji School Leaving Certificate (FSLC) English prescriptions in that both contain both language and literature work, but there are several differences too. The FSLC prescription is designed for two years of study, whereas the PSSC prescription is for one year. School based assessment makes up 40% of the total marks for PSSC and includes between 8-16% for oral work as well as work on three out of four of research, writing, literature and media. However, only 5% of the total marks for FSLC are awarded by internal assessment, and these are for a Listening Comprehension test. The prescription recommends that FSLC students do a written project in the two year course, but there is no formal assessment of this.

The PSSC examination includes comprehension, writing and literature sections. The FSLC includes formal and personal writing, comprehension and summary writing, language with grammar and vocabulary and varieties of English, and a literature section. The FSLC examination covers more question types, since there is no equivalent in the PSSC to the grammar and vocabulary questions. Formal writing in FSLC includes the option of writing a simple report. The comprehension section of the PSSC requires much more reading than the FSLC (five passages as opposed to one) and more in depth questions. The literature section of the PSSC requires the students to answer two questions of greater length than the three required in FSLC.

Overall, it was considered that the skills taught in PSSC and FSLC English courses make both of these courses comparable to the USP and NUS Communication and Study Skills courses, from the perspective of using them as alternative entry qualifications for admission into USP degree programmes.