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Principal Officers of
The University of the West Indies

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OCC. MD, SRCP, SACP (Hon), Hon. DSC (UWI)

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B.A. Howard, MPhil Yale, MD UPenn, DM (UWI)

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KA, B.A. Cantab, LLB Lond, Dip in Diplomacy Col, Hon. LLD UWI

The Hon. Don Brice – Mona
OJ CD, B.A. Lond-UCWI

Mr. Michael Mansoor – St. Augustine
CA, MBA W. Ont

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B.A. UWI, Dip International Relations
UWI, M.A., Ph.D. Qui

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B.A. Northwestern, M.A. Chicago, Ph.D. Penn

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B.Sc. UWI, Ph.D. UWI,
Postdoctoral Fellow Dalhouse, Canada

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MD Malta, M.Sc. Lond, Ph. D. UWI, FRCPGlas. FACP

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B.A., Dip Ed UWI, M.A. Qui

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BE Baroda, MS Wo, Ph.D. UWI, MASHRAE, FAPE, MASME

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B.A. Lond-UCWI, M.A. Ed Columbia, MBA Miami

UNIVERSITY BURSAR
Mr. Winston H. Bayley
B.Sc. Lond-UCWI, FCCA

UNIVERSITY LIBRARIAN
Dr. Margaret Rouse-Jones
B.A. UWI, M.A. John Hopkins, Ph.D. John Hopkins,
Dip Library & Information Studies Lond
Message from the Dean

We of the fraternity of the Faculty of Science and Agriculture are proud of the fact that you have selected the University of the West Indies and in particular the Faculty of Science and Agriculture as your tertiary level institution of choice for furthering your education.

We know that you have entered our portals with a dream, a vision with high expectations and of course a sense of commitment to work collectively with us to help you achieve your goals. We have a highly competent and committed complement of academic, administrative, technical support and service staff. We promise you the highest level of professionalism in everything we do and you should demand nothing less of us. Our faculty offers a wide selection of programmes in science and agriculture, many of which are multidisciplinary in nature and which are geared to better prepare you for the world of work. We are constantly revising our curricula to ensure that they are current and relevant.

During your stay here you will be faced with many challenges – academic, financial, emotional, health among others. We have tried to put in place appropriate support systems to help you to successfully face these challenges. We urge you to become familiar with these support systems and to ensure that you fully utilize them as your needs arise. Only by working together can we find solutions to each other’s problems.

Welcome and may all your hopes and aspirations become realities.

Professor Dyer Narinesingh
PRINCIPAL OFFICERS
St. Augustine Campus – UWI

Campus Principal
Dr. Bhoeendradatt Tewarie
B.A. Northwestern, M.A. Chicago, Ph.D. Penn

Deputy Campus Principal
Prof. Gurmohan Kochhar
B.E Baroda, MS Wu. Ph.D. UWI, MASHRAE, FAPE, MASME

Deputy Campus Registrar
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B.Sc. UWI, MS Wayne State, MBA USshefield. CDipAS, ACIS

Campus Bursar
Mrs. Lylla Bada
B.A. (Economics & Accounting) Bristol, ACCA, CA (PKT)

Campus Librarian
Dr. Margaret Rouse-Jones
Dip Library & Information Studies Land

CAMPUS DEANS:

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Professor Clement Sankat
BSc, M.Sc, UWI, PhD, Guelph, FI Ag Eg., C Eng.

Dean – Faculty of Humanities and Education
Dr. Ian Robertson
BA. PhD, UWI

Dean – Faculty of Medical Sciences
Professor Phyllis Pitt-Miller
CMT, MB, ChB, DA, FRCA

Dean – Faculty of Social Sciences
Dr. Hamid Ghany
B.A, UWI, MA, Fordham, PhD, London
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

PRINCIPAL OFFICERS & ADMINISTRATIVE STAFF OF THE FACULTY

PBX: 1 (868) 645-3232-9; 662-2002; Extss. 2112, 2113, 2242;
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Dean
Prof. Dyer Narinesingh  BSc, PhD (UWI)

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3111
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School of Agriculture Representative
Mr. D.G. Hutton,
BSc (UWI), MSc (Cornell) (Jamaica)
Dip. in Nematology
(Cen. University of Venezuela)

SECRETARIAT:
Dean’s Secretary
Mrs. Bernice Henry
Accounting Assistant
Mrs. Mary Claire Ligorish
Clerical Assistant
Mrs. Laneta Raghunanan
Clerical Assistant (temporary)
Ms. Cathy Ann Modeste

STUDENT RECEPTION OFFICE:  Extss. 2600, 2596; 3525
Senior Administrative Assistant
Mrs. Marlene Sobers,
BA, Dip. Pub. Adm. (UWI)

Administrative Assistant
(Vacant)
Secretary
Mrs. Tara Sookhoo
SCHOOL OF AGRICULTURE

DEPARTMENT OF AGRICULTURAL ECONOMICS & EXTENSION

Head,
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BSc, MSc, PhD (Manitoba)

Subject Leader (Human Ecology)  Ext. 3278
Ms. Cynthia Rennie

DEPARTMENT OF FOOD PRODUCTION

Head,
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BSc, PhD (UWI)

SCHOOL OF SCIENCE

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BSc, MSc (UWI), PhD (Br. Col.)

Administrative Assistant
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Dr. B. Cockburn  Ext.3541

Subject Leader (Biology)
Dr. A. Khan  Ext. 3087

Subject Leader (Environmental Biology)
Dr. C.K. Starr  Ext. 3096

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Head (Ag),
Dr. Shirin Haque  Ext. 2050
BSc, MPhil, PhD (UWI)
INTRODUCTION TO THE
FACULTY OF SCIENCE & AGRICULTURE (FSA)

The Faculty of Science & Agriculture (formerly the Faculty of Agriculture & Natural Sciences) was established at the St. Augustine Campus of The University of the West Indies in 1996 from the merger of the former Faculties of Agriculture and Natural Sciences. The Faculty of Agriculture was established in 1960 and continued the tradition of excellence in teaching and research of its predecessor, the Imperial College of Tropical Agriculture, while the Faculty of Natural Sciences was established at St. Augustine in 1972 from the former College of Arts and Science, which began teaching Chemistry, Mathematics and Physics in 1963. Today the FSA is among the largest Faculties in the University offering BSc degrees with programmes in Agriculture, Agribusiness Management, Biochemistry, Biology, Chemistry, Computer Science, Human Ecology, Environmental & Natural Resource Management, Geography, Mathematics, Physics and Zoology. In addition to programmes offered in the FSA, students may pursue programmes in other Faculties subject to prerequisites and availability of places.

Moreover, the Faculty offers diplomas in Agricultural Extension and Institutional and Community Nutrition and Dietetics and also MSc, MPhil and PhD degrees.

PROGRAMME OFFERING IN THE FACULTY OF SCIENCE & AGRICULTURE:

The Faculty of Science & Agriculture (FSA) offers the following Certificate, Diplomas and BSc Degree Programmes:

Certificate programme in Agriculture (by distance teaching)
  a. Agricultural Extension
  b. Institutional and Community Dietetics and Nutrition

BSc in the following Special Options
  a. General Agriculture
  b. Agri-business Management (face-to-face and distance)
  c. Human Nutrition and Dietetics
  d. Chemistry & Management
  e. Computer Science & Management

BSc (General) Degree with a major(s) and minor(s) in various disciplines as shown in Table 1.
<table>
<thead>
<tr>
<th>DISCIPLINE</th>
<th>MAJORS</th>
<th>MINORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Agricultural Science</td>
<td></td>
</tr>
<tr>
<td>Human Ecology</td>
<td>• Food and Food Service Systems Management</td>
<td>• Sports Nutrition</td>
</tr>
<tr>
<td></td>
<td>• Nutritional Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Family and Consumer Sciences</td>
<td></td>
</tr>
<tr>
<td>Agricultural Economics and</td>
<td>Agribusiness</td>
<td>• Entrepreneurship</td>
</tr>
<tr>
<td>Agribusiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Extension</td>
<td>------</td>
<td>• Communications and Extension</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>Biochemistry</td>
<td>• Biochemistry</td>
</tr>
<tr>
<td>Biology</td>
<td>• Biology</td>
<td>• Biology</td>
</tr>
<tr>
<td></td>
<td>• Zoology</td>
<td>• Biotechnology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Botany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Env. Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Marine Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Zoology</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Chemistry</td>
<td>• Chemistry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Analytical Chemistry</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Computer Science</td>
<td>• Computer Science</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics</td>
<td>• Mathematics</td>
</tr>
<tr>
<td>Physics</td>
<td>Physics</td>
<td>• Electronics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Env. Physics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Material Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medical Physics and Bioengineering</td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>Env. and Natural Resource Mgt.</td>
<td>• Env. and Natural Resource Mgt.</td>
</tr>
<tr>
<td>Geography</td>
<td>Geography</td>
<td>------</td>
</tr>
</tbody>
</table>

Note: For more detailed information on majors and minors, please refer to the relevant Departmental sections of this booklet.
STUDY ABROAD/EXCHANGE PROGRAMMES

The exchange programme allows students to spend one or two semesters abroad at universities in order to broaden their experience, understanding and perception of agriculture and/or science in a different environment where a wider range of courses is available including independent study projects.

UWI students, while at exchange Universities, continue as regular full-time students of The University of the West Indies. They pay UWI tuition and residence fees and pursue matching and/or approved courses for credit. Credits earned abroad are transferred to UWI and applied to regular Faculty degree requirements in accordance with Regulation 46. For study abroad the fee requirement may vary.

A list of exchange institutions is given in Appendix II. However, interested students are advised to consult with the Admissions Section of the Campus Registry for a current list of Universities with which UWI has entered into cooperative arrangements for study exchanges.

EVENING UNIVERSITY

Currently the FSA offers only the BSc in Computer Science through the Evening University Programme. Please consult the Admissions Section of the Registry for further details about the Evening University Programme.

APPLICATION PROCEDURE INTO FSA

Applications for entry to the FSA should normally be received by the Admissions Office on or before January 15 of the year in which the applicant wishes to enter and should be accompanied by:

(i) official certificates and transcripts giving details of all examinations passed;
(ii) an application fee (Contact the relevant Admissions Office for details).

Application forms may be obtained from the Admissions Office - St. Augustine, Mona, Cave Hill, or from the Resident Tutors in non-campus countries or downloaded from UWI websites.

Late applications may be accepted under special circumstances on the payment of a late application fee.

IMPORTANT DATES
2005/2006 ACADEMIC YEAR

| SEMESTER I BEGINS | Sunday August 28, 2005 |
| Orientation & Registration Week | August 29 – September 3, 2005 |
| Teaching Starts | Monday September 5, 2005 |
| Teaching Ends | Friday December 2, 2005 |

Deadline Dates for Changes in Course Registration

| ADD Courses | September 16, 2005 |
| DROP Courses | September 23, 2005 |
| Examination Period | December 5 – 21, 2005 |
| Semester I Examination and Semester I End | December 21, 2005 |

SEMESTER II BEGINS | January 15, 2006

| Teaching starts | January 16, 2006 |
| Teaching Ends | April 21, 2006 |

Deadline Dates for Changes in Courses Registration

| ADD Courses | January 27, 2006 |
| DROP Courses | February 3, 2006 |
| (Withdrawal) | Semester II Break |
| Examination Period | April 25 – May 12, 2006 |
| Semester II Ends | May 12, 2006 |

GRADUATION DATES:

- Cave Hill: October 22, 2005
- St. Augustine: October 28 and 29, 2005
- Mona: November 4 & 5, 2005
FACULTY OF SCIENCE & AGRICULTURE (FSA)

GENERAL REGULATIONS

All students of the University are subject to the General Regulations for Students approved by the Senate of the UWI. Where there is conflict between the regulations of any Faculty and the University Regulations, the University Regulations shall apply.

A. QUALIFICATIONS FOR ADMISSION

1. In order to be admitted to the four-year degree programme (currently NOT offered at the St. Augustine campus), candidates must satisfy the University requirements for Matriculation (see the UWI General Regulations for Students) AND have passed the CSEC General Proficiency Level examination at Grades I, II or, since 1998, Grade III (or equivalent qualifications) in Mathematics, English language and two approved science subjects listed in Appendix 1 (a).

2. In order to be admitted to the three-year degree programmes (offered at all three campuses), candidates must satisfy the University requirements for Matriculation (see the UWI General Regulations for Students) AND have passed Mathematics and English language at CSEC General Proficiency level at Grades I, II or, since 1998, Grade III (or equivalent qualifications) AND

(a) Obtained passes in two two-Unit subjects at CAPE, both Units at Grade V or better, (or GCE A-Level equivalent). The specific subject requirements for entry into various FSA programmes are listed in Table 2 below.

OR

(b) Have an approved Associate Degree or equivalent certification with a GPA of 2.5 (or equivalent) or higher, from a recognized tertiary level institution.

OR

(c) Have any other qualifications acceptable to the FSA.
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

Table 2
CAPE (GCE A-Level or equivalent) qualification
for entry into various FSA BSc Programmes*

<table>
<thead>
<tr>
<th>BSc (General) with majors in</th>
<th>CAPE subject(s) (GCE A-Level or equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture Science</td>
<td>One science subject</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>Any two subjects</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>Chemistry and biology</td>
</tr>
<tr>
<td>Biology</td>
<td>Biology</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Env. &amp; Natural Res. Mgt</td>
<td>One science subject</td>
</tr>
<tr>
<td>Geography</td>
<td>Geography</td>
</tr>
<tr>
<td>Human Ecology</td>
<td>One science subject</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Physics</td>
<td>Physics or Mathematics</td>
</tr>
<tr>
<td>Zoology</td>
<td>Biology</td>
</tr>
<tr>
<td>BSc Options</td>
<td></td>
</tr>
<tr>
<td>BSc General Agriculture</td>
<td>One science subject</td>
</tr>
<tr>
<td>BSc Agribusiness Mgt</td>
<td>Any two subjects</td>
</tr>
<tr>
<td>BSc Computer Sc. &amp; Mgt</td>
<td>Mathematics</td>
</tr>
<tr>
<td>BSc Chemistry &amp; Mgt</td>
<td>Chemistry</td>
</tr>
<tr>
<td>BSc Human Nutrition and Dietetics</td>
<td>One science subject</td>
</tr>
</tbody>
</table>

*N.B.  • Candidates must also satisfy Departmental Requirements as well as Regulation 2.
• For a list of approved CAPE/GCE A-Level subjects, see Appendix 1b.

3. In order to be admitted to the Diploma in Agricultural Extension candidates must:
   i. be graduates of an approved university; OR
   ii. have an approved technical or professional qualification from an approved institution; and have sufficient experience or other relevant qualifications which are deemed by the FSA to be adequate.

4. In order to be admitted to the Diploma in Institutional and Community Nutrition and Dietetics, candidates must have successfully completed:
   i. A Bachelor’s Degree (no more than 5 years prior to application) with major credits in Clinical (Human) Nutrition, Foodservice Systems Management, and Community Nutrition from an accredited Tertiary Level Institution.
   ii. Applicants who do not qualify for entry as specified at 4 (i) may be required to pursue supplementary Core and Professional courses at the University, to a minimum of 18 credits.
   iii. Selection from suitably qualified applicants will be based on interviews.

B. OUTLINE OF THE BSc DEGREE PROGRAMME

5. The degree of Bachelor of Science is awarded on the basis of a programme of studies (Table-1) selected from courses in Agriculture and/or Science disciplines together with certain Foundation courses and in some cases a number of approved courses from other Faculties.

6. FSA offers the following Bachelors degrees (the terms Major, Minor, Option etc., are defined in the Glossary):
   (a) A BSc general degree with
      i. a single major in a FSA discipline
      ii. a double major in two disciplines, one of which may be from a Faculty other than the FSA. Double majors in a single FSA discipline are currently offered only in Mathematics and Biology.
   (b) A BSc general degree with a single major in a FSA discipline PLUS one or two minors (from FSA and/or other Faculties).
   (c) BSc Options comprising a prescribed set of departmental, inter-departmental or out-of-faculty courses.
7. The following types of courses which may consist of both theoretical and/or practical components are offered by the University:

(a) Courses taught by FSA (in Faculty Courses) which include Level 0 (or Preliminary), Level I (or Introductory), and Levels II & III (or Advanced) courses. Preliminary courses may be used to satisfy matriculation requirements or prerequisites for Level I, II or III courses but do not contribute towards the requirements to the award of the degree.

(b) Service courses, which provide students with basic technical and analytical skills.

(c) Approved out-of-faculty courses which may contribute towards the requirements for the award of a degree.

(d) Foundation courses (see Appendix III) which are University courses designed to augment the general education of students.

(e) Courses involving independent, supervised activities which would earn the participant co-curricular credits may be pursued upon approval by the academic board. A maximum of three co-curricular credits may be included as part of the general credit requirements for the award of the BSc degree. The grades earned shall not be taken into account in the determination of the cumulative GPA or honours GPA.

8. Courses normally extend over one (1) semester, but in special cases may extend over two (2) semesters.

9. The weight of a course is expressed in terms of credit hours, and the credit-weighting of a course is determined by the Faculty which administers the courses. In FSA, a course with one contact hour per week for the whole semester has a weighting of one credit.

10. (a) In order to be eligible for the award of the BSc degree in FSA, candidates must have:

   i. been in satisfactory attendance for a period equivalent to at least six (6) semesters of full-time study from entry at Level I and;

   ii. obtained passes in Levels I, II and III and Foundation Courses amounting to the numbers of credits shown in Table 3.

   iii. A cumulative GPA of at least 1.00
Table 3
Minimum Credit Requirements

<table>
<thead>
<tr>
<th>Degree</th>
<th>Level I credits</th>
<th>Level I – III credits</th>
<th>Additional Level I – III credits</th>
<th>Foundation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc (General)</td>
<td>24</td>
<td>60</td>
<td>8</td>
<td>9</td>
<td>101*</td>
</tr>
<tr>
<td>BSc (Options):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSc (Agriculture General)</td>
<td>38</td>
<td>69</td>
<td>----</td>
<td>9</td>
<td>116</td>
</tr>
<tr>
<td>BSc (Agribusiness Mgt)</td>
<td>33</td>
<td>69</td>
<td>----</td>
<td>9</td>
<td>111</td>
</tr>
<tr>
<td>BSc Human Nutrition and Dietetics</td>
<td>36</td>
<td>64</td>
<td>----</td>
<td>9</td>
<td>109</td>
</tr>
<tr>
<td>BSc Computer Science &amp; Mgt</td>
<td>36</td>
<td>60</td>
<td>----</td>
<td>9</td>
<td>105</td>
</tr>
<tr>
<td>BSc Chemistry &amp; Mgt</td>
<td>30</td>
<td>63</td>
<td>----</td>
<td>9</td>
<td>102</td>
</tr>
</tbody>
</table>

*For degrees including a major in a discipline from another Faculty the number of credits required may vary from this.

(b) Of the minimum 101 credits required for the award of a BSc General degree, a minimum of 18 credits at Level I and 32 credits at Levels II and III MUST be taken from FSA courses.

c) A student employed on a full-time basis may choose to register for programmes offered under the Evening University (Currently only courses in Computer Science are offered by the FSA).

d) No allowances with respect to the attendance at classes, laboratories, tutorial or examinations will be made for students on the conditions of their employment.

11. Candidates will not be granted credits for the same course under different majors/ minors.

12. Exemptions from specific parts of the degree programme may be obtained under the provision of Section 1. – Exemptions and Transfers.

C. Registration

13. (a) A student pursuing a degree in the Faculty may register as a full-time student or as a part-time student but may change the status of his/her registration during the tenure of the degree.

(b) A student who is in full-time employment may only pursue a degree on a part-time basis. Permission for this will depend on submission to the Dean, of a certificate prepared by the Faculty and signed by the student’s employer, stating that the student will be given the necessary release throughout the period of registration.

(c) Full-time students may take employment for not more than 12-hours per week without losing their full-time status. A student who is employed for more than 12-hours per week shall be registered as a part-time student.

14. (a) A student must register for courses he/she wishes to pursue at the beginning of each academic year within the prescribed periods. (Check notice boards).

(b) A student’s registration is deemed complete only after his/her financial obligations to the University have been fulfilled.

15. Changes to the registration will only be permitted up to the end of the third week in Semester-I and up to the end of the second week in Semester-II. (Check notice boards for dates).

16. (a) A student registered for a course may withdraw from it by submitting a completed Change of Registration Form to the Assistant Registrar (Student Affairs) through the Dean. In the absence of exceptional circumstances, such notification must reach the Dean within the Change in Registration period.
Registration for any course constitutes registration for the associated examination. A student will therefore be deemed to have failed the course if he/she does not attend the examination without having previously been allowed to withdraw from the course (see Reg. 16 (a)), or without having tendered evidence of illness at the time of the examinations certified by a medical practitioner recognized by the University. In the latter case, the medical certificate must reach the Campus Registrar no later than seven (7) days after the date of the examination concerned.

A student who has obtained passes in Level I Faculty courses equivalent to eighteen (18) credits in the first two (2) semesters of full-time study may, on the recommendation of the Dean, be allowed to register for a limited number of Level II courses.

19. The MAXIMUM number of credits (including those from foundation courses) for which a student may normally register in any semester is as follows:

(a) In the case of students who have not satisfied the requirements of Reg. 18(d) (i.e. students in the introductory part of the programme)

i. twenty-one (21) credits subject to a maximum of eighteen (18) credits from Faculty courses, if the student is registered full-time;

ii. twelve (12) credits if the student is registered part-time.

(b) In the case of candidates who have satisfied the requirements of Reg. 18(d) (i.e. students in the Advanced part of the programme)

i. twenty-three (23) credits subject to a maximum of twenty (20) credits from Faculty courses, if the student is registered full-time;

ii. twelve (12) credits if the student is registered part-time.

(c) Full-time students who require not more than twenty-four (24) credits in order to graduate, have satisfied all Foundation course requirements, and are exempted from laboratory coursework in at least one course, may be allowed to register for twenty-four (24) credits of Faculty courses.

Students must make a FINAL DECLARATION of their proposed major(s) and/or minor(s) by the end of the Change in Registration period of the semester in which they intend to graduate.

Students must graduate as soon they have met the requirements for the degree for which they have registered.
E. Examinations

21. In order to pass a course, a candidate must have been in satisfactory attendance at the course, and must have satisfied the examiners in the associated examinations.

22. The examination associated with each course shall be conducted mainly by means of written and/or practical papers, normally taken at the end of the semester in which the candidate has registered for the course concerned. However, oral examination as well as performance in course work in the form of essays, in-course tests, research papers, projects, or continuous assessment of theoretical and/or practical work may contribute towards the final grade awarded in a course.

23. When practical papers and/or practical coursework contribute towards an examination, candidates must satisfy the examiners in both the theoretical and practical aspects of the course. On the basis of performance in the practical part of the course, candidates may, on the recommendation of the Department concerned, be exempted from the practical part of the examination.

24. A candidate who marginally fails the examination associated with FSA courses may, as a concession, be granted permission by the Board of Examiners to sit a Supplemental Examination. Such permission will be given on the basis of the performance of the candidate in the courses concerned. Supplemental examinations are currently offered for courses at all levels in the School of Agriculture and ONLY for Level 1 courses in the School of Science.

25. (a) A student who is expected to complete the requirements for graduation at the end of a semester or the succeeding semester may be granted permission by the Board of Examiners to sit supplementary oral examinations in failed courses accounting for not more than eight (8) credits provided that the candidate was awarded a minimum of 35% in the final examinations.

(b) Candidates passing such oral examinations will be awarded the minimum passing mark of 40% and will not have any right of appeal or review of the outcome.

(c) Candidates offered oral examinations may choose to decline the offer.

26. (a) A candidate who fails the examination associated with a course may be given permission to repeat the course and the examination on a subsequent occasion.

(b) In the event that such a candidate has satisfied the examiners in the laboratory coursework component of the failed course, the candidate may, on the recommendation of the relevant Department, be exempted from the laboratory coursework.

27. Examinations associated with the Summer Programme are counted as repeats. Supplemental Examinations are not.

28. The Academic Board of a candidate’s Campus, on the recommendation of the Faculty Board concerned, may debar a candidate from writing the examination associated with a course. The grade recorded for such a candidate in that course will be Absent Fail.

F. Time Limits for Completion and Enforced Withdrawals

29. For the purposes of Regulations 31 below, any semester in which a student is registered part-time, will be counted as half of a semester of full-time study.

30. (a) A Semester grade point average (GPA) based on grades earned on all approved courses for which the student is registered in a semester, will be used as the basis for the determination of his/her academic standing.

(b) A student whose GPA in any Semester is 0.75 or less will be deemed to be performing unsatisfactorily and will be placed on warning.

(c) A student who is on academic warning and who fails to obtain a Semester GPA of 0.75 or better in the succeeding semester will be required to withdraw from the Faculty.
31. (a) Students admitted to the programme under Reg.2 shall complete the requirements for the degree in a minimum of six (6) or a maximum of ten (10) semesters of full-time study.

(b) Students who cannot complete the programme within the maximum period given in 31 (a) above will normally be required to withdraw from the Faculty at the end of the academic year in which the maximum is reached.

32. In the event that a student has exhausted the maximum period mentioned in 31 (a) above, but still requires for the completion of the degree programme:

Either:

(a) passes in courses totaling no more than eight (8) credits,

Or:

(b) passes in Foundation courses only, the Faculty Board may at its discretion recommend to Academic Board an extension of the period of study by one (1) or two (2) consecutive Semesters.

33. For the purposes of Regulation 31(a) above, any semester for which a student has obtained Leave of Absence from the Faculty shall not be counted.

34. Notwithstanding Regulations 30 and 31 above, Academic Board may, on the recommendation of the Faculty Board, require the student to withdraw from the Faculty at the end of any semester on grounds of persistent neglect of work and/or repeated failure in examinations.

35. A student required to withdraw from another Faculty may register immediately in the FSA, if, having carefully assessed the circumstances surrounding the withdrawal, it is felt that this is in the best interest of the student's educational goals and that the student satisfies the Faculty's entry requirements;

36. A student who was required to withdraw for reasons of failure to progress may be re-admitted to the Faculty on the following conditions:

(a) A minimum of one (1) year has passed since the date of withdrawal

(b) The Faculty is satisfied that the contributing circumstances for the withdrawal have altered substantially.

(c) All grades previously obtained, except those for courses to be repeated having been deemed outdated, shall continue to apply for the purpose of determining the student's GPA.

(d) Courses pursued in the UWI Summer School during the period of withdrawal shall be included in all relevant grade point average calculations if the student re-enters the UWI.

37. A student who was required to withdraw and was re-admitted and then required to withdraw for a second time, will not normally be considered for re-admission again until a minimum period of five years has elapsed.

G. Leave of Absence and Voluntary Withdrawal

38. (a) A student who wishes to be absent from the Faculty for a semester or more may apply for Leave of Absence, through the Dean, to the campus Academic Board, stating the reasons for the application.

(b) Leave of Absence will not be granted for more than two (2) consecutive semesters in the first instance. However, students may apply for an extension of leave.

(c) Leave of Absence will not be granted for more than four (4) consecutive semesters.

(d) Applications for Leave of Absence should normally be submitted not later than the end of the change in registration period in the relevant semester.

39. A student who does not register for any courses during a semester without having obtained Leave of Absence will be deemed to have withdrawn from the Faculty.
40. A student who voluntarily withdraws from the University and then applies for re-admission within five (5) years shall be granted exemption and credit for all courses previously passed unless the Department concerned declares that the material covered in a course has become outdated. All grades previously obtained except those for courses declared outdated shall be used in the determination of the GPA of such a student.

H. Class of Degree Awarded (for students registered before 2003/04)

41. First Class Honours, Second Class Honours (Upper and Lower Division), or a Pass degrees will be awarded on the basis of marks obtained in the examination in courses as follows:

(a) the BSc General with a single major, courses amounting to a candidate’s best sixty-four (64) credits of the degree programme, including:
   i. at least thirty-two (32) from Level II and III FSA courses in the candidate’s declared major;
   ii. not more than six (6) credits from Level I FSA courses; and
   iii. the Level II and III credits from courses required for any declared minors.

(b) for a double major – courses amounting to sixty-four (64) credits from Level II and III courses, including the courses required for the major in each of the two disciplines;

(c) for the BSc Agriculture, Agri-business Management and Human Ecology degrees courses amounting to a candidates best sixty-four (64) credits of Level II and III courses, six (6) of which may be replaced by FSA Level I courses.

42. Failure on a previous occasion in courses used in determining the class of honours will result in downgrading in the class of honours as follows:

   (a) by one (1) (sub-) class, if the failed courses account for more than eight (8) credits;
   (b) by two (2) (sub-) classes, if the failed courses account for more than fifteen (15) credits;
   (c) to a pass degree if the failed courses account for more than twenty (20) credits.

For the purposes of this Regulation, repeated failures in the same course will be counted as if they were associated with different courses.

(d) No course may be used to satisfy the requirements of more than one major. In cases where there is a common course in two majors or a major and a minor such a course must be replaced with an alternative course which must be approved by the Dean of the Faculty concerned.

GPA and Class of Degree Awarded (for students admitted from 2003/04)

43. (a) A Cumulative grade point average based on all courses completed for which grades have been obtained (excluding Preliminary courses, those taken or a Pass/Fail basis, audited courses and courses designated I or IP), will be calculated and recorded on the student’s transcript.

   (b) An Honours grade point average based on grades obtained on all Levels II and III courses, whether passed or failed, will be calculated for determination of the class of the degree. (See Appendix VII for the relationship between marks, grade point average and class of degree).

   (c) First Class Honours, Second Class Honours (Upper and Lower Division), or a Pass degree will be awarded on the basis of the Honours grade point average.
I. Exemptions and Transfers

44. Students admitted to the FSA may be exempted with credit from Level I and/or Level II courses if they:

- are holders of degrees from approved universities,
- have partially fulfilled the requirements of such degrees,
- are holders of Associated Degrees from approved tertiary level institutions (admitted under Reg. 2b)

Application for exemption must be made upon entry through the Faculty Board of the student’s campus. Each application will be considered on its own merit.

45. (a) Students on transfer between different BSc degree programmes or from other programmes of study within the University may, on the basis of passes already obtained, and on the recommendation of the Departments concerned, be exempted with credit from some or all of the Level I and some of the Level II/III courses.

(b) Students exempted from courses equivalent to one Year of full time study, may complete the degree programme in a minimum of four (4) or a maximum of eight (8) semesters of full-time study from the time of transfer. Students exempted from all Level I courses and some Level II and/or Level III courses may complete the degree programme in a minimum of two (2) semesters of full-time study from the time of transfer.

46. (a) FSA students who wish to participate in an exchange programme at an institution other than the UWI and desire to have the credits obtained used toward a UWI degree must obtain written approval in advance from the Dean and register for equivalent courses offered by FSA. Failure to do so may preclude the acceptance of the credits.

(b) Students must have a minimum Cumulative GPA of 2.5 by the end of Semester II to be eligible for participation in an exchange programme in the following academic year.

(c) Where the course to be taken is to be substituted for a UWI course, the content of the course must be certified by the relevant Department as being equivalent to the UWI course. Course outlines and syllabuses must be provided by the student in order to facilitate the evaluation process.

(d) Only grades earned at another institution and NOT the marks earned shall be used in the computation of the student’s GPA.

L. Aegrotat Degree

47. (a) A candidate who, by virtue of illness, was prevented from attending examinations or part of the examinations associated with one or more Level II/III courses in the year of anticipated graduation may apply to the Board for Undergraduate Studies through the University Registrar for an Aegrotat pass in the course. Such an application will only be granted if all the following conditions are satisfied:

i. The appropriate Head of Department reports that, on the basis of the candidate’s performance during the period preceding the examinations, the candidate was expected to pass the examinations concerned and has satisfactorily completed any associated coursework.

ii. The application reaches the University Registrar not later than thirty (30) days after the date of the last paper in the examination concerned.

iii. The application is accompanied by a medical certificate attesting to the illness and issued by a medical practitioner recognised for this purpose by the University.

(b) No grade will be awarded in respect of an Aegrotat pass, and a candidate, having been awarded an Aegrotat pass, will not be allowed to re-enter the examination for the course concerned on a subsequent occasion. An Aegrotat pass may not be used to satisfy a Prerequisite for other Level II/III courses.
(c) A candidate, having satisfactorily completed the degree programme, who includes Aegrotat passes in courses counted for the degree programme, will be eligible for the award of an Aegrotat degree, provided that both of the following conditions are satisfied:

   i. the courses in which the Aegrotat passes have been granted (and which need to be counted towards the award of the degree) are equivalent to no more than twenty-four (24) credits.

   ii. no more than sixteen (16) credits mentioned in c (i) above arise from courses making up the candidate’s major.

(d) The Aegrotat degree will be awarded without Honours or Class.
DEPARTMENT OF
AGRICULTURAL
ECONOMICS AND
EXTENSION

Dr. Ranjit H. Singh
(Head)

Mrs. C. O’Brady-Ramlochansingh
(Secretary)

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Fax: (888) 663-8355
Email: daee@fsa.uwt.tt

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Lecturer

D. I. Dolly,
BSc, (UWI), MS (Wis.),
PhD (UWI)
Lecturer (On Sabbatical Leave)

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PhD (Manitoba)
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Communications
Coordinator

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Lecturer

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PhD (UWI)
Lecturer

K.A. Pierre,
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(South Bank, M.B.A. (Aston)
Lecturer & Coordinator
(Diploma in Institutional &
Community Dietetics & Nutrition)
## List of Courses Offered in the Department of Agricultural Economics and Extension for the 2005/2006 academic year

### SEMESTER I

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<td>HUEC 1007</td>
<td>Introduction to Textiles</td>
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<tr>
<td>HUEC 2001</td>
<td>Basic Human Anatomy &amp; Physiology</td>
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<td>HUEC 2004</td>
<td>Foodservice Systems Management (Equipment, Layout &amp; Design)</td>
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<td>HUEC 2008</td>
<td>Social &amp; Psychological Aspects of Apparel</td>
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<td>Advanced Nutrition</td>
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<td>Nutrition and Metabolism</td>
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<td>HUEC 2015</td>
<td>Food Quality and Safety</td>
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<td>Management &amp; Economics of Agricultural Production &amp; Marketing</td>
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<td>Marketing &amp; Price Analysis</td>
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**UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006**

The Faculty of Science & Agriculture
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

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The Department of Agricultural Economics and Extension offers programmes in the following disciplines:

1. Agricultural Economics & Agribusiness
2. Human Ecology
3. Agricultural Extension and Communication

Commencing in the academic year 2005/06, the Department is introducing a new BSc degree in the Human Ecology Programme replacing the existing degree. Additionally, three Majors and one Minor have been added to this programme. Also the BSc Agribusiness Management degree and the Agribusiness Major have both been modified as indicated below.
BSc Options, Majors, Minors and Diplomas Offered

A. The Agribusiness Programme

The Agribusiness Programme comprises:

1. The BSc Agribusiness Management (Revised 2005/06)
2. Major in Agribusiness (Revised 2005/06)
3. Minor in Entrepreneurship

B. The Human Ecology Programme

Effective 2005/2006 the department introduces a new Human Ecology Programme which includes three (3) new Majors, one (1) Minor and two (2) Undergraduate degrees as outlined below:

(i) Majors:
   (a) Family and Consumer Sciences
   (b) Nutritional Sciences
   (c) Foods and Foodservice Systems Management

(ii) Minor: Sports Nutrition

(iii) BSc Human Nutrition and Dietetics – Special Degree

(iv) BSc Human Ecology Degree as follows:

Either
   (a) Double Major comprising Family and Consumer Sciences plus: Nutritional Sciences
   or Foods and Foodservice Systems Management or other approved Majors relevant to the Degree.

Or
   (b) Major in Family and Consumer Sciences and a Minor in Sports Nutrition and/or other approved
      Minors relevant to the Degree.

(v) Diploma in Institutional and Community Dietetics and Nutrition

C. The Extension and Communication Programme

The Extension and Communication programme comprises:

1. The Minor in Communication and Extension
2. The Diploma in Agricultural Extension

The details of each programme are given below.

Programme Content

A. THE AGRIBUSINESS PROGRAMME:

1. BSc Agribusiness Management (REVISED 2005/06)

Effective 2005/06 Academic Year, the BSc Agribusiness Management programme has been modified as noted below. The programme comprises 89 credits of core courses plus 6 credits of electives from the approved list, 3 credits of practical skills, 4 credits of internship and 9 credits of Foundation courses (FOUN 1101 (FD11A), FOUN 1102 (FD11B), FOUN 1301 (FD13A)).

Degree Structure

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Professional Courses</td>
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<td>Agriculture</td>
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<tr>
<td>Marketing</td>
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<tr>
<td>Agronomy</td>
<td>8</td>
</tr>
<tr>
<td>AgriculturalPracticals/Internship</td>
<td>11</td>
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<td>Agribusiness</td>
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<td>Foundation</td>
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</table>

Note: Students who entered the program prior to the 2005/06 Academic Year are required to complete the degree as structured when they entered.
### UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
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#### SECTION A (All Courses)

<table>
<thead>
<tr>
<th>Level I Semester I</th>
<th>Banner Code</th>
<th>Fun Pro Code Title</th>
<th>Credit</th>
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<td>AG14C</td>
<td>Mathematics for Scientists</td>
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<td>AGBU 1005</td>
<td>AM15A</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
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<td>ACCT 1002</td>
<td>MS15E</td>
<td>Introduction to Financial Accounting</td>
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<td>AGEX 1000</td>
<td>AX15C</td>
<td>Caribbean Agriculture in Perspective: Evolution, Sociology and Contemporary Issues</td>
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#### Semester II

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<tr>
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<td>Mgt. Info. Systems I</td>
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<td>MS20A</td>
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<td>MGMT 2014</td>
<td>MS22A</td>
<td>Organisational Behaviour</td>
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<td>AGBU 3006</td>
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<td>AM32A</td>
<td>Marketing and Price Analysis</td>
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<td>MGMT 3047</td>
<td>MS32A</td>
<td>Human Resource Management</td>
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<td>AGBU 3012</td>
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<td>Research Project</td>
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#### Semester II

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<td>AM35B</td>
<td>Intro. to Quantitative Methods in Economics</td>
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<td>AM32D</td>
<td>International Marketing of Agricultural Products</td>
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<tr>
<td>AGBU 3007</td>
<td>AM37A</td>
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#### Semester IV

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<tr>
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#### Level II Semester I

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<td>AGBU 2002</td>
<td>AM23B</td>
<td>Mgt. &amp; Econ. Of Agric. Prod. &amp; Marketing</td>
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<td>ACCT 2043</td>
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<td>Management Accounting</td>
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<td>AM21A</td>
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#### Semester IV

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<td>AM32D</td>
<td>International Marketing of Agricultural Products</td>
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#### Semester IV

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<tr>
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<td>AM39C</td>
<td>Internship – to be taken in Year II</td>
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UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

SECTION B - LIST OF ELECTIVES
(Six (6) credits from the following courses)

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<td>AGBU 3003</td>
<td>Intro. to Ecotourism: Product Design &amp; Management</td>
<td>4</td>
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<tr>
<td>AGS 2001</td>
<td>AL21C Principles of Livestock Production</td>
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</tr>
<tr>
<td>MGMT 3032</td>
<td>MS33C Entrepreneurial Studies</td>
<td>3</td>
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<tr>
<td>AGBU 3009</td>
<td>AM32E International Trade Policy and Regulations</td>
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<tr>
<td>ECON 2000</td>
<td>EC20A Intermediate Microeconomics I</td>
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<td>AGEX 3004</td>
<td>AX30B Communication Skills for Professionals</td>
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<tr>
<td>HUEC 3007</td>
<td>AH35A Law and the Family</td>
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<tr>
<td>HUEC 2009</td>
<td>AH25B Family Resource Management</td>
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<tr>
<td>AGCP 3004</td>
<td>AC32G Introduction to Floriculture</td>
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<td>MGMT 2013</td>
<td>MS21E Introduction to E-commerce</td>
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<td>MGMT 3030</td>
<td>MS33A Small Business Management</td>
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<td>AGEX 3000</td>
<td>AX30A Technology Transfer in Agriculture</td>
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<td>AGBU 3004</td>
<td>AM34A Agricultural Finance</td>
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</tr>
<tr>
<td>AGBU 3007</td>
<td>AX33B Poultry Production</td>
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</table>

Note (a):
AG13B Economic and Social Environment a 5 credit course whose content included Microeconomics, Macroeconomics and Rural Sociology is replaced by an introductory course in Microeconomics (AM15A - 3 credits), and an introductory course in Macroeconomics (AM15B - 3 credits). The Rural Sociology component of AG15B is now included in the new course AX15C Caribbean Agriculture in Perspective: Evolution, Sociology and Contemporary Issues - 4 credits.

The following courses are no longer requirements for the degree:

a. AM19B Consumer Economics.
b. MS31B Management Information System II
c. MS33B Business Strategy and Policy

Note (b):
Students who intend to pursue an MSc in Agricultural Economics/Agribusiness are advised that Elective Course: Intermediate Microeconomics I would be an asset.

2. Major in Agribusiness (Revised 2005/06)

The Major in Agribusiness has been REVISED, effective 2005/06. The modifications are shown in the note below.

The Program comprises 32 credits of advanced courses (Levels II & III), distributed according to the following areas of specialization:

- Agri-business Courses - 20 Credits
- Quantitative Courses - 3 Credits
- Communication - 3 Credits
- Elective – 6 Credits

Additionally, a total of 20 credits of Level I prerequisites are required as indicated below.

The Major in Agribusiness comprises: All Courses in Section A and Six (6) credits from courses listed in Section B. (Students must ensure that they satisfy prerequisite requirements).
# UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
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## PREREQUISITES

### Level I

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>I</td>
<td>AGBU 1005</td>
<td>AM15A: Introduction to Microeconomics</td>
<td>3</td>
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<td></td>
<td>AGEX 1000</td>
<td>AX15C: Caribbean Agriculture in Perspective: Evolution, Sociology and Contemporary Issues</td>
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<td></td>
<td>AGRI 1003</td>
<td>AG14C: Mathematics for Scientists</td>
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<th>Credit</th>
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<td>CS10M: Introduction to Information Technology</td>
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<td>AGRI 1010</td>
<td>AG18A: Introduction to Crop and Livestock Production</td>
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<td>AGBU 1006</td>
<td>AM15B: Macroeconomic Fundamentals for Caribbean Agriculture</td>
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## ADVANCED COURSES

### Levels II & III

#### SECTION A Core Courses

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<tr>
<td>I</td>
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<td>AM23B: Management &amp; Economics of Agric. Production &amp; Marketing</td>
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<td></td>
<td>AGBU 3001</td>
<td>AM30C: Farm Business Management</td>
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<tr>
<td></td>
<td>AGBU 3002</td>
<td>AM30D: International Marketing of Agricultural Products</td>
<td>4</td>
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<td></td>
<td>AGBU 3003</td>
<td>AM25A: Applied Statistics</td>
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<th>Credit</th>
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<td>AGBU 3005</td>
<td>AM30C: Empirical Methods for Economic Analysis</td>
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<td></td>
<td>AGBU 3006</td>
<td>AM30D: Financial Management for Caribbean Agriculture</td>
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#### SECTION B - LIST OF ELECTIVES

(Select six (6) credits)

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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>I</td>
<td>AGBU 3006</td>
<td>AM36A: Agricultural Project Appraisal and Implementation</td>
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<td>AGBU 3005</td>
<td>AM35B: Introduction to Quantitative Methods in Economics</td>
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<tr>
<td></td>
<td>FINM 2060</td>
<td>MS28D: Financial Management I</td>
<td>3</td>
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<tr>
<td></td>
<td>AGBU 3012</td>
<td>AM312: Project</td>
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<th>Credit</th>
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<tbody>
<tr>
<td>II</td>
<td>AGBU 3007</td>
<td>AM37A: New Venture Creation and Management</td>
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<td>AM32E: International Trade Policy and Regulations</td>
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<td></td>
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<td>AM33D: Introduction to Ecotourism: Product Design &amp; Management</td>
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<td>MKTG 2080</td>
<td>MS20A: Principles of Marketing</td>
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## 3. Minor in Entrepreneurship

The Minor in Entrepreneurship comprises a minimum of 15 credits of Advanced Courses (Levels II and III) and 6 credits of prerequisites. Students are required to complete both courses in Section A and the remaining credits from the list of courses in Section B.

**Prerequisites:** AM15A: Introduction to Microeconomics; and AM15B: Macroeconomic Fundamentals for Caribbean Agriculture

#### SECTION A (All Courses)*

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<thead>
<tr>
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<th>Course Title</th>
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<td>AM32A: Marketing and Price Analysis</td>
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<td>AGBU 3007</td>
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*Students are required to complete both courses in Section A, and the remaining credits from the list of courses in Section B.*
SECTION B
(At least seven (7) credits from the following)

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<tr>
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<td>MGMT 2021</td>
<td>MS27A</td>
<td>Business Law</td>
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<td>Z34E</td>
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</table>

* NOTE: Students pursuing the Major in Agribusiness, together with a minor in Entrepreneurship, are required to select the 15 credits required from Section B since the courses in Section A are common with the Agribusiness Major.

B. THE HUMAN ECOLOGY PROGRAMME:

Effective 2005/2006 the department will introduce a Human Ecology Programme which includes three (3) new Majors, one (1) Minor and two (2) Undergraduate degrees as outlined below:

(i) Majors:
   (a) Family and Consumer Sciences
   (b) Nutritional Sciences
   (c) Foods and Foodservice Systems Management

(ii) Minor: Sports Nutrition

(iii) BSc Human Nutrition and Dietetics – Option

(iv) BSc Human Ecology with Majors/Minor as follows:

Either (/a) Double Major comprising Family and Consumer Sciences plus: Nutritional Sciences OR Foods and Foodservice Systems Management

Or (/b) The Major/Minor comprising the Major in Family and Consumer Sciences and the Minor in Sports Nutrition and/or other approved Minors relevant to the Degree.

1. Major in Family and Consumer Sciences

The Major in Family and Consumer Sciences comprises 36 credits of advanced courses (Levels II and III) as well as 18 credits of prerequisites courses in Level I. These are outlined below:

CORE COURSES

PREREQUISITE Level I COURSES

Level I
Semester I

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<tr>
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<td>Introduction to Nutrition</td>
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Semester II

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<td>AH14B</td>
<td>Basic Apparel Construction</td>
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<td>AH12C</td>
<td>Introduction to Biostatistics</td>
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ADVANCED CORE COURSES

Level II
Semester I

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<td>Developmental Psychology</td>
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<td>AH23B</td>
<td>Foodservice Systems Mgt (Equip., Layout &amp; Design)</td>
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Semester II
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<td>HUEC 3007</td>
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12

2. Major in Nutritional Sciences

The Major in Nutritional Sciences comprises 31 credits of advanced courses (Levels II and III) and 18 credits of prerequisites courses in Level I. These are presented below:

Core Course

PREREQUISITE Level I COURSES

Level I Semester I
<table>
<thead>
<tr>
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Total

ADVANCED COURSES

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<td>HUEC 2001</td>
<td>AH21A</td>
<td>Basic Human Anatomy &amp; Phys</td>
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<td>HUEC 2002</td>
<td>AH22A</td>
<td>Nutrition thru. the Life Cycle</td>
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<td>HUEC 2003</td>
<td>AH23A</td>
<td>Physiology in Health and Disease</td>
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Level III Semester I
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<tbody>
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<td>HUEC 3005</td>
<td>AH32B</td>
<td>Nutrition in Sports &amp; Fitness</td>
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<tr>
<td>HUEC 3006</td>
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Semester II
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<td>HUEC 3008</td>
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<td>Nutrition in Sports Performance</td>
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</table>

3. Major in Foods & Foodservice Systems Management

The Major in Foods and Foodservice Systems Management comprises 31 credits of advanced courses (Levels II and III) and 21 credits of prerequisites courses in Level I. These are as follows:

CORE COURSES

PREREQUISITE LEVEL I COURSES

Level I Semester I
<table>
<thead>
<tr>
<th>Banner Code</th>
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<th>Credit</th>
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<tbody>
<tr>
<td>AGRI 1012</td>
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<td>CHEM 1015</td>
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<td>Basic Chemistry for Life Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 1002</td>
<td>MS15A</td>
<td>Intro. To Financial Accounting</td>
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<tr>
<td>HUEC 1000</td>
<td>AH12B</td>
<td>Intro to Nutrition</td>
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<tr>
<td>AGBU 1005</td>
<td>AM15A</td>
<td>Intro to Microeconomics</td>
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Total

28
**Semester II**
- HUEC 1001 AH10C: Food Science
- HUEC 1004 AH13B: Intro. to Foods and Meal Management

**ADVANCED COURSES**

**Level II**

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
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<td>Foodservice Syst. Mgt. (Equip., Layout &amp; Design)</td>
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<tr>
<td>HUEC 2015</td>
<td>AH23C</td>
<td>Food Quality and Safety</td>
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**Semester II**
- HUEC 2003 AH23A: Foodservice Systems Mgt. (Org & Mgt)
- MKTG 2080 MS20A: Principles of Marketing

**Level III**

<table>
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</thead>
<tbody>
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<td>Food Product Development</td>
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<td>MKTG 2008</td>
<td>MS22A</td>
<td>Organizational Behaviour</td>
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<td>HUEC 3021</td>
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**Total** 9

**Semester II**
- HUEC 3002 AH33A: Foodservice System Mgt. (Quantity Foods)
- AGBU 3007 AM37A: New Venture Creation and Management
- HUEC 3020 AH33C: Development of Caribbean Cuisine

**SECTION A (Core Courses)**

The prerequisite for the advanced courses listed in this minor is HUEC 1003 (AH12B) Introduction to Nutrition (3). Additionally, the course HUEC 2001 (AH21A) Basic Human Anatomy & Physiology (3) is a co-requisite for Course AH20C.

**Semester II**
- Banner Code | Fax Pro Code | Title                  | Credit |
- HUEC 3016   | AH 34C       | Nutrition in Health and Disease | 4     |
- HUEC 2012   | AH20C        | Nutritional Assessment for Sports | 3     |
- HUEC 3014   | AH32B        | Nutrition in Sports and Fitness | 3     |
- HUEC 3021   | AH32C        | Nutrition and Health in Sports Performance | 3     |

**Total** 13

**SECTION B**

(at least 3 credits must be selected from the following courses)

<table>
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<td>MGMT 3027</td>
<td>MS32N</td>
<td>Sales and Marketing and Public Relations</td>
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<td>MGMT 2022</td>
<td>MS27E</td>
<td>The Law and Sports</td>
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<td>AGEX 3004</td>
<td>AX36B</td>
<td>Communication Skills for Professionals</td>
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<td>PSYC 2012</td>
<td>PS24E</td>
<td>Developmental Psychology</td>
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<td>AH35A</td>
<td>Law and the Family</td>
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<td>SOCI 3005</td>
<td>SY31C</td>
<td>Sociology of Health and Illness</td>
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<td>AGBU 3007</td>
<td>AM37A</td>
<td>New Venture Creation and Management</td>
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<td>MGMT 2009</td>
<td>MS22G</td>
<td>Sociology of Sports</td>
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<tr>
<td>MGMT 2007</td>
<td>MS21E</td>
<td>Introduction to E-Commerce</td>
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**4. Minor in Sports Nutrition**

The Minor in Sports Nutrition comprises 16 credits of advanced courses (Levels II and III) and 6 credits of prerequisites/co-requisites. Students are required to complete all courses in Section A (below) and to take at least 3 credits from the list of courses in Section B.
5. BSc Human Nutrition and Dietetics – Special Degree

The requirements for the BSc Human Nutrition and Dietetics are 94 credits of core courses plus 6 credits of electives from the approved list, as well as 9 credits of Foundation courses (FOUN 1101 (FD11A), FOUN 1102 (FD11B), FOUN 1301 (FD13A). The degree structure and courses are presented hereunder.

Degree Structure:

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CORE COURSE

Level I

**Semester I**

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<td>Microbiology</td>
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<td>C110A</td>
<td>Basic Chemistry</td>
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<tr>
<td>ACCT 1002</td>
<td>MS15E</td>
<td>Intro to Financial Accounting</td>
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<td>AM15A</td>
<td>Introduction to Microeconomics</td>
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**Semester II**

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<td>AG10B</td>
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**Semester III**

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**Level II**

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<td>Principles of Dietetics</td>
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**Level III**

**Semester I**

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<td>Food Product Development</td>
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**Semester II**

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UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

ELECTIVE COURSES
A minimum of 6 credits is required from the following:

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<td>AGBU 3001</td>
<td>AM32A</td>
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<td>AGBU 3003</td>
<td>AM33D</td>
<td>Introduction to Eco-Tourism: Product Design and Management</td>
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<td>Project Appraisal</td>
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<td>AM35B</td>
<td>Introduction to Quantitative Methods in Economics</td>
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<td>SOCI 3005</td>
<td>SY31C</td>
<td>Sociology of Health and Illness</td>
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<td>MGMT 2007</td>
<td>MS21E</td>
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<td>PSYC 2012</td>
<td>PS24E</td>
<td>Developmental Psychology</td>
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<td>PSYC 2011</td>
<td>PS24D</td>
<td>Selected Theories in Social Psychology</td>
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<td>AH35A</td>
<td>Law and the Family</td>
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<tr>
<td>AGBU 3007</td>
<td>AM37A</td>
<td>New Venture Creation</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Individuals wishing to practice as a Dietitian/Nutritionist must complete a one-year (calendar) Internship in Nutrition and Dietetics, following the successful completion of this degree.

6. BSc Human Ecology Programmes
The total credit requirements for the BSc. Human Ecology Degree and BSc. Human Ecology and Dietetics (Special Degree) are detailed in the departmental listing. Students are required to complete a minimum of 64 credits from Levels II and III.

7. Diploma in Institutional and Community Dietetics and Nutrition
In order to be admitted, candidates must have successfully completed a Bachelor’s Degree (no more than 5 years prior to application) with major credits in Clinical (Human) Nutrition, Foodservice Systems Management, and Community Nutrition, from a University or College acceptable to The University of the West Indies, St Augustine.

Applicants who do not qualify for entry as specified may be required to pursue supplementary Core and Professional courses at the University, to a minimum of eighteen (18) credits.

Selection from suitably qualified applicants will be based on interviews.

The Programme comprises the following courses:

SEMESTER I

<table>
<thead>
<tr>
<th>Banner Code</th>
<th>Fee Code</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HUEC 500</td>
<td>AH 51A</td>
<td>Advanced Foodservice</td>
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<tr>
<td>HUEC 501</td>
<td>AH 51P</td>
<td>Systems Management</td>
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<tr>
<td>HUEC 502</td>
<td>AH52B</td>
<td>Advanced Clinical Nutrition</td>
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<td>HUEC 503</td>
<td>AH 52P</td>
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SEMESTER IV

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<td>HUEC 505</td>
<td>AH 53P</td>
<td>Community Nutrition Practicum</td>
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</tr>
</tbody>
</table>

Note (a):
1. One credit hour is one (1) lecture hour or three (3) practical hours per week in any one semester.
2. For the practical courses AH51P, AH52P, AH53P, in-course assignments will contribute 100% to the total marks for the course.

Note (b): Enforced Withdrawal And Resits
1. Candidates who fail four (4) or more courses will be required to withdraw from the programme.
2. Candidates marginally failing three (3) or less courses will normally be allowed a supplementary examination in these courses.
3. Candidates who fail no more than two (2) courses may be allowed to register for those courses as a final attempt.

Note (c): Requirements For Graduation
1. The Diploma in Institutional and Community Dietetics and Nutrition will be awarded on successful completion of all courses.
2. The Diploma will be awarded with distinction to candidates whose overall average is 70% or greater.
C. EXTENSION PROGRAMME:

1. Minor in Communication and Extension

The Minor in Communication and Extension comprises a minimum of 16 credits of Levels II and III courses selected from the list below. The prerequisites for this minor are AX15C, AM15A and AM15B.

Core Courses
(A minimum of 16 credits must be selected from the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Code</th>
<th>Title</th>
<th>Credit</th>
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<td>AX23B</td>
<td>Operation and Management of Extension Programmes</td>
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<td>AGEX 3000</td>
<td>AX30A</td>
<td>Technology Transfer in Agriculture</td>
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<tr>
<td>AGEX 3012</td>
<td>AX312</td>
<td>Project</td>
<td>4</td>
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<td>AGEX 3004</td>
<td>AX36B</td>
<td>Communication Skills for Professionals</td>
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<td>AGEX 3003</td>
<td>AX39A</td>
<td>Gender Issues in Agriculture</td>
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<tr>
<td>AGEX 3001</td>
<td>AX35A</td>
<td>Island Food Systems</td>
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</table>

2. Diploma in Agricultural Extension

This programme will be offered subject to a minimum registration of ten (10) students.

The course of study for the Diploma in Agricultural Extension is offered over one (1) academic year of full-time study, and consists of lectures, seminars and practical assignments along with field research which can be conducted in any Caribbean country.

In order to be admitted, candidates must be graduates of an approved University; or hold a technical or professional qualification awarded by an approved Tertiary Level Institution in addition to practical experience or other qualifications of special relevance to the course of studies.

Candidates will be awarded the diploma on successful completion of all the core courses and one of the two elective courses listed below:

<table>
<thead>
<tr>
<th>CORE COURSES</th>
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<th>Course Code</th>
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<td>AGEX 5002</td>
<td>AX503 Communal Analysis</td>
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<td>AX504</td>
<td>AGEX 5004</td>
<td>AX505 Communications Theory and Practice</td>
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<td>AX506</td>
<td>AGEX 5007</td>
<td>AX507 Managing Extension for Agricultural and Rural Development</td>
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<td>AGEX5007</td>
<td>AX508</td>
<td>AGEX5007</td>
<td>AX508 Rural Social Systems</td>
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</table>

ELECTIVE COURSES

AGEX 5006 AX507 Managing Extension for Agricultural and Rural Development
AGEX5007 AX508 Rural Social Systems
DEPARTMENT OF FOOD PRODUCTION

Dr G. Gouveia,
Head of Department

Mrs. Margaret Maxwell
Departmental Secretary

Tel: 1-868-662-2002, Ext. 2090 or 2089
Fax: 1-868-645-0479 or 663-9686
Email: uwd@gmail.net.tt

R.A.I. Brathwaite,
BSc (Poona), PhD (UWI)  Professor of Agronomy

Neela Badrie,
BSc, MSc, PhD (UWI)  Senior Lecturer
Microbiology

I. Bekele,
BSc (Addis Ababa), MSc
(Reading) PhD (Cornell)  Senior Lecturer
Biometrics

G.W. Garcia,
BSc, PhD (UWI)  Senior Lecturer
Animal Science

G. Gouveia,
BSc, PhD (UWI)  Lecturer
Soil Chemistry
& Leader, Soils
and Natural Resources Unit

G. Eudoxie
BSc, PhD (UWI)  Lecturer
Soil Science

C.H.O. Laloo,
BSc, MSc (UWI)  Lecturer
Animal Science

M. Mohammed,
BSc (UWI), MSc (Guelph),
PhD (UWI)  Senior Lecturer
Crop Production

R.K. Rastogi,
B.V. Sc. & AH., M.V. Sc.
(G.B. PANT University, Agric.
& Tech. India) PhD (Minnesota)  Senior Lecturer
Animal Science

M. Knights
BSc, MSc, (UWI)  Lecturer
Animal Science
PhD (West Virginia) & Leader, Livestock Science Unit
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

Laura Roberts-Nkrumah,
BSc, PhD (UWI)  Lecturer  Crop Production

R.J. Stone,
BSc (UWI), MSc (Guelph), PhD (UWI)  Senior Lecturer  Agricultural Engineering

Lynda D. Wickham,
BSc, PhD (UWI)  Senior Lecturer  Crop Production & Leader, Crop Science Unit

L.A. Wilson,
BSc MSc (London-UCWI), PhD (Brist.)  Emeritus Professor  Crop Science

Nazeer Ahmad,
AICTA, MSc (UBC), PhD (Notl.)  Emeritus Professor  Soil Science

Holman E. Williams,
D.V.M (Tor.), MSc (Wis.), PhD (Edin.), M.R.C.V.S.  Emeritus Professor  Livestock Science

List of Courses Offered in the Department of Food Production for the 2005/2006 academic year

<table>
<thead>
<tr>
<th>SEMESTER I</th>
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<th>Fee Pro Code</th>
<th>Title</th>
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<td>Biosystems Engineering</td>
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<td>Principles of Crop Science and Production</td>
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<td>Crop Production Systems</td>
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<td>Introduction to Floriculture</td>
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<td>Poultry Production</td>
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<td>Ruminant Production</td>
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<td>AGCP 3006</td>
<td>AC32J</td>
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<td>and Turfgrass Management</td>
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<td>Principles of Fruit Crop Production</td>
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<td>AGGE 1901</td>
<td>AG19B</td>
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<td>Tropical Food Crop</td>
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<td>AGLS 2005</td>
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<td>Non-Ruminant Production</td>
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<td>AGRI 1003</td>
<td>AG14C</td>
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<td>Principles of Wildlife Production and Management</td>
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<td>Mathematics for Scientists</td>
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AGRI 1011 AG10C Introduction to General Genetics 3
AGRI 1013 AG10B Introduction to Biochemistry 3
AGRI 1016 AG11B Plant Anatomy and Physiology 3
AGRI 2001 AG21C Tropical Crop Protection 3
AGRI 3000 AG35B Statistical Methods 4
AGRI 3001 AG39A Climate Change Impact 4
and Management
AGRI 3007 AG39B Current Issues in Agriculture 3
AGRI 3012 AG30A Agricultural Biotechnology 3
AGSL 2001 AS21D Soil and Water Management 3
AGSL 3001 AS31A Irrigation and Drainage 4
Technology
AGSL 3002 AS33D Soil Survey and Land Evaluation 4
AGSL 3005 AS35B West Indian Soils 3

SEMMER I & II
AGRI 3013 AG313 Research Project 4

SEMMER IV - SUMMER
AGRI 1000 AG133 Practical Skills 3
AGRI 2000 AG233 Internship 4

BC SC AGRICULTURE (General)
Students admitted into the BSc Agriculture programme in
the academic year 2005/2006 are required to complete the
courses of a revised BSc programme as given below. In this
academic year only Level I courses will be offered in the revised
programme. Students admitted before 2005/06 are required
to complete the existing programme which will be phased out
by 2006/07.

Note: Students admitted into the BSc Agriculture
programme before 2005/2006 academic year are
required to complete the requisite courses under the
old structure. Under this structure, students must
pass the core courses and a minimum of fifteen (15)
credits of elective courses. In addition, all students
must complete AG233 (Internship) and AG313
(Project).

CORE COURSES ARRANGED BY LEVEL
AND SEMESTER

In the restructured BSc Agriculture (General) Degree the
requirement for the award of the degree comprises 107 core
credits in Basic/Agriculture Science and Skills, Crop, Animal
and Soil Sciences, and Economics and Extension, plus 9
credits of Foundation courses (FOUN 1101 (FD11A), FOUN
1102 (FD11B), FOUN 1301 (FD13A). The Degree structure
and courses are presented below:

LEVEL I – CORE COURSES

SEMMER I

<table>
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<tr>
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<td>AL13C Anatomy and Physiology of Animals</td>
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<td>CHEM 1062</td>
<td>C10A Basic Chemistry for Life Sciences</td>
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<td>AGBU 1005</td>
<td>AM15A Introduction to Microeconomics</td>
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<td>AS16B Soils and the Environment</td>
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<td>AX15C Caribbean Agriculture in Perspective: Evolution, Sociology and Contemporary Issues</td>
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SEMMER II

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<td>AGRI 1016</td>
<td>AG11B Plant Anatomy and Physiology</td>
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<td>AG10C Introduction to General Genetics</td>
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<td>AGBU 1006</td>
<td>AM15B Macroeconomic Fundamentals for Caribbean Agriculture</td>
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<td>AG14C Mathematics for Scientists</td>
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SEMMER IV

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<td>AGRI 1000</td>
<td>AG133 Practical Skills – Summer Course</td>
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## UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006

The Faculty of Science & Agriculture

### LEVEL II – CORE COURSES

#### SEMESTER I

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<td>AC24B Principles of Crop Science and Production</td>
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<td>AGLS 2002</td>
<td>AL22B Animal Nutrition</td>
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<td>AGBU 2002</td>
<td>AM23B Management &amp; Economics</td>
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<td></td>
<td>of Agricultural Production &amp; Marketing</td>
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<tr>
<td>AGSL 2000</td>
<td>AS22B Soil Fertility and Fertilizer Technology</td>
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#### SEMESTER II

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<td>AL20B Parasitology, Animal Health and Diseases</td>
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<td>AX30A Technology Transfer in Agriculture</td>
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<td>AGRI 3000</td>
<td>AG35B Statistical Methods</td>
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<td>AS21D Soil and Water Management</td>
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<td>AGRI 2001</td>
<td>AG21C Tropical Crop Protection</td>
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### LEVEL III – CORE COURSES

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<td>AC33A Post-harvest Technology</td>
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<td>AGRI 3006</td>
<td>AG30B Principles of Animal</td>
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<td>and Plant Breeding</td>
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<td>AGLS 3003</td>
<td>AL36A Ruminant Production Systems</td>
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#### SEMESTER II

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<td>AGRI 3012</td>
<td>AG30A Agricultural Biotechnology</td>
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<tr>
<td>AGLS 3004</td>
<td>AL37B Non-Ruminant Production Systems</td>
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<td>AGLS 3001</td>
<td>AS31A Irrigation and Drainage Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 3000</td>
<td>AM30C Farm Business Management</td>
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### MAJOR IN AGRICULTURAL SCIENCE

The Major in Agriculture Science has been revised effective 2005/2006 academic year. Students admitted into the Major in Agriculture Science are required to do the following courses:

#### LEVEL I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>CHEM 1062</td>
<td>C10A Basic Chemistry for Life Sciences</td>
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<td>AGSL 1000</td>
<td>AS16B Soils and the Environment</td>
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#### SEMESTER II

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<td>AG11B Plant Anatomy and Physiology</td>
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<td>AG10B Introduction to Biochemistry</td>
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#### SEMESTER IV

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<td>AG133 Practical Skills – Summer Course</td>
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#### LEVELS II & III SEMESTER I

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<td>AC24B Principles of Crop Science and Production</td>
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<td>AGCP 3008</td>
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<td>AGLS 2002</td>
<td>AL22B Animal Nutrition</td>
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<td>AGSL 2000</td>
<td>AS22B Soil Fertility and Fertilizer Technology</td>
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#### SEMESTER II

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<td>AGRI 3012</td>
<td>AG30A Agricultural Biotechnology</td>
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<td>AGRI 3000</td>
<td>AG35B Statistical Methods</td>
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<td>AGSL 2001</td>
<td>AS21D Soil and Water Management</td>
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<td>AGLS 3003</td>
<td>AL36A Ruminant Production Systems</td>
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<td>AGSL 3004</td>
<td>AL37B Non-Ruminant Production Systems</td>
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<tr>
<td>AGRI 2001</td>
<td>AG21C Tropical Crop Protection</td>
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ELECTIVE COURSES

The following are general electives offered in the Department of Food Production:

Courses offered during the 2005/2006 academic year.

SEMESTER I

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<td>AC32G</td>
<td>Introduction to Floriculture</td>
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<td>AGCP 3001</td>
<td>AC31A</td>
<td>Vegetable Production</td>
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<tr>
<td>AGLS 2004</td>
<td>AL26A</td>
<td>Livestock Products Technology</td>
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<td>AGRI 3007</td>
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<td>Current Issues in Agriculture</td>
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<td>AGCP 2003</td>
<td>AC26B</td>
<td>Mechanisation for Crop Production</td>
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<tr>
<td>AGCP 3005</td>
<td>AC32H</td>
<td>Landscape and Turfgrass Management</td>
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<tr>
<td>AGEX 2001</td>
<td>AX25B</td>
<td>Operation and Management of Extension Programmes</td>
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<td>AGSL 3005</td>
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<td>West Indian Soils</td>
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Courses to be offered during the 2006/2007 academic year only.

SEMESTER I

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<td>AGSL 3004</td>
<td>AS34D</td>
<td>Integrated Watershed Management</td>
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<td>AGLS 2004</td>
<td>AL26A</td>
<td>Livestock Products Technology</td>
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<tr>
<td>AGLS 3008</td>
<td>AL30C</td>
<td>Applied Animal Physiology</td>
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SEMESTER II

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<td>AGLS 3005</td>
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<td>Principles of Wildlife</td>
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<td>AGRI 3001</td>
<td>AG39A</td>
<td>Climate Change Impact and Management</td>
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<td>AC32J</td>
<td>Principles of Fruit Crop</td>
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<td>AGSL 3002</td>
<td>AS33D</td>
<td>Soil Survey &amp; Land Evaluation</td>
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MAJOR IN GEOGRAPHY

(a) Students admitted to do the Major in Geography are required to do the following prerequisite courses:

LEVEL 1

SEMESTER I

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<td>AGGE 1900</td>
<td>AG19A</td>
<td>Physical Geography</td>
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SEMESTER II

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<tr>
<td>AGGE 1901</td>
<td>AG19B</td>
<td>Human Geography</td>
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</table>

(b) Courses required for the major will be provided during the 2005/06 academic year.
DEPARTMENT OF CHEMISTRY

Dr. A.R. Maxwell (Head)
BSc, MSc (UWI), PhD (Br. Col)

Ms. Linda Philip
(Secretary)

Tel: (868) 645-3232 Ext. 3570, 2091; 1-868-662-6013
Fax: (868) 645-3771
Email: chemistry@fsa.uwi.tt

Anderson R. Maxwell, Senior Lecturer &
BSc, MSc (UWI), PhD (Br. Col)  Head of Department

Lincoln Hall,  Professor
BSc, MPhil, PhD (UWI)

Dyer Narinesingh,  Professor
BSc, PhD (UWI)

Gurdial Singh,  Professor
B, Sc. (Liv.), PhD (Man)

Ivan Chang-Yen, Senior Lecturer
BSc (Guy). MSc., PhD (Brist)

David Stephenson, Senior Lecturer
B.A. (York), MPhil. (CNAA),
PhD (Lond)

Denise Beckles,  Lecturer
AB (Harvard), MSc,
PhD (Rice University)

Andrew Caffyn,  Lecturer
BSc (Brist), PhD (Camb)

Lutchimarine Chatergoon,  Lecturer
BSc. (CNAA), PhD (Lond)

Richard Fairman,  Lecturer
BSc, PhD (UWI)

Lebert Grierson,  Lecturer
BSc. (Lond)., PhD (Lond)

Ramish Pingal  Lecturer (Temporary)
BSc. PhD (UWI)
<table>
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<tr>
<td>Russel Ramsewak</td>
<td>Lecturer</td>
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<tr>
<td>BSc, PhD (UWI)</td>
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<tr>
<td>Wilfred R. Chan</td>
<td>Professor Emeritus</td>
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<tr>
<td>BSc, MSc, (Lond-UCWI), PhD (Lond)</td>
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<td>Baldwin S. Mootoo</td>
<td>Professor Emeritus</td>
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<tr>
<td>BSc (Lond-UCWI), MSc (Lond), PhD (UWI)</td>
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<tr>
<td>Compton E. Seaforth</td>
<td>Honorary Lecturer</td>
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<td>BSc (Lond-UCWI), PhD (Wales)</td>
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<td>Andrew Pelter</td>
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<td>Mrs. R. Ali-Hassan</td>
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<tr>
<td>Ms. N. Robertson</td>
<td>Clerical Assistant</td>
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<tr>
<td>Ms. B. Cunningham</td>
<td>Clerical Assistant</td>
</tr>
<tr>
<td>Mrs. C. Joseph-Peters</td>
<td>Office Attendant</td>
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CHEMISTRY

The following list indicates courses to be taught in 2005/2006:

**SEASON I**

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<td>CHEM 1060</td>
<td>C11C Introductory Chemistry I</td>
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<td>CHEM 2160</td>
<td>C20A Main Group Chemistry</td>
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<td>CHEM 2360</td>
<td>C20C Basic Physical Chemistry</td>
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<tr>
<td>CHEM 2025</td>
<td>C20E Kinetics &amp; Mechanism</td>
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<tr>
<td>CHEM 3167</td>
<td>C30A Advanced Inorganic Chemistry</td>
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<tr>
<td>CHEM 3267</td>
<td>C30B Basic Organic Chemistry II</td>
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<tr>
<td>CHEM 3367</td>
<td>C30C Thermodynamics &amp; Statistical Thermodynamics</td>
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<tr>
<td>CHEM 3467</td>
<td>C30F Basic Analytical Chemistry</td>
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<td>CHEM 3567</td>
<td>C30G Introduction to Polymer Chemistry</td>
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<td>CHEM 3660</td>
<td>Research Project</td>
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**SEASON II**

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<td>C20H Basic Organic Chemistry I</td>
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<td>CHEM 2015</td>
<td>C20D Spectroscopy</td>
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<td>CHEM 2460</td>
<td>C20F Principles of Chemical Analysis</td>
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<td>C30E Environmental Chemistry</td>
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<tr>
<td>CHEM 3168</td>
<td>C31A Advanced Topics in Inorganic Chemistry</td>
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<td>CHEM 3268</td>
<td>C31B Chemistry of Natural Products</td>
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<td>CHEM 3568</td>
<td>C31C Corrosion Science</td>
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<td>C31F Advanced Analytical Chemistry</td>
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<td>CHEM 3569</td>
<td>C31G Industrial Chemistry I</td>
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<td>CHEM 3269</td>
<td>C32B Organic Synthesis</td>
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<td>CHEM 3660</td>
<td>C30P Research Project</td>
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*Taught by School of Continuing Studies; not counted towards a student’s cumulative GPA

** From 2005/2006, Chemistry majors will be required to pursue a Final Year Research Project course (96 hours) - in either Semester I or II; the 3000 (C30) level courses will no longer carry a practical component.

For all Preliminary, Level I and Level II Chemistry courses (unless otherwise stated) Practical work will be assessed throughout the semester and will contribute to the candidate's final mark. Unsatisfactory performance in the Practical component of any course may lead to failure in that course.

**COURSES REQUIRED FOR A CHEMISTRY MAJOR OR CHEMISTRY MINORS ARE AS FOLLOWS:**

1. **Major in Chemistry**
   For students pursuing a major in Chemistry, the following are the required courses:
   - Level I: CHEM 1060 (C11C) and CHEM 1061 (C11D) - 6 credits each.
   - Levels II and III: CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360 (C20C), CHEM 2015 (C20D), CHEM 2025 (C20E); and (nine [9] credits from CHEM 3000 (C30) level courses, which should include at least six [6] credits from CHEM 3167 (C30A), CHEM 3267 (C30B), and CHEM 3367 (C30C) - 3 credits each, **plus** the Final Year Research Project CHEM 3660 (C30F) which is four [4] credits.

2. **Minor in Chemistry**
   - Level I: CHEM 1060 (C11C) and CHEM 1061 (C11D) - 6 credits each.
   - Level II: CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360 (C20C) and (either CHEM 2015 (C20D), or CHEM 2025 (C20E) - 4 credits each.

3. **Minor in Analytical Chemistry**
   Chemistry majors can also pursue a minor in Analytical Chemistry by taking the following additional courses: CHEM 2460 (C20F), CHEM 3467 (C30F), CHEM 3468 (C31F), CHEM 3467 (C30F) and CHEM 3468 (C31F) are 6 credits each. For these students, only one Research Project CHEM 3660 (C30F) will be required.

4. **Electives (which can be used towards the major)**
   CHEM 3567 (C30G); CHEM 3467 (C30F); CHEM 3168 (C31A); CHEM 3268 (C31B); CHEM 3568 (C31C); CHEM 3269 (C32B); CHEM 3566 (C30E), CHEM 3468 (C31F); CHEM 3569 (C31G). These courses are all 3 credits except for CHEM 3467 (C30F) and CHEM 3468 (C31F) which are 6 credits each.
OPTION I
CHEMISTRY AND MANAGEMENT
2005/2006

LEVEL I

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<td>SOCI 1002</td>
<td>SY13E</td>
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TOTAL YEAR I CREDITS 30

LEVEL II

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c. Nine (9) credits from CHEM 3000 (C30) level courses which must include at least six (6) credits from CHEM 3167 (C30A), CHEM 3267 (C30B) and CHEM 3367 (C30C) plus the Final Year Research Project CHEM 3660 (C30F) – 4 credits.
d. Two other Management Studies courses chosen from Level II and III (6 credits).
e. Nine (9) credits of Foundation Courses: FOUN 1101 (FD11A), FOUN 1102 (FD11B), FOUN 1301 (FD13A).

TOTAL DEGREE CREDITS 102
DEPARTMENT OF
LIFE SCIENCES

Dr. G. Sirju-Charran
(Head)

Ms Christine Commissiong
(Secretary)

Tel: (868) 645-3232 Ext. 3111, 3110
Fax: (868) 663-5241

Grace Sirju-Charran
BSc, PhD (UWI)
Head, Department
of Life Sciences
Senior Lecturer, Plant Sciences

E.J. Duncan
BSc (Lond – UCWI),
PhD (St. Andrews)
Professor Emeritus (Botany)

J.B. Agard
BSc (UWI), MSc (Manch.),
PhD (UWI)
Senior Lecturer, Zoology

V.J. Bowrin
BSc (UWI), PhD (Purdue)
Lecturer, Biochemistry

I.W. Ramnarine
BSc (UWI), MSc (Wales),
PhD (UWI), MBA (Herriot-Watt)
Senior Lecturer, Zoology

C.K. Starr
BA (Carleton), MA (Kansas),
PhD (Georgia)
Senior Lecturer, Zoology
[Environmental and Natural
Resource Management,
Subject Leader]

P. Umaharan
BSc (Peradeniya), PhD (UWI)
Senior Lecturer, Plant Sciences

Mary Alkins-Koo,
BSc (UWI), MSc (Lond.),
PhD (UWI)
Lecturer, Zoology

G.F. Barclay,
BA (Mt Allison), PhD (Aberdeen)
Lecturer, Plant Sciences

B. Cockburn
BSc, PhD (UWI)
Lecturer, (Biochemistry,
Subject Leader)

Yasmin Comeau
BSc, MPhil, (UWI)
Curator, National Herbarium,
Lecturer, Plant Sciences
<table>
<thead>
<tr>
<th>Name</th>
<th>Qualifications</th>
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<tbody>
<tr>
<td>D.T. Phillip</td>
<td>Lecturer, Zoology, BSc, M. Phil. (UWI), PhD (St. Andrews)</td>
</tr>
<tr>
<td>A. Khan</td>
<td>Lecturer, Plant Sciences (Biology, Subject Leader), BSc, PhD (UWI)</td>
</tr>
<tr>
<td>M.P. Oatham</td>
<td>Lecturer, Plant Sciences, BSc (Western Aust.), PhD (Kent)</td>
</tr>
<tr>
<td>A. Ramsubhag</td>
<td>Lecturer, Plant Sciences, BSc PhD (UWI)</td>
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<tr>
<td>J. Rouse-Miller</td>
<td>Lecturer, Plant Sciences, BSc M. Phil (UWI)</td>
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<tr>
<td>A. Hailey</td>
<td>Lecturer, Zoology, BSc (London), PhD (Nottingham)</td>
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<tr>
<td>A. Lennon</td>
<td>Lecturer, Biochemistry, BSc D.Phil (Sussex)</td>
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<tr>
<td>D. D. Chadee</td>
<td>Lecturer, Zoology, BSc (Dalhousie); MPhil. (UWI); PhD, MPH, D.Sc. (Dundee)</td>
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<tr>
<td>J. Rampersad</td>
<td>Lecturer, Life Sciences, BSc (UWI) MSc</td>
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<tr>
<td>J. Gobin</td>
<td>Temporary Lecturer, BSc, MPhil (UWI) PhD (Exeter)</td>
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<tr>
<td>A. Mohammed</td>
<td>Temporary Lecturer, BSc, PhD (UWI)</td>
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<tr>
<td>Mrs. Deborah Alleyne</td>
<td>Administrative Assistant, BSc (UWI)</td>
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<tr>
<td>Ms. Christine Commission</td>
<td>Secretary, Life Sciences, Ms Monique Dare-Assing</td>
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<tr>
<td>Ms. Leela Jagdeo</td>
<td>Clerical Assistant, Life Sciences, Ms Gail Antoine</td>
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<tr>
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<td>Clerical Assistant, Life Sciences</td>
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The following list indicates courses to be taught in 2005/2006.

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<td>BIOL 3361</td>
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<td>BIOL 3763</td>
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<tr>
<td>BIOL 2861</td>
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<td>BIOL 3364</td>
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<td>BIOL 1462</td>
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<td>BIOL 3762</td>
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<tr>
<td>BIOL 3864</td>
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<td>BIOL 2864</td>
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*Offered in alternate years
**Taught by School of Continuing Studies; not counted towards a student’s cumulative GPA

Will not be offered in 2005/2006
The following **majors** are offered in the Department of Life Sciences:

**MAJORS IN LIFE SCIENCES**

- Biochemistry
- Biology
- Zoology
- Environmental & Natural Resource Management

N.B. Students can pursue double majors in Biology or choose between any two majors within Life Sciences, except Biology & Zoology. Students can also select a single major in Life Sciences with another major from any other Department within the Faculty or outside the Faculty provided the student has the Prerequisites.

Students majoring in Biology may also elect to do the minors in Botany and/or Zoology.

The following **minors** are offered in the Department of Life Sciences:

**MINORS**

- Biochemistry
- Biology
- Biotechnology
- Botany
- Marine Biology
- Environmental Biology
- Zoology
- Environmental & Natural Resource Management

Students wishing to elect minors offered from the Department of Life Sciences must have passed the Prerequisites for the courses selected.

**MAJORS**

The requirements for the various majors in Life Sciences are listed by semester below:

**BIOCHEMISTRY MAJOR**

**Level I Prerequisite Courses**

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<thead>
<tr>
<th>SEMESTER I</th>
<th>Banner Code</th>
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<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BiOL1061</td>
<td>BL11D</td>
<td></td>
<td>Cell Biology and Genetics</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 1060</td>
<td>C11C</td>
<td></td>
<td>Introductory Chemistry 1</td>
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**At least one of the following:**

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<tbody>
<tr>
<td>BiOL 1764</td>
<td>BL11F</td>
<td>Diversity of Green Plants</td>
<td>6</td>
</tr>
<tr>
<td>BiOL 1462</td>
<td>BL11G</td>
<td>General Ecology and Biometry</td>
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**Level II/III Core Courses**

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<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BiOL 2361</td>
<td>BC22A</td>
<td></td>
<td>Biomolecules &amp; Energy</td>
<td>4</td>
</tr>
<tr>
<td>BiOL 2363</td>
<td>BC23A</td>
<td></td>
<td>Metabolism</td>
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<tr>
<td>BiOL 3361</td>
<td>BC33A</td>
<td></td>
<td>Applied Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>BiOL 3061</td>
<td>BC38C</td>
<td></td>
<td>Molecular Biology</td>
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<th>Title</th>
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<tbody>
<tr>
<td>BiOL 2362</td>
<td>BC22B</td>
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<td>Further Metabolism &amp; Gene Expression</td>
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<tr>
<td>BiOL 2364</td>
<td>BC23B</td>
<td></td>
<td>Advanced General Biochemistry</td>
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<tr>
<td>BiOL 3362</td>
<td>BC38B</td>
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<td>Selected Topics in Biochemistry</td>
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### Electives for the Biochemistry Major (4 credits)

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<thead>
<tr>
<th>Semester I</th>
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<tbody>
<tr>
<td></td>
<td>BIOL 3069</td>
<td>BL33B</td>
<td>Research Project</td>
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<td></td>
<td>BIOL 3885</td>
<td>BL39A</td>
<td>Animal Biotechnology</td>
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<table>
<thead>
<tr>
<th>Semester II</th>
<th>Banner Code</th>
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<th>Credit</th>
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<td>Research Project</td>
<td>4</td>
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<tr>
<td>BIOL 3364</td>
<td>BC37B</td>
<td>Clinical Biochemistry</td>
<td>4</td>
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<tr>
<td>BIOL 3262</td>
<td>BL38J</td>
<td>Microbial Biotechnology</td>
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### Biology Major

#### Level I Prerequisite Courses

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<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1061</td>
<td>BL11D</td>
<td>Cell Biology and Genetics</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>BIOL 1861</td>
<td>BL11E</td>
<td>Animal Diversity</td>
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</table>

<table>
<thead>
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<th>Credit</th>
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<tbody>
<tr>
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<td>Diversity of Green Plants</td>
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<tr>
<td>BIOL 1462</td>
<td>BL11G</td>
<td>General Ecology and Biometry</td>
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#### Level II/III Core Courses

<table>
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<th>Semester I</th>
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<th>Title</th>
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<tr>
<td>BIOL 2261</td>
<td>BL28C</td>
<td>Biology of Micro-organisms</td>
<td>4</td>
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<tr>
<td>BIOL 2761</td>
<td>BT27A</td>
<td>Plant Physiology</td>
<td>4</td>
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<tr>
<td>BIOL 3061</td>
<td>BL38C</td>
<td>Molecular Biology</td>
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<table>
<thead>
<tr>
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<th>Banner Code</th>
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<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
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<td>BL27B</td>
<td>Advanced Genetics</td>
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<tr>
<td>BIOL 2861</td>
<td>Z21F</td>
<td>Animal Physiology</td>
<td>4</td>
<td></td>
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<tr>
<td>BIOL 3662</td>
<td>BL36B</td>
<td>Evolution &amp; Biosystematics</td>
<td>4</td>
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<tr>
<td>BIOL 3062</td>
<td>Z36B</td>
<td>Conservation Biology</td>
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### Electives for Biology Double

#### Semester I

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<td>BL33B</td>
<td>Research Project</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3865</td>
<td>BL39A</td>
<td>Animal Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3763</td>
<td>BT38L</td>
<td>Crop Improvement</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2063</td>
<td>Z23C</td>
<td>Marine Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2461</td>
<td>Z24B</td>
<td>Humans &amp; the Environment</td>
<td>4</td>
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<tr>
<td>BIOL 3863</td>
<td>Z34E</td>
<td>Tropical Aquaculture</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2861</td>
<td>Z21E</td>
<td>Functional Design in Animals</td>
<td>4</td>
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<tr>
<td>BIOL 3761</td>
<td>BT31C</td>
<td>Functional Design in Plants</td>
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#### Semester II

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<tr>
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<td>BL33B</td>
<td>Research Project</td>
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<td>BL38J</td>
<td>Microbial Biotechnology</td>
<td>4</td>
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<td>BIOL 3763</td>
<td>BT36D</td>
<td>Plant Biotechnology</td>
<td>4</td>
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<tr>
<td>BIOL 2062</td>
<td>Z23B</td>
<td>Freshwater Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3864</td>
<td>Z34D</td>
<td>Fisheries Biology &amp; Management</td>
<td>4</td>
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<tr>
<td>BIOL 3464</td>
<td>BT37E</td>
<td>Tropical Forest Ecology and Management</td>
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#### Zoology Major

#### Level I Prerequisite Courses

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<tbody>
<tr>
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<td>Cell Biology and Genetics</td>
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<tr>
<td>BIOL 1961</td>
<td>BL11E</td>
<td>Animal Diversity</td>
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<tbody>
<tr>
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<td>BL11G</td>
<td>General Ecology and Biometry</td>
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#### Level II/III Core Courses

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<tbody>
<tr>
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<td>Advanced Genetics</td>
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<td>BIOL 2861</td>
<td>Z21E</td>
<td>Functional Design in Animals</td>
<td>4</td>
<td></td>
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<td>BIOL 3861</td>
<td>Z33E</td>
<td>Animal Behaviour</td>
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### UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

#### SEMESTER II

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<td>BIOL 3662</td>
<td>Z36B</td>
<td>Evolution &amp; Biosystematics</td>
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Electives for Zoology Major (16 credits)

#### SEMESTER I

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<td>Research Project</td>
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<td>Z33B</td>
<td>Marine Ecology</td>
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<td>BIOL 2161</td>
<td>Z34B</td>
<td>Humans &amp; the Environment</td>
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<td>Z34E</td>
<td>Tropical Aquaculture</td>
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<td>BIOL 3461</td>
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<td>Coastal Ecosystem Management</td>
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#### SEMESTER II

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<td>Research Project</td>
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<tr>
<td>BIOL 3069</td>
<td>Z36B</td>
<td>Conservation Biology</td>
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<tr>
<td>BIOL 2062</td>
<td>Z33B</td>
<td>Freshwater Biology</td>
<td>4</td>
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<td>(limited to 60 students)</td>
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<tr>
<td>BIOL 3864</td>
<td>Z34D</td>
<td>Fisheries Biology &amp; Management</td>
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<td>BIOL 2866</td>
<td>Z22B</td>
<td>Entomology</td>
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<td>Z22C</td>
<td>Parasitism not offered in 2005/06</td>
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<tr>
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<td>BT37E</td>
<td>Tropical Forest Ecology</td>
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<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 2063</td>
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<td>Marine Ecology</td>
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<td>Z33B</td>
<td>Research Project</td>
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<td>BIOL 3864</td>
<td>Z34D</td>
<td>Fisheries Biology &amp; Management</td>
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<td>AGBU 1005</td>
<td>AM15A</td>
<td>Introduction to Microeconomics</td>
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<tr>
<td>AGR1 1012</td>
<td>AG10A</td>
<td>Microbiology</td>
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<tr>
<td>AGSL 1000</td>
<td>AS16B</td>
<td>Soils and the Environment</td>
<td>4</td>
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### ENVIRONMENTAL & NATURAL RESOURCE MANAGEMENT MAJOR

With contributions from the Departments of Food Production and Agricultural Economics & Extension

#### Level I Courses

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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1065</td>
<td>BL12A</td>
<td>Diversity of Plants and Animals</td>
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<td>AGBU 1005</td>
<td>AM15A</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 1012</td>
<td>AG10A</td>
<td>Microbiology</td>
<td>3</td>
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<tr>
<td>AGSL 1000</td>
<td>AS16B</td>
<td>Soils and the Environment</td>
<td>4</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Banner Code</th>
<th>Unit Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1462</td>
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<td>General Ecology &amp; Biometry</td>
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<td>AGBU 1002</td>
<td>AM17B</td>
<td>Intro. to Agro-Environmental Management</td>
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#### Level II/III Core Courses

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<tr>
<th>Banner Code</th>
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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOL 2461</td>
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<td>Humans &amp; the Environment</td>
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<tr>
<td>AGBU 1005</td>
<td>AM15A</td>
<td>Introduction to Agro-Environmental Management</td>
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#### SEMESTER I

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<thead>
<tr>
<th>Banner Code</th>
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<th>Course Title</th>
<th>Credit</th>
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<tr>
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<td>Humans &amp; the Environment</td>
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<td>AS34D</td>
<td>Integrated Watershed Management</td>
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<td>BL36B</td>
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#### SEMESTER II

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### Electives for Environmental & Natural Resources management Major

(Any 8 credits from the following)

#### SEMESTER I

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#### SEMESTER II

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- Students wishing to double major in Environmental & Natural Resource Management and Biology should register for the following courses: BIOL1061 (BL11D), BIOL1861 (BL11E), BIOL1764 (BL11F), and BIOL1462 (BL11G) in addition to AGSL1000 (AS16B) Soils and the Environment, AGBU1002 (AM17B) Introduction to Agro-Environmental Management and AGBU1005 (AM15A) Introduction to Microeconomics.
Students wishing to double major in Zoology and Environmental & Natural Resource Management should register for AGRI1012 (AG10A) Microbiology, AGSL1000 (AS16B), AGRI1002 (AM17B), AGRI1005 (AM15A) in addition to BIOL1061 (BL11D), BIOL1861 (BL11E), BIOL1764 (BL11F) and BIOL1462 (BL11G).

We recommend that AGRI1012 (AG10A) be done in Semester 1 Year 2.

**MINORS**

*Note:* Research projects BIOL 3069 (BL33B) or AGRI 3013 (AG313) done under a relevant area may be considered towards the minor in that discipline.

**BIOCHEMISTRY MINOR** (16 Credits)

**SEMESTER I**

**Core:**

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**Electives:**

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**SEMESTER II**

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**BIOLOGY MINOR**

Any 16 Credits from the following courses:

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**SEMESTER II**

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**BOTANY MINOR**

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<td>BIOL 3763</td>
<td>BT38L Crop Improvement</td>
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<td>BIOL 3761</td>
<td>BT31C Functional Design in Plants</td>
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<td>BT38G Plant Pathology</td>
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**SEMESTER II**

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### ENVIRONMENTAL & NATURAL RESOURCES MANAGEMENT MINOR
(Any 16 credits from the following courses)

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### ZOOLOGY MINOR
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### BIOTECHNOLOGY MINOR
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### MARINE BIOLOGY MINOR (16 Credits)

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### ENVIRONMENTAL BIOLOGY MINOR
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DEPARTMENT OF
MATHEMATICS
& COMPUTER SCIENCE

Dr. S. Wahid
(Head)

Ms. S. Mohammed
(Administrative Assistant)

Mrs. D. Adams-Carrington
(Secretary)

Tel: (868) 645-3232 Exts. 3553, 2048, 2049, 3640, 3641
Fax: (868) 645-7132
Email: dncs@fans.uwt.tt

S. Wahid, BSc, MPhil., PhD, (UWI), AFTICA

Head of Department & Senior Lecturer, Mathematics

B. Bhatt, BSc, MSc, PhD (University of Rajasthan), FIMA
Professor, Mathematics

E. J. Farrell, BSc UWI, M.Math, PhD Wat, FTICA
Professor, Mathematics

Ch. Posthoff, Dip.-Math., Dr. rer. nat., University Leipzig., Dr.-Ing. habil., University Chemnitz
Professor, Computer Science

H. Ramkissoon, BSc (UWI), MSc (Tor), PhD (Calg)
Professor, Applied Mathematics

H. Ali, B.A. (UWI), MSc (Lond), MPhil. (Sus), PhD (UWI)
Senior Lecturer, Mathematics

N. Kaliecharan, BSc (UWI), MSc (Bris CoI), PhD (UWI)
Senior Lecturer, Computer Science

M. Bernard, BSc, MPhil., PhD, (UWI)
Lecturer, Computer Science
## UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

<table>
<thead>
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<th>Subject</th>
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<td>M. Hosein</td>
<td>BSc, MPhil. (UWI), M.C.S.E., MCP + 1</td>
<td>Lecturer, Computer Science</td>
<td>Mathematics</td>
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<td>B. Iordanova B.</td>
<td>Enq (Varma), PhD (Huddersfield, Cambridge)</td>
<td>Lecturer, Computer Science</td>
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<td>P. Mohan</td>
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<td>C. Ward</td>
<td>BSc (UWI), MSc (Sus), PhD (Essex)</td>
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<td>S. Yussuff</td>
<td>BSc (UWI), MSc (Surrey), MSc (Lond)</td>
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<td>C. de Matas</td>
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<td>K. Rahaman</td>
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<td>A. Mohais</td>
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<td>Ms. N. Hazelwood</td>
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<tr>
<td>Ms. C. Hutchinson</td>
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COMPUTER SCIENCE

MAJOR/DUPLICATE MAJOR IN COMPUTER SCIENCE
The requirements for a major in Computer Science are:

For the major, students are required to take the 6 core courses (24 credits) which include COMP 2000, COMP 2100, COMP 2200, COMP 2500, COMP 3000 and COMP 3100 plus another 8 Level II/III credits, for a total of 32 credits.

For the double major, students are required to take 64 credits in Computer Science courses including the core courses.

MINOR IN COMPUTER SCIENCE
Students are required to take the 2 core courses COMP 2000 and COMP 2500 plus any 2 of the following courses COMP 2200, COMP 2700, COMP 3000, COMP 3100, COMP 3150 and COMP 3250.

COMPUTER SCIENCE
The following courses are likely to be taught in 2005/2006:

SEMESTER I

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<th>Course Title</th>
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<tbody>
<tr>
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<td>COMP 1011</td>
<td>CS10M</td>
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<td></td>
<td>COMP 1100</td>
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<td>COMP 1200</td>
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<table>
<thead>
<tr>
<th>Level II/III</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMP 2000</td>
<td>CS20A</td>
<td>Data Structures</td>
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<td>COMP 2100</td>
<td>CS20E</td>
<td>Discrete Mathematics for Computer Science</td>
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<td>COMP 2200</td>
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<td>COMP 2300</td>
<td>CS22A</td>
<td>Programming for Business Applications</td>
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<tr>
<td>COMP 2600</td>
<td>CS25E</td>
<td>Theory of Computing I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2700</td>
<td>CS27E</td>
<td>Database Management Systems I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3400</td>
<td>CS33B</td>
<td>Artificial Intelligence</td>
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<tr>
<td>COMP 3300</td>
<td>CS33E</td>
<td>Programming Languages I</td>
<td>4</td>
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<tr>
<td>COMP 3500</td>
<td>CS34M</td>
<td>Internet Technologies I</td>
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<td>COMP 3750</td>
<td>CS37A</td>
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SEMESTER II

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<td>CS20E</td>
<td>Discrete Mathematics for Computer Science</td>
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<td>COMP 2400</td>
<td>CS21E</td>
<td>Object-Oriented Programming</td>
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<td>COMP 2500</td>
<td>CS21F</td>
<td>Information Systems</td>
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<tr>
<td>COMP 3100</td>
<td>CS22E</td>
<td>Design and Analysis of Algorithms</td>
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<td>COMP 3150</td>
<td>CS22A</td>
<td>Operating System</td>
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<tr>
<td>COMP 3250</td>
<td>CS22F</td>
<td>Computer Networks</td>
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<tr>
<td>COMP 3350</td>
<td>CS23A</td>
<td>Software Engineering</td>
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<td>COMP 3550</td>
<td>CS23E</td>
<td>Programming Languages II</td>
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<td>Internet Technologies II</td>
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<td>COMP 3700</td>
<td>CS23G</td>
<td>Theory of Computing II</td>
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<tr>
<td>COMP 3900</td>
<td>CS23H</td>
<td>Database Management Systems II</td>
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<td>COMP 3990</td>
<td>CS23I</td>
<td>Special Topics in Computer Science (Expert Systems)</td>
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<table>
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<tr>
<td>CS22E</td>
<td>Fundamentals of Information Systems Development</td>
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</table>

Students reading courses in Mathematics and Computer Science in the Faculty of Science & Agriculture are advised to clear with the Head, Department of Mathematics & Computer Science, before registering for any course in the Faculty of Social Sciences that involves Mathematics, Computing or Statistics.
### UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006

The Faculty of Science & Agriculture

**MATHEMATICS**

**MAJOR IN MATHEMATICS**

Students are required to take 4 core courses in MATH 2100, MATH 2110, MATH 2120, MATH 2160 and acquire sixteen (16) credits from other advanced courses in Mathematics. At least 8 of these 16 credits must be from Year 3 Mathematics courses.

**DOUBLE MAJOR IN MATHEMATICS**

Students are required to take 64 credits from Advanced Level Mathematics courses including MATH 2100, MATH 2110, MATH 2120 and MATH 2160. At least 32 credits must be from Year 3 Mathematics courses.

**MINOR IN MATHEMATICS**

Students are required to do any two core courses including either MATH 2100 or MATH 2110 and any two other Mathematics courses at Advanced Level.

**MATHMATICS**

The following courses are likely to be taught in 2005/2006:

#### SEMESTER I

<table>
<thead>
<tr>
<th>Level &amp; Courses</th>
<th>Banner Code</th>
<th>Fae Pro Code</th>
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<td>Math 2120 M 21A</td>
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<td>Analysis &amp; Mathematical Methods I</td>
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<td>Math 2170 M 24A</td>
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<td>Introduction to Combinatorics</td>
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<td>Math 2140 M 25A</td>
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<td>Introduction to Probability</td>
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<td>Math 2190 M 25C</td>
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<td>Probability and Statistics I</td>
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<td>Math 2210 M 28A</td>
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<td>Mathematics of Finance</td>
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<td>Math 3110 M 31A</td>
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<td>Mathematical Statistics</td>
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<tr>
<td>Math 3240 M 31S</td>
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<td>Real Analysis</td>
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<tr>
<td>Math 3250 M 33A</td>
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<td>Fluid Dynamics I</td>
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<td>Math 3280 M 33D</td>
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<td>Introduction to Mathematical Modelling I</td>
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<tr>
<td>Math 3400 M 34B</td>
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<td>Graph Theory</td>
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<td>Math 3430 M 34E</td>
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<td>Math 3450 M 35A</td>
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#### Engineering

<table>
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<tbody>
<tr>
<td>Math 1170</td>
<td>M 17A</td>
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<tr>
<td>Math 2230</td>
<td>M 26A</td>
<td>Engineering Mathematics II</td>
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<td>Math 3530</td>
<td>M 37A</td>
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**SEMESTER II**

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<tr>
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<tbody>
<tr>
<td>Math 0110</td>
<td>M 08C</td>
<td></td>
<td>Calculus &amp; Analytical Geometry</td>
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<tr>
<td>Math 1150</td>
<td>M 12B</td>
<td></td>
<td>Functions of Real Variables</td>
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<tr>
<td>Math 1170</td>
<td>M 15B</td>
<td></td>
<td>Introductory Applied Mathematics I</td>
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</table>

**Teaching by School of Continuing Studies; not counted towards a student’s cumulative GPA**

<table>
<thead>
<tr>
<th>Level II/III Courses</th>
<th>Banner Code</th>
<th>Fae Pro Code</th>
<th>Title</th>
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<tr>
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<td>Combinatorics</td>
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<td>Math 3440</td>
<td>M 34F</td>
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<td>Advanced Algebra II – Applications</td>
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<td>Math 3460</td>
<td>M 35B</td>
<td></td>
<td>Statistical Theory II</td>
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</tr>
<tr>
<td>Math 3500</td>
<td>M 36C</td>
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<td>Complex Analysis</td>
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**Engineering**

<table>
<thead>
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<th>Fae Pro Code</th>
<th>Title</th>
<th>Credit</th>
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<tr>
<td>Math 2240</td>
<td>M 26B</td>
<td>Engineering Statistics</td>
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<tr>
<td>Math 2250</td>
<td>M 26C</td>
<td>Industrial Statistics</td>
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OPTION II

COMPUTER SCIENCE AND MANAGEMENT

Note:
(1) Acceptance for the Computer Science and Management option does not guarantee acceptance for courses in the Faculty of Social Sciences other than those specified in this option.
(2) Students are advised that, in choosing courses from the Faculty of Social Sciences, the regulations from that Faculty will apply. In particular, credit will not be given for two courses which the Faculty of Social Sciences designates as having ‘substantial overlap.’ E.g. EC20B and MS26A.

Level I courses

<table>
<thead>
<tr>
<th>Banner Code</th>
<th>F comprend Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>COMP 1100</td>
<td>CS11E</td>
<td>Computer Programming I</td>
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<td>COMP 1200</td>
<td>CS11F</td>
<td>Computer Programming II</td>
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<tr>
<td>ECON 1001</td>
<td>EC10D</td>
<td>Introduction to Economics I</td>
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<td>ECON 1002</td>
<td>EC10F</td>
<td>Introduction to Economics II</td>
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<td>ACCT 1010</td>
<td>MS15E</td>
<td>Introduction to Financial Accounting</td>
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<tr>
<td>ACCT 1011</td>
<td>MS15F</td>
<td>Introduction to Cost &amp; Management Accounting</td>
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<tr>
<td>MATH 1140</td>
<td>M 12A</td>
<td>Basic Introductory Mathematics</td>
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<td>MATH 1150</td>
<td>M 12B</td>
<td>Functions of Real Variables</td>
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Level II/III courses

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<tbody>
<tr>
<td>COMP 2000</td>
<td>CS20A</td>
<td>Data Structures</td>
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<td>COMP 2100</td>
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<td>Discrete Mathematics for Computer Science</td>
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<td>COMP 2200</td>
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<td>Computer Architecture</td>
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<td>COMP 2300</td>
<td>CS22A</td>
<td>Programming for Business Applications</td>
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<td>Object-Oriented Programming</td>
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<td>CS27E</td>
<td>Database Management Systems I</td>
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<td>COMP 3000</td>
<td>CS30E</td>
<td>Design and Analysis of Algorithms</td>
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<tr>
<td>MKTG 2080</td>
<td>MS20A</td>
<td>Principles of Marketing</td>
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<tr>
<td>MGMT 2014</td>
<td>MS22A</td>
<td>Organisational Behaviour</td>
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<tr>
<td>MGMT 2020</td>
<td>MS26A</td>
<td>Managerial Economics</td>
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<tr>
<td>MGMT 2021</td>
<td>MS27A</td>
<td>Business Law</td>
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<td>MGMT 2018</td>
<td>MS23C</td>
<td>Quantitative Methods</td>
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<td>ACCT 2043</td>
<td>MS25C</td>
<td>Management Accounting</td>
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<td>FINM 2060</td>
<td>MS28D</td>
<td>Financial Management</td>
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<tr>
<td>MKTG 3140</td>
<td>MS30A</td>
<td>Marketing Management</td>
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and one from

3. A minimum of thirteen (13) credits chosen from Level II/III Computer Science, Mathematics and Economics courses | 13

4. Foundation Courses
   FOUN 1102 (FD11B) – Academic Writing for Different Disciplines | 3
   FOUN 1301 (FD13A) – Law, Governance, Economy and Society | 3
   FOUN 1101 (FD11A) – Caribbean Civilisation | 3

TOTAL DEGREE CREDITS | 105

NOTE: Students majoring in Computer Science and those registered in the Computer Science and Management option must seek the approval of the department to read Computing and Mathematics courses outside of the FSA.
DEPARTMENT OF
PHYSICS

Dr. S. Haque
Head (Ag.) of Department

Mrs. D. Davis
Secretary

Tel: (868) 645-3232 Ext. 2050, 2051
Fax: (868) 662-9904
Email: physics@fsa.uwi.tt

Prof. R. Saunders
BSc, (UWI), PhD,
DIC (Lond.)
Professor

Dr. A. H. Tang Kai
BSc, MSc, (UWI)
PhD, (Uppsala)
Senior Lecturer

Dr. A. Achong
BSc, PhD (UWI)
Senior Lecturer

Dr. I. Haraksingh
BSc, PhD (UWI)
Lecturer

Dr. R. Andrews
BSc, PhD (Lond.)
Lecturer

Mr. R. Clarke
BSc, M. Phil. (UWI)
Lecturer

Dr. K. De Souza
BSc, MSc, (UWI)
PhD (Southampton)
Lecturer

Dr. S. Haque
BSc, MPhil., PhD (UWI)
Lecturer

Dr. J.C. Knight
BSc (UWI)
PhD (Camb.)
Senior Lecturer

Dr. H. P. S. Missan
BSc, MSc, PhD (Dev)
Lecturer

Mrs. C. Charles
Admin Assistant

Mrs. S. Perai
Secretary
**PHYSICS**

The following list indicates courses to be taught in 2005/2006

### SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credit</th>
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<td>PHYS2281</td>
<td>P28B</td>
<td>Modern Physics I</td>
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<td>PHYS2290</td>
<td>P29A</td>
<td>Introduction to Medical Physics</td>
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<tr>
<td>PHYS2291</td>
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<td>Digital Electronics</td>
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<td>Meteorology, Climatology and</td>
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<td>PHYS3382</td>
<td>P38C</td>
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<td>PHYS3385</td>
<td>P38F</td>
<td>Electromagnetism Theory</td>
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<td>PHYS3387</td>
<td>P38P</td>
<td>Research Project (for Physics</td>
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<td>PHYS2282</td>
<td>P28C</td>
<td>Circuit Theory and Electronics</td>
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<td>P28D</td>
<td>Oscillation, Waves and Optics</td>
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<td>PHYS2284</td>
<td>P28E</td>
<td>Fundamentals of Geophysics</td>
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<td>Modern Physics II</td>
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<td>PHYS3383</td>
<td>P38D</td>
<td>Optics and Astronomy</td>
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<td>PHYS3391</td>
<td>P39B</td>
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<td>P39D</td>
<td>Earth Materials, Earth Processes</td>
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<td></td>
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<td>and Seismology</td>
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<tr>
<td>PHYS3394</td>
<td>P39E</td>
<td>Further Materials Science</td>
<td>4</td>
</tr>
<tr>
<td>PHYS3395</td>
<td>P39F</td>
<td>Thin Films and Vacuum Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

*Taught by School of Continuing Studies; not counted towards a student’s cumulative GPA*

**Note:**

1. PHYS2292 (P29C) with PHYS2293 (P29D) and PHYS3392 (P39C) are offered in alternate years. In the year 2005/2006 PHYS2292 (P29C) and PHYS2293 (P29D) will be offered.

2. PHYS2290 (P29A) and PHYS3390 (P39A) are offered in alternate years. PHYS3390 (P39A) will be offered in the year 2005/2006.

3. PHYS3395 (P39F) will not be offered in 2005/2006.

4. Students reading PHYS2294 (P29E), cannot read CH13A listed in Appendix IV.

5. Students repeating P28 and P29 courses may be permitted, after a departmental interview, to read appropriate P38 and P39 courses at the same time.

### MAJOR IN PHYSICS

#### Level I Prerequisites

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHYS1110</td>
<td>P11A</td>
<td>Introductory Physics I</td>
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<tr>
<td>PHYS1111</td>
<td>P11B</td>
<td>Introductory Physics II</td>
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#### Level II/III

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<tbody>
<tr>
<td>PHYS2280</td>
<td>P28A</td>
<td>Mathematical Methods in Physics I</td>
<td>4</td>
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<tr>
<td>PHYS2281</td>
<td>P28B</td>
<td>Modern Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2283</td>
<td>P28D</td>
<td>Oscillation, Waves and Optics</td>
<td>4</td>
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<tr>
<td>PHYS3385</td>
<td>P38F</td>
<td>Electromagnetism Theory</td>
<td>4</td>
</tr>
<tr>
<td>PHYS3387</td>
<td>P38P</td>
<td>Research Project (available to Physics majors only)</td>
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And any three of:

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<tr>
<td>PHYS2282</td>
<td>P28C</td>
<td>Circuit Theory and Electronics</td>
<td>4</td>
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<tr>
<td>PHYS3381</td>
<td>P38B</td>
<td>Modern Physics II</td>
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<td>PHYS3383</td>
<td>P38D</td>
<td>Optics and Astronomy</td>
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<tr>
<td>PHYS3384</td>
<td>P38E</td>
<td>Thermodynamics</td>
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<td>and Solid State Physics</td>
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### MINORS

#### Electronics

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<tbody>
<tr>
<td>PHYS2291</td>
<td>P29B</td>
<td>Digital Electronics</td>
<td>4</td>
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<tr>
<td>PHYS3392</td>
<td>P39C</td>
<td>Electronics &amp; Control Theory</td>
<td>4</td>
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<tr>
<td>PHYS2292</td>
<td>P29C</td>
<td>Circuit Theory and Electronics</td>
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<tr>
<td>PHYS3391</td>
<td>P39B</td>
<td>Further Digital Electronics</td>
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<td>&amp; Microprocessor Systems</td>
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#### Medical Physics and Bioengineering

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<tr>
<td>PHYS2290</td>
<td>P29A</td>
<td>Introduction to Medical Physics</td>
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<tr>
<td></td>
<td></td>
<td>and Bioengineering</td>
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</tr>
<tr>
<td>PHYS2291</td>
<td>P29B</td>
<td>Digital Electronics</td>
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<tr>
<td>PHYS3391</td>
<td>P39B</td>
<td>Further Digital Electronics</td>
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<td></td>
<td>&amp; Microprocessor Systems</td>
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<tr>
<td>PHYS3390</td>
<td>P39A</td>
<td>Further Medical Physics</td>
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### Environmental Physics

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<th>Title</th>
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<tbody>
<tr>
<td>PHYS2292</td>
<td>P29C</td>
<td>Meteorology, Climatology</td>
<td>4</td>
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<td>and Pollution</td>
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<tr>
<td>PHYS2293</td>
<td>P29D</td>
<td>Fundamentals of Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2295</td>
<td>P29F</td>
<td>Lasers and Solar Energy</td>
<td>4</td>
</tr>
<tr>
<td>PHYS3392</td>
<td>P39C</td>
<td>Physical Oceanography</td>
<td>4</td>
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<tr>
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<td>and Geohydrology</td>
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<tr>
<td>PHYS3393</td>
<td>P39D</td>
<td>Earth Materials, Earth Processes</td>
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### Materials Science

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<tbody>
<tr>
<td>PHYS2294</td>
<td>P29E</td>
<td>Materials Science</td>
<td>4</td>
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<tr>
<td>PHYS2295</td>
<td>P29F</td>
<td>Lasers and Solar Energy</td>
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<td>PHYS3394</td>
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<td>Further Materials Science</td>
<td>4</td>
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<tr>
<td>PHYS3396</td>
<td>P39G</td>
<td>Ceramics</td>
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<tr>
<td>PHYS3395</td>
<td>P39F</td>
<td>Thin Films and Vacuum Physics</td>
<td>4</td>
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</table>
ACCT 1010 (MS15E)
INTRODUCTION TO FINANCIAL ACCOUNTING
(3 credits)
Syllabus:
An introductory course designed for students of accounting and those in other areas of study. It aims at producing a practical and a theoretical understanding of the principles and concepts involved in the preparation of financial statements. Students are exposed to conceptual analytical thinking and communicative skills.
Assessment:
Coursework 25%
Examination 75%

ACCT 1011 (MS15F)
INTRODUCTION TO COST & MANAGERIAL ACCOUNTING
(3 credits)
Prerequisite: None
Co-requisite: ACCT 1010 (MS15E)
Syllabus:
This is an introductory course for students of accounting as well as other areas of study. It aims to acquaint them with the uses of accounting information and techniques useful to the manager in planning, decision-making and controlling organisational activities.
Assessment:
Coursework 25%
Examination: 75%

ACCT 2043 (MS25C)
MANAGEMENT ACCOUNTING
(3 credits)
Prerequisites: ACCT 1010, ACCT 1011 (MS15E, MS15F)
Syllabus:
The course explains how managerial accounting information is used by managers in manufacturing, retail, service and not-for-profit organisations to anticipate the future and monitor the activities of the business.
Assessment:
Coursework
Final Examination
AGBU 1002 (AM17B)
INTRODUCTION TO AGRO-ENVIRONMENTAL MANAGEMENT
(4 credits)
Co-requisites: AGBU/AGEC 1000 (AM15A)
Syllabus:
The role and importance of the environment for social development and as a life support system. The nexus between agriculture and the environment. Agro-ecosystems structure and dynamics. Economics of environmental resources: market failure and environmental degradation, externalities and public goods; optimal resource use/extraction and approaches for management of renewable resources. Concept of the watershed as a management unit: hydrology, soils, natural forest, biodiversity and land use. The impact of agricultural practices on the environment viewed from an ecosystem perspective: deforestation, soil erosion/degradation, flooding, irrigation, loss of biodiversity and climate change. Case studies of impacts related to various agricultural systems: crop and livestock, subsistence and plantation farming, hillside and erodable soils, pesticide and chemical application, irrigated agriculture. Integration of the concepts and issues discussed in designing sustainable agro-environmental systems for the tropics; focus on small island states. Case studies.
Assessment:
Coursework 25%
Final Examination 75%

AGBU 1005 (AM15A)
INTRODUCTION TO MICROECONOMICS
(3 credits)
Syllabus:
Nature and Scope of Economics: General overview; Functions performed by economic systems; Resources/Factors of Production and Characteristics. Demand and Supply: Concepts; definitions and introduction to factors affecting demand and supply; elasticities. Market Price and Quantity determination; interpretation and applications. Theories of Consumer Behaviour: Marginal utility and indifference theories, Theory of Production, Supply and Cost: Production functions forms; profit maximization behaviour and rationality in production. Market Structures and Forms: Market types and characteristics; profit maximization behaviour in perfect competition and monopoly.
Assessment:
Coursework 25%
Final Examination 75%

AGBU 1006 (AM15B)
MACROECONOMIC FUNDAMENTALS FOR CARIBBEAN AGRICULTURE
(3 credits)
Syllabus:
This course will build on the microeconomic foundation of the behaviour of the consumer and the firm to the establishment of demand and supply for the entire country which includes that of government and the rest of the world. Students would then learn how to measure the progress of the economy, and determine the national income and gross domestic product. Next, the role of monetary and fiscal policy on inflation, unemployment, deficits and economic growth will be studied. And finally the Caribbean economy and agricultural sector will be integrated into the international setting, examining the concepts of free trade and the role of exchange rate. The role of international trade and agriculture as it relates to the economy are clearly articulated.
Assessment:
Coursework 25%
Final Examination 75%
AGBU 2000 (AM21A)
AGRICULTURE IN THE ECONOMY
(4 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B)
Syllabus:
The structure of Caribbean economies. Simple income
determination. Balance of payments. Economic growth
models. Theories of economic development. The role of the
agricultural sector in the development process. Agricultural
policy formulation. Selected policy issues.
Assessment:
Coursework 20%
Final Examination 80%

AGBU 2002 (AM23B)
MANAGEMENT AND ECONOMICS OF
AGRICULTURAL PRODUCTION AND
MARKETING
(4 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B)
Syllabus:
Basic theory of agricultural production with particular
respect to technology and economic and technical efficiency
in resource use. The basic theory of the consumer. The
nature and scope of marketing. The functions of marketing
intermediaries. The minimization of agricultural markets in
the Caribbean. Basic concepts in the management of farms
and agri-business firms. Managerial functions. Forms
of business minimization. Accounting and record keeping
systems. Personnel management.
Assessment:
Coursework (midterm) 20%
Final Examination 80%

AGBU 2003 (AM25A)
APPLIED STATISTICS
(3 credits)
Prerequisite: AG14C
Syllabus:
This is an introductory course in Statistics with the aim
of having students appreciate the role of Statistics in
Agribusiness, Agricultural Economics and related fields as
a fundamental tool of scientific investigation. The course
introduces students to basic concepts and definitions
in statistics, including descriptive statistics, probability
distribution theory and the Normal Statistical Distribution.
The method for the conduct of Statistical Inference is
presented, including inference relating to a single population,
differences between population means and the analysis of
variance. The course concludes with a study of regression
analysis.
Assessment:
Coursework 40%
Final Examination 60%

AGBU 3000 (AM30C)
FARM BUSINESS MANAGEMENT
(4 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B),
AGBU 2002 (AM23B) or AGBU 2000 (AM21A)
Syllabus:
Management Styles and Strategies. Decision Making in Agri-
business. The Agri-business System. Competitive Analysis
and Strategic Planning with particular reference to Agro
industry. Cooperatives and other Organisational Forms.
Business Control and Analysis. Management of Factors of
Production.
Assessment:
Coursework 20%
Final Examination 80%
**AGBU 3001 (AM32A)**
**MARKETING AND PRICE ANALYSIS**
(4 credits)
*Prerequisite:* AGBU 1005 (AM15A), AGBU 1006 (AM15B), AGBU 2000 (AM21A)
*Assessment:*
| Coursework | 20% |
| Final Examination | 80% |

**AGBU 3002 (AM32D)**
**INTERNATIONAL MARKETING OF AGRICULTURAL PRODUCTS**
(4 credits)
*Prerequisite:* AGBU (AM32B) and AGBU 1005 (AM15A), AGBU 1006 (AM15B) or Introductory Economics
This course provides an understanding of the important concepts and issues involved in international marketing of agricultural products. Emphasis is given to the challenges Caribbean agri-businesses will face in the contemporary international business arena and the development/examination of options for successfully penetrating targeted international markets.
*Assessment:*
| Coursework | 40% |
| Final Examination | 60% |

**AGBU 3003 (AM33D)**
**INTRODUCTION TO ECOTOURISM: PRODUCT DESIGN & MANAGEMENT**
(4 credits)
*Prerequisite: *No prerequisites
*Syllabus:* This course examines the way in which ecotourism could be designed and developed as a viable business opportunity, and as a contributor to sustainable development in the Caribbean. By the end of the course you should be able to define the concept within a framework of social and economic development. This goal will be achieved by taking you through the various components of eco-tourism, highlighting in particular, the business potential of the concept.
In this course, you will be supplied with tools to make practical decisions related to an ecotourism venture. No matter what your background maybe, you will find the concepts and perspectives contained in this course empower you to use ecotourism for more positive development. The material is developed with the specific needs of tropical small island states in mind.
*Assessment:*
| Coursework | 30% |
| Final Examination | 70% |

**AGBU 3004 (AM34A)**
**AGRICULTURAL FINANCE & FARM CREDIT**
(3 credits)
*Prerequisite:* AGBU 1005 (AM15A), AGBU 1006 (AM15B)
*Assessment:*
| Coursework | 20% |
| Final Examination | 80% |
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

AGBU 3005 (AM35B)
INTRODUCTION TO QUANTITATIVE METHODS IN ECONOMICS
(3 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B), AGRI 1003 (AG14C)
Syllabus:
Assessment:
Coursework 30%
Final Examination 70%

AGBU 3006 (AM36A)
AGRICULTURAL PROJECT APPRAISAL & IMPLEMENTATION
(4 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B)
Syllabus:
The nature of project appraisal and its role in planning. Financial analysis techniques, benefit cost analysis. Project implementation techniques. Application to cases.
Assessment:
Coursework 25%
Final Examination 75%

AGBU 3007 (AM37A)
NEW VENTURE CREATION AND MANAGEMENT
(4 credits)
Prerequisite: AGBU 1005 (AM15A), AGBU 1006 (AM15B), MS15E
Syllabus:
The "hands-on" tools and techniques for launching and managing a sustainable small business. Frameworks and guidelines that can be used to formulate strategies relevant in the contemporary business environment. Emphasis will be placed on real world application of business theory through the building of an effective business plan, case study analysis and interaction with entrepreneurs.
Assessment:
Coursework 40%
Examination 60%

AGBU 3008 (AM39C)
INTERNSHIP
(4 credits)
Prerequisite: AGRI 2000 (AG133), AM30C
Syllabus:
Ten-week attachment to an agri-business firm to gain practical experience and training in an agri-business environment.
AGBU 3009 (AM32E)
INTERNATIONAL TRADE POLICY AND REGULATIONS
(3 credits)
Prerequisites: AM 32E
Syllabus:
This course covers agricultural and food policies from domestic and international trade perspectives. Course examines the role of international trade in agricultural development; current debates about the effects of globalization on developing countries; evolution of trade policies in the context of the Uruguay Round GATT Agreement and the WTO, the Lome Convention, Regional and Bilateral trade agreements and arrangements. Course also examines the Agreement on Agriculture and Sanitary and Phytosanitary Measures and international regulations as well as emerging trade agreements with implications for agriculture (Economic Partnership Agreements, Commodity Protocols and Special Trading Arrangements) and gives an introduction to trade negotiations.
Assessment:
Coursework 75%
Final Examination 25%
Not Offered In 2005/06

AGBU 3010 (AM39A)
ENVIRONMENTAL ECONOMICS
(4 credits)
Prerequisites: AGBU 1005 (AM15A), AGBU 1006 (AM15B) or AGBU/AGEC 1002/1002B
Syllabus:
Human beings now face the challenge of sustainable development, where the needs are for cooperative alliances, and recycled waste flows. Environmental economics seeks to meet this challenge, and explores questions such as: "Can we effectively develop policies to deal with the tricky issues of wealth distribution, population growth, international trade and energy in the world where “more growth” is no longer a simple solution?" This course reviews underlying ecological economic theory, and shows how it can be applied to try to solve existing and emerging environmental problems.
Assessment:
Coursework 40%
Final Examination 60%

AGBU 3012 (AM312)
PROJECT
(4 credits)
Syllabus:
A project within a subject area relevant to the student’s degree option.
Assessment:
Project Report 80%
Oral Presentation 20%
“See Project Booklet for detailed guidelines

AGCP 2000 (AC23A)
BIOSYSTEMS ENGINEERING PRINCIPLES
(3 credits)
Prerequisite: AGR 1003 (AG14C)
Syllabus:
Introduction to biosystems engineering; elementary surveying; farm planning and layout; animal waste management; selection of simple structural members; mechanical power and power units; electrical power and motors; sound and noise; insulation and heat flow; properties of moist air; thermal environment; ventilation and cooling systems for buildings; handling, moisture management and storage of biological products; irrigation; rainfall and surface run off; soil erosion and control.
Assessment:
Coursework 20%
Final Examination: 80%
AGCP 2001 (AC24B)  
PRINCIPLES OF CROP SCIENCE  
AND PRODUCTION  
(4 credits)  
Prerequisite: AGRI 1016 (AG11B)  
Syllabus:  
Cropping and cropping systems in the tropics with specific reference to the cropping systems in the Caribbean. Cultural practices employed in the production of tropical crops with emphasis on cereals and legumes. Methods of propagation, sexual and asexual, micro and macro propagation techniques. Seed production and storage. Principles involved in breeding and maintaining economic crops. Genetic engineering for crop improvement.  
Assessment:  
Coursework  
40%  
Final Examination  
60%  

AGCP 2003 (AC26B)  
MECHANISATION FOR CROP PRODUCTION  
(3 credits)  
Prerequisites: AG14C and AC23A  
Syllabus:  
Principles of design, construction, operation and maintenance of power units and machinery for crop production. Management of machinery; determination of machinery requirements; machinery selection, performance and costs of use. Machinery for field operations; tillage, seed bed preparation, cultivation seeding and planting, chemical application and harvesting. Analysis and development of mechanised production systems with special reference to crop production in the Caribbean.  
Assessment:  
Coursework  
20%  
Final Examination  
80%  

AGCP 3001 (AC31A)  
VEGETABLE PRODUCTION  
(4 credits)  
Prerequisite: AC24B  
Syllabus:  
Assessment:  
Coursework  
40%  
Final Examination  
60%  

AGCP 3002 (AC32E)  
CROP PRODUCTION SYSTEMS  
(4 credits)  
Prerequisite: AC24B  
Syllabus:  
The role of crop production in agricultural development. The linkage between the cropping system, the farming system and the agricultural system. Major factors influencing cropping system development. Typologies of cropping systems in the tropics and the social, economic, natural resource; requirement and technological aspects of cropping systems for selected tropical crops. Approaches to evaluating cropping systems. Cropping system design for improving and sustaining productivity. New paradigms, including organic farming and integrated crop management and precision agriculture.  
Assessment:  
Coursework  
40%  
Final Examination  
60%  

64
AGCP 3004 (AC32G)
INTRODUCTION TO FLORICULTURE
(3 credits)
Prerequisite: AC24B
Syllabus:
The status of the international floriculture industry with special attention to the Caribbean and the importance of tropical species. People plant relations. Greenhouse production of potted foliage and flowering plants, greenhouse selection, management of the green house environment, crop scheduling and management. Field production of cut flowers and cut foliage. After-sales potted plant care, post harvest management and utilisation of cut flowers.
Assessment:
Coursework 40%
Final Examination 60%

AGCP 3005 (AC32H)
LANDSCAPE AND TURFGRASS MANAGEMENT
(3 credits)
Prerequisite: AC24B
Syllabus:
The role of plants in human well-being, the importance of the landscape industry and the use of plants in private and public spaces. The history of gardens and garden design. Plant identification techniques. Tree and shrub growth, development selection, establishment and maintenance. Turfgrass and ground cover growth and development, selection, establishment and maintenance. The elements and principles of landscape design, design process; uses of plant materials in landscape design. Landscape installation and maintenance.
Assessment:
Coursework 40%
Final Examination 60%

AGCP 3006 (AC32J)
PRINCIPLES OF FRUIT CROP PRODUCTION
(4 credits)
Prerequisite: AC24B
Syllabus:
Introduction to the status of fruit crop industry with specific reference to tropical crops. The role of fruits in human nutrition. The scientific principles of fruit crop growth and yield development. Production principles and technologies used in commercial fruit crop enterprises for selected fruits. Assessment of the commercial potential of minor fruits. Current issues and research needs of tropical fruit crops.
Assessment:
Coursework 40%
Final Examination 60%

AGCP 3011 (AC30B)
MAJOR CARIBBEAN EXPORT CROPS
(3 credits)
Prerequisite: AC24B
Syllabus:
Historical, current and potential status of the industries of the export crops of major economic significance in the Caribbean including sugarcane, banana, coffee, cocoa, citrus, nutmeg and arrowroot. Origin, distribution, markets and producers, environmental requirements, traditional production systems and their socio-economic and environmental consequences. Impact of globalization, agricultural diversification and environmental concerns on new production systems including organic production, post-harvest handling and utilization in the Caribbean and other SIDS. Crop production for value chains vs. commodity markets. Production constraints and research needs.
Assessment:
Coursework 40%
Final Examination 60%
AGCP 3012 (AC30A)
TROPICAL FOOD CROP
(3 credits)
Prerequisite: AC24B
Syllabus: Traditional and improved production practices and systems for the major Caribbean food crops: starchy staples (tropical root crops, breadfruit, plantain, green bananas), vegetables and grain legumes. Production constraints and socio-economic issues relevant to production sustainability and Caribbean food security. Post-harvest handling systems for these crop groups. Alternative methods of utilization suitable for the Caribbean region.
Assessment:
Coursework 40%
Final Examination 60%

AGCP 3008 (AC33A)
POSTHARVEST TECHNOLOGY
(3 credits)
Syllabus: The post harvest physiology and biochemistry of selected tropical fruits, vegetables, root crops and grains. The post harvest environment, including pathological agents, with particular reference to these crops. Physiological disorders. Post harvest handling systems. Introduction to basic equipment used in quality evaluation, refrigeration and storage systems, and general post harvest produce management.
Assessment:
Coursework 40%
Final Examination 60%

AGEX 1000 (AX15C)
Caribbean Agriculture in Perspective: Evolution, Sociology and Contemporary Issues
(4 credits)
Syllabus: This course provides an understanding of the evolution of Caribbean Agriculture, including the plantation and peasantry systems. Students are given an overview of the structure of the sector in terms of the crops, livestock, fisheries, forestry and value-added agribusiness. The multifunctional role and contribution of the sector to food and nutrition security, livelihoods, the environment and sustainable rural development are examined. The course includes a study of stratifications and social structures, as well as rural versus urban life and the role of the mass media in Caribbean societies. The course concludes with an examination of contemporary issues and an insight into the way forward for Caribbean agriculture.
Assessment:
Coursework 25%
Final Examination 75%

AGEX 2001 (AX25B)
OPERATION AND MANAGEMENT OF EXTENSION PROGRAMMES
(4 credits)
Prerequisite: AGEX 1000 (AX15C)
Assessment:
Coursework 40%
Final Examination 60%
AGEX 3000 (AX30A)
TECHNOLOGY TRANSFER IN AGRICULTURE
(3 credits)
Prerequisite: AGEX 1000 (AX15C)
Syllabus:
Assessment:
Coursework 25%
Final Examination 75%

AGEX 3001 (AX35A)
ISLAND FOOD SYSTEMS
(3 credits)
Prerequisite: AGEX 1000 (AX15C)
Syllabus:
An understanding of island food systems of the Tropical World, from the view point of their sustainability and how sustainability links to livelihood, equity and governance among selected island communities. The influences of these concepts on the occupations in farming, fishing, mining, forestry and national policy. Health and Nutrition Issues, Land and Water Use Conflict and Food Security. Appropriate development decisions in order to sustain island food systems which continually benefit all citizens.
Assessment:
Coursework 40%
Final Examinations 60%

AGEX 3003 (AX39A)
GENDER ISSUES IN AGRICULTURE
(3 credits)
Prerequisite: None
Syllabus:
Defining Gender as a social construct. Historical perspectives for Gender in Caribbean Agriculture. Gender roles and gender relations on the farm and in Agricultural Occupations. Gender Analyses. Gender sensitivity in decision-making which pertains to the agricultural industry. Feminist thinking. Masculinities.
Assessment:
Coursework 40%
Final Examination 60%

(Also offered to students reading relevant Minors and Majors in the Faculty of Social Sciences and the Faculty of Humanities & Education)

AGEX 3004 (AX36B)
COMMUNICATION SKILLS FOR PROFESSIONALS
(3 credits)
Prerequisite: AGEX 2001 (AX25B)
Syllabus:
The course deals mainly with how to process and present technical information for non-technical audiences. Steps in planning and preparing communication materials/methods – setting objectives, analyzing the audience, designing messages, etc. Writing for, and producing selected media – brochures, newsletters, etc., for print and the Internet. Effective oral presentations using graphics. Basic photography including digital photography. Design and production of slide sets. Introduction to designing and producing instructional videos. Key points in preparing and presenting radio programmes.
Assessment:
Coursework 40%
Final Examination 60%

NOT OFFERED IN 2005/06

AGEX 3012 (AX312)
RESEARCH PROJECT
(4 credits)
AGEX 5001 (AX502)
COMMUNITY ANALYSIS
(4 credits)
Syllabus:
The nature and types of social organisation. Concepts and
theories for the analysis of social consensus and social
conflict in community relations. Patron-client relations,
cooperative enterprises, influences of religion, culture and
education and education on execution and monitoring of
community-based research and development projects. Issues
of organisational change and development.

AGEX 5002 (AX503)
EXTENSION PHILOSOPHY AND PRINCIPLES
(4 credits)
Syllabus:
Advanced concepts of philosophy, principles and methods in
the extension process. Formal and non-formal approaches in
the diffusion of knowledge with special reference to developing
countries.
Assessment:
Coursework 25%
Final Examinations 75%

AGEX 5003 (AX504)
COMMUNICATIONS THEORY AND
PRACTICE
(4 credits)
Syllabus:
The communication process. Principles of effective
communication. Practicals and laboratory exercises on
communication techniques including printed media, radio
programmes, the preparation and use of audio-visual
material.
Assessment:
Coursework 25%
Final Examinations 75%

AGEX 5004 (AX505)
COMMUNICATIONS THEORY AND
PRACTICE
(4 credits)
Syllabus:
The communication process. Principles of effective
communication. Practicals and laboratory exercises on
communication techniques including printed media, radio
programmes, the preparation and use of audio-visual
material.
Assessment:
Coursework 25%
Final Examinations 75%

AGEX 5005 (AX506)
FIELD RESEARCH PROJECT
(8 credits)
Syllabus:
A project based on field research data collected and analysed
by the candidate, for which a written report is submitted and
an oral examination held.

AGEX 5006 (AX507)
MANAGING EXTENSION FOR
AGRICULTURAL AND RURAL
DEVELOPMENT
(4 credits)
Prerequisite:
Syllabus:
Agricultural and rural development. Organisational design
and structure. The process of extension management;
planning; organising; control systems. Human resource
development; leadership, delegation and motivation; team
building and conflict management; performance appraisal;
staff training and development.
Assessment:
Coursework 25%
Examination 75%
AGEX 5007 (AX508)
RURAL SOCIAL SYSTEMS
(4 credits)
Syllabus:
A systems approach in the analysis of rural social relations. Definition and discussion of primary and secondary groups, roles and social status, geographic and cultural communities. Rural-urban drift and immigration processes. Structural and social Caribbean rural development. Policy issues and programmes in the promotion of integrated rural development.
Assessment:
Coursework 25%
Final Examination 75%

AGEX 5007 (AX507)
RURAL SOCIAL SYSTEMS
(4 credits)
Syllabus:
A systems approach in the analysis of rural social relations. Definition and discussion of primary and secondary groups, roles and social status, geographic and cultural communities. Rural-urban drift and immigration processes. Structural and social Caribbean rural development. Policy issues and programmes in the promotion of integrated rural development.
Assessment:
Coursework 25%
Final Examination 75%

AGGE 1900 (AG19A)
PHYSICAL GEOGRAPHY
(6 credits)
Syllabus:
The course will cover general Earth-Science Tradition concepts including Physical geographical processes: Geomorphology: coasts, tectonic activity, rivers and hydrology, Caribbean landforms, Biogeography, soils, Climatology; weather and climate, Anthropogenic-Environment Interactions; water quality and pollution, contributions to climate change, Caribbean Hazards; landslides, flooding, volcanoes, earthquakes
Assessment:
Coursework 40%
Final Examination 60%

AGGE 1901 (AG19B)
HUMAN GEOGRAPHY
(6 credits)
Syllabus:
The course will cover general human-environment interactions, with a Caribbean-focus: culture-environment issues; demography, population distributions, growth, relocation and transition, population controls; cultural geography, change and diversity; spatial behaviour; migration, perceptions to hazards; political, geopolitical assessments, international political systems; Locational issues; economic activity and economies, natural resource use, urban economic bases, world urban diversity, regional issues, Earth Science and Localational Traditions
Assessment:
Coursework 40%
Final Examination 60%
AGLS 1001 (AL13C)
ANATOMY AND PHYSIOLOGY OF ANIMALS
(3 credits)
Syllabus:
Brief introduction to comparative anatomy and physiology of livestock including muscle and growth, circulation, respiration, digestion, reproduction, lactation, immunology, endocrinology and tropical environmental stress.
Assessment:
Coursework 40%
Examination 60%

AGLS 2001 (AL21C)
PRINCIPLES OF LIVESTOCK PRODUCTION
(4 credits)
Prerequisite: AGLS 1001 (AL13C)
Syllabus:
An introduction to the factors affecting animal production in general to show the interrelationship between animal health, nutrition, genetics and breeding, animal housing and the environment and the marketing of social factors, for domestic and non-domestic livestock species. To highlight the importance of physiological states in animal production systems and to understand the concepts used in developing intensive systems of animal production for both domestic and non-domestic species.
Assessment:
Coursework 40%
Final Examination 60%

AGLS 2002 (AL22B)
ANIMAL NUTRITION
(3 credits)
Prerequisite: AGLS 1001 (AL13C)
Syllabus:
The animal and its food; the nutrients and their digestion and metabolism; feedstuff used in animal diets; evaluation of feeds; feeding standards for maintenance, growth, reproduction and lactation; procedures in feed formulation.
Assessment:
Coursework 25%
Final Examination 75%

AGLS 2004 (AL26A)
LIVESTOCK PRODUCTS TECHNOLOGY
(3 credits)
Syllabus:
Technology of milk, meat products and eggs; including quality, consumer demand, methods of storage, distribution and processing, preparation and market presentation. Skin preservation, processing and grading. Field visits.
Assessment:
Coursework 40%
Final Examination 60%

AGLS 2005 (AL20B)
PARASITOLOGY, ANIMAL HEALTH AND DISEASE
(3 credits)
Prerequisite: AGLS 1001 (AL13C)
Syllabus:
Biology of parasites of major economic importance for various livestock species. Etiology, diagnosis, pathogenesis and management of parasitic infections, prophylaxis, therapeutics – diagnostic principles, infectious, production and parasitological diseases of cattle, small ruminants, pigs, poultry, rabbits and others, the epidemiology, clinical diagnosis, control and treatment of each disease with a focus on tropical/subtropical areas.
Assessment:
Coursework 60%
Final Examination 40%
AGLS 3000 (AL33B)
POULTRY PRODUCTION
(3 credits)
Prerequisite: AGLS 1001 (AL13C)
Syllabus:
Structure of the poultry industry in CARICOM countries with emphasis on chickens. Species of poultry of commercial importance. Management practices including physiology, breeds and breeding, health maintenance, nutrition and feeding, housing and waste management, equipment, incubation (including hatchery management) and brooding. The rearing of breeder flocks, layers and broilers. Records, maintenance, handling, processing and marketing of poultry products.
Assessment:
Coursework 25%
Final Examination 75%

AGLS 3003 (AL36A)
RUMINANT PRODUCTION SYSTEMS
(3 credits)
Prerequisite: AGLS 1001 (AL13C), AGLS 2002 (AL22B) and AGLS 2005 (AL20B)
Syllabus:
Structure of the ruminant industry in CARICOM, brief physiology of ruminants, management practices including breeds and breeding, feeding, health and disease prevention and control, housing and waste management, record keeping, planning new enterprises and use of new technologies. Systems of production for beef and dairy cattle, water buffalo, sheep and goats.
Assessment:
Coursework 40%
Final Examination 60%

AGLS 3004 (AL37B)
NON-RUMINANT PRODUCTION SYSTEMS
(4 credits)
Prerequisite: AGLS 1001 (AL13C), AGLS 2002 (AL22B) and AGLS 2005 (AL20B)
Syllabus:
Structure of the pig, poultry and rabbit industries in the CARICOM region; management practices including physiology, breeds and breeding, feeding, health, housing and waste management, record keeping, technology and planning of an enterprise. Systems of production for pigs, poultry and rabbits.
Assessment:
Coursework 40%
Final Examination 60%

AGLS 3005 (AL38B)
PRINCIPLES OF WILDLIFE MANAGEMENT AND PRODUCTION
(3 credits)
Prerequisite: AGLS 1001 (AL13C), AGLS 2002 (AL22B) and AGLS 2005 (AL20B)
Syllabus:
Description and importance of wildlife. An introduction to Wildlife Management with particular reference to the neotropics. Approaches to Wildlife Conservation. To understand the concepts used in developing intensive systems of animal production for both domestic and non-domestic species. The description of intensive production models of the important neo-tropical species of wildlife.
Assessment:
Coursework 40%
Final Examination 60%
AGLS 3008 (AL3OC)
APPLIED ANIMAL PHYSIOLOGY
(3 credits)
Prerequisite: AGLS 1001 (AL13C)
Syllabus:
This course is designed to link animal production potential to the underlying physiological processes. The course will be used to demonstrate how knowledge of the animals’ physiological processes is being used to enhance or modify production and performance. The course will focus on applied reproductive physiology including assisted reproductive technologies including estrous synchronization, embryo transfer, superovulation, semen evaluation and cloning, manipulation of lactogenesis and galactopoiesis; modification of the digestive process including use of enzymes, feed additives, and feed processing to enhance rumen by-pass capacity, nutritional management to reduce environmental pollution, modify product composition and reduce metabolic disorders; modification of the growth process including the use of growth promotants and repartitioning agents; Stress physiology and manipulation of the Hypothalamo-Pituitary-Adrenal axis; transgenesis to enhance productivity and or change products and; nutrition reproduction interactions.
Assessment:
Coursework 60%
Final Examination 40%

AGRI 3013 (AG313)
RESEARCH PROJECT
(4 credits)

AGRI 1000 (AG133)
PRACTICAL SKILLS - SUMMER
(3 credits)
Syllabus:
Practical tropical crop and animal husbandry and farm machinery and equipment handling and usage. Activities include field trips to observe modern and appropriate agriculture technologies.
Assessment:
Report on activities undertaken and one test. Grading is pass or fail. Request for exemption from Practical Skills must be submitted before the end of Semester I to the Dean’s Office.

AGRI 1003 (AG14C)
MATHEMATICS FOR SCIENTISTS
(3 credits)
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%

AGRI 1010 (AG18A)
INTRODUCTION TO CROP AND LIVESTOCK PRODUCTION
(4 credits)
Syllabus:
Introduction to fundamental concepts of crop and livestock production. Provides an overview of crop production and deals with the major species of livestock in the CARICOM region, along with the factors that affect their productivity and profitability.
Assessment:
Coursework 20%
Final Examination 80%

AGRI 1011 (AG10C)
INTRODUCTION TO GENERAL GENETICS
(3 credits)
Syllabus:
Review of historical development of genetics and its contribution to society. Study of basic principles of heredity including Mendel’s Laws, incomplete dominance, sex determination and sex linkage. Extension of Mendelian genetics to Population and quantitative genetics; Chemical basis of heredity, genetic variation and recombinant DNA technology.
Assessment:
Coursework 40%
Final Examination 60%
AGRI 1012 (AG10A)
MICROBIOLOGY
(3 credits)
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%

AGRI 1013 (AG10B)
INTRODUCTION TO BIOCHEMISTRY
(4 credits)
Syllabus:
The course will cover biomolecules including nucleotides and nucleic acids, proteins and amino acids, carbohydrates and lipids; Enzymes, including enzymatic catalysis, enzyme kinetics, regulation and inhibition; metabolism including, glycolysis, citric acid cycle, electron transport and oxidative phosphorylation, gluconeogenesis, glycogenolysis, lipogenesis, lipolysis, photosynthesis, amino acid metabolism, nucleotide metabolism; gene expression and replication including DNA repair, replication and recombination, transcription and RNA processing, translation and regulation of gene processing.
Assessment:
Coursework 60%
Final Examination 40%

AGRI 1016 (AG11B)
PLANT ANATOMY AND PHYSIOLOGY
(3 credits)
Syllabus:
Introduction to the evolution, taxonomy and diversity of crop plants; support, transport and protective tissues; root and stem structure and modifications. Organs of perennation. Major C3 and C4 crop plants; Floral structure and seed dispersal. Fruit classification. Water relations of cells and whole plants; photosynthesis, translocation assimilate partitioning and plant productivity; ion uptake and mineral nutrition; germination, dormancy and seedling establishment; regulation of growth and development by hormonal and environmental factors: introduction to plant growth and analysis.
Assessment:
Coursework 60%
Final Examination 40%

AGRI 2000 (AG233)
INTERNSHIP – SUMMER
(3 credits)
Syllabus:
Hands-on experience in agricultural activities on accredited commercial, semi-commercial, research or marketing institutions in any Caribbean country.
Assessment:
Coursework 100%
(Host Evaluation: 35%)
Student Report: 50%
Co-ordinator Evaluation: 15%
AGRI 2001 (AG21C)
TROPICAL CROP PROTECTION
(3 credits)
Prerequisite: AGLS 1001 (AL13C) and AGRI 1016 (AG11B)
Syllabus:
The nature and extent of pest damage in the tropics and
the roles of various pest agents-insects, mites, nematodes,
weeds, pathogens, vertebrate pests. Biology and ecology
of tropical pests and the concept of pest threshold levels.
Principles of pest control-cultural, biological, chemical,
legislative. Pesticide for crop pest management, formulations
and application. Pesticide safety concepts. Integrated pest
management.
Assessment:
Coursework 40%
Final Examination 60%

AGRI 2002 (AG22C)
POSTPRODUCTION TECHNOLOGY
(3 credits)
Prerequisite: AGEX 1000 (AX15C) and AGRI 1016 (AG11B)
Syllabus:
Technology for agricultural products quality measurement
and enhancement during processing and marketing;
commodity and co-product processing into value-added
materials and specialty products. Increasing marketability
and value of commodities by ensuring value-added products
retain sensory quality, nutritional value and are free from
safety hazards. Recovery and utilisation of processing waste.
Assessment:
Coursework 30%
Final Examination 70%

AGRI 3000 (AG35B)
STATISTICAL METHODS
(4 credits)
Prerequisite: AGRI 1003 (AG14C)
Syllabus:
Basic descriptive statistics, basic concepts and terms in
inferential statistics. Binomial and Normal Distributions.
Inference about a single population mean and the difference
between two populations mean. Analysis of categorical data:
assessing independence of factors and Goodness of Fit Test.
Design of experiments and analysis of variance, correlation
and simple linear regression.
Assessment:
Coursework 40%
Final Examination 60%

AGRI 3001 (AG39A)
CLIMATE CHANGE IMPACT &
MANAGEMENT
(4 credits)
Prerequisites: BIOL 1462 (BL11G) or AGEX 1000 (AX15C)
Syllabus:
Physical principles of meteorology and atmosphere dynamics.
Greenhouse gases and climate change. Techniques of
monitoring and control of atmospheric pollution. Global
warming and impacts on the environment. Adaptation
strategies and Impact control. International Global Climate
Control Treaties.
Assessment:
Coursework 40%
Final Examination 60%
AGRI 3006 (AG30B)  
PRINCIPLES OF ANIMAL AND PLANT BREEDING  
(4 credits)  
Prerequisites:  
Syllabus:  
Core contents will include mitosis and meiosis including oogenesis and spermatogenesis; Mendelian genetics, including independent assortment, use of laws of probability and chi-square analysis to explain the genetic events and the influence of change on genetic data; Extensions of mendelian genetics including the concept of multiple alleles, incomplete, partial and co-dominance, epistasis, sex-linked and sex-influenced inheritance; Quantitative genetics including inheritance of quantitative and polygenic traits; heritability; Linkage crossing over mapping; Chromosome mutations and variation in chromosome number including nondisjunction, inversion, deletions and translocations; Extra nuclear inheritance, including mitochondrial and chloroplasts DNA, genomic imprinting; Genetics of Bacteria and Bacteriophages and Population genetics including allelic frequencies, Hardy-Weinberg law; effects of mutations, migration, genetic drift and non random mating on genotype and allelic frequencies, genetic basis for inbreeding depression; Genetic improvement principles, estimating genetic value including contemporary groups, EPDs, EBVs, accuracy and genetic markers; selection including methods of selection; principles of mating systems.  
Assessment:  
Coursework 40%  
Examination 60%  

AGRI 3007 (AG39B)  
CURRENT ISSUES IN AGRICULTURE  
(3 credits)  
Prerequisites:  
Syllabus:  
It involves directed study on any topic of interest to the students, may include library and laboratory learning experiences not otherwise available to undergraduate students.  
Assessment:  
Written Report of Study 60%  
Oral Presentation/Defence 40%  

AGRI 3012 (AG30A)  
AGRICULTURAL BIOTECHNOLOGY  
(3 credits)  
Prerequisites: AGRI 1013 (AG10B) and AGRI 1011 (AG10C)  
Syllabus:  
This course will cover the application of biotechnology in amelioration of productivity of soils, livestock and poultry, crops and horticulture, and food production/quality.  
Assessment:  
Coursework 40%  
Final Examination 60%  

AGSL 1000 (AS16B)  
SOILS AND THE ENVIRONMENT  
(4 credits)  
Syllabus:  
Soil texture, structure, aeration, water relations, evapotranspiration, climatic factors and their measurements; impact of local climate and climate near the ground on agriculture; agriculture and the environment. Chemical nature and properties of clays, soil organic matter, ion exchange and soil reaction; agricultural importance of soil components; soil chemical constraints and availability of N, P, K, Ca, Mg and minor elements; amelioration of chemical behaviour of soils.  
Assessment:  
Coursework 25%  
Final Examination 75%  

AGSL 2000 (AS22B)  
SOIL FERTILITY AND FERTILIZER TECHNOLOGY  
(3 credits)  
Prerequisite: AGSL 1000 (AS16B)  
Syllabus:  
Principles of soil fertility and plant nutrition; Essential elements for plant growth; Nutrient cycles and nutrient dynamics in soils – macro and trace elements; Soil pH management; Essentials of fertilizers – manufactured and natural; Soil fertility evaluation: Fundamentals of nutrient and fertilizer management; Isotopic techniques in fertilizer optimisation; Environmental concerns with fertilizer use.  
Assessment:  
Coursework 40%  
Final Examination 60%  

UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006  
The Faculty of Science & Agriculture
AGSL 2001 (AS21D)
SOIL AND WATER MANAGEMENT
(3 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
Methods of land clearing and their effects on soil structure; soil tillage and the management of soil structure for plant growth; management of soil structure to improve water intake, transmission and storage; water management for salinity control; soil erosion and the management of hillsides; management of dry and wet lands; management of forest soils; management of specific problem soils; soil management and its effects on microbes, microbial activity and soil fertility; soil fertility management; case studies.
Assessment:
Coursework  25%  
Final Examination  75%  

AGSL 3001 (AS31A)
IRRIGATION AND DRAINAGE TECHNOLOGY
(3 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
Soil water potential and measurements; saturated/unsaturated water movement; water movement to roots; evaporation, evapotranspiration and consumptive use. Sources of water; methods of water application; design, installation, operation and evaluation of irrigation systems; pumps and pumping for irrigation and drainage; drainage principles; types of drains; planning, design and installation of drainage systems; legal and administrative aspects of irrigation and drainage.
Assessment:
Coursework  25%  
Final Examination  75%  

AGSL 3000 (AS30B)
WATER RESOURCE MANAGEMENT AND PROTECTION
(3 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
Sources of water and their use by man; elementary hydrology; water storage methods; constructing small storage facilities; controlling water runoff; harnessing and conveying water; water losses during water storage and use; methods of reducing water losses; consumptive use of water by crops; estimating and measuring crop water requirements for optimum crop growth; irrigation scheduling; protecting the water resources against pollution and salinisation; legal aspects of water management and use.
Assessment:
Coursework  25%  
Final Examination  75%  

AGSL 3002 (AS33D)
SOIL SURVEY AND LAND EVALUATION
(4 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
Principles of soil ecology and soil habitation – faunal and floral interactions with soil properties; kinds, classes, and field techniques in soil surveys; Aerial photographic interpretation; Remote sensing; GIS and their applications; soil and land capability classification; Use and interpretation of soil and land capability maps; Land evaluation techniques.
Assessment:
Coursework  40%  
Final Examination  60%  
AGSL 3004 (AS34D)
INTEGRATED WATERSHED MANAGEMENT
(4 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
The hydrologic cycle; rainfall, runoff/stream flow measurement and analysis; rainfall-runoff models; the watershed and its ecosystem; biogeochemical and nutrient cycles; integrated watershed management principles and planning; soil and water resources conservation practices; watershed degradation and restoration; soil erosion and control; water quality and yield improvement; the role of forestry/agro-forestry; socio-economic, legal and institutional aspects. Case studies and field trips.
Assessment:
Coursework 25%
Final Examination 75%

AGSL 3005 (AS35B)
WEST INDIAN SOILS
(3 credits)
Prerequisite: AGSL 1000 (AS16B)
Syllabus:
Influence of soil forming factors on soil formation and development specific to the wider Caribbean region; soil formation and distribution in the various Caribbean ecological zones; soil classification at regional and international levels; land use and management appropriate to the region; soil degradation and rehabilitation; land capability appropriate to the region; soil data base and land use planning appropriate to small islands states; field studies of selected West Indian Soils.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3361 (BC33A)
APPLIED BIOCHEMISTRY
(4 credits)
Prerequisites: BC23B
Syllabus:
Biochemical toxicology, including the absorption, metabolism and effects of toxins on mammalian cell metabolism. Human nutrition with particular reference to developing regions.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3864 (Z34D)
FISHERIES BIOLOGY & MANAGEMENT
(4 credits)
Prerequisite: ZZ3C
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%
BIOL 1061 (BL11D)
CELL BIOLOGY AND GENETICS
(6 credits)
Prerequisites:
A-level pass in Biology and at least O-Level/CXC pass in Chemistry
Syllabus:
A study of the ultra structure of the cell, biochemistry of bio molecules and inheritance. Topics include structure and function of bio molecules and cell organelles, enzyme activity, bioenergetics, respiration, the mechanisms of inheritance, gene mapping and genetic variation.
Assessment:
Coursework 20%
One 3-hr practical 20%
Final Examination 60%

BIOL 1462 (BL11G)
GENERAL ECOLOGY AND BIOMETRY
(6 credits)
Prerequisites: A-level Biology or Permission of Dean
Syllabus:
An introductory treatment of ecology and data analysis. Topics include population ecology, community ecology, ecosystem ecology, a survey of terrestrial and aquatic ecosystems, descriptive statistics, inferential statistics, independence and probability, simple linear regression and correlation.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 1669 (BL11F)
DIVERSITY OF PLANTS AND ANIMALS
(4 credits)
Prerequisites: Passes in 2 A-level subjects or equivalent which should normally include Biology
Syllabus:
An introduction to the diversity of plants and animals. The characteristics, range of structure, reproduction, life cycles and habits of selected plant and animal groups will be covered.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 1764 (BL11G)
DIVERSITY OF GREEN PLANTS
(6 credits)
Prerequisites: A-level pass in Biology or Botany or equivalent
Syllabus:
An introduction to the evolution, taxonomy, and diversity of green plants, from simple algae to complex flowering plants. Topics include factors governing plant size and structure, origin of land plants, organismal theory of plant form. Life cycles of the green and brown algae, mosses, lycophytes, ferns, cycads, gymnosperms, and flowering plants. Requirements for life on land. Success of ferns and flowering plants. Support, vascular, and protective tissues. Leaf, stem and root and their modifications. Meristems, phyllotaxy, and plant architecture. Grasses. Wood anatomy. Flower, fruit, and seed. Pollination and seed dispersal.
Assessment:
Two In-course theory tests 10%
Lab Reports 10%
Two practical tests 20%
Final examination 60%
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1861</td>
<td>ANIMAL DIVERSITY</td>
<td>6</td>
<td>A-level Biology or equivalent</td>
<td>A survey of the phylogeny and characteristics of major invertebrate and vertebrate animal groups. Special topics include theories of origin of multicellularity; cellular and tissue level organisation; diploblastic and triploblastic conditions; body cavities; metameric segmentation and tagmatisation; early embryonic development; colonisation of land and evolutionary trends in vertebrates.</td>
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<tr>
<td>BIOL 2063</td>
<td>MARINE ECOLOGY</td>
<td>4</td>
<td>BIOL 1462 (BL11G) or (AG13A &amp; AG14A)</td>
<td>Topics on basic oceanography including bathymetry and topography of the ocean floor; plate tectonics and continental drift; physical and chemical properties of sea water; atmospheric and oceanic circulation; tides; form and function of planktonic organisms; primary and secondary organic production and zooplankton distribution including sub tidal shallow sea, deep sea, hydrothermal vent communities and inter tidal benthic communities. Coral reef biology; biology of marine mammals. Practicals include time at sea.</td>
</tr>
<tr>
<td>BIOL 2162</td>
<td>ADVANCED GENETICS</td>
<td>4</td>
<td>BL11D or AP10A/ AP10B</td>
<td>A study of prokaryotic and eukaryotic genetics. Topics include DNA structure and replication; gene expression and regulation; recombination in prokaryotes, complementation and recombination mapping, gene fine structure analysis and evolution of the concepts of a gene; changes in chromosome structure and number – their transmission and evolutionary significance.</td>
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</tbody>
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UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

BIOL 2261 (BL28C)
BIOLGY OF MICRO-ORGANISMS
(4 credits)
Prerequisites: BL11D or AP10A / AP10B
Syllabus:
Biology of bacteria, fungi and viruses. Topics include taxonomy, structure, nutrition, reproduction and management of prokaryotes, viruses and fungi; importance of microbes and fungi to man and the environment.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 2362 (BC22B)
FURTHER METABOLISM AND
GENE EXPRESSION
(4 credits)
Prerequisites: BL11D and C11C
Co-requisite: BC 23A
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%

BIOL 2361 (BC22A)
BIOMOLECULES AND ENERGY
METABOLISM
(4 credits)
Prerequisites: BL11D plus C11C
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%

BIOL 2363 (BC23A)
METABOLISM
(4 credits)
Prerequisites: BL11D and C11C
Syllabus:
Pathways and control mechanisms for the metabolism of lipids, amino acids and nitrogen. Carbohydrate biosynthesis and photosynthesis. Outline of the basic concepts regarding contractile systems and mechanisms of hormone action. Introduction to the structure and function of immunoglobulins.
Assessment:
Coursework 40%
Final Examination 60%
BIOL 2364 (BC23B)
ADVANCED GENERAL BIOCHEMISTRY
(4 credits)
Prerequisites: BL11D and C11C
Co-requisite: BC 22A and BC23A
Syllabus: Relationships between protein structure and function. Mechanism of action of specific enzymes or classes of enzymes e.g. serine proteases, thiol proteases, lysozyme, aldolase, transaminases, oxidoreductases. Membrane structure and transport processes. Metabolic regulation in mammalian energy metabolism.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 2461 (Z24B)
HUMANS & THE ENVIRONMENT
(4 credits)
Prerequisites: BL11G or (AG13A & AG14A)
Assessment:
Coursework 40%
Final Examination 60%

BIOL 2761 (BT27A)
PLANT PHYSIOLOGY
(4 credits)
Prerequisites: BL11D and BL11F
Syllabus: An advanced treatment of plant physiology and selected aspects of cellular metabolism. Topics include water relations of cells, tissues and whole plants; germination, seedling development, growth, differentiation and growth analysis; mineral uptake and plant nutrition; photosynthesis, translocation and sink / source relationships; roles and applications of hormones and growth regulators.
Assessment:
Coursework 40% comprising
Two in-course theory tests 20%
Lab Reports 10%
One Assignment 5%
One in-course practical test 5%
Final Examination 60%

BIOL 2861 (Z21E)
FUNCTIONAL DESIGN IN ANIMALS
(4 credits)
Prerequisite: BL11E or AL11B or AL13B
Syllabus: Adaptation and design in animals. A detailed treatment will be given at the gross anatomical as well as fine structure levels of adaptive structures and features used by animals to perform the functions of protection, support, locomotion, feeding, gas exchange, internal transport, waste elimination and reproduction.
Assessment:
Coursework 40%
Final Examination 60%
**BIOL 2862 (Z21F)**  
**ANIMAL PHYSIOLOGY**  
(4 credits)  
Prerequisite: BL11E or AL11B or AL13B  
Syllabus: Processes and fundamental concepts in gaseous exchange, metabolism, temperature regulation, osmoregulation, haemodynamics of blood circulation and fundamental concepts in sensory, neural and muscle physiology.  
Assessment:  
Coursework 40%  
Final Examination 60%  

**BIOL 2864 (Z22C)**  
**PARASITISM**  
(4 credits)  
Prerequisite: BL11E or AL11B or AL13B  
Assessment:  
Coursework 40%  
Final Examination 60%  

**BIOL 2866 (Z22B)**  
**ENTOMOLOGY**  
(4 credits)  
Prerequisite: BL11E or AL11B or AL13B  
Assessment:  
Coursework 40%  
Final Examination 60%  

**BIOL 3061 (BL38C)**  
**MOLECULAR BIOLOGY**  
(4 credits)  
Prerequisites: BL27B or BC22B  
Syllabus: An advanced treatment of gene and genome organisation in eukaryotes and gene regulation in prokaryotes and eukaryotes. Recombinant DNA technology and its application, including vectors, restriction enzymes and restriction mapping, construction of libraries and gene isolation, construction and use of RFLP maps. DNA fingerprinting, analysis and sequencing of genes. PCR and its applications.  
Assessment:  
Coursework 40%  
Final Examination 60%
BIOL 3062 (Z36B)
CONSERVATION BIOLOGY
(4 credits)
Prerequisite: BL11G or Equivalent (Students are also advised to do BL11D or AP10B)
Syllabus:
Principles of conservation biology including types and distribution of biodiversity, loss of biodiversity and its consequences; endangered species; population viability analysis and monitoring; Conservation practices: protected areas, biosphere reserves, restoration ecology; ex situ conservation strategies and genetic engineering; establishing new populations by translocation and reintroduction.
Legal and institutional aspects: Land tenure systems and species and habitat protection; national legislation; conservation authorities and organisations; international programmes; international conservation treaties and conventions; conservation education.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3068 (BL33C)
FIELD COURSE IN NEOTROPICAL ECOTOLOGY
(4 credits)
Prerequisites: BL11G and 16 credits of Level II Life Sciences courses, or permission of the department
Syllabus:
Introduction to focal group, ecological principles illustrated by focal group, specialized features of focal group, class research projects.
Assessment:
Field book 50%
Group oral report 10%
Group written report 40%

BIOL 3069 (BL33B)
RESEARCH PROJECT
(4 credits)
Prerequisites: At least a B average in Level II Life Sciences courses or permission of the Head of Department. Students wishing to do this course are strongly encouraged to read an elementary statistics course.
Syllabus:
Short lecture course (6-8 hours): Aims and means of assessing project feasibility; Methods of investigation; Experimental design; Project reporting and presentation. An approved investigation of a problem in biological and a written report thereon.
Assessment:
In-course assessment 40%
Project Report 60%

BIOL 3262 (BL38J)
MICROBIAL BIOTECHNOLOGY
(formerly Applied Microbiology)
(4 credits)
Prerequisites: BL28C or AG13A or (BC23A & BC22B) or AG13B
Syllabus:
Advanced treatment of applications of microbiology including microbial ecology and symbiotic relationships; pathogenesis in plants / animals; principles of immunology; food spoilage and processing; single cell protein production, sewage treatment; microbial leaching and genetic engineering. Other special topics dealt with are photosynthesis – anaerobic and respiratory systems in bacteria; use of radioisotopes in microbiology; Strickland reactions; amino acid production, industrial – and organic acid fermentation.
Assessment:
Coursework 40%
Final Examination 60%
### BIOL 3362 (BC38B)
**SELECTED TOPICS IN BIOCHEMISTRY**
*(4 credits)*

**Prerequisites:** BC22A and BC23B  
**Syllabus:**  
The areas of study may vary slightly from year to year but will usually include:  
- Modern concepts of immunology.  
- Regulation of the biosynthesis of amino acids.  
- Biochemistry of selected tissues (eye, muscle, kidney, adipose tissue).  
- Neurochemistry, biological oxidations and mechanisms of signal transduction.  

**Assessment:**  
- Coursework: 40%  
- Final Examination: 60%

### BIOL 3364 (BC37B)
**CLINICAL BIOCHEMISTRY - I**
*(4 credits)*

**Prerequisites:** BC 23A  
**Syllabus:**  
- Principles of clinical analytical methods.  
- Water and electrolyte balance, oxygen transport and acid-base balance.  
- Enzyme tests in diagnosis.  
- Biochemistry of liver disease.  
- Aspects of clinical endocrinology, including thyroid steroid and various peptide hormones.  
- Plasma lipoprotein metabolism.  

**Assessment:**  
- Coursework: 40%  
- Final Examination: 60%

### BIOL 3461 (Z31A)
**COASTAL ECOSYSTEM MANAGEMENT**
*(4 credits)*

**Prerequisite:** Z23A or Z23C  
**Syllabus:**  
- Coastal resources: An examination of the natural resources associated with beaches, coral reefs, wetlands, estuaries, harbours and other shoreline features.  
- Pollution ecology, pollutants, especially organic, oil, pesticide, heavy metal, physical and thermal pollution, their sources, effects and remedies.  
- Resources management practices: Coastal surveys, environmental monitoring, water quality criteria, zoning, legislation and enforcement.  
- Marine parks and conservation areas – purpose, criteria, development and management.  

**Assessment:**  
- Coursework: 40%  
- Final Examination: 60%

### BIOL 3463 (BL39B)
**POLLUTION & ENVIRONMENTAL MANAGEMENT**
*(4 credits)*

**Prerequisites:** Z24B  
**Syllabus:**  
- Ecotoxicology, Ecotoxicity testing, Epidemiology and public health.  
- Introduction to environmental law.  
- Environmental regulations, Ecological crime.  
- Environmental sampling and testing methods for water, air, sediment, noise, radioactivity.  
- Environmental engineering background.  
- Physiochemical and biological treatment methods for sewage and industrial waste.  

**Assessment:**  
- Coursework: 40%  
- Final Examination: 60%
BIOL 3464 (BT37E)
TROPICAL FOREST ECOLOGY
AND MANAGEMENT
(4 credits)
Prerequisites: BL12A or BL11G
Syllabus:
An advanced treatment of topics in tropical forest ecology and management. Topics include biotic and abiotic factors, biotic interactions including regulation of biodiversity, succession and regeneration and nutrient cycling in tropical forest ecosystems. Disturbances and tropical forest management including the history of forestry in the wet tropics; tropical forest inventory; tropical forestry towards sustainability; plantation forestry in the wet tropics; social dimensions and the future of tropical forest management.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3662 (BL36B)
EVOLUTION AND BIOSYSTEMATICS
(4 credits)
Prerequisites: BL11D or AP10A /AP10B
Syllabus:
An advanced treatment of population genetics, evolution and methods of biosystematics. Topics include the H-W model; evolutionary forces; neutral theory vs. selectionist theory; macroevolution and biogeography; speciation: the biological species concept, isolating mechanisms; within species variation and micro taxonomy; morphological, chemical and molecular systematics; derivation of cladograms; formulation classifications; biological nomenclature. Case studies.
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3761 (BT31C)
FUNCTIONAL DESIGN IN PLANTS
(4 credits)
Prerequisites: BL11D and BL11F
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%

BIOL 3762 (BT36D)
PLANT BIOTECHNOLOGY
(4 credits)
Prerequisites: BL27B or (BC22B & BC23A)
Syllabus:
Assessment:
Coursework 40%
Final Examination 60%
**BIOL 3763 (BT38L)**
**CROP IMPROVEMENT**  
(formerly Plant Breeding)  
(4 credits)  
Prerequisites: BL27B or AC24A  
Syllabus:  
Assessment:  
Coursework 40%  
Final Examination 60%

**BIOL 3764 (BT38E)**
**ECONOMIC BOTANY**  
(4 credits)  
Co-requisites: BL36B  
Syllabus:  
Early domestication of plants and associated changes. Large-scale plantation crops – sugarcane, cocoa, coffee, citrus, and coconut. Products from secondary metabolites such as gums, dyes, resins, essential oils and spices, pharmaceuticals, narcotics. Fibres – origin, types, importance and utilisation by man. Timber production in the tropics and non-wood forest products. Under exploited plants. Ornamental horticulture.  
Assessment:  
Coursework 40%  
Final Examination 60%

**BIOL 3765 (BT38G)**
**PLANT PATHOLOGY**  
(4 credits)  
Prerequisites: BL28C or AG13A or AG13B  
Syllabus:  
Assessment:  
Coursework 40%  
Final Examination 60%

**BIOL 3861 (Z33E)**
**ANIMAL BEHAVIOUR**  
(4 credits)  
Prerequisite: Z21E or Z21F  
Syllabus:  
Assessment:  
Coursework 40%  
Final Examination 60%
BIOL 3863 (Z34E)
TROPICAL AQUACULTURE
(4 credits)
Prerequisite: BL11E or AL11B/AL13B
Assessment:
Coursework  40%
Final Examination  60%

BIOL 3865 (BL39A)
ANIMAL BIOTECHNOLOGY
(4 credits)
Prerequisites: (AP10B or BL11D) and AL23B or BL27B or (BC22B and BC23A)
Syllabus: Definition and scope of biotechnology. A survey of important technological revolutions and their application to nutrition, health, genetic conservation and improvement of animals, including an advanced treatment of technologies such as genome projects, cell culture, cloning, science and practice of transgenesis and molecular marker technology and their applications to reproductive biotechnology, marker-assisted breeding, nutritional biotechnology, animal health and conservation of wildlife and breeds. The course consists of thirty-six (36) hours of lectures and six (6) three-hour laboratory sessions.
Assessment:
Coursework  40%
Final Examination  60%

CHEM 2260 (C20B)
BASIC ORGANIC CHEMISTRY I
(4 credits)
Prerequisite: CHEM 1060 (C11C)
Syllabus: Aromatic chemistry, carbon-carbon bond formation, principles of organic synthesis, principles of stereochemistry. Practical: Thirty (30) hours of practical work.
Assessment:
Coursework – Practical & Theory  25%
Final Examination  75%

CHEM 0060 (C06E)
PRELIMINARY CHEMISTRY I
(0 credits)
Assessment:
Coursework – Practical & Theory  25%
Final Examination  75%

CHEM 0061 (C06F)
PRELIMINARY CHEMISTRY II
(0 credits)
Assessment:
Coursework – Practical & Theory  25%
Final Examination  75%
CHEM 1060 (C11C)  
INTRODUCTORY CHEMISTRY I  
(6 credits)  
Prerequisites: CHEM 0060 (C06E) & CHEM 0061 (C06F)  
or A-level Chemistry or their equivalent.  
Syllabus:  
Theory: Atomic Structure, periodic properties, bonding and  
molecular structure including covalent bonding. Structure of  
organic molecules, reactions of functional groups of organic  
compounds. IR Spectroscopy.  
Practical: Forty-eight (48) hours of practical work.  
Assessment:  
Coursework – Practical & Theory 25%  
Final Examination 75%  

CHEM 1061 (C11D)  
INTRODUCTORY CHEMISTRY II  
(6 credits)  
Prerequisites: CHEM 0060 (C06E) & CHEM 0061 (C06F)  
or A-level Chemistry or their equivalent.  
Syllabus:  
Theory: Introduction to main group chemistry, ionic  
bonding, co-ordination chemistry and elementary symmetry  
theory. Energy, energy distribution in molecules. The first  
and second laws of Thermodynamics. Chemical equilibrium,  
reaction kinetics.  
Practical: Fifty-eight (48) hours of practical work.  
Assessment:  
Coursework – Practical & Theory 25%  
Final Examination 75%  

CHEM 1062 (C10A)  
BASIC CHEMISTRY FOR LIFE SCIENCES  
(3 credits)  
Syllabus:  
The course is intended to provide students, who have had  
very little exposure to chemistry and who intend to proceed  
to degree level in the Life and Health Sciences, with a  
working knowledge of the basic concepts and principles of  
general and inorganic Chemistry including atoms, bonding,  
intermolecular Forces, quantifying matter, classes of  
reactions; Properties and reactions of carbon compounds  
including alcohols, aldehydes and ketones, carboxylic acids,  
esters and ethers, amines and amides, amino acids and  
peptides, natural polymers and stereochemistry and: physical  
chemistry including solutions rates of reactions, energy  
changes in physiochemical processes, kinetics and basic  
spectroscopy.  
Assessment:  
Coursework 25%  
Final Examination 75%  

CHEM 2015 (C20D)  
SPECTROSCOPY  
(4 credits)  
Prerequisite: CHEM 1061 (C11D)  
Syllabus:  
Theory and Instrumentation. Application of UV-visible  
spectra to transition metal ions and organic molecules. I.R.  
spectra and their use in structural elucidation for organic,  
organometallic and inorganic systems. N.M.R. spectra of 1H  
species and their applications to organic and organometallic  
systems. Other magnetic nuclei, e.g. 13C, 31P and 19F. Mass  
spectrometry and its application.  
Practical: Thirty (30) hours of practical work.  
Assessment:  
Coursework – Practical & Theory 15%  
Final Examination 85%
CHEM 2025 (C20E)
KINETICS AND MECHANISM
(4 credits)
Prerequisites: CHEM 1060 (C11C) and CHEM 1061 (C11D)
Syllabus:
Theoretical aspects of chemical kinetics. Techniques for the study of slow and fast reactions. Photochemistry. General factors affecting reaction rates and mechanisms. Mechanisms of reactions with typical co-ordination polyhedra encountered in organic and inorganic chemistry; e.g., tetrahedral, square planar and octahedral geometries; linear free energy relationship.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework – Practical & Theory 15%
Final Examination 85%

CHEM 2160 (C20A)
MAIN GROUP CHEMISTRY
(4 credits)
Prerequisites: CHEM 1060 (C11C) and CHEM 1061 (C11D)
Syllabus:
Symmetry theory and point groups. Introduction to the chemistry of the elements. Chemistry of the hydrides, oxides and halides; organometallic chemistry of the p-block elements.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework – Practical & Theory 15%
Final Examination 85%

CHEM 2360 (C20C)
BASIC PHYSICAL CHEMISTRY
(4 credits)
Prerequisite: CHEM 1061 (C11D)
Syllabus:
Nuclear chemistry. The behaviour of gases, liquids and solids; principles of surface and colloid chemistry; principles of electrochemistry.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework – Practical & Theory 15%
Final Examination 85%

CHEM 2460 (C20F)
PRINCIPLES OF CHEMICAL ANALYSIS
(4 credits)
Prerequisites: CHEM 1060 (C11C) and CHEM 1061 (C11D)
Syllabus:
Introduction to qualitative and quantitative analysis; calibration of laboratory equipment; criteria for choice of a method of analysis; good laboratory practices; good measurement practices; methods of quantification; basic statistics in analytical chemistry; errors in chemical analysis; sampling and sample preparation for chemical analyses; applications of spectroscopic and chromatographic methods of analysis.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework – Practical & Theory 15%
Final Examination 85%
CHEM 3167 (C30A)
ADVANCED INORGANIC CHEMISTRY
(3 credits)
Prerequisite: CHEM 2160 (C20A) or repeating CHEM 2160 (C20A)
Syllabus:
Application of Group Theory to bonding, LCAO and LGO description of bonding. Chemistry of the First Row Transition Metals including effects of Crystal Field Stabilisation Energy; physical, chemical and magnetic properties. Organometallic chemistry.
Practical: Thirty (30) hours of practical work.
Assessment:
One 2-hour written paper

CHEM 3168 (C31A)
ADVANCED TOPICS IN INORGANIC CHEMISTRY
(3 credits)
Prerequisite: CHEM 2160 (C20A)
Syllabus:
The chemistry of the 4d and 5d transition metals including metal cluster formation, homogeneous catalysis, bio-inorganic complexes, Inorganic polymers, oxide superconductors, heterocyclic rings and cages; heavy metals in the biosphere, other special topics in inorganic chemistry.
Practical: Thirty (30) hours of practical work.
Assessment:
One 2-hour written paper

CHEM 3267 (C30B)
BASIC ORGANIC CHEMISTRY II
(3 credits)
Prerequisite: CHEM 2260 (C20B) or repeating CHEM 2260 (C20B)
Syllabus:
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework 25%
Final Examination 75%

CHEM 3268 (C31B)
CHEMISTRY OF NATURAL PRODUCTS
(3 credits)
Prerequisite: CHEM 2260 (C20B)
Syllabus:
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework 25%
Final Examination 75%
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

CHEM 3269 (C32B)
ORGANIC SYNTHESIS
(3 credits)
Prerequisites: CHEM 2260 (C20B) and CHEM 3267 (C30B)
Syllabus:
C-C Bond forming reactions. Functional group interconversions. Selective reagents. Stereochemical control.
Synthetic strategy. Retrosynthesis - bond disconnections and synths.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework  25%
Final Examination  75%

CHEM 3367 (C30C)
THERMODYNAMICS AND STATISTICAL THERMODYNAMICS
(3 credits)
Prerequisite: CHEM 2360 (C20C) or repeating CHEM 2360 (C20C)
Syllabus:
Advanced Thermodynamics: Systems of variable composition, phase equilibria, solutions, equilibria in non-ideal systems.
Statistical Thermodynamics: Microstates and configurations, Boltzmann distribution law, entropy, partition functions, ideal gas law, Sackur-Tetrode equation, applications of statistical thermodynamics.
Practical: Thirty (30) hours of practical work.
Assessment:
One 2-hour written paper

CHEM 3467 (C30F)
BASIC ANALYTICAL CHEMISTRY
(6 credits)
Prerequisite: CHEM 2460 (C20F)
Syllabus:
Troubleshooting; methods of validation of analytical methods; application of statistics in experimental designs, process optimisation and decision-making; spectroscopic methods of analysis; separation techniques; ion-selective electrodes; biochemical methods of analysis.
Assessment:
Coursework  15%
Final Examination  85%

CHEM 3468 (C31F)
ADVANCED ANALYTICAL CHEMISTRY
(6 credits)
Prerequisite: CHEM 3467 (C30F)
Syllabus:
Aspects of Laboratory management: Quality control and quality assurance; laboratory accreditation; hazardous waste management. Investigative techniques in chemistry; project planning and execution; automated methods of analysis; modern spectroscopic methods of analysis; chromatographic and related techniques; radiochemical methods; polarography and related electrochemical methods; formulation science; analytical applications in forensic and clinical science, industry and the environment: the analytical chemist as an entrepreneur.
Assessment:
Coursework – Practical & Theory  15%
Final Examination  85%

CHEM 3566 (C30E)
ENVIRONMENTAL CHEMISTRY
(3 credits)
Prerequisite: At least three of CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360 (C20C), CHEM 2015 (C20D), CHEM 2025 (C20E), CHEM 2460 (C20F) or by permission of the Head of Department
Syllabus:
Introduction to the structure of the environment; the physiochemical characteristics and processes of natural waters: equilibrium, redox, and microbiological reactions; function and processes in the atmosphere: major element cycles, ozone, climate change, acid rain, smog; characteristics of, and processes in soils; sources, effects and control of selected water, air and soil pollutants; introduction to environmental analytical chemistry.
Practical: Thirty-six (36) hours of practical work.
Assessment:
Coursework  40%
Final Examination  60%
CHEM 3567 (C30G)
INTRODUCTION TO POLYMER CHEMISTRY
(3 credits)
Prerequisite: CHEM 2015 (C20D) or CHEM 2025 (C20E)
Syllabus:
Macromolecules, molecular weights, characterisation, step polymerisation, chain reaction polymerisation, co-polymerisation; polymer morphology, testing and characterisation; flow properties and elasticity; solubility, thermodynamics; polymer technology.
Practical: Thirty (30) hours of practical work.
Assessment:
Coursework 15%
Final Examination 85%

CHEM 3568 (C31C)
CORROSION SCIENCE
(4 credits)
Prerequisite: CHEM 2360 (C20C)
Syllabus:
Basic types of corrosion; basic electrochemical processes and concepts taking place in corrosion; corrosive characteristics of commonly encountered environments; basic concepts of metals relating to corrosion; various corrosion phenomena and methods of corrosion control.
Practical: Thirty-six (36) hours of practical work.
Assessment:
One 2-hour written paper

CHEM 3569 (C31G)
INDUSTRIAL CHEMISTRY I
(4 credits)
Prerequisite: CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360 (C20C), CHEM 2015 (C20D), CHEM 2025 (C20E), or permission from the Head of Department
Syllabus:
Coursework: This will consist of reports on site visits and a project.
Assessment:
One 3-hour written paper 60%
Coursework 40%
CHEM 3660
RESEARCH PROJECT
(4 credits)
Prerequisites: CHEM 2160 (C20A); CHEM 2260 (C20B); CHEM 2360 (C20C); CHEM 2015 (C20D); CHEM 2025 (C20E) and/or permission from the Head of Department.
Syllabus:
The project will be compulsory for all chemistry majors and will consist of 96 hours of practical work and the related requirements e.g. library work, lectures/seminars, meetings with supervisor(s), training on instruments etc. The student will be assigned a research problem carefully selected, bearing in mind the available time and resources, and will work under the supervision of a member of academic staff. The student will be required to do a literature review including an outline of the problem and the approach and methodology to be utilized. The student will plan and carry out experiments under supervision. On completion of the practical work, the student will be required to write up the project according to a specified format and submit the report by a given deadline for assessment. An oral presentation of ten minutes duration will also be required of the student at a public session to be held before the start of the semester final examinations.
Assessment:
Written Report 60%
Supervisor’s Assessment 20%
Oral Presentation 20%

COMP 1100 (CS11E)
COMPUTER PROGRAMMING I
(6 credits)
Prerequisite: NONE
Syllabus:
Assessment:
Coursework 25%
Examination 75%
COMP 1200 (CS11F)
COMPUTER PROGRAMMING II
(6 credits)
Prerequisite: COMP 1100 (CS11E)
Syllabus:
Assessment:
Coursework 25%
Examination 75%

COMP 2000 (CS20A)
DATA STRUCTURES
(4 credits)
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 2100 (CS20E)  
DISCRETE MATHEMATICS FOR COMPUTER SCIENCE  
(4 credits)  
Prerequisite: MATH 1140 and MATH 1150 (M12A and M12B)  
Syllabus:  
Examination:  
One 2-hour written paper 75%  
Coursework 25%  

COMP 2200 (CS21E)  
COMPUTER ARCHITECTURE  
(4 credits)  
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)  
Syllabus:  
Examination:  
One 2-hour written paper 75%  
Coursework 25%
COMP 2300 (CS22A)
PROGRAMMING FOR BUSINESS APPLICATIONS
(4 credits)
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)
Syllabus:
Basic Concepts: Fundamentals of information systems.
Overview of accounting systems. Introduction to data processing.
Business Information Systems: The revenue cycle [sales order processing, billing, accounts receivable].
The expenditure cycle [purchasing, accounts payable]. Value added tax management.
Inventory control. Human resources management/payroll/PAYE. General ledger and financial reporting system.
Access DBMS and Visual Basic for Access.
Develop a database application (Tables, Queries, Forms, Reports). Event driven programming, VBA programming.
Working with objects. Class modules.
Multi-user applications.
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 2400 (CS22B)
INFORMATION SYSTEMS
(4 credits)
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)
Syllabus:
Overview of Computer Hardware and Software. The nature of data and information. Types of Information Systems.
Identifying and selecting Systems Development Projects (SDPs), corporate and information systems planning.
Initiating and planning SDPs, assessing project feasibility.
Performing requirements determination: interviews, questionnaires, group interviews, direction observation, joint application design, prototyping.
System implementation, software testing, installation strategies, documentation, user training and support. Maintenance.
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 2500 (CS24E)
OBJECT-ORIENTED PROGRAMMING I
(4 credits)
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)

Syllabus:

Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 2600 (CS25E)
THEORY OF COMPUTING I
(4 credits)
Prerequisites: MATH 1140 and MATH 1150 (M12A and M12B)

Syllabus:

Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 2700 (CS27E)
DATABASE MANAGEMENT SYSTEMS I
(4 credits)
Prerequisite: COMP 1100 and COMP 1200 (CS11E and CS11F)

Syllabus:
Relational data model
SQL/Procedural SQL
Database design. ER Modeling. Normalization. Query processing and Optimization
Transaction management. Concurrency. Recovery
Databases and the Internet.

Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3000 (CS30E)
DESIGN AND ANALYSIS OF ALGORITHMS
(4 credits)
Prerequisite: COMP 2000 (CS20A)

Syllabus:
Examples of problems which can be solved using each of these techniques.

Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 3100 (CS31A)
OPERATING SYSTEMS
(4 credits)
Prerequisite: COMP 2200 (CS21E)
Syllabus:
Introduction to a systems programming language. Overview of Von Neumann computer architecture.
Process Management: Context switching, interrupt handling, inter-process communication, race conditions, mutual exclusion, critical regions, busy-waiting solutions, sleep-wakeup solutions, scheduling algorithms.
Deadlocks: Pre-emption, necessary conditions, deadlock modelling, detection, avoidance, prevention.
Memory Management: Multiprogramming, relocation and protection, swapping, bit-mapped management, linked-list management, partition management, virtual memory.
Virtual Memory: Pages, page frames, page tables, address translation, Memory Management Unit (MMU), page faults, translation look aside buffers, and page replacement algorithms.
File Systems: Contiguous allocation, linked-list allocation, index nodes, implementing directories.
Disk Performance Optimisation: Seek optimisation strategies.
Input/Output: Device controllers, I/O ports, memory-mapped I/O, direct memory access, interrupt handlers, device drivers.
Resource Protection: Protection domains, access matrices, access lists, capabilities lists, lock-key mechanisms.
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3150 (CS32A)
COMPUTER NETWORKS
(4 credits)
Prerequisite: COMP 3100 (CS31A)
Syllabus:
Examples.
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3250 (CS32F)
SOFTWARE ENGINEERING
(4 credits)
Prerequisite: COMP 2000 (CS20A)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 3300 (CS33E)
PROGRAMMING LANGUAGES I
(4 credits)
Prerequisite: COMP 2000 (CS20A)
Syllabus:
This course will focus on two programming paradigms: imperative and logic. For the imperative paradigm, the programming language C (or any other language representative of this paradigm) will be used. For the logic programming paradigm, the programming language Prolog (or any other language representative of this paradigm) will be used.
The Imperative Programming Paradigm: Basic types. Expressions and statements. Functions/procedures and program structure.
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3350 (CS33F)
PROGRAMMING LANGUAGES II
(4 credits)
Prerequisite: COMP 2000 (CS20A)
Syllabus:
This course will focus on two programming paradigms: object-oriented and functional. For the object-oriented paradigm, the programming language Smalltalk (or any other language representative of the paradigm) will be used. For the functional programming paradigm, the programming language Haskell (or any other language representative of this paradigm) will be used.
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 3400 (CS33B)
ARTIFICIAL INTELLIGENCE
(4 credits)
Prerequisite: COMP 2000 (CS20A)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3500 (CS34M)
INTERNET TECHNOLOGIES I
(4 credits)
Prerequisite: COMP 2500 (CS24E)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3550 (CS34N)
INTERNET TECHNOLOGIES II
(4 credits)
Prerequisite: COMP 3500 (CS34M)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3600 (CS35E)
THEORY OF COMPUTING II
(4 credits)
Prerequisite: COMP 2600 (CS25E)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 3650 (CS36E)
PROGRAMMING LANGUAGE TRANSLATION
(4 credits)
Prerequisite: COMP 2000 (CS20A)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3700 (CS37E)
DATABASE MANAGEMENT SYSTEMS II
(4 credits)
Prerequisite: COMP 2700 (CS27E)
Syllabus:
Database Life cycle
Transaction management and concurrency control. Database recovery management
Performance query optimization
Database administration
Distributed database
Internet technologies and Databases. Databases and XML Object – oriented databases. Database modeling with UML
Data warehousing
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3750 (CS37A)
NUMERICAL COMPUTING
(4 credits)
Prerequisite: MATH 1140 and MATH 1150 (M12A and M12B)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3800 (CS38E)
CRYPTOGRAPHY AND SECURITY
(4 credits)
Prerequisite: COMP 2100 (CS20E)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

COMP 3900 (CS39A)
SPECIAL TOPICS IN COMPUTER SCIENCE
(4 credits)
Prerequisites: COMP 1100 and COMP 1200 (CS11E, CS11F) and 2 relevant advanced courses
Topics:
The particular topic taught may change from year to year.
Examination:
One 2-hour written paper 75%
Coursework 25%
COMP 3990 (CS39E)
PROJECT
(4 credits)
Prerequisite: This course is available only to final year students who are majoring in Computer Science at the discretion of the Head, Department of Mathematics & Computer Science. Approval will depend on the student’s performance to date in Computer Science
Syllabus:
There will be six (6) to eight (8) lectures on the following:
• assessing project feasibility;
• methods of investigation;
• project reporting and presentation;
• project management.
Students will be required to do a research project in some topic in Computer Science. This may include design and implementation of an approved piece of software.
Examination:
Project report 80%
Oral presentation 20%

ECON 1005 (EC16A)
INTRODUCTION TO STATISTICS
(3 credits)
Syllabus:
Descriptive Statistics; Probability and Probability distributions, Sampling distributions, Estimation, Hypothesis testing, Simple correlation and regression.
Assessment:
Coursework
Examination

FOUN 1101 (FD11A)
CARIBBEAN CIVILISATION
(NOT for Humanities students)
Objectives:
1. To develop an awareness of the main process of cultural development in Caribbean societies, highlighting the factors, the problematics and the creative output that have fed the emergence of Caribbean identities.
2. To develop a perception of the Caribbean as wider than island nations or linguistic blocs.
3. To stimulate students’ interest in, and commitment to Caribbean civilisation and to further their self-definition.
Modules:
1. Origins
   I Caribbean space / physical environment / Amerindian peoples and Cultures: their legacy.
   II European conquest, settlement and demographic changes.
2. Fighting for Freedom
   I Slavery, maroonage and rebellion.
   II New in/out- migration, indenture, and their consequences: 19th and 20th centuries.
3. Quest for Identity
   I Race and nationalism.
   II Independence, dependence and regionalism.
   III Creolisation and ethnic identity.
4. Ideas, Ideologies and Theologies
   I Education/religion in the Caribbean.
   II Caribbean Intellectual Traditions.
5. Caribbean Expressions
   I Caribbean music - Calypso, Reggae.
   II Caribbean festivals.
   III Sports.
   IV Caribbean voices - French, English, Spanish, Linguistic Identity.
Evaluation:
In-course test 40%
Final 2-hour examination 60%
FOUN 1102 (FD11B)
ACADEMIC WRITING FOR DIFFERENT DISCIPLINES
The aim of this course is to develop students writing skills in areas related to their academic disciplines. There will be twenty-four (24) contact hours. Classroom activity will be supplemented by printed materials.

OPTIONS
Option A
Writing about Literature (Compulsory for Literatures in English Majors)
Critical Reading
Writing the Critical Analysis

Option B
Argument and Report Writing
Report Writing
Logical Argument

Option C
Scientific and Technical Writing
Technical Description
Expository Writing for Scientific and Technical Purposes

Evaluation:
Coursework  50%
Final Examination  50%

Students must pass both coursework and final examination in order to qualify for an overall pass in the course.

* Highly recommended for students in the Faculty of Science & Agriculture.

Attendance Regulation:
A student in any of the Foundation courses in English Language who misses two (2) out of any six (6) class hours will be warned, and after two warnings any further absence without prior permission or an acceptable medical certificate will result in automatic exclusion from the examination.

FD12A
Not offered to FSA Students.

FOUN 1301 (FD13A)
LAW, GOVERNANCE, ECONOMY AND SOCIETY (UNIVERSITY FOUNDATION COURSE)
(3 credits)
(Faculty of Social Sciences)
This course is delivered through the medium of print. The print package comprises a student manual, a study guide and a reader. In addition to the print material there are teleconferencing and/or tutorials.

The course introduces students to some of the major institutions in Caribbean society. It exposes the student to both the historical and contemporary aspects of Caribbean society, including Caribbean legal, political and economic systems. In addition, Caribbean culture and Caribbean social problems are discussed.

Assessment is based solely on a final examination at the end of the semester. It consists of twelve (12) essay-type questions, of which students are required to write on three (3). All questions carry equal marks. The examination is divided into four (4) sections corresponding to the four (4) subject areas in the course. Students are not allowed to do more than one question in any one section.

FINM 2060 (MS28D)
FINANCIAL MANAGEMENT I
(3 credits)
Prerequisites: ACCT 1010, (MS15E, EC14E)

Syllabus:
This course is concerned with the core concepts of financial decision-making: the time-value of money, the cost of capital and trade-offs between risk and return. Students should develop a thorough understanding of these basic concepts and how to apply them in real-world examples.

Assessment:
Coursework
Final Examination
GEND 3260 (NS21B)
GENDER AND SCIENCE
(4 credits)
This course is an elective for all majors in the Faculty of Science & Agriculture and is offered to students in the Faculty of Social Sciences and Humanities wishing to do a minor in Women Studies.

Prerequisites: Successful completion of 16 Level 1 credits

Syllabus:
A critical analysis of selected major papers published during the period 1980 – present which deal with the following:
- The masculinist nature of Science
- Women in Science
- Language and metaphors in Science
- Critiques of the Scientific Method
- Impact of Science on society; ethical issues; indigenous knowledge; public perception of Science

Teaching Approaches:
Two 2-hour sessions for twelve (12) weeks using interactive teaching methods. A research project will be assigned for which a research journal will be kept, and an oral presentation made at the end.

Assessment:

Coursework
- Research Journal 40%
- Project report 20%
- Oral presentation 10%
Final 2-hour Theory paper 60%

HUEC 1001 (AH10C)
FOOD SCIENCE
(5 credits)

Syllabus:
Structure and functional properties are examined with respect to the molecular behaviour of the basic components common to food products. Also discussed is the chemistry of changes occurring during processes, distribution and utilisation. Other topics include principles of Food Preservation by chilling, freezing, irradiation, dehydration, fermentation and thermal processing; food regulations and inspection systems and the relationships between packaging materials, food processing operations and product quality.

Assessment:
- Coursework 40%
- Final Examination 60%

HUEC 1003 (AH12B)
INTRODUCTION TO NUTRITION
(3 credits)

Syllabus:

Assessment:
- Coursework 25%
- Final Examination 75%
HUEC 1004 (AH13B)  
INTRODUCTION TO FOODS AND MEAL MANAGEMENT  
(3 credits)  
**Syllabus:**
Principles involved in preparation of food of standard quality, influence of composition and techniques on properties of food products. Standard methods of food preparation with emphasis on quality, nutrient retention and safety. At least one field trip is scheduled for this course.  
**Assessment:**  
Coursework - Practical & Theory  50%
Final Examination  50%

HUEC 1005 (AH12C)  
INTRODUCTION TO BIOSTATISTICS  
(3 credits)  
**Prerequisite:** Mathematics at the CSEM level or equivalent.  
**Syllabus:**
This course covers the principal statistical concepts used in biostatistics. Basic concepts common to all statistical analyses are reviewed, and those concepts with specific importance in biostatistics are covered in detail. The course introduces students to concepts and application of biostatistics methods including descriptive statistics, exploratory data analysis, probability distributions, sampling distributions, estimation and hypothesis testing. Students will develop skills that will enable them to compare means of two groups, proportions of two groups and means and proportions of more than two groups. The course concludes with risk measurement, analysis of variance and Simple Linear Regression. Readings and assignments would complement lectures to assist students in developing basic biostatistics competencies.  
**Assessment:**  
Final Examination  60%
Coursework  40%

HUEC 2000 (AH20A)  
BIOCHEMISTRY  
(3 credits)  
**Prerequisite:** BLO5C and A-level Chemistry or equivalent  
**Syllabus:**
Chemistry of biological compounds: Carbohydrates, lipids, amino and proteins, nucleic acids etc., pH and buffers, metabolism of energy yielding compounds (bioenergetics); internal and hormonal regulation of metabolic pathways; molecular genetics and implications for the future of clinical nutrition practice.  
**Assessment:**  
Final Examination  75%
Mid-term Examination  25%

HUEC 2001 (AH21A)  
BASIC HUMAN ANATOMY AND PHYSIOLOGY  
(3 credits)  
**Prerequisite:** A-level Biology or equivalent  
**Syllabus:**
The integration of the sciences of human anatomy, physiology and pathology. Functional anatomy with emphasis on basic principles and physiological activities of the different systems of the human body in health and disease.  
**Assessment:**  
Coursework - 3 Quizzes  30%
Final Examination  70%

HUEC 2002 (AH22A)  
NUTRITION THROUGHOUT THE LIFE CYCLE  
(3 credits)  
**Prerequisite:** HUEC 1003 (AH12B)  
**Syllabus:**
Nutritional requirements for growth and development throughout the life cycle. Analysis of nutrition assessment indicators for each age group. Special consideration to growth standards, maternal weight gain, pregnancy and lactation requirements, eating behaviour of various age and other groups. The physiology of aging as it relates to nutrient adequacy in the mature adult.  
**Assessment:**  
Coursework  30%
Final Examination  70%
HUEC 2003 (AH23A)
FOODSERVICE SYSTEMS MANAGEMENT
(Organisation, Management and Operations)
(3 credits)
Prerequisite: HUEC 1004 (AH13B)
Syllabus:
The application of Principles of Management to foodservice operations and human resources. Technical and operational aspects in the design of foodservices; including menu planning and evaluation, purchasing, receiving and storage of food and supplies, financial control, inventory control, food delivery and service, sanitation and safety, quality assurance and continuous quality improvement.
Assessment:
Coursework 25%
Final Examination 75%

HUEC 2004 (AH23B)
FOODSERVICE SYSTEMS MANAGEMENT
(Equipment, Layout and Design)
(3 credits)
Prerequisite:
Syllabus:
Introduction to architectural drawings, symbols and design features; reading and interpreting blue-prints; analysis of layout characteristics; principles of workflow and work simplification; sanitation requirements in layout and design; materials used in construction of facilities and equipment in relation to use and care; environmental elements. Determining equipment requirements and writing specifications; equipment purchasing procedures; utilities and services in relation to selection of equipment; energy control; principles of refrigeration and cooling; operation, use and care of equipment. Approximately three (3) field trips are scheduled for this course.
Assessment:
Coursework 25%
Final Examination 75%

HUEC 1006 (AH24B)
BASIC APPAREL CONSTRUCTION
(3 credits)
Prerequisite:
Syllabus:
This course introduces students to the major aspects of apparel production including pattern making methods, and use of the sewing machine. Course includes apparel production terminology and garment construction techniques. Covers data manipulation, drafting a skirt block and creating a complete pattern.
Assessment:
Coursework 40%
Final Examination 60%

HUEC 1007 (AH24C)
INTRODUCTION TO TEXTILES
(3 credits)
Syllabus:
Introduction to the structure and properties of textiles. Consumer use and fabric characteristics are emphasised.
Assessment:

HUEC 2008 (AH24D)
PSYCHOLOGICAL ASPECTS OF APPAREL
(3 credits)
Syllabus: New course – to be developed
A study of the theory and research findings pertaining to the social and psychological aspects and appearance in relation to the self, interpersonal, group and societal behaviour.
Assessment:
HUEC 2009 (AH25B)
FAMILY RESOURCE MANAGEMENT
(3 credits)
Prerequisite: 
Assessment:
Coursework 25%
Final Examination 75%

HUEC 2011 (AH21B)
PHYSIOLOGY IN HEALTH AND DISEASE
(3 credits)
Prerequisite: AH21A Basic Anatomy and Physiology
Syllabus: This course provides a thorough grounding on the physiological responses and adaptations of the human body in disease states and stressful activity including sports and exercise. Emphasis is given to the interdependence of response mechanisms.
Assessment:
In-course 40%
Final Examinations 60%
Not Offered In 2005/06

HUEC 2012 (AH20C)
NUTRITION ASSESSMENT FOR SPORTS
(3 credits)
Prerequisite: AH 12B Introduction to Nutrition
Co-requisite: AH21A Basic Human Anatomy and Physiology
Syllabus: Athletes and other physically active persons pose a challenge nutritionally because of the physical demands required to enhance their performance. Nutritionally needs vary according to the intensity, duration and the nature of the physical activity. This course provides the fundamentals for assessing the nutritional needs of physically active person and athletes. Topics include, meal planning for peak performance, development and testing of nutritional assessment and sport and activity questionnaires, computerized dietary analysis, anthropometric methods, techniques in sports nutrition counseling.
Assessment:
In-course 40%
Final Examinations 60%
Not Offered In 2005/06

HUEC 2013 (AH20B)
PRINCIPLES OF DIETETICS
(3 credits)
Prerequisite: AH12B; AG16A
Co-requisite: AH21A; AH26B
Syllabus: This course provides the fundamental material necessary for understanding concepts taught in Medical Nutrition Therapy I and II. Topics include the history, ethics, practice and terminology for professionals in Nutrition and Dietetics, Nutrition Assessment and Documentation, Nutrient-Drug Interaction, alternative and complementary therapies, and nutrition support in the management of the nutrition care process.
Assessment:
Final Examination 70%
Coursework Examination 30%
Not Offered In 2005/06
HUEC 2014 (AH26B)
NUTRITION AND METABOLISM
(3 credits)
Prerequisite: HUEC 1003 (AH12B)
Syllabus:
The integration and contribution of related scientific disciplines to the study of nutrition. The physiological aspects of nutrition: digestion, absorption, transport and exchange in normal and specialised cells; utilisation of the essential nutrients emphasising regulatory mechanisms at cellular and organ levels; nutrient interrelationships.
Assessment:
Coursework – 3 assignments 30%
Final Examination 70%
Not Offered In 2005/06

HUEC 2015 (AH23C)
FOOD QUALITY AND SAFETY
(3 credits)
Prerequisite:
Syllabus:
Not Offered In 2005/06

HUEC 3000 (AH31B)
FLAT PATTERN DEVELOPMENT
(3 credits)
Prerequisite: HUEC 1003 (AH12B)
Syllabus:
This course introduces basic industrial techniques of pattern making. The principles and procedures governing the development and use of basic sloppers, and the use of manual flat pattern methods to develop patterns by varying a master pattern form given or self designed sketches are covered. Emphasis is on the design process culminating in the designing of original apparel by the flat pattern method.
Assessment:
Mid-term Examination 15%
Practicals 25%
Final Examination 60%

HUEC 3001 (AH32A)
COMMUNITY NUTRITION
(3 credits)
Prerequisite: HUEC 2002 (AH22A), HUEC 2010 (AH26B)
Syllabus:
Functions and effectiveness of various community-based nutrition related resources, services and programmes along with government policy and systems that influence them; sociocultural factors affecting nutritional status; evaluation of nutrition education programmes; health promotion; assessment of nutritional status through the identification of major nutrition problems at the local, national and international levels; nutrition surveillance; food and nutrition policy and planning; research.
Assessment:
Coursework 25%
Final Examination 75%

HUEC 3002 (AH33A)
FOODSERVICE SYSTEMS MANAGEMENT
(Quantity Foods)
(3 credits)
Prerequisite: HUEC 1004 (AH13B)
Syllabus:
Standards and methods of quantity food production and management; Experiences and case studies in planning for production, recipe standardisation, use of quantity foodservice equipment, nutrient and quality preservation, portion control, merchandising and service, cost calculations, energy management; quality control.
Assessment:
Coursework 40%
Final Examination 60%
HUEC 3004 (AH33B)
FOOD PRODUCT DEVELOPMENT
(3 credits)
Prerequisite: HUEC 1001 (AH10C)
Syllabus:
Application of food science principles and experimental procedures to problems in foods. Practical investigations, experimental techniques leading to experience in developing a product; organising taste panels for sensory evaluation and acceptance of product; market testing; market research; patents; packaging, labelling; marketing; advertising.
Assessment:
Project 15%
Mid-Term Examination 10%
Final Examination 75%
Not Offered In 2005/06

HUEC 3005 (AH34A)
MEDICAL NUTRITION THERAPY I
(3 credits)
Prerequisites: HUEC 2010 (AH26B), HUEC 2000 (AH20A), HUEC 2001 (AH21A), HUEC 2002 (AH22A), AH20B.
Syllabus:
Medical Nutrition Therapy I focuses on the physiological and biochemical anomalies of disease and the adaptation of diet in the treatment or prevention of disease; application of the principles and concepts of nutrition therapy to meet the needs of patients. It develops the knowledge base needed to assess, plan, implement, and evaluate the nutrition care process. Topics include nutritional management in disease of the Oral cavity, Digestive system, Upper and Lower Gastrointestinal tract, Liver, Biliary system and Exocrine pancreas, Energy balance and weight control, Endocrine system and Metabolic disorders, Cardio-vascular and Pulmonary disease.
Assessment:
Coursework 30%
Final Examination 70%

HUEC 3006 (AH34B)
MEDICAL NUTRITION THERAPY II
(3 credits)
Prerequisites: HUEC 2010 (AH26B), HUEC 2000 (AH20A), HUEC 2001 (AH21A), HUEC 2002 (AH22A), AH20B
Co-requisite: HUEC 3005 (AH34A)
Syllabus:
Medical Nutrition Therapy II is a continuation of Medical Nutrition Therapy I, which involves the study of the physiological and biochemical anomalies of disease and the adaptation of the diet in the treatment or prevention of disease; application of the principles and concepts of nutrition therapy to meet the needs of patients. It develops the knowledge base needed to assess, plan, implement, and evaluate the nutrition care process. Topics include the nutritional management of physiological stress and hypermetabolic conditions e.g. Illness, Infection, Surgery / Trauma and Burns, Cancer and HIV/AIDS, Renal disease, Anemia, Low birth weight infant, Nervous system, Food allergy and Food Intolerances.
Assessment:
Coursework 30%
Final Examination 70%

HUEC 3007 (AH35A)
LAW AND THE FAMILY
(3 credits)
Prerequisite:
Syllabus:
Family law, consumer laws and the rights of the consumers with respect to the variety of goods and services offered in the society, such as health, clothing, shelter and the use of leisure without infringing the rights of others. Laws applicable to the processing, packaging, labelling and distribution of food, food safety and nutritive value. Laws of major food regulatory agencies.
Assessment:
Coursework 25%
Final Examination 75%
HUEC 3008 (AH35B)
CHILD DEVELOPMENT
(3 credits)
Prerequisite:
Syllabus:
Focus on the physical/motor, intellectual, social and psychological personality aspects of the development of children throughout the life cycle; Stages of infancy; childhood, pre-adolescence and adolescence, and the influences of family, school and society. Topics include theories of brain development, general development trends, physical development at pre-adolescence, the growth spurt, sexual maturation, Piaget's theory of cognitive development, Erikson's stage theory of personality development, Kohlberg's theory and implications for education; Self-concept development.
Assessment:
Mid-term Examination  25%
Final Examination  75%

HUEC 3009 (AH36A)
EQUIPMENT PRINCIPLES
(3 credits)
Prerequisite:
Syllabus:
Utilisation of water, electricity and gas for doing work and maintaining health, safety and comfort in the home environment. Selection and use of appliances as related to consumer needs, interests and resources.
Assessment:
Final Examination  100%
Not Offered In 2005/06

HUEC 3010 (AH37A)
HOUSING AND THE ENVIRONMENT
(3 credits)
Prerequisite:
Syllabus:
Physical, cultural, economic, social and personal factors pertinent to the provision and performance of housing. Functionality of residential interiors with respect to ergonomics, lighting, comfort and health. Water and sanitation; safety; siting, land use and planning concerns; transportation.
Assessment:
Mid-semester examination  15%
Semester Paper  15%
Final Examination  70%

HUEC 3011 (AH37B)
ADVANCED TEXTILE
(3 credits)
Prerequisite: HUEC 1007 (Introduction to Textile)
Syllabus: New course – to be developed
Recent advances in the production and performance of fibres, yarns, finishes and dyes for textile products. Laboratory experiences designed to provide a familiarity with the standards, methods and equipment for evaluating textile product performance.
Assessment:
HUEC 3012 (AH312)
PROJECT
(4 credits)
Syllabus:
A project within a subject area relevant to the student’s degree option.
Assessment:
Project Report 85%
Oral Presentation 15%
* See Project Booklet for detailed guidelines

HUEC 3013 (AH37C)
ADVANCED APPAREL DESIGN AND CONSTRUCTION
(3 credits)
Prerequisite: AH24B/HUEC 1006 (Basic Apparel Construction)
Principles of advanced techniques for apparel construction with emphasis on new, difficult to handle fabrics.
Assessment:
Not Offered In 2005/06

HUEC 3014 (AH32B)
ADVANCED APPAREL DESIGN AND CONSTRUCTION
(3 credits)

HUEC 3014 (AH32B)
NUTRITION IN SPORTS AND FITNESS
(3 credits)
Prerequisites: AH12B, AH21A
This course will provide a basic grounding in human nutrition as it relates to sport and physical activity. Topics will include: brief history of nutrition and exercise; philosophy of sports nutrition, overview of the physiology and biochemistry of exercise, carbohydrate, lipid and protein metabolism during exercise, water and electrolyte balance during exercise, determination of body composition and energy expenditure in athletes, nutrition and exercise in weight control, designing and analysis of diets for training, during competition and post competition.
Assessment:
In-Course examination 20%
Practicals 20%
Final Examination 60%
Not offered in 2005/06

HUEC 3015 (AH32C)
NUTRITION AND HEALTH IN SPORTS PERFORMANCE
(3 credits)
Prerequisite: AH12B, AH21A
Syllabus:
This course follows on from NUTRITION AND FITNESS I and provides the platform for an evidence-base perspective of the role of nutrition in sports and physical activity. Topics will include introduction to research methods in nutrition and sports, how to read and critique a piece of published work on sports nutrition, evaluation of dietary analysis and physical performance software, antioxidants in sports and fitness, minerals in sports and fitness, nutritional issues for active persons with special needs, ergogenic aids and physical performance, nutritional problems of athletes, nutritional counseling of athletes and physically active persons.
Assessment:
In-course examinations 20%
Practicals 20%
Final Examinations (2-hours) 60%
Not Offered In 2005/06

HUEC 3016 (AH34C)
NUTRITION IN HEALTH AND DISEASE
(4 credits)
Prerequisites: AH 12B Introduction to Nutrition; AH21A Basic Anatomy and Physiology
Syllabus:
With the exponential increases in the number of studies linking nutrition to the prevention and treatment of disease there is an urgent need for an evidence-evidence based approach to understanding reliability and validity of research findings. This course provides a foundation for understanding the role of nutrition in health and disease states. Topic include evaluating nutrition research, diet and human development, nutrition and diseases of the intestinal tract, nutrition and cardiovascular diseases, nutrition and diabetes, obesity, nutrition and cancer, nutrition and bone development, nutrition and immunity.
Assessment:
In-course 40%
Final Examinations 60%
Not Offered In 2005/06
HUEC 3017 (AH31D)
COMPUTER AIDED PATTERN
DEVELOPMENT
(3 credits)
Prerequisites: AH24B; AH24C; AH24D
Syllabus:
This course builds on the introductory course in Flat Pattern Development. It incorporates and addresses the integral value of computer technology within the fashion system with modules focusing on textile developments and digital pattern design in fashion. Students would be required to develop advanced patterns for garments by draping fabric and using a computer-aided design system.
Assessment:
Coursework (Project) 75%
Examination 25%
Not Offered In 2005/06

HUEC 3018 (AH37D)
FASHION INDUSTRY AND BUSINESS
(3 credits)
Prerequisites: AH24B; AH24C; AH24D
Syllabus:
This course presents an overview of the global fashion industry. It looks at structure, size and scope and the range of entrepreneurial activities/opportunities and careers. From this introduction the local/regional industry is studied from the viewpoint of the entrepreneur. Trends in the fashion industry are considered in terms of preferences by age groups and demographics; trends in business growth areas are also considered. Entry requirements and strategies for the local/regional industry are considered for emerging entrepreneurs. The course includes lectures / seminars by various consultants in the fashion and fabric industries.
Assessment:
Coursework (Project) 40%
Examination 60%
Not Offered In 2005/06

HUEC 3019 (AH38A)
COMPUTER AIDED DESIGN FOR THE FASHION INDUSTRY
(3 credits)
Prerequisites: AH24B; AH24C; AH24D
Syllabus:
This course covers the use of computers in the innovative design of clothing and other products for the fashion industry. It involves the creation and development of original designs applicable to the Caribbean fashion industry, using flat pattern and/or draping techniques. Students will be introduced to a number of computer software used in the fashion industry and shown the application of product data management in the industry. Students will also be introduced to the preparation of a professional portfolio comprising cad and other illustrative materials reflecting individual capability.
Assessment:
Coursework (project) 60%
Examination 40%
Not Offered In 2005/06

HUEC 3020 (AH33C)
DEVELOPMENT OF CARIBBEAN CUISINE
(3 credits)
Prerequisite:
Syllabus:
The development of unique Caribbean cuisine based on indigenous products presents significant opportunities for entrepreneurial growth and development in the Food Industry and Food Service sector. This course focuses on the application of food science principles and food safety systems such as food laws and regulations.
Assessment:
Practicals/Field Visits 75%
Research Project 25%
Not Offered In 2005/06

HUEC 3021 (AH39C)
PRACTICUUM
Not Offered In 2005/06
**HUEC 500 (AH51A)**  
**ADVANCED FOODSERVICE SYSTEMS MANAGEMENT**  
Prerequisite: HUEC 2003 (AH23A), HUEC 2004 (AH23B), HUEC 3002 (AH33A), and HUEC 3004 (AH33B) or equivalent  
**Syllabus:**  
A comprehensive review of the organisational management and operational aspects of food service including menu-planning and evaluation: procurement, receiving, storage of food and supplies; human resource needs, quantity food production with regard to recipe standardisation, nutrient and quality preservation, portion and quality control, costs, sanitization and safety; equipment requirements and specifications, layout and design; quality assurance and continuous improvement in Foodservice.  
**Assessment:**  
Final Examination 100%

**HUEC 501 (AH51P)**  
**FOODSERVICE SYSTEMS MANAGEMENT PRACTICUM**  
Co-requisite: HUEC 500 (AH51A)  
**Syllabus:**  
Supervised practice in all aspects of foodservice operation and subsystem at institutions and at the community level; coordination of foodservice subsystems, including menu planning and evaluation, policies and procedures, organisation of available resources and quality assurance; design and layout of physical facilities; utilisation of problem-solving and decision making skills under the supervision of a qualified Dietitian.  
Application of knowledge and skills, integrating clinical nutrition into the management of foodservice, nutrition goals and nutrition education. Management of human, material, operating and facility resources including procurement, pre-processing, production, food distribution and service; maintenance of equipment and supplied; sanitation and safety.  
**Assessment:**  
Assignments 100%

**HUEC 502 (AH52B)**  
**ADVANCED CLINICAL NUTRITION**  
Prerequisite: HUEC 3005 (AH34A), HUEC 3006 (AH34B) or equivalent  
**Syllabus:**  
A comprehensive review of the principles of nutritional care process as it relates to specified diseases and needs; the role of drugs in nutritional care, disease of the upper and lower gastrointestinal tract, endocrine and metabolic disorders, energy balance, hepatic and biliary system, disorders of the skin and skeletal system; physiological stress and hyper metabolic conditions; neoplastic diseases, AIDS; cardiovascular, nervous and respiratory systems; nutritional support and counselling techniques.  
**Assessment:**  
Final Examination 100%

**HUEC 503 (AH52P)**  
**CLINICAL NUTRITION PRACTICUM**  
Co-requisite: HUEC 502 (AH52B)  
**Syllabus:**  
Application of knowledge and skills in the collection, assessment, planning, implementation and evaluation of nutritional care of clients with specified diseases and needs; principles of nutritional care in a clinical setting; nutrient modifications in respect of diagnosis, treatment, prevention of complications in various diseases and disorders.  
Candidates will be assigned to various primary clinical facilities for clinical experience, participating in Paediatrics, Endocrinology, Cancer/AIDS/Gerontology, Nephrology, Surgical/Trauma, and Psychiatry/Substance Abuse rotations under the supervision of a qualified Dietitian.  
**Assessment:**  
Clinical Appraisal/Case Reviews 40%  
Educational Projects 30%  
Clinical Update/Research 30%
HUEC 504 (AH53C)
ADVANCED COMMUNITY NUTRITION
Prerequisite: HUEC 3001 (AH32 A) or equivalent
Syllabus:
Providing nutrition services in primary care; promoting and protecting the health of women, infants and children; promoting the health of adults, older adults; safeguarding the food supply; maintaining nutrition and food service standards in group care; planning and evaluating community nutrition services.
Computer-aided Food and Nutrition applications; hands-on learning experience with computer software in food and nutrition surveillance, health analysis, diet/exercise analysis, growth and development in childhood and pregnancy, menu-planning, and food and nutrition planning. Practical experience in preparing nutrition information for delivery through the various media (radio, print, graphics). Project development; the process of developing a project (proposal) is outlined with clearly defined objectives, implementation strategy, costing, time analysis, and evaluation. Individual practice is gained in developing a nutrition-related project, using one of the models presented, for a seminar presentation at the end of the programme.
Assessment:
Final Examination 100%

HUEC 505 (AH53P)
COMMUNITY NUTRITION PRACTICUM
Co-requisite: HUEC 504 (AH53C)
Syllabus:
This course will focus on the following areas as applied to community nutrition and nutrition services available within the community: community organisation and need; nutritional components of the health care system; poverty and nutritional problems of economically disadvantaged groups; health promotion-nutrition guidelines; national food and nutrition programmes and policies; agencies (local, regional, international) dealing with nutrition related issues; delivery of quality nutrition services; and legislative and regulatory processes.
Clinical practice in (Ministry of Health) one or more health regions in Trinidad and Tobago is coordinated with the theory presented in HUEC 504. A dietitian/public health nutritionist will coordinate the rotation.
Assessment:
Assignments 100%

MATH 2120 (M 21A)
ANALYSIS & MATHEMATICAL METHODS I
(4 credits)
Prerequisites: MATH 1140 and MATH 1150 (M 12A and M 12B)
Syllabus:
Power series: Functions of two (or more) real variables; limits, continuity, partial derivatives, differentiability, stationary points, Lagrange multipliers, Riemann double integral, change of variables and the Jacobian, polar, spherical and cylindrical coordinates, vector calculus, line, surface and volume integrals, Stokes and Gauss Divergence theorems.
Examination:
One 2-hour written paper 70%
Coursework 30%

MATH 3260 (M 33B)
FLUID DYNAMICS II
(4 credits)
Prerequisite: MATH 3250 (M 33A) or Permission of the Head of Department
Syllabus:
Further Two-dimensional Flows; Some Three-dimensional Flows; Viscous Flows
**MATH 0100 (M 08B)**
**PRE-CALCULUS**
(No credits)
Prerequisite: CXC Mathematics or equivalent
Co-requisite: MATH 0110 (M08C)
Syllabus:
The following topics will be treated with the minimum of rigour, but with emphasis on the understanding of the concepts involved. Algebra: Elementary logic, number sets, real numbers, functions, inequalities, complex numbers, surds, logarithms, linear and quadratic equations, infinite series, binomial theorem, mathematical induction. Trigonometry: Trigonometric functions and their inverses, addition and multiplication formulae, identities, trigonometric equations, solutions of triangles.

Examination:
One 3-hour paper 85%
Course test 15%

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**MATH 1140 (M 12A)**
**BASIC INTRODUCTORY MATHEMATICS**
(6 credits)
Prerequisites: A-level Mathematics, MATH 0100 and MATH 0110, (M 08B & M 08C) or equivalent
Syllabus:

Examination:
One 3-hour written paper 75%
Coursework 25%

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**MATH 0110 (M 08C)**
**CALCULUS AND ANALYTICAL GEOMETRY**
(No credits)
Prerequisite: CXC Mathematics or equivalent
Co-requisite: MATH 0100 (M08B)
Syllabus:
The following topics will be treated with the minimum of rigour, but with emphasis on the understanding of the concepts involved. Calculus: Functions, limits, continuity, differentiability, higher derivatives and application, anti-derivatives, Simpson’s rule and the integral. Elementary methods of integration and solutions of simple differential equations. Analytical Geometry: Equations and representations of elementary plane curves. Applications of calculus to determine equations of tangents, normals and in the computation of areas and volumes.

Examination:
One 3-hour paper 85%
Course Test 15%

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**MATH 1150 (M 12B)**
**FUNCTIONS OF REAL VARIABLES**
(6 credits)
Prerequisites: A-level Mathematics, MATH 0100 and MATH 0110, (M 08B & M 08C) or equivalent
Syllabus:

Examination:
One 3-hour written paper 75%
Coursework 25%
MATH 1160 (M 15A)
INTRODUCTORY MECHANICS I
(6 credits)
Prerequisite: A-Level Applied Mathematics
Syllabus:
Functions of two variables, partial differentiation, vector analysis.
Introduction to Statics: Coplanar forces: forces acting at a point, moments, parallel forces, couples.
Centre of Gravity.
Simple Harmonic Motion.
Examination:
One 3-hour written paper 75%
Coursework 25%

MATH 1170 (M 15B)
INTRODUCTORY MECHANICS II
(6 credits)
Prerequisite: A-Level Applied Mathematics
Syllabus:
Introduction to Hydrodynamics: Kinematics equations of motion, continuity equations, surface condition Euler’s equation and applications. Mathematical modelling: Dynamics, linear and non-linear growth and decay.
Examination:
One 3-hour written paper 75%
Coursework 25%

MATH 2100 (M 20A)
ABSTRACT ALGEBRA
(4 credits)
Prerequisite: MATH 1140 (M 12A)
Syllabus:
Examination:
One 3-hour written paper 75%
Coursework 25%

MATH 2110 (M 20B)
LINEAR ALGEBRA
(4 credits)
Prerequisite: MATH 1140 (M 12A)
Syllabus:
Examination:
One 3-hour written paper 75%
Coursework 25%
MATH 2140 (M 25A)
INTRODUCTION TO PROBABILITY
(4 credits)
Prerequisite: MATH 1140 and MATH 1150 (M 12A and M 12B) or Permission of the Head of Department
Syllabus:
Basic Probability rules, including Bayes’ rule, theorem on total probability; Conditional Probability; Random Variable; Mathematical Expectation; means, variance; Convariance of variables, Variance of sum of n random variables, Chebychev’s theorem; Standard density functions and mass functions; Moment generating function. Random sample; some important statistics, sampling distributions. Central limit theorem.
Examination:
One 2-hour written paper 60%
Coursework Examination 40%

MATH 2150 (M 25B)
INTRODUCTION TO STATISTICS
(4 credits)
Prerequisite: MATH 2140 (M 25A) or Permission of the Head of Department
Syllabus:
Theory of Estimation: Ideas of point estimation; mean-squared error; interval estimation; method of maximum likelihood; Cramer–Rao Inequality.
Hypothesis Testing: Type I and Type II errors; tests concerning means, variances and proportions; Goodness of fit Tests; non-parametric tests.
Ideas of Regression Analysis including simple linear Regression in detail; Experimental Design and the Analysis of Variance (Completely Randomised Design, Block Designs, Latin Squares, Fractional Designs).
Examination:
One 2-hour paper 60%
Coursework 40%

MATH 2160 (M 21B)
ANALYSIS & MATHEMATICAL METHODS II
(4 credits)
Prerequisites: MATH 1140 and MATH 1150 (M 12A and M 12B)
Syllabus:
Examination:
One 2-hour written paper 70%
Coursework 30%

MATH 2170 (M 24A)
INTRODUCTION TO COMBINATORICS
(4 credits)
Prerequisite: MATH 1140 (M 12A)
Syllabus:
Permutations and Combinations. The Inclusion - Exclusion Principle. Linear equations with unit coefficients; Recurrence relations; Generating functions; Geometry of the plane; Colouring problems; Combinatorial probability. Partitions of integer; Random walk; Designs.
Examination:
One 2-hour written paper 75%
Coursework Examination 25%
MATH 2180 (M 24B)
INTRODUCTION TO OPTIMISATION
(4 credits)
Prerequisite: MATH 1140 (M 12A)
Syllabus:
Graphs and Digraphs; Ranking; Shortest Path; Communication Networks; Convex sets; Linear programming; Simplex Method; Theory of games.
Examination:
One 2-hour written paper 75%
Coursework Examination 25%

MATH 2190 (M 25C)
PROBABILITY AND STATISTICS I
(4 credits)
Prerequisite: MATH 1140 and MATH 1150 (M 12A and M 12B) or Permission of the Head of Department
Anti-requisite: MATH 2140 and MATH 2150 (M 25A and M 25B)
Syllabus:
Comment:
MATH 2190 (M 25C) is a four (4) credit alternative to both MATH 2140 (M 25A) and MATH 2150 (M 25B) and is primarily aimed at non-Mathematics Majors.
Examination:
One 2-hour paper 60%
Coursework 40%

MATH 2200 (M 25D)
PROBABILITY AND STATISTICS II
(4 credits)
Prerequisite: MATH 1140, MATH 1150 and MATH 2190 (M 12A, M 12B and M 25C) or Permission of the Head of Department
Anti-requisite: MATH 2140 and MATH 2150 (M 25A and M 25B)
Syllabus:
Probability Theory: Conditional expectation for discrete random variables, Bayes Theorem, transformations of one random variable, evaluation of probabilities of events for continuous random variables, transformations of two random variables, the squared distributions, moment generating functions, proof of the Central Limit Theorem, Markov and Chebyshev inequalities, the weak law of large numbers. Statistical Inference: Unbiasedness, Fisher information and the Cramer-Rao inequality (without proof), sufficiency, the Fisher factorisation criterion, the Neyman-Pearson lemma. Statistical Methods: Factorial designs, non-parametric rank methods, the sign test, ranked rank test, rank sum test, Kruskal-Wallis test, goodness of fit tests. Sampling Theory of Surveys: Simple random samples, stratified samples, ideas underlying other sampling schemes, non-sampling sources of error including non-response and poor sampling design.
Examination:
One 2-hour paper 60%
Coursework 40%

MATH 2210 (M 29A)
MATHEMATICS OF FINANCE
(4 credits)
Prerequisite: MATH 1140 and MATH 1150 (M12A and M12B)
Syllabus:
Introduction to actuarial science: measurement of interest; solutions of problems in interest, basic annuities; more general annuities, yield rates, amortisation schedules and sinking funds, bonds and other securities, practical applications.
Examination:
One 2-hour written paper 70%
Coursework 30%
MATH 2220 (M 29B)
INTRODUCTION TO ACTUARIAL
MATHEMATICS
(4 credits)
Prerequisite: MATH 2120, MATH 2140 and MATH 2210
(M 21A, M 25A and M 29A)
Syllabus:
Survival distributions and life tables, utility theory, life
insurance, life annuities, commutation functions, net
premiums and premium reserves, introduction to multiple life
functions.
Examination:
One 2-hour written paper 70%
Coursework 30%

MATH 3110 (M 31A)
MATHEMATICAL STATISTICS –
PROBABILITY THEORY
(4 credits)
Prerequisite: MATH 2120 (M 21A) or permission of the
Head of Department
Syllabus:
Basic Probability rules, including Bayes’ rule, theorem on
total probability; Conditional Probability; Random Variable;
Mathematical Expectation; means, variance; Covariance
of variables. Variance of sum of n random variables
Chebychev’s theorem; Standard density functions and mass
functions; Moment generating function. Random sample;
some important statistics, sampling distributions. Central
limit theorem. Transformations of several random variables;
order statistics; conditional expectation; the bivariate and
multivariate normal distributions.
Examination:
One 2-hour written paper 60%
Coursework 40%

MATH 3120 (M 31B)
MATHEMATICAL STATISTICS –
STATISTICAL INFERENCE
(4 credits)
Prerequisite: MATH 3110 or MATH 2140 (M 31A or M 25A)
Syllabus:
Theory of Estimation: Ideas of point estimation; mean-
squared error; interval estimation; method of maximum
likelihood; Cramer-Rao Inequality. Hypothesis Testing: Type
I and Type II errors; tests concerning means, variances
and proportions; Goodness of fit Tests; non-parametric
tests. Ideas of Regression Analysis including simple linear
Regression in detail; Experimental Design and the Analysis
of Variance (Completely Randomised Design, Block Designs,
Latin Squares, Factorial Designs). Efficiency and the Fisher-
Factorisation Criterion; the Rao-Blackwell theorem.
Estimation from multimonial populations. Simple random,
stratified, cluster and systematic sampling; non-sampling
errors in surveys; likelihood ratio tests.
Examination:
One 2-hour written paper 60%
Coursework 40%

MATH 3240 (M 31S)
REAL ANALYSIS
(4 credits)
Prerequisite: MATH 2120 (M 21A)
Syllabus:
Properties of real numbers, real line topology (open sets,
cluster points, compactness, connectedness). Introduction
to topological spaces. Metric space. Continuity and
homeomorphism. Point wise and uniform convergence of
sequence and series of real valued functions.
Examination:
One 2-hour written paper 75%
Coursework 25%
MATH 3250 (M 33A)
FLUID DYNAMICS I
(4 credits)
Prerequisite: MATH 2120 and MATH 2160 (M 21A and M 21B)
Syllabus:
Examination:
One 2-hour written paper 60%
Coursework 40%

MATH 3280 (M 33D)
INTRODUCTION TO MATHEMATICAL MODELLING I
(4 credits)
Prerequisite: MATH 2120 and MATH 2160 (M 21A or M 21B)
Syllabus:
Idea of modelling real life and situations using Mathematics. Theory of ordinary differential equations (eigenvalues and eigenvectors) and the linear stability. Application to Medicine (e.g. testing of diabetics). Predator-Prey models (struggle for survival between two species). Epidemiology (e.g. model of the spread of gonorrhoea). A theory of war.
Examination:
One 2-hour written paper 75%
Coursework 25%

MATH 3290 (M 34A)
COMBINATORICS
(4 credits)
Prerequisite: MATH 2100 or MATH 2110 (M 20A or M 20B)
Syllabus:
Permutations and Combinations; Generating functions; Recurrence Relations; The Principle of Inclusion and Exclusion; Matching polynomials and Rook polynomials; Polya’s theory of counting.
Examination:
One 2-hour written paper 75%
Coursework 25%

MATH 3400 (M 34B)
GRAPH THEORY
(4 credits)
Prerequisite: MATH 2100 (M 20A)
Syllabus:
Graphs: Trees, Spanning trees Algorithms for spanning trees, and for tree-coding Planarity, Colouring Network Algorithms: Matchings, Graph polynomials Applications in Operations Research
Examination:
One 2-hour written paper 85%
Coursework 15%

MATH 3410 (M 34C)
COMBINATORICS AND COMPUTING
(4 credits)
Prerequisite: COMP 1100, COMP 1200, MATH 2170 and MATH 2180 (CS11E, CS11F, M 24A and M 24B)
Syllabus:
Examination:
One 2-hour written paper 75%
A project consisting of a computer implementation together with a project report 25%
MATH 3420 (M 34D)  
SPECIAL TOPICS IN GRAPH THEORY  
(4 credits)  
Prerequisite: MATH 2170, MATH 2180 and MATH 3400  
(M 34A, M 24B and M 34B)  
Syllabus:  
The syllabus and content at any one time will depend on the research interests of the lecturer. Relevant research material will be made available.  
Examination:  
One 2-hour written paper  75%  
A project accounting for  25%  
(a) project report  15%  
(b) 1-hour seminar  10%  

MATH 3430 (M 34E)  
ADVANCED ALGEBRA I - THEORY  
(4 credits)  
Prerequisite: MATH 2100 and MATH 2110 (M 20A and M 20B)  
Syllabus:  
Group Theory: Fundamentals, Cyclic groups, Cosets, Homomorphism Theorems; The Sylow Theorems, Theory of p-groups, Direct products of groups, Solvable groups, Ring Theory: Ideals; Quotient rings, Polynomial Rings, Euclidean Domains. Unique factorisation domains; Irreducible criteria.  
Field Theory: Characteristics of Fields, Fields of Quotients, Sub-fields and Field Extension, Splitting Fields, Elements of Galois Theory.  
Examination:  
One 2-hour written paper  85%  
Coursework  15%  

MATH 3440 (M 34F)  
ADVANCED ALGEBRA II - APPLICATIONS  
(4 credits)  
Prerequisite: MATH 3430 (M 34E)  
Syllabus:  
Straight-edge and Compass constructions; Coding theory;  
Polynomial and matrix representation; Applied Linear Algebra; Linear transformation; Functions of matrices; The Jordan Canonical form of a matrix; Solution of systems of differential equations; Quadric surfaces.  
Examination:  
One 2-hour written paper  85%  
Coursework  15%  

MATH 3450 (M 35A)  
STATISTICAL THEORY I  
(4 credits)  
Prerequisite: MATH 2140 (M 25A)  
Syllabus:  
Joint and Conditional Distributions; Distribution of Function of Random variables; Moment Generating Function Techniques; Order statistics; Poisson Process; Finite Markov Chains; Introduction to Queuing Theory.  
Examination:  
One 2-hour written paper  75%  
Coursework  25%  

MATH 3460 (M 35B)  
STATISTICAL THEORY  
(4 credits)  
Prerequisite: MATH 2140 and MATH 2150 (M 25A and M 25B)  
Syllabus:  
Methods of finding estimators and their properties Bayesian Inference; Regression Analysis; Time Series Analysis; Testing of Hypotheses; Design of Experiments; Sampling Theory.  
Examination:  
One 2-hour written paper  60%  
Coursework  40%
MATH 3470 (M 35E)
SAMPLING THEORY
(4 credits)
Prerequisite: MATH 2150 (M 25B) or a Good Grade i.e. B+ in ECON 2006 (EC23J)
Syllabus:
Basic ideas concerning the design and uses of sample surveys.
Sampling techniques: Simple random sampling (with derivations of basic results), Stratified sampling, Cluster / *REDUCE SPACE */sampling (one and two stage). Systematic sampling. Non-response and missing data in sample surveys. Designing forms and collecting data. Interpretation of data and survey report writing.
Topics in the sampling of non-human populations.
Examination:
One 2-hour written paper 60%
Coursework (in-course examinations and projects) 40%

MATH 3500 (M 36C)
COMPLEX ANALYSIS
(4 credits)
Prerequisite: MATH 2120 and MATH 2160 (M 21A and M 21B)
Syllabus:
Examination:
One 2-hour written paper 75%
Coursework 25%

MGMT 2012 (MS21B)
MANAGEMENT INFORMATION SYSTEMS I
(3 credits)
Prerequisite: None
Syllabus:
This course provides an overview of Management Information Systems. It describes the components of Management Information Systems and the relationship of MIS to the larger area of Organisation and Management. Information Systems Technology is covered.
Assessment:
Coursework 25%
Final Examination 75%

MGMT 2013 (MS21E)
INTRODUCTION TO E-COMMERCE
(3 credits)
Syllabus:
This course aims to prepare students with the requisite fundamentals to enable them to provide the business perspective/inputs to the e-commerce adoption process. Emphasis will be on the underlying commercial principles of e-commerce rather than on the technological processes. Topics to be covered include: internet demographics, internet business models, customer support strategies; security issues in e-commerce; legal issues in e-commerce; logistical challenges for Caribbean e-commerce.
Assessment:
Coursework
Final Examination
MGMT 2014 (MS22A)
ORGANISATIONAL BEHAVIOUR
(3 credits)
Prerequisite:
Syllabus:
This course uses the systems approach to organisations to highlight how interrelated variables such as people, technology, task, structure and external environments impact on organisational effectiveness. Emphasis is on the nature of behavioural issues and how and why they impact on the functioning of organisations.
Assessment:
Coursework 25%
Final Examination 75%

MGMT 2021 (MS27A)
BUSINESS LAW
(3 credits)
Prerequisite: None
Syllabus:
The main focus of this course is the general principles of the law of contract, the law of Agency as well as other related areas of interest like the Sale of Goods Act and the Hire Purchase Act 1938 and 1954. Background material covers the role and function of the law in society, the sources of the law, the legal system etc.
Assessment:
Coursework
Final Examination

MGMT 3047 (MS32A)
HUMAN RESOURCE MANAGEMENT
(3 credits)
Prerequisite: MGMT 2014 (MS22A)
Syllabus:
This course provides participants with a broad overview of issues pertaining to human resource management with special reference to the Caribbean environment.
Assessment:
Coursework
Final Examination

MKTG 2080 (MS20A)
PRINCIPLES OF MARKETING
(3 credits)
Prerequisites: ECON 1001, ACCT 1010, ACCT 1011 (EC10D, EC16A, MS15E, and MS15F)
Syllabus:
This course is intended to provide students with the conceptual framework and analytical skills necessary for the analysis of markets and marketing activities of firms in a dynamic environment.
Assessment:
Coursework - 1 Test 25%
Final Examination 75%
**PHYS 0070 (P07A)**

**PRELIMINARY PHYSICS I**

(0 credits)

**Prerequisite:** O-level Physics. In exceptional circumstances, depending on academic merit, this prerequisite may be waived.

**Syllabus:**
Mechanics, Heat and Waves & Sound. SI system and standard units, dimensional analysis, vectors (graphical analytical); Equilibrium, Newton's first law, second law, friction, motion in a straight line, average and instantaneous velocity and acceleration, accelerated motion, free fall. Relative velocity; motion in a plane, projectiles, circular motion, centripetal force, Newton's second law and applications; Gravitation, mass and weight, satellite motion; Work and kinetic energy, gravitational and elastic potential energy, dissipative and conservative forces, power, equilibrium: Stress, strain, elastic moduli, force constant, Hooke's law, simple harmonic motion (basic concepts), SHM and circular motion, mass-spring system, simple pendulum, pressure in a fluid, pressure gauges. Archimedes principle, surface tension, pressure difference across surface film, contact angle and capillaries. Bernoulli's equation (applications), viscosity, Stoke's law, Reynolds's number. The temperature concept, thermometers, scales, thermal expansion and stress; Heat capacity, phase changes, conduction, convection, radiation, Stefan-Boltzmann law, ideal radiator, solar energy, ideal gas, equation of state, phase diagrams, triple and critical points, vapour pressure, effect of dissolved substances on freezing and boiling point, first law of thermodynamics, energy and work, work and heat, adiabatic, isochoric, isothermal and isobaric processes, internal energy, molecular theory of motion, kinetic theory of ideal gas.

Mechanical waves, periodic waves, wave speed, traveling waves, mathematical representation, waves at boundaries, standing waves, interference of sound waves, beats, sound intensity, the decibel, the ear and hearing, quality and pitch, Doppler effect, ultrasonics and applications.

**Assessment:**
32 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 3-hour theory paper 60%

**PHYS 0071 (P07B)**

**PRELIMINARY PHYSICS II**

(0 credits)

**Prerequisite:** O-level Physics. In exceptional circumstances, depending on academic merit, this prerequisite may be waived.

**Syllabus:**
Electricity and Magnetism, Optics and Modern Physics Charge, Coulomb’s law, insulators and conductors, electric field, lines of force, electric potential, potential differences, electron volt (Millikan's experiment, CRC). Capacitance, series and parallel combination, energy in a charged capacitor, dielectrics, current, resistivity, resistance, EMP, work and power, resistors in series and parallel, Kirchhoff's laws, Wheatstone bridge and potentiometer. The magnetic field, lines of force, magnetic flux, motion in a magnetic field. Thomson's measurement of e/m, isotopes and spectroscopy; force on conductor, torque on a current loop, the d.c. motor, pivoted-coil galvanometer, magnetic field of a long straight wire, force between parallel conductors, the ampere, induced emf. Faraday's law, Lenz's law, eddy currents.

The nature of light, speed of light (experimental), waves and rays, refraction and reflection. Snell's law, total internal reflection, dispersion, single surface images, reflection from plane and spherical surfaces, focal point and length, refraction at plane and spherical surfaces, graphical and analytical methods, images and objects, thin lens, diverging lens, lensmaker equation, aberrations, the eye, defects of vision, magnifier, camera projector, compound microscope, telescope, etc.

Atomic nucleus, nuclear radiation, isotopes and isobars, binding energy and stability; alpha, beta and gamma rays, decay law, half-life, decay constant, activity, radioactivity series, nuclear reactions, nuclear fission, nuclear fusion, radioactive shielding, radiation and the life sciences.

**Assessment:**
32 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 3-hour theory paper 60%
Physics 1110 (P11A)
Introductory Physics
(6 credits)
Prerequisite: A-Level Physics or equivalent OR O-Level Physics or equivalent together with A-Level Mathematics or equivalent.
Syllabus:
Mathematical Methods in Physics: Vectors; Complex numbers; Matrices and Determinants. Applications to Physics: Mechanics; Units and dimensions; Particle dynamics, Work and Energy; Conservation of mass, energy and momentum; Rotational kinematics; Equilibrium of rigid bodies; Oscillations; Gravitation; Properties of fluids; Fluid statics and dynamics. Optics: Reflection and refraction; Fermat's principle; Huygen's principle; Interference and Diffraction. Acoustics: waves in Elastic media; Acoustics and wave motion; Superposition and Interference of Waves.
Assessment:
A course of experiments designed to illustrate various principles of Physics. Candidates are required to present their practical notebooks for inspection by the examiner.
Theory Coursework 20%
Practical Coursework 20%
One 3-hour theory paper 60%

Physics 1111 (P11B)
Introductory Physics II
(6 credits)
Syllabus:
Electricity and Magnetism: Electric Charge; Electric Field; Gauss' Law; Electric Potential; Capacitors and dielectrics; Currents in materials; Direct-current circuits; Effects, production and properties of Magnetic Fields; Faraday's Law; Inductance; Introduction to B, H and M vectors. AC Theory and Electronics: AC currents/voltages; AC in series and parallel LCR circuits; Vector, phasor and complex representation; Q factor; power; Transformers; Digital systems; Logic gates; Truth tables; Combinatorial circuits; Basic Op Amp. Modern Physics: Black body radiation, Thermal radiation; Stefan's, Wien's and Rayleigh-Jean's Laws; Quanta; Planck's Law; Photoelectric effect; Davisson-Germer and Thomson's experiments; The Atom: Atomic spectra; Energy levels and the Hydrogen Atom; Bohr model; X-rays; Moseley's Law. Thermodynamics: Thermal equilibrium; Triple point; Work; Heat; First Law of Thermodynamics; Applications of First Law; Heat capacities; Equilibrium of energy; Ideal gas; Kinetic Theory; Heat conduction; application to spherical and cylindrical symmetry.
Assessment:
A course of experiments designed to illustrate various principles of Physics. Candidates are required to present their practical notebooks for inspection by the examiner.
Theory Coursework 20%
Practical Coursework 20%
One 3-hour theory paper 60%
PHYS 2280 (P28A)
MATHEMATICAL METHODS IN PHYSICS
(4 credits)
Prerequisite: PHYS1110 (P11A), or PHYS1111 (P11B) and
A Level Mathematics or equivalent.
Syllabus:
Distribution functions, Sampling theory. Applications in
Vector analysis; Complex variable theory; Fourier series
analysis; Differential equations, up to second order.
Applications in Physics.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 2281 (P28B)
MODERN PHYSICS
(4 credits)
Prerequisite: PHYS1110 (P11A), PHYS1111 (P11B) and
A-Level Mathematics or equivalent.
Co-requisite: PHYS2280 (P28A)
Syllabus:
Introduction to Special Relativity: The foundations of
special relativity. Relativistic kinematics and relativistic
particle Mechanics. Introduction to Quantum Mechanics:
Evidence of the inadequacy of classical mechanics applied to
atomic systems. Basic postulates of quantum mechanics.
Schrödinger’s theory and applications to simple one-
dimensional systems. Atomic Physics: Spectrum of the
hydrogen atom based on the Bohr model. Quantization and
selection Rules. Behaviour of atoms in time-independent
electric and magnetic fields. The Atomic: Nucleus and
radioactivity: Nuclear mass and binding energy. The
liquid drop model of the nucleus. Radioactive Decay. The
interaction of charged particles and radiation with matter.
Assessment:
35 hours practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 2282 (P28C)
CIRCUIT THEORY AND ELECTRONICS
(4 credits)
Prerequisite: PHYS1110 (P11A) and PHYS1111 (P11B)
OR (MATH 1140 (M12A) and MATH 1150 (M12B)
& COMP1100 (C511E) and COMP1200 (C511F) or
MATH1160 (M15A) and MATH1170 (M15B)
Syllabus:
Circuit Theory: DC and AC analysis. Electronics: Intrinsic
and extrinsic semiconductors. Junction diodes: theory and
applications. BJT and FET transistors. Biasing. Load line
analysis, hybrid equivalent model, small signal analysis,
frequency response. Feedback principles, Power amplifiers
and magnetic coupling. Power supplies.
Assessment:
35 hours practical coursework.
Theory Coursework 20%
Practical Coursework 20%
One 2-hour paper 60%

PHYS 2283 (P28D)
OSCILLATION, WAVES AND OPTICS
(4 credits)
Prerequisite: P1110 (P11A), P1111 (P11B0) and A-Level
Mathematics or equivalent
Co-requisite: PHYS2280 (P28A)
Syllabus:
Oscillation and Waves: Simple, damped and forced harmonic
motion. Equations of motion and their solutions. Different
aspects and applications of these motions. Equation of wave
motion in one dimension. Longitudinal and transverse waves
and the consideration of different examples of the propagation
and interaction of these waves. Interference Optics: Divided
wave front and divided amplitude interference with examples
and necessary background theory. Geometrical Optics:
Imaging by optical systems; Thin lenses; Cardinal points;
Matrix method for thick lens Systems; Aberrations
Assessment:
35 hours of practical coursework.
Theory Coursework 20%
Practical Coursework 20%
One 2-hour paper 60%
PHYS 2290 (P29A)
INTRODUCTION TO MEDICAL PHYSICS AND BIOENGINEERING
(4 credits)
Prerequisite: PHYS1110 (P11A), P1111 (P11B) and A-level Mathematics or equivalent.
Corequisite: PHYS2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework.
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS2291 (P29B)
DIGITAL ELECTRONICS
(4 credits)
Prerequisite: P1110 (P11A) and P1111 (P11B) OR MATH1140 (M12A) and MATH1150 (M12B) and COMP1100 (CS11E) and COMP1200 (CS11F) OR MATH1160 (M15A) and MATH1170 (M15B)
Syllabus:
Components and Devices: Basic theory and application of electronic and opto-electronic components such as zener diodes, SCR, LEDs, LDs, optical receivers, optical fibre. Digital electronics: Comparison of analogue and digital systems, Boolean Algebra, Basic logic functions NOT, AND, OR. Duality. Computational rules of logic algebra. Generalised logical system, inputs and outputs, variables, NAND, NOR, EXCLUSIVE OR. Combinational logical systems. Simplification of logical equations. KV tables up to four variables. Number system, codes, coding. Introduction to sequential systems.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%
**PHYS 2292 (P29C)**
**METEOROLOGY, CLIMATOLOGY AND POLLUTION**
(4 credits)
Prerequisite: PHYS 1110 (P11A), PHYS 1111 (P11B) and A-Level Mathematics or equivalent.
Co-requisite: PHYS 2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

**PHYS 2293 (P29D)**
**FUNDAMENTAL OF GEOPHYSICS**
(4 credits)
Prerequisite: PHYS 1110 (P11A), PHYS 1111 (P11B) and A-Level Mathematics or equivalent
Co-requisite: PHYS 2280 (P28A)
Syllabus:
Physics of the Earth: The geoid. Earth's internal structure and origin, the Earth-Moon system, volcanoes. Earth's magnetic field and its origin; paleo-magnetism. Terrestrial heat flow. Introduction to Geophysical Prospecting: A general survey of prospecting techniques with a brief account of some of the physical properties of rocks. Seismic, Gravity, Magnetic and Resistivity methods. Seismic digital data acquisition and processing will be introduced. Geophysical interpretation.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical Coursework 20%
One 2-hour paper 60%

**PHYS 2294 (P29E)**
**MATERIALS SCIENCE**
(4 credits)
Prerequisites: PHYS 1110 (P11A), PHYS 1111 (P11B) and A-Level Mathematics or equivalent.
Co-requisite: PHYS 2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework
Theory Coursework 20%
Practical Coursework 20%
One 2-hour paper 60%

**PHYS 2295 (P29F)**
**LASERS AND SOLAR ENERGY**
(4 credits)
Prerequisites: PHYS 1110 (P11A) and PHYS 1111 (P11B)
Co-requisite: PHYS 2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%
**PHYS 3381 (P38B)**
MODERN PHYSICS
(4 credits)
Prerequisite: PHYS2281 (P28B) or repeating and PHYS2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

**PHYS 3382 (P38C)**
ELECTRONICS & CONTROL THEORY
(4 credits)
Prerequisite: PHYS2282 (P28C) or repeating
Syllabus:
Assessment:
35 hours of practical coursework.
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

**PHYS 3383 (P38D)**
OPTICS AND ASTRONOMY
(4 credits)
Prerequisites: PHYS1110 (P11A), PHYS1111 (P11B), M080 or M08B and M08C or A-level Mathematics.
Co-requisite: PHYS2280 (P28A)
Syllabus:
Optics: Fraunhofer and Fresnel diffraction and polarisation. Descriptive and quantitative considerations, applications.
Astronomy: Observational instruments; celestial sphere and co-ordinate systems; solar system; Stars and their evolution; Galaxies and cosmology.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

**PHYS 3384 (P38E)**
THERMODYNAMICS AND SOLID STATE PHYSICS
(4 credits)
Prerequisite: PHYS1110 (P11A), PHYS1111 (P11B) and A-level Mathematics or equivalent
Co-requisite: PHYS2280 (P28A)
Syllabus:
Thermodynamics: Heat; work; First and Second Laws of thermodynamics – applications; engines; refrigerators; entropy; Maxwell’s relations; Liqefaction of gases; Joule-Thomson effect; thermodynamic potentials; magnetothermal relations; thermodynamic applications. Solid State: Structure of solids; elementary crystallography and crystal diffraction; free electron theory of metals; energy band theory; semiconductors; superconductivity.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%
PHYS 3385 (P38F)
ELECTROMAGNETIC THEORY & APPLICATIONS
(4 credits)
Prerequisite: PHYS1110 (P11A), PHYS1111 (P11B) and A-level Mathematics or equivalent
Co-requisite: PHYS2280 (P28A)
Syllabus:
Electric fields In matter; polarization, the field of a polarized material; the electric displacement; linear and non-linear dielectrics. Magnetic fields In matter; magnetisation; the field of a magnetised material; the auxiliary field H, linear and non-linear media. Electrodynamics: Maxwell's equations; conservation laws (the continuity equation, Poynting's theorem, momentum); electromagnetic waves. Transmission lines: simple lossless system; Smith chart; transmission line matching. Wave guides: the parallel plate system; TE, TM and TEM modes; rectangular wave guides; resonators. Antenna Theory: Elementary theory of electric and magnetic dipole radiation. Practical radiating systems.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 3387 (P38P)
RESEARCH PROJECT
(4 credits)
Available only to Physics Majors who need a maximum of 40 credits to graduate
Syllabus:
A research project in some topic in Physics or a related area and may include experimental work in the laboratory and the field.
Examination:
A dissertation of up to 5000 words and an oral presentation.
Dissertation Report 40%
Performance 40%
Oral Presentation 20%

PHYS 3390 (P39A)
FURTHER MEDICAL PHYSICS AND BIOENGINEERING
(4 credits)
Prerequisite: PHYS1110 (P11A) and PHYS1111 (P11B) and A-level Mathematics or equivalent
Syllabus:
Assessment:
35 hours practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour theory paper 60%

PHYS 3391 (P39B)
FURTHER DIGITAL ELECTRONICS AND MICROPROCESSOR SYSTEMS
(4 credits)
Prerequisite: PHYS2291 (P29B) or repeating
Syllabus:
Assessment:
35 hours of practical Coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%
PHYS 3392 (P39C)
PHYSICAL OCEANOGRAPHY AND GEOHYDROLOGY
(4 credits)
Prerequisite: PHYS1110 (P11A), PHYS1111 (P11B) and A-Level Mathematics
Co-requisite: PHYS2280 (P28A)
Syllabus:
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 3393 (P39D)
EARTH MATERIALS, EARTH PROCESSES AND SEISMOLOGY
(4 credits)
Prerequisite: PHYS1110 (P11A), PHYS1111 (P11B) and A-Level Mathematics
Co-requisite: PHYS2280 (P28A)
Syllabus:
Earth Processes and Caribbean Stratigraphy: Properties of minerals and crystals; composition, occurrence, distribution, classification and field recognition of igneous, sedimentary and metamorphic rocks; tectonic and structural features of the earth; volcanic activity; formation of soils and sediments; stratigraphy and geologic time; plate tectonics. The Caribbean environment in relation to man, water supply, soils, petroleum, engineering geology, minerals.
Introduction to Earth Materials: The origin, occurrence, world distribution and development of major earth resources - metallic and nonmetal ores, petroleum, coal building materials, chemical raw materials, bio mass resources. Earth Seismology: The nature of earthquakes; the propagation and detection of seismic waves; geographical distribution of earthquakes; surface effects of earthquakes, earthquake history of the Caribbean.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%
PHYS 3394 (P39E)
FURTHER MATERIALS SCIENCE
(4 credits)
Prerequisite: PHYS1110 (P11A), P1111 (P11B) and
MATH1000 (M08B) or MATH1110 (M08C) or A-level
Mathematics
Co-requisite: PHYS2280 (P28A)
Syllabus:
Transformations. Heat Treatment Testing. Destructive
testing. Nondestructive testing. Microstructure of Polymers.
Architecture. Crystallisation. Mechanical and other
Microstructure of Composites. Mechanical and other
Properties of Composites.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 3395 (P39F)
THIN FILMS AND VACUUM PHYSICS
(4 credits)
Prerequisite: PHYS2294 (P29E)
Syllabus:
Thin Films: Methods of preparation of films. Growth and
structure of films. Mechanical properties of films. Optical
properties of films. Electrical properties of films. Thin film
application.
Vacuum Physics: The behaviour of gases in vacuum. The
components of a vacuum system. Vacuum pumps: rotary,
diffusion, etc. Turbo molecular pump, Getter-ion pump.
Vacuum gauges: Pirani, Penning, McLeod’s gauges. Vacuum
coating system.
Assessment:
35 hours of practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PHYS 3396 (P39G)
CERAMICS
(4 credits)
Prerequisite: PHYS2294 (P29E) or repeating
Syllabus:
Typical properties and engineering applications; Crystal
structures; Processing of Ceramics; Ceramic microstructures;
Mechanical, thermal, electrical and magnetic properties;
cements and concrete; Ceramic coating.
Assessment:
35 hours practical coursework
Theory coursework 20%
Practical coursework 20%
One 2-hour paper 60%

PSYC 1003 (PS14A)
INTRODUCTION TO PSYCHOLOGY
(3 credits)
Prerequisite: None
Syllabus:
This course deals with basic concepts in psychology. It
also seeks to illustrate how these concepts and their related
theories can be linked to social, educational and political
issues.
Assessment:
Final Examination 100%

PSYC 2011 (PS24D)
SELECTED THEORIES
IN SOCIAL PSYCHOLOGY
(3 credits)
Prerequisite: PS14A OR PS11B
Syllabus:
A survey of selected theories in social psychology and the
methods used to examine social psychological concepts.
Emphasis is on the interactionist dynamics of social
psychology examining socialisation, conformity, cognitive
dissonance, attitude formation and change, prejudice and
race relations, leadership and interpersonal relations.
Assessment:
Final Examination 100%
APPENDICES

APPENDIX I (a)
Approved Science CSEC General Proficiency/GCE O-Level subjects:

- Additional Mathematics
- Agricultural Science
- Biology
- Chemistry
- Computer Science
- Environmental Science
- Geography
- Integrated Science
- Information Technology
- Physics

APPENDIX I (b)
Approved Science CAPE/GCE A-level Subjects:

- Biology
- Botany
- Chemistry
- Computer Science
- Geography
- Geology
- Environmental Science
- Information Technology
- Mathematics
- Pure Mathematics
- Physics

APPENDIX II
Universities with which FSA has Exchange Programmes

These include:

- York University
- University of Georgia
- University of Toronto
- University of Wisconsin-Madison
- University of Warwick
- Virginia Tech University
- Florida International
- Grand Valley State University
- Florida State
- Pacific Lutheran University
- University of Florida
- University of Plymouth

APPENDIX III
Foundation Courses: (to be taken by FSA students)

- FD11B - Academic writing for different disciplines (Option C)
- FD11A - Caribbean Civilization
- FD13A - Law, Governance, Economy and Society

Any other course approved for the purpose by the Board of Undergraduate Studies.

The prerequisite for entry into FD11B is any one of the following:

- CSEC English Language Grade I (General Proficiency)
- General Paper Grade A or B
- A Pass in the English Language Proficiency Test
- A Pass in English as a Foreign Language (Intermediate)

FD11A
CARIBBEAN CIVILISATION (SEMESTER I)
(NOT for Humanities students)

Objectives:

1. To develop an awareness of the main process of cultural development in Caribbean societies, highlighting the factors, the problematics and the creative output that have led to the emergence of Caribbean identities.

2. To develop a perception of the Caribbean as wider than island nations or linguistic blocs.

3. To stimulate students' interest in, and commitment to Caribbean civilisation and to further their self-definition.
**UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006**
The Faculty of Science & Agriculture

**Modules:**
1. Origins
   I Caribbean space/physical environment/Amerindian peoples and cultures: their legacy.
   II European conquest, settlement and demographic changes.
2. Fighting for Freedom
   I Slavery, maroonage and rebellion.
   II New in/out-migration, indenture, and their consequences: 19th and 20th centuries.
3. Quest for Identity
   I Race and nationalism.
   II Independence, dependence and regionalism.
   III Creolisation and ethnic identity.
4. Ideas, Ideologies and Theologies
   I Education/religion in the Caribbean.
   II Caribbean Intellectual Traditions.
5. Caribbean Expressions
   I Caribbean music - Calypso, Reggae.
   II Caribbean festivals.
   III Sports.
   IV Caribbean voices - French, English, Spanish, Linguistic Identity.

**Evaluation:**
In-course test 40%
Final 2-hour examination 60%

FD11B
**ACADEMIC WRITING FOR DIFFERENT DISCIPLINES (SEMESTER II)**
The aim of this course is to develop students writing skills in areas related to their academic disciplines. There will be twenty-four (24) contact hours. Classroom activity will be supplemented by printed materials.

**OPTIONS**
**Option A: Writing about Literature (Compulsory for Literatures in English Majors)**
Critical Reading
Writing the Critical Analysis

**Option B: Argument and Report Writing**
Report Writing
Logical Argument

**Option C: Scientific and Technical Writing (Compulsory for FSA Students)**
Technical Description
Expository Writing for Scientific and Technical Purposes

**Evaluation:**
Coursework 50%
Final Examination 50%

Students must pass both coursework and final examination in order to qualify for an overall pass in the course.

**Attendance Regulation:**
A student in any of the Foundation courses in English Language who misses two (2) out of any six (6) class hours will be warned, and after two (2) warnings any further absence without prior permission or an acceptable medical certificate will result in automatic exclusion from the examination.

FD13A
**LAW, GOVERNANCE, ECONOMY AND SOCIETY (SEMESTER I and II)**
The course introduces students to some of the major institutions in Caribbean society. It exposes the student to both the historical and contemporary aspects of Caribbean society, including Caribbean legal, political and economic systems. In addition, Caribbean culture and Caribbean social problems are discussed.

Assessment is based solely on a final examination at the end of the semester. It consists of twelve (12) essay-type questions, of which students are required to write on three (3). All questions carry equal marks. The examination is divided into four (4) sections corresponding to the four (4) subject areas in the course. Students are not allowed to do more than one (1) question in any one section.
APPENDIX IV

LEVEL I PREREQUISITES FOR
THE APPLIED SCIENCE MAJORS

1. Agricultural Science

Agricultural Science Major
AGLS 1001 (AL13C), CHEM 1062 (C10A), AGSL 1000 (AS16B), AGRI 1016 (AG113), AGRI 1013 (AG10B), AGRI 1000 (AG133).

2. Agri-business

Agri-business Major
AGBU 1005 (AM15A), AGEX 1000 (AX15C), AGRI 1003 (AG14C), COMP 1011 (CS10M), AGRI 1010 (AG18A), AGBU 1006 (AM15B).

3. Human Ecology

Family and Consumer Sciences Major
AGBU 1005 (AM15A), HUEC 1003 (AH12B), HUEC 1007 (AH14A), PSYC 1004 (PS11B), HUEC 1006 (AH14B), HUEC 1005 (AH13B).

Nutritional Sciences Major
HUEC 1003 (AH12B), AGRI 1012 (AG10A), CHEM 1062 (C10A), HUEC 1005 (AH12C), AGRI 1013 (AG10B) HUEC 1004 (AH13B).

Foods and Food Systems Service Management Major
AGRI 1012 (AG10A), CHEM 1062 (C10A), ACCT 1002 (MS15E), HUEC 1003 (AH12B), AGBU 1005 (AM15A), HUEC 1001 (AH10C), HUEC 1004 (AH13B).

4. Environmental & Natural Resource Management Major
BIOL 1065 (BL12A), AGBU 1005 (AM15A), AGRI 1012 (AG10A), AGSL 1000 (AS16B), BIOL 1462 (BL11G), AGBU 1002 (AM17B).

5. Geography
AGGE 1900 (AG19A) and AGGE 1901 (AG19B).

APPENDIX V

Levels II/III REQUIREMENTS FOR MAJORS

1. Agricultural Science

2. Agri-Business
i. AGBU 2002 (AM23B), AGBU 3001 (AM32A), AGEX 3004 (AX36B), AGBU 3000 (AM30C), AGBU 3007 (AM37A), AGBU 3002 (AM32D), AGBU 2003 (AM25A).

ii. Plus six (6) credits from: AGBU 3006 (AM36A), AGBU 3005 (AM35B), FINM 2060 (MS29D), AGBU 3012 (AM312), AGBU 3009 (AM32B), AGBU 3003 (AM33D), MKTG 2090 (MS29A).

3. Human Ecology

Family and Consumer Sciences Major

Nutritional Sciences Major

Foods and Food Systems Service Management Major
HUEC 2004 (AH23B), HUEC 2015 (AH23C), HUEC 2003 (AH23A), MKTG 2080 (MS20A), HUEC 3004 (AH33B), MKMT 2008 (MS22A), HUEC 3021 (AH39C), HUEC 3002 (AH33A), AGBU 3007 (AM37A), HUEC 3020 (AH33C).

4. Chemistry
i. CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360 (C20C), CHEM 2015 (C20D), CHEM 2025 (C20E).

ii. Plus thirteen (13) credits from CHEM 3000 (C30) level courses which must include CHEM 3660 (C30P) and at least six (6) credits from CHEM 3167 (C30A), CHEM 3267 (C30B) and CHEM 3367 (C30C).
5. **Life Sciences**

   **Biochemistry Major**
   i. BIOL 2361 (BC22A), BIOL 2362 (BC22B), BIOL 2363 (BC23A), BIOL 2364 (BC23B), BIOL 3361 (BC33A), BIOL 3362 (BC33B) and BIOL 3061 (BL38C)
   ii. Plus four (4) credits from BIOL 3069 (BL33B), BIOL 3364 (BC37B), BIOL 3262 (BL36J), and BIOL 3865 (BL39A)

   **Biology Major**
   BIOL 2361 (BC22A), BIOL 2162 (BC27B), BIOL 2261 (BL28C), BIOL 3662 (BL36B), BIOL 3061 (BL38C), BIOL 3062 (Z36B), BIOL 2761 (BT27A), and BIOL 2862 (Z21F).

   **Environmental & Natural Resource Management**
   i. AGSL 3002 (AS31D), AGSL 3004 (AS34D), BIOL 3463 (BL39B), BIOL 3464 (BT37E), BIOL 2461 (Z24B), BIOL 3062 (Z36B)
   ii. Plus eight (8) credits from BIOL 2062 (Z23B), BIOL 2063 (Z23C), BIOL 3461(Z31A), BIOL 3864 (Z34D), AGEX 2001 (AX25B), AGBU 3003 (AM33D), CHEM 3560 (C30E), BIOL 3069 (BL33B), AGRI 3001 (AG39A), AGBU 3010 (AM39A).

   **Zoology**
   i. BIOL 2861 (Z21E), BIOL 2862 (Z21F), BIOL 3861 (Z33E), BIOL 3662 (BL36B)
   ii. Plus sixteen (16) credits from BIOL 2866 (Z22B), BIOL 2864 (Z22C), BIOL 2063 (Z23C), BIOL 2062 (Z23B), BIOL 2461 (Z24B), BIOL 3461 (Z21A), BIOL 3864 (Z34D), BIOL 3863 (Z34E), BIOL 3062 (Z36B), BIOL 3069 (BL33B), BIOL 3464 (BT37E))

6. **Computer Science**
   i. COMP 2000 (CS20A), COMP 2100, (CS20E) COMP 2200 (CS21E), COMP 2500 (CS24E), COMP 3000 (CS30E), COMP 3100 (CS31A)
   ii. Plus eight (8) credits of Level II/III.

7. **Mathematics**
   i. MATH 2100 (M20A), MATH 2110 (M20B), MATH 2120 (M21A), MATH 2160 (M21B).
   ii. Plus sixteen (16) credits from other Level II/III courses in Mathematics. At least eight (8) of these sixteen (16) credits must be from Level III Mathematics courses.

**NB. Double Major in Mathematics (subject to availability of courses)**
Sixty-four (64) credits from Level II and Level III Mathematics courses including MATH2100 (M20A), MATH 2110 (M20B), MATH 2120 (M21A) and MATH 2160 (M21B) where at least thirty-two (32) credits must be from Level III Mathematics courses.

8. **Physics**
   i. PHYS 2280 (P28A), PHYS 2281 (P28B), PHYS 2283 (P28D), PHYS 3383 (P38F), PHYS 3387(P38P).
   ii. Plus twelve (12) credits from PHYS 2282 (P28C), PHYS 3381 (P38E), PHYS 3383 (P38D), PHYS 3384 (P38E).

9. **Geography**
   Levels II and III will not be offered in 2005/06.

**NB.**
(a) Course requirements for degrees offered by the School of Agriculture as well as those for the Chemistry and Management and Computer Science and Management special options are outlined under the respective departmental listings in this booklet.

(b) Requirements for minors and areas of specialisation in other disciplines are listed under the individual departmental sections of the booklet.
APPENDIX VI

MINORS

In order to obtain a minor in a particular area of specialization, candidates are required to complete a minimum of fifteen or sixteen credits of Level II/III courses, together with any necessary Level I prerequisite courses. These are specified below.

1. ENTREPRENEURSHIP
   (a) Prerequisites: AM15A and AM15B.
   (b) AGHU 3001 (AM32A), AGHU 3007 (AM37A).
   (c) At least seven (7) credits from: AGHU 3006 (AM36A),
       MGMT 3032 (MS33C), MGMT 2021 (MS27A), MGMT 2007 (MS21E),
       HUEC 3004 (AH33B), BIOL 3863 (Z34E), AGHU 3003 (AM33D),
       AGHU 3009 (AM32E).

2. COMMUNICATIONS AND EXTENSION
   (a) Prerequisites: AX15C, AM15A and AM15B.
   (b) Plus 16 credits from: AGEX 2001 (AX25B), AGEX 3000
       (AX30A), AGEX 3012 (AX312), AGEX 3004
       (AX36B), AGEX 3003 (AX39A), AGEX 3001 (AX35A).

3. SPORTS NUTRITION
   (a) Prerequisite: HUEC 1003 (AH12B).
   (b) Co-requisite: HUEC 2001 (AH21A) for Course AH20C.
   (c) Plus: HUEC 3016 (AH34C), HUEC 2012 (AH20C),
       HUEC 3014 (AH32B), HUEC 3021 (AH32C). And at
       least 3 credits from: MGMT 2010 (MS22M), MGMT
       3027 (MS23E), MGMT 3022 (MS27E), AGEX 3004
       (AX36B), PSYC 2012 (PS24B), HUEC 3007 (AH15A),
       SCIO 3005 (SY31C), AGHU 3007 (AM37A), MGMT
       2009 (MS22G), MGMT 2007 (MS21E).

4. ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT
   Any sixteen (16) credits from BIOL 3464 (BT37E), BIOL
   3461 (Z31A), BIOL 2461 (Z24B), BIOL 2063 (Z223C), BIOL
   3864 (Z34D), AGSL 3004 (AS34D), AGSL 3002 (AS33D),
   BIOL 3463 (BL39B), BIOL 3062 (Z36B), AGHU 3001
   (AG39A), AGHU 3010 (AM39A), AGHU 3003 (AM33D).

5. BIOTECHNOLOGY
   Any sixteen (16) credits from BIOL 3762 (BT36D), BIOL
   3763 (BT36L), BIOL 3262 (BL38L), BIOL 3061 (BL38C),
   BIOL 3865 (BL39A).

6. ENVIRONMENTAL BIOLOGY
   Any sixteen (16) credits from BIOL 2063 (Z23C), BIOL
   2062 (Z23B), BIOL 2461 (Z24B), BIOL 3062 (Z36B), BIOL
   3464 (BT37E).

7. ZOOLOGY
   Any sixteen (16) credits from BIOL 2861 (Z21E), BIOL
   2862 (Z21F), BIOL 3861 (Z33E), BIOL 3662 (BL36B),
   BIOL 2866 (Z22B), BIOL 2864 (Z22C).

8. BOTANY
   Any sixteen (16) credits from BIOL 2761 (BT27A), BIOL
   3761 (BT31C), BIOL 3763 (BT36L), BIOL 3762 (BT36D),
   BIOL 3765 (BT38C).

9. BIOLOGY
   BIOL 2862 (Z21F), BIOL 2761 (BT27A) and any eight (8)
   credits from the following: BIOL 2561 (BL28C), BIOL
   3061 (BL38C), BIOL 2162 (BL27B), BIOL 3662 (BL36B),
   BIOL 3062 (Z36B), BIOL 2361 (BC22A).

10. BIOCHEMISTRY
    BIOL 2361 (BC22A), BIOL 2363 (BC23A) any sixteen
    (16) credits from: BIOL 2362 (BC22B), BIOL 2364
    (BC23B), BIOL 3361 (BC33A), BIOL 3364 (BC37B), BIOL
    3362 (BC38B), BIOL 3061 (BL38C).

11. MARINE BIOLOGY
    BIOL 2063 (Z23C), BIOL 3461 (Z31A), BIOL 3864 (Z34D),
    BIOL 3863 (Z34E).

12. CHEMISTRY (16 credits)
    CHEM 2160 (C20A), CHEM 2260 (C20B), CHEM 2360
    (C20C), and either CHEM 2015 (C20D), or CHEM 2025
    (C20E).

13. ANALYTICAL CHEMISTRY (16 credits)
    CHEM 2460 (C20F), CHEM 3467 (C30F), CHEM 3468
    (C31F).

14. COMPUTER SCIENCE (16 credits)
    COMP 2000A (CS20A), COMP 2500 (CS24E) and any
    eight (8) credits from: COMP 2200 (CS21E), COMP 2700
    (CS27E), COMP 3000 (CS30E), COMP 3100 (CS31A),
    COMP 3150 (CS32A), COMP 3250 (CS32F).
15. **MATHEMATICS (16 credits)**

Students are required to do any 2 of the levels II and III core courses of the Mathematics major including either M20A or M21A and any 2 other Mathematics courses at Level II/Level III.

16. **APPLIED PHYSICS (16 credits)**

**Electronics**
- PHYS 2282 (P28C), PHYS 2291 (P29B), PHYS 3382 (P38C), PHYS 3391 (P39B).

**Medical Physics and Bioengineering**
- PHYS 2290 (P29A), PHYS 2291 (P29B), PHYS 3391 (P39B), PHYS 3390 (P39A).

**Environmental Physics**
Any four (4) of:
- PHYS 2292 (P29C), PHYS 2293 (P29D), PHYS 3392 (P39C), PHYS 3393 (P39D), PHYS 2295 (P29F).

**Material Sciences**
Any four (4) of:
- PHYS 2294 (P29E), PHYS 3394 (P39E), PHYS 3396 (P39G), PHYS 3395 (P39F), PHYS 2295 (P29F).

**APPENDIX VII**

1. **GRADING SCHEME**

The Grading Scheme used in the Faculty of Science & Agriculture is as follows:

<table>
<thead>
<tr>
<th>CLASS OF HONOURS</th>
<th>GRADE</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>First A+</td>
<td>85 - 100</td>
<td></td>
</tr>
<tr>
<td>First A</td>
<td>76 - 84</td>
<td></td>
</tr>
<tr>
<td>First A-</td>
<td>70 - 75</td>
<td></td>
</tr>
<tr>
<td>Upper Second B+</td>
<td>60 - 69</td>
<td></td>
</tr>
<tr>
<td>Upper Second B</td>
<td>50 - 59</td>
<td></td>
</tr>
<tr>
<td>Lower Second B</td>
<td>40 - 49</td>
<td></td>
</tr>
</tbody>
</table>

For students entering the Faculty from 2003/04 onwards, the GPA system and the associated regulations are in effect:

<table>
<thead>
<tr>
<th>Mark</th>
<th>Grade</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>86-100</td>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>70-85</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>67-69</td>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>63-66</td>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>60-62</td>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>57-59</td>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>53-56</td>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>50-52</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>47-49</td>
<td>C</td>
<td>1.7</td>
</tr>
<tr>
<td>43-46</td>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>40-42</td>
<td>D</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Minimum pass grade is a D with a quality point of 1.0.

2. **CLASS OF HONOURS**

<table>
<thead>
<tr>
<th>Honours</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>3.60 - 4.3</td>
</tr>
<tr>
<td>Upper Second</td>
<td>3.0 - 3.59</td>
</tr>
<tr>
<td>Lower Second</td>
<td>2.0 - 2.99</td>
</tr>
<tr>
<td>Pass</td>
<td>1.0 - 1.99</td>
</tr>
</tbody>
</table>
APPENDIX VIII

LIST OF EXEMPTIONS WITH CREDIT

1. Graduates with Diplomas/Associate degrees in relevant fields from recognized institutions will be granted exemptions on the basis of performance. Students admitted with a Cumulative GPA of 2.75 or higher, will be granted exemption with credit in accordance with the following scheme from 2005/2006. Students entering the FSA with a GPA less than 2.75 will not normally be granted exemptions with credits.

(a) ECIAF/CASE-Agriculture graduates admitted to FSA BSc programmes in Agriculture.

All such students will be granted exemption with credit from: AGRI 1000 (AG133) and AGEX 1000 (AX15C). However, students admitted with a GPA of 2.75 or above in addition would be granted exemption with credit from the following:

Level I: AGBU 1005 (AM15A), AGBU 1006 (AM15B), AGSL 1000 (AS16B), AGRI 1003 (AG14C), AGLS 1001 (AL13C) AGRI 1016 (AG11B).


(b) COSTAATT Associate Degree in ENVIRONMENTAL MANAGEMENT: Graduates with a GPA of 2.75 or better admitted into the ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT PROGRAMME will be exempted with credit from the following:

BIOL 1462 (BL11G), AGBU 1005 (AM15A) AND AGBU 1002 (AM17B).

(c) COSTAATT Associate Degree in ENVIRONMENTAL TECHNOLOGY: Graduates with a GPA of 2.75 or better admitted into the ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT PROGRAMME will be exempted with credit from the following:

BIOL 1462 (BL11G), AGRI 1013 (AG10B), AGSL 1000 (AS16B), AGBU 1002 (AM17B).

(d) COSTAATT Associate Degree in ENVIRONMENTAL ENGINEERING: Graduates with a GPA of 2.75 or better admitted into the ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT PROGRAMME will be exempted with credit from the following:

AGSL 1000 (AS16B).

2. HUMAN ECOLOGY PROGRAM

(a) A student with a CAFÉ (GCE A-Level) or equivalent pass in a Food and Nutrition related subjects will be exempted with credit from HUEC 1003 (AH12B).

(b) Associate degree holders from TTHT with GPA of 2.75 or better will be exempted with credit from HUEC 1004 (AH13B), COMP 1011 (CS10M) and ACCT 1002 (MS15E).
UNDERGRADUATE REGULATIONS & SYLLABI 2005 - 2006
The Faculty of Science & Agriculture

FACULTY PRIZES

PRIZES
The following is a list of Campus Faculty and Departmental Prizes awarded annually in the Faculty of Science & Agriculture.

FACULTY PRIZES
i. A First Year Faculty prize of books to the value of two hundred and fifty dollars ($250.00) awarded to the Level I student with best academic performance.

ii. A Second Year Faculty prize of books to the value of two hundred and fifty dollars ($250.00) awarded to the Level II student with the best academic performance.

iii. A Silver Gilt medal awarded to Level III (Final) year student with the best academic performance.

SCHOOL OF AGRICULTURE

AGRICULTURAL ECONOMICS & EXTENSION DEPARTMENT

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Agricultural Economics and Extension: Year I

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Human Ecology: Year I

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Human Ecology: Year I

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Agribusiness Management: Year II

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Human Ecology: Year II

THE JOE PIRES MEMORIAL PRIZE (formerly THE CARIBBEAN CHEMICALS & AGENCIES LTD)
Awarded for the best performance in Agricultural Extension: Years II & III

PETROTRIN BOOK PRIZE
Awarded for the best performance in Agribusiness Management over Years II & III

PETROTRIN BOOK PRIZE
Awarded for the best performance in Agricultural Economics over Years II & III

DR. SUNNEY D. ALEXIS MEMORIAL PRIZE
Awarded for the best performance in the Human Ecology: Year III

THE CHELSTON W.D. BRATHWAITE PRIZE
Awarded for the best final year project demonstrating excellence in Project Management: Year III

THE MARKETING & DISTRIBUTION PRIZE
Awarded for the best performance in Marketing: Year III

THE SCOTIABANK PRIZE
Awarded for the best performance in Finance and Accounting: Year III

THE AGRIBUSINESS COMMUNITY SERVICE PRIZE
Awarded for outstanding service to the Agribusiness Community donated by Agribusiness Alumni: Year III

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in B.Sc. Human Ecology – General Option: Year III

DEAN’s PRIZE
Awarded for the best performance in the Diploma in Institutional; And Community Dietetics and Nutrition: Year III

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SPECIAL PRIZES

THE T.P. LECKY AWARD
Challenge Trophy donated by the Caribbean Agricultural Research and Development Institute (CARDI).
Awarded for the best performance in all the degrees in the School of Agriculture over Years I to III.

CURRIE MEMORIAL PRIZE
For the student who excelled in extra curricular activities subject to satisfactory academic performance.

MARCHIONESS OF ANGLESEY PRIZE
For the best all-round First Year Student

GARDEN CLUB OF TRINIDAD AND TOBAGO PRIZE
Awarded to the best practical paper on a Horticulture related topic

DEPARTMENT OF FOOD PRODUCTION PRIZES

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Agriculture – General: Year I

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best performance in Agriculture – General: Year II

THE J. SIDNEY DASH PRIZE
Awarded for the best performance in Crop Science over Years II & III

FREDERICK HARDY PRIZE
This prize should be awarded to the Part III student who obtains the highest average marks in courses taken in Soil Science at the Parts II and III examinations including the Project.

THE LE GENDRE & CO. LTD. PRIZE
Awarded for the best performance in Crop Science over Years II & III

THE P.V.C. B. TEWARIE PRIZE
Awarded for the best performance in Agriculture - General: Years II & III

S. NORMAN GIRWAR AWARD FOR EXCELLENCE
B.Sc. Agriculture (General) degree, School of Agriculture. The student should demonstrate an interest in sugar or sugarcane in his Research Project which may be carried in any Department of the Faculty. Nomination of candidates would be done in consultation with the Head, Department of Agricultural Economics and Extension.

W.E. FREEMAN PRIZE
This prize valued at $500.00 cash and $500.00 trophy is awarded to the best final year project on the Biology of Cocoa and is a joint School of Agriculture/School of Natural Sciences Prize.
SCHOOL OF SCIENCE

LIFE SCIENCES DEPARTMENT

THE METROPOLITAN PRIZE
Awarded for the best Year I performance in Life Sciences Courses

THE NORVATIS PRIZE
Awarded for the best Final Year Project in the Department of Life Sciences

PLANT SCIENCE

PROFESSOR E.J. DUNCAN PRIZE
Awarded for the best Year I performance in Plant Science by a student continuing in Life Sciences

THE STEEDE MEDICAL CARIBBEAN LTD. PRIZE
Awarded for the best Year II performance in Plant Science

THE REPUBLIC BANK LTD. PRIZE
Awarded for the best Year III performance in Plant Science

BIOCHEMISTRY

THE PI CARIBBEAN LIMITED PRIZE
Awarded for the best Year II performance by a student majoring in Biochemistry

THE ANGOSTURA LIMITED PRIZE
Awarded for the best Year III performance by a student majoring in Biochemistry

ZOLOGY

THE PROFESSOR P.R. BACON PRIZE
Awarded for the best Year I performance in Zoology for a student continuing in Life Sciences

THE SEETERAM BOOK CENTRE PRIZE
Awarded for the best Year II performance in Zoology – Book Voucher Prize

THE LEXICON TRINIDAD LTD. PRIZE
Awarded for the best Year III performance in Zoology for a student continuing in Life Sciences

BIOLOGY

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best Year II performance in Biology

THE HEAD OF DEPARTMENT PRIZE
Awarded for the best Year III performance in Biology

ENVIRONMENTAL & NATURAL RESOURCE MANAGEMENT

THE ASA WRIGHT NATURE CENTRE-JULIAN DUNCAN PRIZE
Awarded for the best Year I performance in Environmental & Natural Resource Management

THE ASA WRIGHT NATURE CENTRE - THOMAS CARR PRIZE
Awarded for the best Year II performance in Environmental & Natural Resource Management

THE ASA WRIGHT NATURE CENTRE – IAN LAMBIE PRIZE
Awarded for the best Year III performance in Environmental & Natural Resource Management
POSTGRADUATE STUDIES

THE ENVIRONMENTAL MANAGEMENT AUTHORITY (EMA) PRIZE
Awarded for the best performance in the MSc in Science for the Management of Tropical Environments

THE EPAS CONSULTANTS PRIZE
Awarded for the best research project in the MSc in Science for the Management of Tropical Environments

CHEMISTRY DEPARTMENT

THE WESTERN SCIENTIFIC PRIZE
Awarded for the best Year I performance in Chemistry

THE BERGER PAINTS TRINIDAD LTD. PRIZE
Awarded for the best Year II performance in Chemistry

THE CHROMASPEC LTD. PRIZE
Awarded for the best Year II performance in Chemistry & Management

THE INDUSTRIAL GASES LTD. PRIZE
Awarded for the best Year III performance in Chemistry

THE PENTA PAINTS TRINIDAD LTD. PRIZE
Awarded for the best graduating student in Chemistry

THE PERRIN ELMER/EMPIRE SALES & AGENCIES PRIZE
Awarded for the best performance in Analytical Chemistry

THE WESTERN SCIENTIFIC PRIZE
Awarded for the best Year III performance in Chemistry & Management

MATHEMATICS & COMPUTER SCIENCE DEPARTMENT

MATHEMATICS

THE POWERGEN PRIZE
Awarded for the best Year I performance in Mathematics

THE GUARDIAN LIFE OF TRINIDAD & TOBAGO PRIZE
Awarded for the best Year II performance in Mathematics

THE TATIL GROUP PRIZE
Awarded for the best Year III performance in Mathematics

THE JOHN ALEONG PRIZE IN STATISTICS
Awarded for the best Year III performance in Statistics

COMPUTER SCIENCE

THE IBM WORLD TRADE PRIZE
Awarded for the best Year I performance in Computer Science

THE DIGI-DATA SYSTEMS PRIZE
Awarded for the best Year II performance in Computer Science

THE FUJITSU TRANSACTION SOLUTION LIMITED PRIZE
Awarded for the best Year III performance in Computer Science

COMPUTER SCIENCE AND MANAGEMENT

THE FUJITSU-ICL PRIZE
Awarded for the best Year III performance in Computer Science

THE hp TRINIDAD & TOBAGO LLC PRIZE
Awarded for the best Year II performance in Computer Science & Management

POSTGRADUATE AWARD
THE MICROSOFT TRINIDAD & TOBAGO LIMITED PRIZE
Awarded for the best M.Sc. Computer Science project
PHYSICS DEPARTMENT

THE VICAR ENTERPRISES LTD. PRIZE
Awarded for the best Year I performance

THE BERGER PAINTS TRINIDAD LTD. PRIZE
Awarded for the best Year II performance

THE P.C.S. NITROGEN PRIZE
Awarded for the best Year II performance in Material Science

THE UNIT TRUST CORPORATION PRIZE
Awarded for the best Year III performance

THE ANTHONY CAMPBELL MEMORIAL AWARD
Awarded for the best Year I performance

THE TRINIDAD AGGREGATE PRODUCTS PRIZE
Awarded for the best performance in Ceramics

THE TRINIDAD & TOBAGO TELECOMMUNICATION SERVICES (TSTT) PRIZE
Awarded for the Best Overall student in Electronics

THE CARIRI PRIZE
Awarded for the best Year III performance in Material Science

THE MAURA IMBERT PRIZE
Awarded for the best Year III performance in Astronomy & Optics

SPECIAL PRIZES

TRINIDAD & TOBAGO

SCIENTIFIC ASSOCIATION (TTSA) PRIZE
Awarded to the best all-round student in Year II who has performed well academically and who is actively involved in the promotion of Science in the Society

CARIBBEAN ACADEMY OF SCIENCES (CAS) PRIZE
Awarded to the best Year II student of the Faculty

THE COATES BROTHERS CARIBBEAN LTD. PRIZE
Awarded for the best overall performance over the 3-Year Programme

THE FACULTY NOMINEE FOR THE BWIA STUDENT OF THE YEAR PRIZE
THE LIBRARY
RULES FOR READERS
ST. AUGUSTINE

RULES FOR LIBRARY USERS

1. SEMESTER
   Monday to Friday   8:30 a.m. - 10:00 p.m.
   Saturday          8:30 a.m. - 5:00 p.m.

   CHRISTMAS VACATION & SUMMER VACATION
   Monday              8:30 a.m. - 6:30 p.m.
   Tuesday to Friday   8:30 a.m. - 5:00 p.m.
   Saturday            8:30 a.m. - 12:30 p.m.

   COMPUTER LAB “STARRS” & READING ROOM
   Monday to Friday    10:00 p.m. - 6:00 a.m.
   Saturday            5:00 p.m. - 6:00 a.m.
   Sunday              12:00 noon - 6:00 p.m.

   SUMMER SCHOOL
   Monday to Wednesday 8:30 a.m. - 10:00 p.m.
   Thursday to Saturday 8:30 a.m. - 5:00 p.m.

   Vacation hours will apply to the first week of each academic year.

MEMBERSHIP

UWI:
2. The Library is open to registered graduate and undergraduate students and staff of all campuses of The University of the West Indies.

3. Non-UWI:
   a. Visiting research workers, faculty and students of other universities and tertiary level institutions may be granted reading and reference privileges on recommendation of a faculty member and at the discretion of the Librarian.*

   b. Other non-university persons over the age of 16 may be granted reading and reference privileges. This is, however, subject to a review by the Librarian on duty and is dependent on the specific need of the particular person.

   c. A fee may charged for long periods of use or repeated use as outlined in Information Bulletin No. 9 (Rev.).

   d. Users in this category are not allowed loans.
LOANS

GENERAL

4. No book, periodical or other library material may be removed from the Library unless it has been legitimately charged out at the Loans Desk and the date label stamped by a member of staff on duty. A user is responsible for any book or other item borrowed in his/her name. This responsibility ends only when the loan is officially cancelled. Failure to comply with this rule will be treated as a major and deliberate offence.

5. Users’ identification cards are not transferable. It is a major offence to lend or borrow identification cards. Persons contravening this rule may have their library privileges withdrawn or may be referred to the Principal for further action.

6. Certain publications may not be removed from the Library. These include all materials from the West Indiana & Special Collections Division as well as reference books, specially marked items from the closed reserve collection and works of special value. All such material will be clearly marked.

7. Loans may extend for varying periods depending on the extent of demand for each item. All material loaned will be subject to recall by the Librarian at any time. No loans may be renewed for more than seven (7) days.

In cases where a book issued on loan is requested by another user it may be recalled after it has been on loan for a minimum of seven days. A new date due is assigned and fines are charged for non-return of the item after the new date.

Undergraduates

8. Undergraduate students of the University may have on loan up to six (6) books at a time. They may not borrow serials. Two Reserve items may be borrowed at a time either for use in the Library or on overnight loan. Two additional items from the Reserve Collection may also be borrowed for three (3) or seven (7) days.

THE UNIVERSITY BOOKSHOP

The University Bookshop is your source for essential texts. The shop also stocks stationery items and books of general interest. A select range of insignia items has recently been introduced. These include mugs, T-shirts, caps and stationery.

An order service is available to students who require books not stocked at the Bookshop. Using the most up to date reference tools, prices are determined and a 50% down payment is required to initiate the order process. Other services include film processing, binding of term papers and projects, and photocopying.

In keeping with its objective of providing texts at the lowest cost, as well as satisfying the diverse needs of the University community, the Shop staff welcomes comments from those it serves.

Situated at the northern end of the Campus, the Shop’s opening hours are as follows:

Monday - Thursday  - 8.30 a.m. - 4.00 p.m.
Friday         - 8.30 a.m. - 4.15 p.m.

The Management and Staff look forward to serving you.
<table>
<thead>
<tr>
<th>TERM</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Co-requisite</td>
<td>A course which must be taken along with another specified course, in order to ensure the attainment of the complementary and/or independent competencies.</td>
</tr>
<tr>
<td>2. Course</td>
<td>A body of knowledge circumscribed by a syllabus to be imparted to students by sundry teaching methods and usually followed by an examination. A course may be either compulsory or elective.</td>
</tr>
<tr>
<td>3. Credit</td>
<td>A measure of the workload required of students. 1 Credit Hour = 1 hour lecture/tutorial/problem class per week OR 2 hours laboratory session per week for a semester.</td>
</tr>
<tr>
<td>4. Discipline</td>
<td>A body of knowledge distinguishable from other such bodies on the basis of criteria such as method of enquiry, axioms, area of application.</td>
</tr>
<tr>
<td>5. Elective</td>
<td>A course within a programme taken by choice of the student.</td>
</tr>
<tr>
<td>6. Level</td>
<td>A state in a programme for which courses are designed (at UWI marked by the first digit in a course number).</td>
</tr>
<tr>
<td>7. Major</td>
<td>A specified number of credits including prescribed courses from Level II &amp; III from a single discipline (see Departmental course listing). Students must declare their proposed major by registration for the final year before the close of registration in the semester (including summer) in which they expect to complete.</td>
</tr>
<tr>
<td>8. Marginal failure</td>
<td>35 to 39% score for the overall examination.</td>
</tr>
</tbody>
</table>
9. Minor
A specified number of credits (usually 15 or 16) including prescribed
courses from Levels II & III from
a single science discipline (see
Departmental course listings).

10. Option
A prescribed combination of
courses, within the Faculty or across
Faculties, leading to a degree.

11. Part
Portion of a programme defined
by the regulations governing the
programme.

12. Prerequisite
A course which must be passed
before the course for which it is
required may be pursued.

13. Programme
A selection of courses (designed to
achieve pedagogical goals) the taking
of which is governed by certain
regulations and the satisfactory
completion of which (determined by
such regulation) makes a candidate
eligible for the award of a degree/
diploma/certificate.

14. Semester GPA
GPA computed on the basis of all
courses done in a semester, without
reference to weighting except in terms
of credits. (The terms Grade Point,
GPA, Quality Hours and Quality
Points are defined in the UWI Grade
Point Average Regulations Booklet).

15. Subject
An area of study traditionally assigned
to the purview of a department.

16. Supplemental
Examination
A re-sit of the examination(s) offered
on recommendation of departments
and Faculty, to candidate who,
having passed course work, have
registered a marginal failure.

17. Supplemental
Oral
An oral examination, offered on
recommendation of Departments
and Faculty, to candidates who
have registered a marginal failure
in a course(s) essential to complete
graduation requirements.

(footnotes)
1 The existing BSc Human Ecology degree [with options in Nutrition and
Dietetics and Consumer Sciences] will be phased out by 2006-2007.
Accordingly, no new registration is being accepted for this degree.
2 The existing BSc Human Ecology degree [with options in Nutrition and
Dietetics and Consumer Sciences] will be phased out by 2006-2007.
Accordingly, no new registration is being accepted for this degree.