Student Handbook 2020

Faculty of Applied Sciences

Uva Wellassa University

Faculty of Applied Sciences - Student Handbook 2020

This Handbook is intended to provide general information to all students of Faculty of Science and Technology, Uva Wellassa University.

The university reserves the rights to alter or cancel courses or to amend any other information without prior notice. There is no guarantee that courses for which approval is being sought will be offered at the anticipated date of commencement. This Handbook does not constitute the course regulations.

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STUDENT HANDBOOK 2020

FACULTY OF APPLIED SCIENCES

Vice Chancellor's Message

It is with great pleasure, I welcome you all to the Faculty of Applied Sciences of Uva Wellassa University (UWU). The UWU was established with a clear vision, highlighting the theme of value addition to the national resource base. All our academic programmes are multi-disciplinary and focused on entrepreneurial education. The Faculty of Applied Sciences aims to produce professional practitioners in the fields of Science and Technology, whilst promoting scientific inquiry, innovation and collaboration.

Dear students, as new members of the UWU family, we expect your contribution to sustain the prevailing conductive academic environment, and also to maintain the image of the UWU. We expect you all to integrate with the vision and mission of the UWU, and with the core values of the UWU family. During your stay at the Faculty of Applied Sciences of UWU, we expect you to gain the attitudes, skills and knowledge required by the industry and the society at large.
I wish you all the success in academic life at the Faculty of Applied Sciences of UWU.

Prof. Jayantha Lal Ratnasekera
Vice Chancellor

Dean's Message

The Faculty of Applied Sciences has embraced the mission of supporting degree programmes to advance knowledge, particularly in adding value to the national resource base through excellent teaching, high-quality research, and outstanding outreach activities. Specifically, the faculty has a distinct academic focus that emphasizes the education of professionals, fosters high achievement, and promotes scientific research, innovation, and collaboration. Within the Faculty of Applied Sciences, our devoted faculty and the staff aspire to provide a supportive and creative environment that utilizes a variety of educational experiences for all candidates.

At present the faculty comprise of three departments namely, Department of Science and Technology, Department of Computer Science and Informatics and Department of Applied Earth Sciences. Initially, the Faculty of Applied Sciences started two bachelor programmes, namely Bachelor of Technology in Science and Technology (BTech) and Bachelor of Science in Computer Science and Technology (BSc). The faculty has expanded by adding another two degree programmes in 2008, namely Bachelor of Science Mineral Resources Technology (BSc) and Bachelor in Industrial Information Technology (BIIT). Additionally, the faculty also offers postgraduate degrees by research. These degree programmes are designed to allow students to acquire knowledge and skills in laboratory techniques, field work, problem solving, skills in teamwork, leadership, and towards effective communication to meet the needs of contemporary society along with an attitude for pursuit of knowledge.

I am proud to say that the success of our programmes is due in large part to the dedication of every faculty member. Most importantly, the members of the Faculty of Applied Sciences are competent academics, as they actively participate in enduring research activities, attested by publications in highly ranked academic journals. Reaching our goal of being a leading entrepreneurial oriented knowledge base for education and sharpening talents of the diverse student body is indeed an aspiration that deserves continued attention.

Finally, I would like to note that we maintain an apparently good rapport with the students continuously, thus we mark our success as a family. I invite both prospective undergraduate and postgraduate students to take part in a clearer, targeted trajectory into your areas of interest at the Faculty of Applied Sciences.

I wish you all the very best in your studies and all future endeavors.

Dr. H.M.J.C. Pitawala
Dean - Faculty of Applied Sciences

CONTENT

UVA WELLASSA UNIVERSITY

Background

The Uva Wellassa University (UWU) was born in the backdrop of a long felt need to establish a new university based on modern educational concepts different from the traditional university system. UWU was set up in the Uva provincial capital Badulla as 14th National University in Sri Lanka, in June 2005. It is different from all the other universities; from academic as well as administration structure, as it is designed to provide Essential Skills and Broad General Education for all students while providing conceptual and methodological background and the training necessary to obtain practical solutions for value addition to natural resources of Sri Lanka. All the degree programmes are interdisciplinary and conducted in English only. The university theme provides the necessary emphasis that should pervade the system within to pursue a vision clearly giving a direction on Value Addition to the National Resource Base. It is also an Entrepreneurial University. As such all the degree programmes deliver knowledge and skills required by the employers in industry and commerce for value addition.

The programmes cover resource areas of Aquatic, Export, Tea, Palm & Latex, Minerals, Tourism, Hospitality & Events Management, IT, Entrepreneurship, Management, Science and Technology. The net result of this strategic theme effectively produces graduates readily employable both in the state and the private sector. UWU is the first Entrepreneurial University, providing education to the students focusing on employers' needs and entrepreneurship. The new course unit driven structure of education facilitates interdisciplinary learning, generates the knowledge base for education and practically enlightens their path. Value addition to national resource base caters for sustainable development of the nation.

UWU Vision and Mission

The university's vision is clear on what it aspires, and the strategy is aligned to this vision. Employability of graduates is one of the prime concerns. The mission is specific about producing graduates capable of contributing to economic development and it states clearly how to fulfill the vision.

Vision

Be the centre of excellence for value addition to the national resource base.

Mission

To produce well-rounded, employable, technocratic and entrepreneurial graduates equipped with knowledge, skills, values and attitudes to make outstanding contributions to the national development.
To excel in teaching, learning and research with a strong emphasis on value addition to the national resources.

UWU Logo

The logo symbolizes the theme of Uva Wellassa University. The circle at the crest shows the rising sun which is the source of energy and the symbol of knowledge that the University generates and disseminates. It also indicates the rising new generation of the learned. It has a concentric inner circle, which also symbolizes modern technology used to acquire and disseminate knowledge. Teaching and learning strategies employ cutting-edge technology to cater to a large student community that craves for new knowledge. The blue stream symbolizes life giving water from the sky enriching the soil and flowing down to the agricultural land. The triangle symbolizes the earth representing the mineral resources and it is a symbol of technology. The University continues to develop mineral technology focusing on value addition. The three green leaves represent our agricultural resources in general and tea in particular. UWU stands for Uva Wellassa University.

The overall logo states that UWU generates and disseminates Science and Technological Knowledge using modern methods of education on value addition to national resources enriched by sun and water from the sky.

UWU Aims and Values

Aims

- To effectively deliver broad-based programmes with outstanding combinations of subjects of relevance to economic development and value addition
- To use innovative and flexible mechanisms to deliver these programmes
- To create and maintain an environment conducive for the pursuit of academic excellence
- To produce well rounded graduates matching the demands of the society
- To become a model employer of both academic and non-academic staff
- To fulfill all expectations of the government in the final assessment of the university's performance as a national higher education centre.

Values

- Respect and tolerance
- Goal orientation
- Equal opportunity
- Interdisciplinary degree programmes
- Discipline
- Multi-functionality of employees

FACULTY OF APPLIED SCIENCES

Background

The Faculty of Applied Sciences of Uva Wellassa University was established in 2006. The faculty has three departments namely, Department of Science and Technology , Department of Computer Science and Informatics and Department of Applied Earth Sciences. The faculty initially had two degree programmes, offering the degrees of Bachelor of Technology in Science and Technology ,Bachelor of Science in Computer Science and Technology. Later, two new degree programmes were introduced and they were named as Bachelor of Industrial Information Technology and Bachelor of Science in Mineral Resources and Technology.

The faculty has a distinct academic approach that emphasizes the education of professional practitioners, fosters high achievement and promotes scientific inquiry, innovation and collaboration.

Faculty Mission

The mission of the faculty is to support the degree programmes to advance the knowledge particularly on value addition to the national resource base through excellent teaching high quality research and outstanding outreach activities.

Degrees offered by the Faculty

- Bachelor of Science in Computer Science and Technology
- Bachelor of Industrial Information Technology
- Bachelor of Technology in Science and Technology
- Bachelor of Science in Mineral Resources and Technology

The ever-rising demand for Information Technology (IT) experts in a globally expanding market is opening up avenues for graduates in Computer Science and Technology. In this light the Computer Science and Technology degree

programme was introduced to harness the opportunities in IT industry by producing well-rounded, competent and employable graduates who address the market needs with sound theoretical background and comprehensive training.

UWU introduced Bachelor of Industrial Information Technology (BIIT) degree programme to produce graduates capable of adding value to industrial and business processes and to enhance knowledge in information technology applications in industry contributing towards greater economic development.

The Science and Technology degree programme aims to develop knowledge, values, conceptual understanding and skills in students, necessary for a range of careers in Science and Technology. It fosters research in Science and Technology in a dynamic interdisciplinary atmosphere. The degree programme envisages its participants to be responsive to the national and local needs and initiatives involved in the value addition to the national resource base. The degree programme is unique as it offers a BTech. degree providing the students with opportunities for technology oriented career.

The Mineral Resources and Technology degree programme aims to provide the students with a firm scientific foundation for proper appraisal of mineral resources with an in-depth knowledge in mineral science and related disciplines. Students will be exposed to state-of-the-art technologies in mineral industry to explore the value addition potential of local mineral resources.

Student Enrollment

The registration is valid for a period of 4 consecutive years. If a student is unable to complete the degree during the stipulated time period, in order to complete the degree, the registration can be further extended up to a maximum of 8 years. The extended students do not enjoy the same privileges as the normal students. A student will be issued an Identity Card (ID) and a Record Book on registration. The student must always bear the ID Card and should present it when requested by authorities within the University premises.

If a student loses the student ID card or student record book, he/she should immediately inform the Student Affairs Division through a letter with a police report to that effect. Duplicate ID card or record book will be issued after the payment of the fine.

Fines for issuing duplicate ID Card and Record Book

Type	Amount (Rs.)
Duplicate ID Card	500.00
Duplicate Record Book	1000.00

Cancellation of the Studentship

A student may cancel his/her studentship by making a request to the Student Affairs Division of the university to that effect through Head of the Department and Dean of the Faculty. Re-registration of the student for any undergraduate degree programme of Uva Wellassa University will not be possible after cancellation of the studentship has been ratified by the Senate.

Postponement of the Academic Year

A student may request for the postponement of his/her semester registration by one academic year only under exceptional circumstances. Such request should be submitted to the Dean of the Faculty through Head of the Department together with supporting documents. The final decision will be made by the Senate. Enrolment in other study programmes or employment will not be considered as valid reasons for the postponement.

Academic Calendar

The academic year consists of 2 semesters. Each semester has 15 weeks of teaching and one-week mid semester break followed by a study-leave period of 2 weeks. Examinations commence after the study leave.

Course Structure

A course unit is a subject module having a credit value, which is a time-based quantitative measure used in calculating the Grade Point Average (GPA). The course modules are organized in 4 levels distributed over four academic years.

To successfully complete the degree, undergraduates are required to fulfill minimum number of 120 credits during the four-year period. All course units delivered under Essential Skills Development (ESD), Broad General Education (BGE) and Core Modules (C) are compulsory for all students.

Appropriate combination of course units from Elective Module (E) and Optional Course Units (O) can be offered satisfying the minimum required number of credits per semester. Any combination of course units should not exceed the maximum allowed number of credits specified for the semester. The Grade Point Values (GPV) of non-GPA (NGPA) course units are not considered in GPA calculation.

Certain course units require prerequisite courses. Therefore, proper planning of course unit combinations should be done in advance with a foresight into the subsequent semesters. Later applications for prerequisite courses are not entertained when the advanced course has been delivered in the due semester. Mentors will provide guidance in this regard.

Course units offered in a given semester are announced in advance. However, some elective and optional course units may become unavailable in certain semesters due to resource constraints.

- **Broad General Education**

Broad General Education course units are offered in the first two years of each study programme. They have been designed to provide the students with complementary knowledge that is needed for successful careers in addition to the knowledge gained through programme-specific course units. BGE course units are compulsory for all students.

- **Essential Skills Development**

Essential Skills Development course units provide the students with knowledge and skills that should be possessed by a graduate in order to effectively build up his/her professional career. ESD course units include most of the aspects expected by the employers in a graduate and they are supplementary to the programme-specific course units. ESD course units are compulsory for all students.
During the four-year period,

» four GPA credits are covered under the BGE programme and,
» ten GPA credits and two NGPA credits are covered under ESD programme.

- **Core Course Units**

Specific subject areas that directly address various topics of a given study programme are offered as Core course units. They are compulsory and are listed according to the study programmes.

- **Optional / Elective Course Units**

An optional or elective course unit is one chosen by a student from a number of optional or elective course units in a curriculum. Optional course units provide the opportunity for students to gain additional knowledge in

a given discipline while elective course units offer further specialized choices for students.

- **Non-GPA Course Units**

Non-GPA course units constitute the required aspects/ areas that need to be addressed in a curriculum but should not decisively affect the final overall grade. The Grade Point Values of NGPA course units are not considered in GPA calculation.

Structure of Course Codes

Course code consists of three letters and four digits as explained below.

» First three letters indicate the degree programme that delivers the course unit
» First digit indicates the academic year/level 1(100), 2(200), 3(300), 4(400)
» Second digit indicates the category of course unit
» Third digit stands for the sequence number
» Fourth digit indicates the credit value

e.g. SCT 253-1 Physical Optics represents a course unit offered by Science and Technology degree programme in the second year (200 Level). It belongs to Physics subject category and is the third course unit in sequence. The credit value is one. However, depending on the nomenclatures defined by different degree programmes the second digit may take slightly different meanings.

Volume of Learning

Volume of learning at each level is described in terms of credits. According to the Sri Lanka Qualification Framework (SLQF), the student workload of a study programme is defined as 1500 notional learning hours per academic year. The notional learning hours include direct contact hours with teachers and trainers, time spent in self-learning, preparation for assignments, carrying out assignments and assessments.

One credit is considered equivalent to 50 notional learning hours for a taught course, laboratory studies course or field studies. Industrial training, including the time allocated for assessments and research, including time allocated for literature survey, one credit is considered equivalent to a minimum of 100 notional hours. Credits have to be earned by students after successful completion of the work required and appropriate assessment of learning outcomes.

Course Unit Registration for Semester

Semester Registration Forms are issued by the Student Affairs Division at the beginning of each semester. Students should submit duly filled forms to the Student Affairs Division within the first two weeks of the semester.

A student may select optional or elective course units during the first two weeks of the semester before finalizing semester registration. Later amendments are not allowed. Student should sit for the examinations of all registered course units. Failure in optional, elective and NGPA course units is treated in the same manner as for compulsory course units.

Academic Appeal

A student may make an appeal in respect of academic matters supported by documentary evidence through the Head of the Department and the Dean of the Faculty to the Faculty Board of Applied Sciences. The final decision is taken by the Senate considering the recommendation of the Faculty Board. The student must retain a copy of the appeal for reference. The appeal must have the student's full name, registration number, permanent address, academic year, degree programme and the course unit in concern.

EXAMINATION PROCEDURES AND FACULTY BY-LAWS

General Evaluation Criteria

Evaluation of each course unit consists of continuous assessments (CA) and end semester examination.
The general evaluation guidelines are as follows.

Criteria	Weight	Minimum Pass Marks
Continuous Assessments	40%	16= (40x40%) (out of 40)
End Semester Examination	60%	24= (60x40%) (out of 60)

Any deviation from the above general guidelines, if any, will be decided by the Senate case by case, and such deviations will be informed to the students in advance.

Continuous Assessments

At the beginning of each course unit each lecturer will announce the CA plan to students along with the allocation of marks.

Main objective of CA is the continuous evaluation of student performances, allowing for further improvements and remedial measures when necessary. A course unit with less than 16 out of 40 for CA will be considered as failure. It is the responsibility of the student to complete CA of such a course unit consulting the lecturer concerned before the end semester examination and obtain necessary pass grades within next two attempts. However, the maximum grade given for such a course unit is not more than a “C” grade.

Methods of Continuous Assessments

1. Various continuous assessment methods such as Quizzes, Assignments, Spot tests, Practical, Field reports, Vivas and Presentations are adopted for continuous assessments.

   » **Quiz**: A short written test.
   » **Assignment**: A task the student is assigned by an instructor to evaluate the knowledge of the key principles and concepts within the area of study. Assignments can be homework, in-class or both.
   » **Field Visit Report**: A detailed report on a group excursion for the purpose of firsthand observation. Field visits provide the opportunity to connect abstract classroom learning to real-world experiences.
   » **Project Report**: A report on extensive tasks undertaken by a student or a group to apply, illustrate, or supplement classroom lessons. It requires students to undertake their own fact-finding and analysis, either from library/internet research or from gathering data empirically.
   » **Case Study**: A practical world example or real world example. Students should apply theories and models they have learnt on principle to answer the case studies.
   » **Oral Examination**: An examination conducted via spoken communication to evaluate skills in communicating, the subject knowledge and understanding.
   » **Presentation**: An act of presenting information to a forum that demonstrates the communication skills.

2. The lecturer responsible for the course has the discretion of selecting the continuous assessment methods he/she is going to use for his/her course unit.

   For the repeaters, application form for Continuous assessments is available at the Department Office.

End Semester Examination

Students should apply for the examinations of all registered course units prior to the end of the semester as notified by the Examinations Division. The eligibility to sit for the examinations of each course unit will be determined by the Head of the department and the Dean on the recommendation of the lecturer-in-charge.

A course unit with less than 24 marks out of 60 at the end semester examination will be considered as failure. However, students have two more attempts to pass such type of course units. The maximum grade given for such a course unit is not more than a "C" grade.

Grading System

Please visit the faculty website for more information about the grading system.

Re-sitting a Course Unit (Repeat Examination)

A student who obtains an "E" grade in a particular course unit must re-sit the examination in respect of the course unit to upgrade the grade to a maximum of "C" only in the next two attempts.

A student will be given only 3 attempts to pass a course unit. Grace attempts are considered only under special circumstances by the Senate.

A student who obtains either "D", "D^{+}" or "C^{-} "grades in a particular course unit may re-sit the examination in respect of the course unit to improve the grade to a "C" only.

If a student obtains a lower grade while attempting to improve the grade, the student will be entitled to retain the higher grade.

Only the students with grades of "C^{-}", "D^{+}", "D" or "E" can re-sit for the examination of the respective course unit.

Payment for Repeat Examination

Repeat Application	Rs. 100.00
Re-scrutinizing/re-correction	Rs. 500.00

Grace Attempts

1. A grace attempt (the last opportunity) shall be granted for any registered course unit including Research Projects, Industrial Training and Non-GPA Courses only under special circumstances considered by the Senate.
2. To request for a grace attempt, the applicant's registration should be within the time period of 8 years.
3. Number of credits awarded for all the grace attempts for one student should be equal to or less than 10 credits, which is equivalent to 8% of the total credits of the registered degree programme, including Research Projects, Industrial Training and Non-GPA Courses.
4. Maximum 4 grace attempts shall be granted for one registered student during the 8 years period for a maximum of 10 credits which can be utilized for one course or different combinations of course.
5. A student shall make a request for a grace attempt on or before the 8th week of the Semester in which the relevant course is offered.
6. The student shall be abided by all the other terms and conditions of normal examination procedures of the examination by-laws of the University.

The relevant application forms are available in the Dean's Office, Faculty of Applied Sciences.

Grade Point Average (GPA)

GPA is the credit weighted arithmetic mean of the Grade Point Values; it is determined by dividing the total credit-weighted GPV by the total number of credits. GPA shall be calculated to the second decimal place.

e.g. A student who has obtained the following grades given in the table will have a GPA of 3.23 as worked out below.

Total number of credits	= 128
Total credit weighted GPV	= 414.0
Grade Point Average (GPA)	= 414.0/128 = 3.23

Grade	Grade Point Value	Total Number of Credits	Credit Weighted Grade Point Value
A+	4.00	0	0.0
A	4.00	24	96.0
A-	3.70	38	140.6
B+	3.30	24	79.2
B	3.00	10	30.0
B-	2.70	10	27.0
C+	2.30	6	13.8
C	2.00	8	16.0
C-	1.70	4	6.8
D+	1.30	2	2.6
D	1.00	2	2.0
E	0.00	0	0.0
	Total	**128**	**414.0**

Overall GPA of the students will be calculated by the Examination Division of the University accordingly. Every Student is given a results sheet for each semester indicating their course units, grades and semester GPA.

Award of The Degree

A student will be eligible for Class Pass if all requirements for the award are met within prescribed period for the degree. Furthermore, candidates who are found guilty of an examination offence shall not be eligible for Class Pass.

- **First Class** - GPA should be equal to or greater than 3.70
- **Second Class (Upper Division)** - GPA should be equal to or greater than 3.30
- **Second Class (Lower Division)** - GPA should be equal to or greater than 3.00
- **Pass** - GPA should be equal to or greater than 2.00

A student must complete a minimum of 120 credits with no "E" grades to obtain the degree. The GPA is calculated on the basis of GPV of all compulsory, optional and elective course units a student has offered. Effective date of the degree will be decided by the Senate.

The Degree Certificate and the Academic Transcript will be issued after the Clearance Form is submitted to the Student Affairs Division.

Medals and Awards

Students of the Faculty of Applied Sciences are eligible to receive the following medals and awards at the Convocation of the university.

i. Vice Chancellor's award for the best performing student of each degree programme

Vice Chancellor's award will be awarded to the students with the highest final GPA from each degree programme in Faculty of Applied Sciences.

ii. Danapala Ratnasekara Memorial Gold Medal for the best performing student of the Science and Technology degree programme

Danapala Ratnasekara Memorial Gold Medal for the best performing student of the Science and Technology Degree Programme will be awarded to the student from Science and Technology Degree Programme who is equally excelled performances in both academic and other extracurricular activities.

iii. Mahinda Katugaha Gold Medal for the Highest Achiever of the Faculty of Applied Sciences

Mahinda Katugaha Gold Medal for the Highest Achiever of the Faculty of Applied Sciences will be awarded to the best performing student in academic activities of the Faculty of Applied Sciences.

iv. Mahinda Katugaha Gold Medal for the Highest Achiever from the student population from the Uva Province

Gold Medal for the Highest Achiever from the student population from the entrants from Uva Province will be awarded to the best academically performing student from the Uva Province.

v. Faculty Awards and Dean's List

Faculty Awards will be awarded to the top five best performing students of each academic programme in the faculty, at the end of each academic year.

A student with a GPA ≥ 3.70 of any degree programme in the Faculty could be admitted to the Dean's List each semester.

Necessary applications and guidelines can be obtained from the Dean's office.

Issuing Certificates from Examination Division

Students are issued the following documents from the Examinations Division.

i. Semester Results Sheet
ii. Letter of Degree Completion
iii. Temporary Results Sheet
iv. Academic Transcript
v. Academic Transcript for Foreign Institutions

Student Attendance and Submission of Medical Certificates

Attendance

Students are strongly advised to attend and actively participate in all teaching activities regularly, as it has proven that there is a highly significant relationship with the grades obtained for a particular course unit and attendance. A minimum of 80% attendance is compulsory for both theory and laboratory classes to sit for the examination.

Failure to maintain the required minimum attendance will disqualify the student from sitting for the examination of the respective course unit.

Submission of Medical Certificates

Under exceptional cases medical certificates will be considered by the Faculty Board and the Senate, upon the recommendation of the University Medical Officer (UMO) and the Medical Board for exemption from the above rule. If the student gets absent from course work or examination due to an illness, he/she should submit a valid medical certificate supporting his/her illness. Such medical certificate shall be considered from following medical officers only.

i. University Medical Officer
ii. District Medical Officer
iii. Consultant Specialist
iv. Head of a Government Base Hospital
v. Ayurvedic Physician registered in Council

Such a student may be allowed by the Senate to sit for the examination later and obtain the due grade. If not, the later attempt will be considered as a repeat examination and the maximum grade obtainable is a "C" pass.

Procedure to Submit the Medical Certificates

a. If a student falls ill during his/her stay in University, he/she should report to the UMO immediately.
b. If a student falls ill when he/she at home or elsewhere, he/she/guardian should immediately inform the Dean of the faculty by telephone/fax/telegram.
c. Such student, indicated in "b" above should submit medical certificate, supporting his /her illness, obtained from a medical officer indicated above with a covering letter within 3 days or as soon as he/she reports back to the University, to the UMO for recommendation and approval.
d. In such case, the UMO has the right to summon the student for interview/examination before recommending the medical certificate.
e. The medical certificate recommended and approved by the UMO should be submitted to the Dean of the Faculty without delay.

Special Cases

a. If a student gets absent from course work or examinations due to personal reasons, he/she should inform the matter through a letter with supporting documents to the Dean of the Faculty within 7 days. The following will be considered as personal reasons.
    i. A death of an immediate family member, who should be the father, mother or own sisters or brothers of the student. In such case a copy of the death certificate

should submitted with a covering letter to the Dean of the Faculty.

ii. A wedding of a family member, who should only be the own sisters or brothers of the student. In such case, a copy of a wedding invitation etc. should be submitted as supporting documents to the Dean of the Faculty.

iii. Any reason other than above will not be considered as valid reasons for absence.

b. If a student gets absent for course work due to extra-curricular activities, such as sports, exhibitions, other competitions organized by the University or due to representing UWU in such activities, he/she should obtain a certifying letter from the coordinator/organizer of the event and submit it to the Dean of the Faculty one week before the event. Approval will not be given for late submissions.

Examination Regulations

All rules and regulations, offences and punishments pertaining to examinations of the university are articulated in Examination By-laws, Guidelines and Procedures published by the Examinations Division. Students are advised to be well aware of them. Please visit the faculty website for more information about the examination regulations.

Faculty By-Laws

By-laws of the Faculty of Applied Sciences contain policies, procedures, criteria, requirements and schedules pertaining to the degree programmes. Students are required to be familiar with the By-Laws of the Faculty and the University as well. Please visit the faculty website for more information about the faculty by-laws.

DEPARTMENT OF APPLIED EARTH SCIENCES

Telephone : (+94) 553560090 Fax : (+94) 552226673
Email : headaes@uwu.ac.lk

The Department of Applied Earth Sciences was established as the third Department of the Faculty of Applied Sciences of Uva Wellassa University by the Extraordinary Gazette No: 2160/45 of the Democratic Socialist Republic of Sri Lanka issued on 30.01.2020. The Department offers the Mineral Resources and Technology degree programme leading to the award of the Bachelor of Science in Mineral Resources and Technology that caters to the need of intellectuals with sound knowledge in earth resources and there value addition. Equipped with elementary and advanced teaching laboratories, modern high-tech instruments and with a qualified academic staff, the newly established Department is well-posed for a promising journey in Sri Lanka's higher education arena.

Mineral Resources and Technology Degree Programme

Mineral Resources and Technology degree programme (MRT) was launched in 2008 aligning with the UWU's theme on value addition to the national resources base. It provides a firm scientific foundation upon which the technological knowhow in mineral value addition is built up. The degree programme has been designed in a manner that students acquire specialized knowledge in earth's resources with special emphasis on their better utilization. The modern curriculum addresses both minerals and water as earth's resources and features a unique course structure. Mineral Processing Technology and Water Science and Technology are the two specialization areas offered under the Mineral Resources and Technology degree programme in the third and fourth academic years.

Mineral Extraction and Processing, Mineral Value Addition and Gemmology, Water Treatment, and Groundwater are treated under the two specializations as major thematic areas. The modular structure of the curriculum allows greater flexibility in course unit selection for students to choose their preferred career paths.

Programme Specification

Programme Name: Bachelor of Science (BSc) in Mineral Resources and Technology- BSc(MRT)

Year of Commencement: 2008

Department: Applied Earth Sciences

Faculty: Applied Sciences

University: Uva Wellassa University of Sri Lanka

SLQF Level: Level 06

Programme Duration: 4 academic years

Medium: English

Selection: 60 students from GCE (A/L) Biological Science and Physical Science streams are selected by the UGC based on the 'Z' score

Last Revision: 2020

Graduate Profile:

Graduates of Mineral Resources and Technology will,

- have a firm scientific foundation upon which his knowledge in mineral and water sciences will expand.
- be equipped with knowledge and skills essential for a graduate to be successful in professional, scientific and industrial careers.
- be able to apply the acquired theoretical knowledge and practical skills for value addition to natural resources.
- be an employable person possessing a broad spectrum of talents and skills demanded by the industry.
- have the capacity of undertaking advanced research and pursue postgraduate studies of global standards.
- comfortably take on the challenges in the career and adjust himself to demanding situations.
- skillfully manage resources and will be a resourceful person for the employer.
- be a good communicator, a team player and a solution provider.
- have the confidence, motivation and talent to develop himself into an entrepreneur.
- be a global citizen.

Graduate Attributes

- Knowledge: BSc(MRT) graduates will have in-depth theoretical and practical knowledge in the fields of Water Science and Technology and Mineral Processing Technology which can be applied in both local and global contexts.
- Skills: BSc(MRT) graduates will develop a variety of generic skills including communication skills, teamwork and leadership skills, creativity and problem solving skills, managerial and entrepreneurship skills, information usage and management skills, networking and social skills which will be useful in their early career

and further in their career advancement.

- Attitudes, Values, Professionalism, and Vision for Life: BSc(MRT) graduates will develop right thinking, behaviour practices, and goals for the future.
- Mind-set and Paradigm: BSc(MRT) graduates will have a commitment to the on-going acquisition of new knowledge and skills and they are expected to be lifelong learners.

Programme Structure

BSc(MRT) degree programme is conducted and managed by the Department of Science and Technology as one of its two study programmes and it accomplishes SLQF Level 06. The first two academic years provide foundation science courses, essential skills development courses and broad general education courses. Apart from the common course units in the first two years the study programme operates independently in specialized subjects, research projects and industrial training. Upon entering the 3rd academic year students are given the opportunity to enroll themselves in either Mineral Processing Technology or Water Science and Technology specialization areas. Approximately 75 course units including all specialization subjects are offered throughout the four academic years. The curriculum of the degree programme is logically structured to offer unique course units which possess stronger emphasis on value addition to natural resources, both minerals and water as given below.

Selection of Specialization areas of Mineral Resources and Technology Degree Programme

- MRT students will be selected for specialization areas (Mineral Processing Technology and Water Science and Technology) at the end of the second academic year.
- Students should apply for their preferred specialization area by filling in the application form issued by the Department of Science and Technology.
- Student's preference and performance in related foundation course units are the main selection criteria for specialization areas.

Outline of the Curriculum

First Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 101-1 SCT 121-1	Essential Mathematics[1] Introductory Biology[2]	1	C
SCT 131-2	General Chemistry	2	C
SCT 141-1	Engineering Drawings	1	C
SCT 151-2	Mechanics, Waves, and Vibrations	2	C
MRT 151-3	Earth Materials and Processes	3	C
MRT 152-1	Water Resources-I	1	C
ESD 121-2	English Language Level-I	2	C
ESD 103-2	Information Technology	2	C
ESD 151-1 (NGPA) ESD 161-1 (NGPA)	Sinhala Language-I[3] Tamil Language-I[4]	1*	C
BGE 121-2	Ethics and Law Basics	2	C
	Total Credits	**16 + 1***	

Type of Credit: C - Compulsory, E - Elective, O - Optional, * Non-GPA (Non-GPA courses are not considered for the GPA calculation)

[1] SCT 101-1 Essential Mathematics Compulsory for all Non Mathematics (A/L) students

[2] SCT 121-1 Introductory Biology Compulsory for Mathematics (A/L) students

[3] ESD 151-1, ESD 152-1 Sinhala Language is compulsory for the students who having Tamil as first language

[4] ESD 161-1, ESD 162-1 Tamil Language is compulsory for the students who having Sinhala as first language

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 102-2	Calculus	2	C
SCT 132-2	Inorganic Chemistry	2	C
SCT 152-2	Properties of Matter	2	C
MRT 161-3	Mineralogy and Petrology-I	3	C
MRT 162-1	Water Resources-II	1	C
ESD 111-1	Communication Skills-I	1	C
ESD 141-2	Quantitative Reasoning	2	C
ESD 122-2	English Language Level-II	2	C
ESD 152-1 (NGPA) ESD 162-1 (NGPA)	Sinhala Language-II[3] Tamil Language-II[4]	1*	C
	Total Credits	**15 + 1***	

- **During the first year students are required to complete 31 compulsory credits and 02 NGPA credits.**

Second Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 201-1	Abstract Algebra	1	C
SCT 211-2	Statistical Methods	2	C
SCT 231-2	Physical Chemistry	2	C
SCT 251-2	Electricity and Magnetism	2	C
SCT 253-1	Optics	1	C
MRT 251-3	Mineralogy and Petrology-II	3	C
MRT 253-2	Principles of Hydrogeology	2	C
ESD 221-1	English Language Level-III	2	C
BGE 211-2	Aesthetic Studies	2	C
	Total Credits	**17**	

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 202-3	Differential Equations and Applications	3	C
SCT 232-2	Organic Chemistry	2	C
SCT 242-2	Engineering Thermodynamics	2	C
SCT 253-1	Electronics	1	C
SCT 212-1	Operational Research	1	C
MRT 252-2	Structural Geology	2	C
MRT 254-2	Applied Geochemistry	2	C
BGE 215-1	History for Science	1	C
BGE 214-1	Geography	1	C
	Total Credits	**15**	

- **During the second year students are required to complete 32 compulsory credits.**

Mineral Processing Technology Specialization
Third Year
First Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
ESD 311-1	Communication Skills - II	1	C	
MRT 311-2	Physics and Chemistry of Minerals	2	C	
MRT 312-2	Genesis of Mineral Deposits	2	C	
MRT 362-2	Analytical Techniques and Instrumentation - I	2	C	
MRT 313-2	Gemmology	2	E	
MRT 314-1	Gemmology Laboratory	1	E	
MRT 315-3	Technical Mineralogy – I	3	E	
MRT 316-3	Engineering Geology	3	E	
MRT 317-2	Industrial Mineral Processing Technology	2	E	
MRT 318-1	Industrial Mineral Processing Laboratory	1	E	
MRT 352-2	Surveying and Levelling	2	O	
MRT 353-1	Engineering Workshop Technology	1	O	
MRT 355-2	Soil Physics	2	O	
MRT 366-1	Computer Programming	1	O	
MRT 374-3	Fluid Mechanics and Hydraulics	3	O	
MRT 377-2	Oceanography	2	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 7(Core) + 7(Elective) + 4(Optional) = 18

Second Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
MRT 321-2	Mineral Exploration Methods	2	C	
MRT 361-2	Research Methodology and Scientific Writing	2	C	
MRT 365-3	Remote Sensing and Geospatial Technology	3	C	
MRT 322-2	Gemstone Fashioning	2	E	
MRT 324-3	Technical Mineralogy-II	3	E	
MRT 325-2	Mine Planning Strategies	2	E	MRT 316-3
MRT 327-2	Petroleum Exploration and Extraction	2	E	
MRT 351-3	Applied Geophysics	3	E	
MRT 363-2	Quantity Surveying	2	O	
MRT 364-1	Computer Aided Drawing and Designing	1	O	
MRT 381-2	Water Safety Plan	2	O	
MRT 392-2	Project Management	2	O	
IIT 323-2	Human Resources Management and Industrial Relations	2	O	
SCT 302-2	Applied Economics and Financial Accounting	2	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 7(Core) + 6(Elective) + 5(Optional) = 18

- **During the third year students are required to complete 36 credits.**

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
MRT 412-2	Mineral Nanoscience and Technology	2	C	
MRT 411-2	Mineral Economics	2	C	
MRT 451-2	Environment and Industry Regulations	2	C	
MRT 463-2	Analytical Techniques and Instrumentation – II	2	C	MRT 362-2
MRT 413-2	Gem Enhancement Techniques	2	E	
MRT 414-2	Jewellery Designing	2	E	
MRT 415-3	Ceramic and Glass Technology	3	E	
MRT 416-2	Mining Methods	2	E	MRT 325-2
MRT 417-2	Extractive Metallurgy	2	E	
MRT 418-2	Simulation of Mineral Processing Systems	2	E	
MRT 453-2	Pollution Control and Remediation	2	O	
MRT 454-2	Quantity Surveying	2	O	
IIT 446-2	Intellectual PropertyRights, Legislations and Commercialization	2	O	
SCT 401-2	Business Management and Entrepreneurship	2	O	
SCT 402-2	Quality Assurance and Control	2	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 6(Core) + 6(Elective) + 4(Optional) = 18

Second Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
MRT 461-6	Directed Research Projectt[5]	6	C	
MRT 462-6 (NGPA)	Industrial Training	6*	C	
	Total Credits	**12**		

- **During the fourth year students are required to complete 30 credits.**

Total Credit for BSc Degree in Mineral Resources and Technology (Mineral Science and Technology Specialization)
Minimum Required Credits = (32+2 NGPA) + (32) + (36) + (24+6 NGPA) = 123 + 6 NGPA

[5] Start on the beginning of the fourth year and evaluated at the end of the forth year. Final Year Research Project Guidelines are available on Faculty website.

[6] Industrial Training Manual is available on Faculty website.

Water Science and Technology Specialization

Third Year

First Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
ESD 311-1	Communication Skills-II	1	C	
MRT 362-2	Analytical Techniques and Instrumentation – I	2	C	
MRT 371-3	Water Chemistry	3	C	
MRT 372-1	Water Chemistry Laboratory - I	1	C	
MRT 373-2	Hydrology	2	E	
MRT 374-3	Fluid Mechanics and Hydraulics	3	E	
MRT 376-2	Aquatic Microbiology	2	E	MRT 253-2
MRT 377-2	Oceanography	2	E	
MRT 378-2	Advanced Hydrogeology	2	E	
MRT 382-3	Water Treatment Methods	3	E	
MRT 316-3	Engineering Geology	3	O	
MRT 352-2	Surveying and Levelling	2	O	
MRT 353-1	Engineering Workshop Technology	1	O	
MRT 355-2	Soil Physics	2	O	
MRT 366-1	Computer Programming	1	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 7(Core) + 7(Elective) + 4(Optional) = 18

Second Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
MRT 365-3	Remote Sensing and Geospatial Technology	3	C	
MRT 381-2	Water Safety Plan	2	C	
MRT 361-2	Research Methodology and Scientific Writing	2	C	
MRT 351-3	Applied Geophysics	3	E	
MRT 383-1	Water Treatment Laboratory	1	E	MRT 382-3 MRT 372-1
MRT 384-2	Water Supply Engineering	2	E	
MRT 386-3	Groundwater Flow Modelling	3	E	
MRT 385-2	Wastewater Treatment and Reuse – I	2	E	MRT 382-3
MRT 327-2	Petroleum Exploration and Extraction	2	O	
MRT 364-1	Computer Aided Drawing and Designing	1	O	
MRT 392-2	Project Management	2	O	
IIT 323-2	Human Resource Managements and Industrial Relations	2	O	
SCT 302-2	Applied Economics and Financial Accounting	2	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 7(Core) + 6(Elective) + 5(Optional) = 18

- **During the third year students are required to complete 36 credits.**

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits	Prerequisite
MRT 451-2	Environment and Industry Regulations	2	C	
MRT 463-2	Analytical Techniques and Instrumentation – II	2	C	MRT 362-2
MRT 471-3	Advanced Water Chemistry	3	C	
MRT 472-1	Water Chemistry Laboratory - II	1	C	MRT 371-3
MRT473-2	Wastewater Treatment and Reuse – II	2	E	MRT 372-1
MRT 474-1	Nanotechnology for Water Treatment	1	E	
MRT 475-2	Bottled Water Technology	2	E	
MRT 476-3	Solute Transport and Reactive Fluid Flow Modelling	3	E	MRT 386-3
MRT 478-2	Water Wells and Pumps	2	E	MRT 378-2
MRT 453-2	Pollution Control and Remediation	2	O	
MRT 454-2	Quantity Surveying	2	O	
IIT 446-2	Intellectual Property Rights, Legislations and Commercialization	2	O	
SCT 401-2	Business Management and Entrepreneurship	2	O	
SCT 402-2	Quality Assurance and Control	2	O	
	Total Credits	**Min = 18**		

Minimum Required Credits = 8(Core) + 6(Elective) + 4(Optional) = 18

Second Semester

Course Code	Course Title	Credits	Type of Credits
MRT 461-6	Directed Research Project[5]	6	C
MRT 462-6 (NGPA)	Industrial Training	6*	C
	Total Credits	**12**	

- **During the fourth year students are required to complete 28 credits.**

Total Credit for BSc Degree in Mineral Resources and Technology (Water Science and Technology Specialization)

Minimum Required credits = (31+2 NGPA) + (32) + (36) + (24 + 6* NGPA) = 123 + 8* NGPA

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DEPARTMENT OF COMPUTER SCIENCE AND INFORMATICS

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The Department of Computer Science and Informatics is one of the departments attached to the Faculty of Applied Sciences since the establishment of Uva Wellassa University. The academic staff have research focus in areas such as Artificial Intelligence, Databases, Embedded and Operating Systems, Networks, Programming Languages, Service Oriented Computing, Software Engineering. Our undergraduate teaching concentrates on the foundations for solving deep technical problems in computing as students continue into postgraduate studies or develop skills in the work place.

The Department currently offers two undergraduate degree programmes namely Computer Science and Technology and Industrial Information Technology. The department focuses on innovation and encourages our students to be entrepreneurial.

Computer Science and Technology Degree Programme

Bachelor of Science (BSc) in Computer Science and Technology degree programme is designed to offer a modern and technology-integrated curriculum ensuring an interdisciplinary learning environment where students are exposed to a multitude of related disciplines broadening their skills needed for a competitive market.

Computer Science and Technology is a four-year degree programme. In their final year all the students will engage in a research project, which will allow the students to explore various horizons in the IT arena. This research project is expected to start at the beginning of the final academic year and the final presentations will be held at the end of the final year.

The industrial training module focuses on making the students work in a leading company and gain practical

knowledge and experience related to the IT field. This industrial training module expects to expose the students to the technologies the current IT industry is using and to give the students hands-on experience in dealing with the real world issues that are faced by the IT industry. Students are expected to go for the industrial training during the second semester of the final year. The minimum duration of the industrial training is 15 weeks.

Students are taken on field visits upon the requirement of a particular course unit. Furthermore, in order to maintain the link with the industry students are given the opportunity to take part in IT related exhibitions, competitions and other relevant workshops.

Graduate Profile:

Graduates of Computer Science and Technology will,

- be able to use a range of programmeming languages and tools to develop computer programmes that are effective solutions to problems.
- be equipped with a range of fundamental principles of computer science that will provide the basis for future learning and enable them to adopt to the constant rapid development of the field.
- be able to work as an effective member or leader of diverse teams within a multi-level, multi-disciplinary and multi-cultural setting.
- have entrepreneurial skills.
- be able to communicate ideas and results clearly, concisely and effectively both orally, by giving presentations, and in writing, for instance in the production of technical reports.

Outline of the Curriculum

First Year

First Semester

Course Code	Course Title	Credits	Type of Credits
CST 102-2	Introduction to Computer Science	2	C
CST 101-2	Fundamentals of Electronics	2	C
CST 121-3	Structured Programmeming	3	C
CST 111-2 (NGPA)	Essential Mathematics	2*	C
ESD 121-2	English Language Level -l	2	C
CST 122-2	Web Programming	2	C
CST 131-2	Fundamentals of Computer Network	2	C
ESD 151-1 (NGPA) ESD 161-1 (NGPA)	Sinhala Language-I [3] Tamil Language-I[4]	1*	C
BGE 121-2	Ethics and Law Basics	2	C
	Total Credits	**18**	

Minimum Required Credits = 15 + 3* (NGPA) = 18

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 123-3	Database Management Systems	3	C
CST 161-3	Microcomputer Architecture and Logic Design	3	C
CST 124-2	Object Oriented Programming	2	C
CST 112-2	Calculus	2	C
ESD 111-1	Communication Skills -I	1	C
ESD 122-2	English Language Level-II	2	C
ESD 141-2	Quantitative Reasoning	2	C
ESD 152-1 (NGPA) ESD 162-1 (NGPA)	Sinhala Language-II[3] Tamil Language-II[4]	1*	C
	Total Credits	**16**	

- **During the first year students are required to complete 30 compulsory credits and 04 NGPA credits.**

Second Year

First Semester

Course Code	Course Title	Credits	Type of Credits
CST 241-3	System Analysis and Design	3	C
CST 214-3	Statistical Methods-I	3	C
CST 232-2	Data Communication and Networking	2	C
CST 242-3	Software Engineering	3	C
CST 213-2	Discrete Mathematics	2	C
CST 291-2	Entrepreneurship	2	C
ESD 221-2	English Language Level-III	2	C
BGE 211-2	Aesthetic Studies	2	C
	Total Credits	**19**	

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 225-3	Data Structures and Analysis of Algorithm	3	C
CST 262-2	Operating Systems Concepts and Design	2	C
CST 243-3	Rapid Application Development	3	C
CST 292-2	Project - I	2	C
CST 226-2	Web Application Development	2	C
IIT 223-2	IT Project Management	2	C
	Total Credits	**14**	

- **During the second year students are required to complete 33 compulsory credits.**

Third Year

First Semester

Course Code	Course Title	Credits	Type of Credits
CST 328-2	Advanced Programming Techniques	2	C
CST 371-2	Human Computer Interaction	2	C
CST 372-3	Intelligent Systems	3	C
CST 327-2	Advanced Database Management Systems	2	C
CST 381-2	Computer Graphics	2	C
CST 333-2	Data and Network Security	2	C
SCT 384-2	Embedded Systems	2	C
CST 315-2	Mathematics for Computing	2	C
ESD 311-1	Communication Skills-II	1	C
CST 344-2	Management Information Systems	2	O
CST 345-2	Mobile Application Development	2	O
CST 393-2	Principles of Management	2	O
	Total Credits	**18(Core) + 2(Optional) = 20**	**Out of 24**

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 347-2	Software Architecture and Design Patterns	2	C
CST 363-2	Computer Systems Architecture	2	C
CST 346-2	Software Quality Assurance	2	C
CST 382-3	Digital Image Processing	3	C
CST 364-2	Systems Level Programmeming	3	C
CST 395-2	Research Methodology and Scientific Writing	2	C
CST 396-1	Emerging Technologies in Computer Science and Informatics	1	C
CST 394-2	Project-II	2	C
CST 334-2	Mobile Computing	2	O
CST 316-2	Statistical Method-II	2	O
CST 351-2	Parallel and Distributed Computing	2	O
	Total Credits	**16(Core) + 2(Optional) = 18**	**Out of 22**

- **During the third year students are required to complete 34 compulsory credits and 04 optional credits.**

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits
IIT 446-2	Intellectual Property Rights, Legislations and Commercialization	2	C
CST 497-2	Social, Ethical and Professional Issues in Computing	2	C
CST 429-2	Semantic Web Technologies	2	C
CST 453-2	Cloud Computing	2	C
CST 476-2	Deep Learning	2	C
CST 483-2	Remote Sensing and Image Interpretation	2	O
CST 473-2	Bioinformatics	2	O
CST 448-2	Enterprise Resource Planning(ERP)	2	O
CST 477-2	Robotics	2	O
CST 474-2	Data Warehousing and Data Mining	2	O
CST 475-2	Digital Forensics	2	O
CST 436-2	System Administration and Maintenance	2	O
CST 435-2	Advanced Computer Networks	2	O
IIT 449-2	GIS for Business	2	O
CST 437-2	Internet of Things	2	O
	Total Credits	**10(Core) + 8(Optional) = 18**	**Out of 36**

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 498-6 (NGPA)	Industrial Training	6*	C
CST 499-6	Research Project[5]	6	C
	Total Credits	**12**	

- **During the fourth year students are required to complete 16 compulsory credits, 8 optional credits and 6 NGPA credits.**
- **Minimum Required credits for the completion of the degree programme = (30 + 4* NGPA) + (33) + (38) + (24 + 6* NGPA) = 125 + 10* NGPA.**

Industrial Information Technology Degree Programme

Bachelor of Industrial Information Technology (BIIT) degree programme was introduced by the Uva Wellassa University with the intention of producing graduates who are capable of adding value to industrial and business processes and to enhance knowledge in information technology applications in industry contributing towards greater economic development.

The Bachelor of Industrial Information Technology is a four year degree programme. In their final year all the students will engage in a research project, with the goal of adding value to industrial and business processes and to enhance knowledge in information technology applications. This research project is expected to start at the beginning of the final academic year and the final presentations will be held at the end of the final year. The final year curriculum comprises of an industrial training in a leading company, which will be very useful in producing a competent graduate, who suits the industrial demand. Students are expected to go for the industrial training during the second semester of the final year. The minimum duration of the industrial training is 15 weeks.

Students are taken on field visits upon the requirement of a particular course. Furthermore, in order to maintain the link with the industry students are given the opportunity to take part in IT related exhibitions, competitions and other relevant workshops.

Graduate Profile:

Graduates of Industrial Information Technology will,

- be problem solvers in IT and Management sector through the application of appropriate theories and principles.
- be competent in professional knowledge and skills in IT and Management.
- be effective project leaders, developers and managers in IT and Management sector.
- possess good team working and interpersonal skills required to enable working closely with staff at all levels throughout an organization, including managers and IT specialists.
- have good report writing skills and the ability to communicate technical information and ideas clearly and concisely to non-technical people.
- have managerial and entrepreneurial skills.

Outline of the Curriculum

First Year

First Semester

Course Code	Course Title	Credits	Type of Credits
CST 102-2	Introduction to Computer Science	2	C
CST 121-3	Structured Programming	3	C
IIT 121-3	Principles of Management	3	C
CST 111-2 (NGPA)	Essential Mathematics	2*	C
CST 122-2	Web Programming	2	C
CST 131-2	Fundamentals of Computer Networks	2	C
ESD 121-2	English Language Level - I	2	C
ESD 151-1 (NGPA) ESD 161-1 (NGPA)	Sinhala Language-I[3] Tamil Language-I[4]	1*	C
BGE 121-2	Ethics and Law basics	2	C
	Total Credits	**16+3***	

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 122-3	Database Management Systems	3	C
CST 112-2	Calculus	2	C
CST 124-2	Object Oriented Programming	2	C
IIT 131-3	Fundamentals of Economics	3	C
ESD 141-2	Quantitative Reasoning	2	C
ESD 111-1	Communication Skills-I	1	C
ESD 122-2	English Language Level- II	2	C
ESD 152-1 (NGPA) ESD 162-1 (NGPA)	Sinhala Language-II[3] Tamil Language-II[4]	1*	C
	Total Credits	**15+1***	

- **During the first year students are required to complete 31 compulsory credits and 04 NGPA credits.**

Second Year

First Semester

Course Code	Course Title	Credits	Type of Credits
CST 241-3	System Analysis and Design	3	C
CST 232-2	Data Communication and Networking	2	C
CST 242-3	Software Engineering	3	C
IIT 232-3	Financial Accounting	3	C
ESD 221-2	English Language Level -III	2	C
BGE 211-2	Aesthetic Studies	2	C
IIT 241-2	Entrepreneurship	2	C
CST 213-2	Discrete Mathematics	2	C
	Total Credits	**19**	

Second Semester

Course Code	Course Title	Credits	Type of Credits
CST 262-2	Operating Systems Concepts and Compiler Designs	2	C
CST 243-3	Rapid Application Development	3	C
IIT 251-3	Principles of Marketing	3	C
IIT 271-2	Project I	2	C
IIT 233-1	Management Accountancy	1	C
IIT 211-2	Operational Research	2	C
CST 226-2	Web Application Development	2	C
IIT 223-2	IT Project Management	2	C
	Total Credits	**18**	

- **During the second year students are required to complete 37 compulsory credits.**

Third Year

First Semester

Course Code	Course Title	Credits	Type of Credits
IIT 334-2	Business Finance	2	C
IIT 342-3	Organizational Behavior	3	C
IIT 301-2	Data Structures and Algorithms	2	C
IIT 311-3	Statistical Methods-I	3	C
CST 371-2	Human Computer Interaction	2	C
CST 344-2	Management Information Systems	2	C
ESD 311-1	Communication Skills-II	1	C
CST 327-2	Advanced Database Management Systems	2	C
CST 315-2	Mathematics for Computing	2	O
IIT 327-2	Information Security and Risk Management	2	O
CST 334-2	Mobile Computing	2	O
	Total Credits	**17(Core) + 2(Optional) = 19**	**Out of 23**

Second Semester

Course Code	Course Title	Credits	Type of Credits
IIT 343-2	Business Law	2	C
IIT 323-2	Human Resources Management	2	C
IIT 372-2	Project-II	2	C
CST 395-2	Research Methodology and Scientific Writing	2	C
CST 346-2	Software Quality Assurance	2	C
CST 396-1	Emerging Technologies in Computer Science & Informatics	1	C
CST 347-2	Software Architecture and Design Patterns	2	C
IIT 344-2	Strategic Management	2	O
IIT 313-2	Statistical Methods-II	2	O
IIT 361-2	Digital Image Processing	2	O
	Total Credits	**13(Core) + 2(Optional) = 15**	**Out of 19**

- **During the third year students are required to complete 30 compulsory credits and 04 optional credits.**

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits
IIT 446-2	Intellectual Property Rights, Legislation and Commercialization	2	C
CST 497-2	Social, Ethical and Professional Issues in Computing	2	C
CST429-2	Sementic Web Technologies	2	C
IIT 448-2	Business Process Management	2	C
IIT 414-2	Business Analytics	2	O
IIT 447-2	GIS for Business	2	O
IIT 424-2	Organizational Change and Development	2	O
IIT 445-2	E-Commerce	2	O
IIT 452-2	Digital Marketing	2	O
CST 448-2	Enterprise Resource Planning (ERP)	2	O
CST437-2	Internet of Things	2	O
IIT 402-2	Advanced Programming Techniques	2	O
CST 474-2	Data Warehousing and Data Mining	2	O
CST 475-2	Digital Forensics	2	O
CST 436-2	System Administration and Maintenance	2	O
CST 435-2	Advanced Computer Networks	2	O
IIT 462-2	Multimedia Technologies	2	O
	Total Credits	**8(Core) + 8**(Optional) = 16**	**Out of 34**

Second Semester

Course Code	Course Title	Credits	Type of Credits
IIT 473-6 (NGPA)	Industrial Training	6*	C
IIT 474-6	Research Project[5]	6	C
	Total Credits	**12**	

- **During the fourth year students are required to complete 14 compulsory credits, 8 optional credits and 6 NGPA credits.**
- **Minimum Required credits for the completion of the degree programme = (31+4* NGPA) + (37) + (34) + (22 + 6* NGPA) = 124 + 10 * NGPA.**

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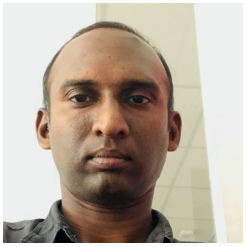

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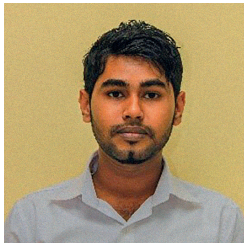

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DEPARTMENT OF SCIENCE AND TECHNOLOGY

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The Department of Science and Technology has been in the forefront of teaching subjects of Technology and Science since at the inception of the University. The academic staff of the department comprises personnel specialized in diverse areas in Production Engineering, Mechanical Engineering, Mechatronics, Material Sciences, Biology, Environmental Science, Chemical Engineering, Chemistry, Mathematics, Statistics and Physics. This set of diverse knowledge and skills in a single department, is unique to the State University system in Sri Lanka. The aims of the department is to produce well-rounded graduates with a broad knowledge, skills and attitudes, who are well capable workforce suited to the industrial demand in the field of Science and Technology. The Department currently offers Bachelor of Technology in Science and Technology which consists of three specialization areas namely Food Engineering and Bioprocess Technology, Materials Science and Mechatronics.

Science and Technology Degree Programme

Science and Technology degree programme is offered by the Faculty of Applied Sciences since 2006 with a unique combination of subject disciplines leading to technological careers with a strong scientific background.

The degree programme produces BTech graduates with a sound knowledge in basic sciences upon which more technology-oriented skills are developed. On successful completion of the second academic year students are selected for three specialization areas, namely, Food Engineering and Bio-process Technology, Materials Science and Technology and Mechatronics through a competitive selection process. In addition to the knowledge gained through a rich blend of course units on modern technological disciplines, students will carry out research and receive industrial training in the fourth academic year enabling them to understand real-world problems and provide innovative solutions.

The dynamic curriculum of the degree programme comprises course units addressing industrial demand. The programme has been designed to produce graduates who can readily take up challenging positions in related industries as scientists, technologists and managers. A strong emphasis is placed on graduate entrepreneurship.

Programme Specification

Programme Name: Bachelor of Technology in Science and Technology BTech(ScienceTech)

Year of Commencement: 2006

Department: Science and Technology

Faculty: Applied Sciences

University: Uva Wellassa University of Sri Lanka

SLQF Level: Level 06

Programme Duration: 4 academic years

Medium: English

Selection: 60 students from GCE (A/L) Biological Science and Physical Science
streams are selected by the UGC based on the 'Z' score

Last Revision: 2020

Graduate Profile:

Graduates of Science and Technology will be able,

- to understand, use and improve the technologies of the respective fields through the skills and innovative thinking gained from rigorous scientific and technological training.
- to play important roles in the value chain of industrial processes and management contributing to increase the efficiency and productivity.
- to confront and technological challenge in his /her area of specialization being resourceful to the employer.
- to serve in scientific, technological and managerial capacity in related industries with commitment and responsibility.

Graduate Attributes

- **Knowledge:** BTech(ScienceTech) graduates will have in-depth theoretical and practical knowledge in the fields of Food Engineering and Bioprocess Technology, Material Sciences and Mechatronics which can be applied in both local and global contexts.
- **Skills:** BTech(ScienceTech) graduates will develop a variety of generic skills including communication skills, teamwork and leadership skills, creativity and problem solving skills, managerial and entrepreneurship skills, information usage and management skills, networking and social skills which will be useful in their early career and further in their career advancement.
- **Attitudes, Values, Professionalism, and Vision for Life:** BTech(ScienceTech) graduates will develop right thinking, behaviour practices, and goals for the future.
- **Mind-set and Paradigm:** BTech(ScienceTech) graduates will have a commitment to the on-going acquisition of new knowledge and skills and they are expected to be lifelong learners. dents

Programme Structure

BTech(ScienceTech) degree programme is a unique four-year degree programme which accomplishes SLQF Level 06. The degree programme produces BTech graduates with a sound knowledge in basic sciences upon which more technology-oriented skills are developed. On successful completion of the second academic year students are selected for three specialization areas, namely, Food Engineering and Bio-process Technology, Materials Science and Technology and Mechatronics through a competitive selection process.

Selection of the students for the specialization areas will be based on the study performance in first and second academic years, performance at the selection interview and the record of extra-curricular activities. The curriculum contains blends of compulsory credits including an Industrial Training and a Research Project, and a pool of optional courses for students. The degree programme is logically structured in such a way that introductory level courses are offered in the first two years and more advanced courses with special emphasis on "Value Addition" are offered in the last two years as given below.

Selection for Specialization areas of Science and Technology Degree Programme

- SCT students will be selected for specialization areas (Food Engineering and Bioprocess Technology, Materials Science and Technology and, Mechatronics) at the end of second academic year through a competitive selection process.
- Students should apply for the specialization areas according to their preferences by filling in the application form issued by the Department of Science and Technology.
- Selection of the students for the specialization areas will be based on the study performance in first and second academic years, performance at the selection interview and the record of extra-curricular activities.


UWU

Outline of the Curriculum

First Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 101-1 SCT 121-1	Essential Mathematics[1] Introductory Biology[2]	1	C
SCT 131-2	General Chemistry	2	C
SCT 141-1	Engineering Drawings	1	C
SCT 142-2	Engineering Workshop	2	C
SCT 151-2	Mechanics, Waves, and Vibrations	2	C
ESD 121-2	English Language Level-I	2	C
ESD 103-2	Information Technology	2	C
ESD 151-1 (NGPA) ESD 161-1 (NGPA)	Sinhala Language-I[3] Tamil Language-I[4]	1*	C
BGE 121-2	Ethics and Law Basics	2	C
	Total Credits	**14+1***	

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 102-2	Calculus	2	C
SCT 122-2	Cell Biology	2	C
SCT 132-2	Inorganic Chemistry	2	C
SCT 152-2	Properties of Matter	2	C
SCT 161-1	Computer Programming	1	C
ESD 111-1	Communication Skills-I	1	C
ESD 141-2	Quantitative Reasoning	2	C
ESD 122-2	English Language Level-II	2	C
ESD 152-1 (NGPA) ESD 162-1 (NGPA)	Sinhala Language-II[3] Tamil Language-II[4]	1*	C
	Total Credits	**14+1***	

- **During the first year students are required to complete 28 compulsory credits and 02 NGPA credits.**

Second Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 201-1	Abstract Algebra	1	C
SCT 211-2	Statistical Methods	2	C
SCT 221-1	Microbiology I	1	C
SCT 222-2	Biochemistry	2	C
SCT 231-2	Physical Chemistry	2	C
SCT 252-1	Optics	1	C
SCT 251-2	Electricity and Magnetism	2	C
SCT 261-1	Database Management Systems	1	C
ESD 221-1	English Language level-III	2	C
BGE 211-2	Aesthetic Studies	2	C
	Total Credits	**16**	

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 202-3	Differential Equations and Applications	3	C
SCT 212-1	Operational Research	1	C
SCT 223-3	Diversity of Life	3	C
SCT 232-2	Organic Chemistry	2	C
SCT 242-2	Engineering Thermodynamics	2	C
SCT 253-1	Basic Electronics	1	C
SCT 241-2	Mechanics of Materials	2	C
BGE 215-1	History for Science	1	C
BGE 214-1	Geography	1	C
	Total Credits	**16**	

- **During the second year students are required to complete 32 compulsory credits.**

Materials Science and Technology Specialization

Third Year

First Semester

Course Code	Course Title	Credits	Type of Credits
ESD 311-1	Communication Skills-II	1	C
SCT 341-2	Materials Characterization Techniques-I	2	C
SCT 342-2	Materials Chemistry	2	C
SCT 343-2	Materials Physics	2	C
SCT 344-1	Materials Technology Laboratory-I	1	C
SCT 345-2	Polymer Science and Technology–I	2	C
SCT 346-2	Quantum Mechanics	2	C
SCT 347-2	Structural Properties of Materials	2	C
SCT 348-2	Surface and Colloidal Science	2	C
SCT 377-2	Mathematical Methods and Complex Analysis	2	C
SCT 361-1	Environmental Science	1	O
SCT 362-1	Soft Materials and Their Applications	1	O
	Total Credits	**Compulsory = 18, Optional = 2**	

Minimum = 18(C) + 1(O) = 19
Maximum = 18(C) + 2(O) = 20

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 351-1	Biomaterials and Applications	1	C
SCT 352-2	Ceramic Science and Technology	2	C
SCT 353-2	Computational Chemistry	2	C
SCT 354-2	Functional Properties of Materials	2	C
SCT 355-1	Glass Science and Technology	1	C
SCT 356-2	Material Characterization Techniques-II	2	C
SCT 357-1	Materials Technology Laboratory-II	1	C
SCT 358-1	Polymer Science and Technology-II	1	C
SCT 359-1	Seminar in Materials Science	1	C
SCT 301-2	Materials Science Group Project	2	C
SCT 302-2	Applied Economics and Financial Accounting	2	O
SCT 303-2	Research Methodology and Scientific Writing	2	C
IIT 323-2	Human Resource Management	2	O
SCT 363-2	Wood and Wood based Product Development	2	O
	Total Credits	**Compulsory = 17, Optional = 6**	

Minimum = 17(C) + 2(O) = 19
Maximum = 17(C) + 4(O) = 21

During the third year students are required to complete 35 compulsory credits and 3 optional credits (minimum).

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 441-1	Chemical Engineering Science	1	C
SCT 442-2	Composites and Polymer Blends	2	C
SCT 443-1	Materials Technology Laboratory-III	1	C
SCT 444-2	Metallurgy	2	C
SCT 445-2	Nano Materials and Nanotechnology	2	C
SCT 446-2	Product Design and Manufacturing Technology	2	C
IIT 446-2	Intellectual Property Rights, Legislations and Commercialization	2	C
SCT 401-2	Business Management and Entrepreneurship	2	O
SCT 402-2	Quality Assurance and Control	2	C
SCT 461-1	Electrochemical Applications	1	O
SCT 462-1	Green Technology	1	O
SCT 463-1	Materials for Energy Applications	1	O
SCT 464-1	Smart Materials and Intelligent Mechanical Systems	1	O
	Total Credits	**Compulsory = 14, Optional =6**	

Minimum = 14(C) + 4(O) = 18
Maximum = 14(C) + 6(O) = 20

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 404-6	Research Project[5]	6	C
SCT 403-6 (NGPA)	Industrial Training	6*	C
	Total Credits	**6+6***	

Compulsory = 12, {6+ (Non-GPA 6)}, Optional =0

Total Credit for BTech Degree in Science and Technology (Material Science and Technology Specialization)

Minimum Required Credits = (28+2* NGPA) + (32) + (38) + (24+6* NGPA) = 130
Maximum Allowed Credits = (28+2* NGPA) + (32) + (41) + (26+6* NGPA) = 135

Food Engineering and Bioprocess Technology Specialization

Third Year

First Semester

Course Code	Course Title	Credits	Type of Credits
ESD 311-1	Communication Skills II	1	C
SCT 311-3	Bio-product Separation and Purification Techniques	3	C
SCT 312-2	Characterization and Analytical Techniques	2	C
SCT 313-2	Engineering Properties of Bio Based Materials	2	C
SCT 314-2	Enzymology	2	C
SCT 315-2	Food Analysis	2	C
SCT 316-2	Metabolism	2	C
SCT 317-2	Microbiology II	2	C
SCT 318-2	Organic Synthesis	2	C
SCT 331-1	Applications of Nanotechnology	1	O
SCT 332-1	Cleaner Production Technology	1	O
SCT 333-1	Industrial Quality and Safety Standards	1	O
	Total Credits	**Compulsory = 18, Optional =3**	

Minimum = 18(Core) + 0 (Optional) =18 (Out of 19)
Maximum = 18(Core) + 1(Optional)= 19 (Out of 19)

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 321-2	Data Handling and Statistics	2	C
SCT 322-3	Food Process Technology I	3	C
SCT 323-1	Food Storage and Packaging Technology	1	C
SCT 324-2	Fermentation Technology	2	C
SCT 325-2	In Vitro Culture Techniques	2	C
SCT 326-2	Metabolomics	2	C
SCT 327-1	Mini Project	1	C
SCT 328-3	Molecular Biology and Biotechnology	3	C
SCT 303-2	Research Methodology and Scientific Writing	2	C
SCT 331-2	Functional Foods and Nutraceuticals	2	O
SCT 302-2	Applied Economics and Financial Accounting	2	O
IIT 323-2	Human Resource Management	2	O
	Total Credits	**Compulsory = 18, Optional =6**	

Minimum = 18(Core) + 0(Optional)= 18
Maximum = 18(Core) + 02(Optional)= 20

During the third year students are required to complete 36 compulsory credits (minimum).

Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 411-2	Biomass Conversion and Biofuels	2	C
SCT 412-2	Bioprocess Equipment Design and Fabrication	2	C
SCT 413-2	Flavors and Fragrances	2	C
SCT 414-2	Food Process Modeling and Simulation	2	C
SCT 415-3	Food Process Technology-II	3	C
SCT 402-2	Quality Assurance and Control	2	C
SCT 446-2	Intellectual Property Rights, Legislations and Commercialization	2	C
SCT 433-2	Biodegradation and Bioremediation	2	O
SCT 401-2	Business Management and Entrepreneurship	2	O
	Total Credits	**Compulsory = 15, Optional =4**	

Minimum = 15(Core) + 02(Optional) = 17
Maximum = 15(Core) +04 (Optional) = 19

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 404-6	Research Project[5]	6	C
SCT 403-6 (NGPA)	Industrial Training	6*	C
	Total Credits	**6+6***	

Total Credit for BTech Degree in Science and Technology (Food Engineering and Bioprocess Technology Specialization)

Minimum Required Credits = (28 + 2* NGPA) + (32) + (36) + (23+6* NGPA) = 127
Maximum Allowed Credits = (28 + 2* NGPA) + (32) + (39) + (25+6* NGPA) = 132

Mechatronics Specialization

Third Year

First Semester

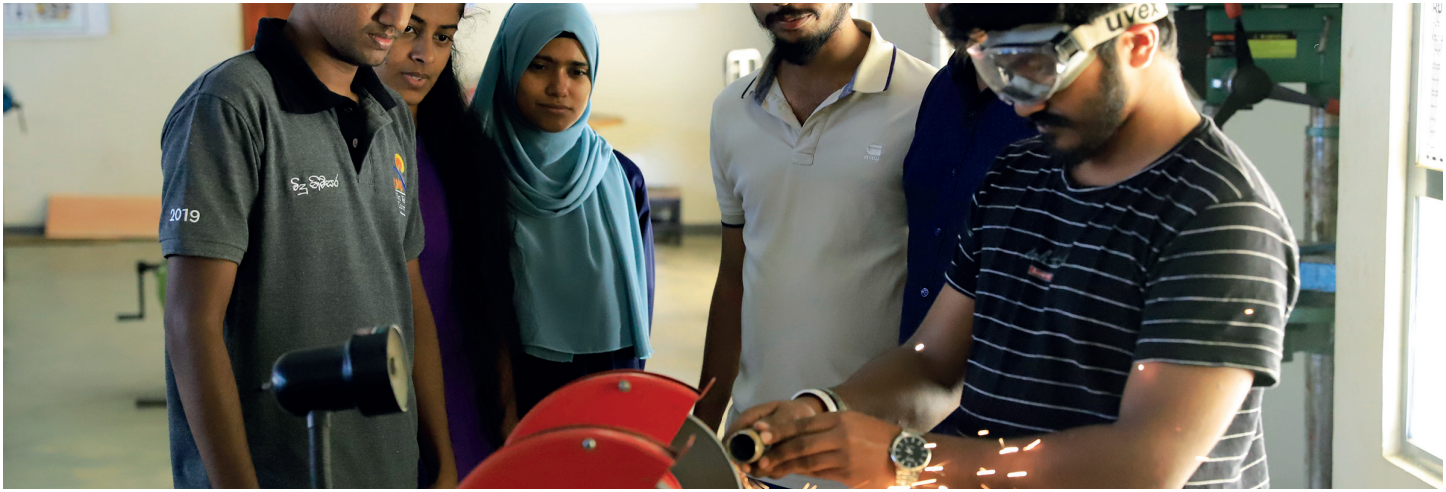
Course Code	Course Title	Credits	Type of Credits
ESD 311-1	Communication Skills-II	1	C
SCT 371-2	Advanced Computer Programming	2	C
SCT 372-3	Digital and Analog Electronics	3	C
SCT 373-2	Digital Image Processing	2	C
SCT 374-2	Electrical Systems	2	C
SCT 375-1	Engineering Design	1	C
SCT 376-1 (NGPA)	Introduction to Mechatronics	1*	C
SCT 377-2	Mathematical Methods and Complex Analysis	2	C
SCT 378-1	Mechatronics laboratory-I	1	C
SCT 379-1	Mechatronics Projects	1	C
SCT 391-2	Data Transmission and Computer Networks	2	O
SCT 392-2	Energy Technology	2	O
SCT 393-2	Engineering Metallurgy	2	O
	Total Credits	**Compulsory = 15+1*, Optional =6**	

Minimum = 15(Core) + 4(Optional) + 1 (NGPA) = 20
Maximum = 15(Core) + 6(Optional)+ 1(NGPA) = 22

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 381-2	Applied Engineering Thermodynamics	2	C
SCT 382-2	Computer Aided Drafting and Manufacturing	2	C
SCT 383-2	Electric Power and Machine	2	C
SCT 384-2	Embedded Systems	2	C
SCT 385-1	Mechatronics Laboratory-II	1	C
SCT 386-1	New Product Development	1	C
SCT 387-2	Power Electronics	2	C
SCT 388-2	Theory of Machines	2	C
SCT 389-1	Vector Calculus	1	C
SCT 303-2	Research Methodology and Scientific Writing	2	C
SCT 302-2	Applied Economics and Financial Accounting	2	O
IIT 323-2	Human Resource Management	2	O
SCT 394-2	Maintenance, Production and Project Management	2	O
	Total Credits		**Compulsory =17 , Optional =6**

Minimum = 17(Core) + 4(Optional) = 21
Maximum = 17(Core) + 6(Optional) = 23



Fourth Year

First Semester

Course Code	Course Title	Credits	Type of Credits
SCT 471-2	Control Theory	2	C
SCT 472-2	Intelligent Control Systems	2	C
SCT 473-2	Mechatronic Systems Modeling and Simulation	2	C
SCT 474-2	Numerical Analysis	2	C
SCT 475-2	Robotics	2	C
SCT 476-2	Systems Automation	2	C
SCT 477-1	Time Series and Stochastic Processes	1	C
SCT 402-2	Quality Assurance and Control	2	C
IIT 446-2	Intellectual Property Rights, Legislation and Commercialization	2	C
SCT 401-2	Business Management and Entrepreneurship	2	O
SCT 491-2	Sensors and Transducers	2	O
SCT 492-2	Virtual Instrumentation	2	O
	Total Credits	**Compulsory = 17 Optional =6**	

Minimum = 17(Core) + 4(Optional) = 21
Maximum = 17(Core) + 6(Optional) = 23

Second Semester

Course Code	Course Title	Credits	Type of Credits
SCT 404-6	Research Project[5]	6	C
SCT 403-6 (NGPA)	Industrial Training	6*	C
	Total Credits	**Compulsory = 12**	

Total Credit for BTech Degree in Science and Technology (Mechatronics Specialization)

Minimum Required Credits = (28 + 2* NGPA) + (32) + (41) + (27+6* NGPA) = 136
Maximum Allowed Credits = (28 + 2* NGPA) + (32) + (45) + (29+6* NGPA) = 142

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Dr. K.W.S.N. Kumari
BSc (Sri J'pura), MSc (PGIA, Peradeniya), PhD (University of Brunei Darussalam)
Senior Lecturer (Gr I)

Research Interests : Time series and option pricing modeling, Applied statistics
Email- sandya@uwu.ac.lk
Phone – (+94) 553559113

Dr. M.M.S.N. Prematilake
BSc (Sri J'pura), PhD (University of Peradeniya)
Senior Lecturer (Gr I)

Research Interests : Carbon sequestration, Microbial ecology, Microbiology
Email - saranga@uwu.ac.lk
Phone - (+94) 553560090

Dr. N.P. Premachandra
BSc (Peradeniya), MSc, PhD (Polytechnic University of Turin, Italy)
Senior Lecturer (Gr II)

Research Interests : Hydrology, Water analysis
Email - prasanna@uwu.ac.lk
Phone - (+94) 553559113

Dr. H.M.J.C. Pitawala
BSc (Peradeniya), MPhil (Peradeniya), Lic.Phil (Chalmers University of Technology, Sweden), PhD (Chalmers University of Technology, Sweden)
Senior Lecturer (Gr II)

Research Interests : Energy storage and energy conversion devices, Value addition to local minerals
Email - jagath@uwu.ac.lk Phone - (+94) 552226676

Dr. P.B. Ratnaweera
BSc (Colombo), PhD (University of Colombo, collaborated with UBC, Canada)
Senior Lecturer (Gr II)

Research Interests : Bioactive secondary metabolites
Email - pamoda@uwu.ac.lk
Phone - (+94) 553559113

Dr. I.D. Singhalage
BSc (Peradeniya), PhD (University of Peradeniya)
Senior Lecturer (Gr II)

Research Interests : Microbial biofilms, Angiosperm diversity
Email - darshani@uwu.ac.lk
Phone - (+94) 553559113

Dr. N.T.S.G. Gamachchige
BSc (Sri J'Pura), MSc, PhD (Southern Illinois University, USA)
Senior Lecturer (Gr II)

Research Interests : Covering designs
Email- tharaka@uwu.ac.lk
Phone – (+94) 553559113

Dr. M.A.S.R. Senevirathna
BSc (Colombo), PhD (University of Sri Jayewardenepura)
Senior Lecturer (Gr II)

Research Interests : Polymers
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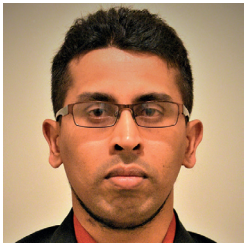
Phone - (+94) 553559113

Ms. C.M. Peris
BTech (Uva Wellassa), MPhil (Sri J'Pura)
Senior Lecturer (Gr II) - On study leave

Research Interests : Food processing, Food quality control and safety
Email- maheshikap@uwu.ac.lk
Phone – (+94) 553559113

Dr. R.M.S.I. Rathnayake
BSc (Peradeniya), PhD (Queensland University of Technology, Australia)
Senior Lecturer (Gr II)

Research Interests : Material synthesis, characterization and application, Environmental remediation, Water purification
Email - indunil@uwu.ac.lk
Phone - (+94) 553559113



Dr. M. A. R. L. Samaraweera
BSc (Peradeniya), MPhil (Peradeniya), MSc (Georgia State University, USA), PhD (Georgia State University, USA)
Senior Lecturer (Gr II)

Research Interests : 2D Materials, Photovoltaic materials, Solar cells
Email - rasanga@uwu.ac.lk
Phone - (+94) 553559113

Dr. R.U.W.M.C.B. Rambukwella
BSc (Peradeniya), PhD (University of Mississippi, USA)
Senior Lecturer (Gr II)

Research Interests : Nanomaterial synthesis, Characterization and application
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Phone - (+94) 553559113

Dr. W.D.C.C. Wijerathne
BSc (Eng.) (Peradeniya), PhD (Queensland University of Technology, Australia)
Lecturer (Unconfirmed)

Research Interests : Numerical modelling of chemical systems and biological matter, Low-cost food processing equipment, Treatment of waste plastic and polyethylene
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Phone - (+94) 553559113

Mr. A.R.P.C.C.J. Amarasinghe
BSc Eng (Moratuwa)
Lecturer (Probationary)- On study leave

Research Interests : Mechatronic engineering
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Phone - (+94) 553559113

Mr. A.M.P. Chandrasiri
BSc (Peradeniya), MSc (Peradeniya)
Lecturer (Probationary)

Research Interests : Modern applied mathematics, Discrete mathematics, Fuzzy set theory
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Phone – (+94) 553559113

Ms. D.G.H. Dilrukshani
BSc (Peradeniya)
Lecturer (Probationary)- On study leave

Research Interests : Dynamical system, Ordinary and partial differential equations, Fluid dynamics
Email - himali@uwu.ac.lk
Phone - (+94) 553559113

Ms. B.C. Liyanapathirana
BTech (Uva Wellassa)
Lecturer (Probationary)- On study leave

Research Interests : Applied electronics, Mechatronic engineering
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Mr. T. Thevathayarajh
BTech (Uva Wellassa)
Lecturer (Probationary)

Research Interests : Embedded systems, Machine learning
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Phone - (+94) 553559113

Mr. A.K.C.P. Premarathna
BSc Eng (Ruhuna)
Lecturer (Probationary)

Research Interests : Haptic technology, Control systems, Mechatronics and automation
Email - chanaka@uwu.ac.lk
Phone - (+94) 553559113

Mr. A.U. Asela
BSc (Kelaniya)
Lecturer (Probationary)

Research Interests : Electrical and optical properties of nanoplasmonics
Email - ushan@uwu.ac.lk
Phone - (+94) 553559113

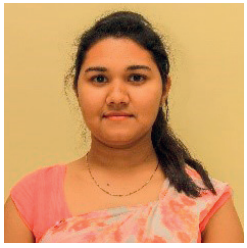
Technical Officers - Department of Science and Technology/ Department of Applied Earth Sciences

Mr. M.D. Nilantha
Chemistry Lab

Mr. G.M.M.S. Duminda
Physics Lab

Ms. Upeksha Kannangara
Biology Lab

Mr. Nipuna Bandara
Workshop



Ms. Chamari Ranasinghe
Chemistry Lab

Lab Attendants

Mr. Thushara Priyashantha
Workshop

Mr. Harsha Jayawardhana
Advanced Research Lab

Ms. A.M.R. Malkanthi
Chemistry Lab

Mr. Hashan Kithsiri
Biology Lab

Mr. Pradeep Ranathunga
Mineral Resource Lab

Mr. Shanaka Jayasinghe
Micro Electronic Lab

Ms. Ayesha Dilrukshi
Material Lab

Staff - Science and Technology Department Office

Ms. Indrachapa Ranasinghe
Management Assistant

Ms. Nimali Sanjeewani
Works Aid

Ms. Asha De Silva
Works Aid

ALUMNI OF FACULTY OF APPLIED SCIENCES

Dr. Suneth Pathirana, PhD
Founding President / UWU Alumni
Lecturer – Dept. of Computer Science and Informatics

"I am representing the pioneering batch (2005/06) of UWU. A team of young, qualified and enthusiastic lecturers perfectly guided us to flourish our life objectives while enjoying the dedicate climate and the scenic environment. Since UWU graduates are well recognized, I could join the industry and initiate my post-graduate studies at other local and foreign universities, immediately after my graduation.

Today,I am exceptionally satisfied because I do actively contribute to preserve and continue the same values for the next generations. UWU is the ideal place to uplift one's life to a well-balanced intellectual with knowledge and wisdom. Cheers for the future of UWU...! UWU = Centre of Excellence for Value Addition on local resource base"

"The experience I gained from here at UWU has been absolutely fabulous which has been instrumental in sharping my thinking, interpersonal skills, leadership skill and building my confidence to face the challenges of the modern information technology world. UWU personifies professionalism and has given me nothing but the best""

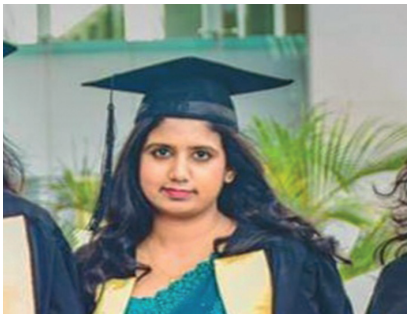
Mr. Sumudu Ranasinghe
SAP Consultant, IBM World Trade Corporation.
MSc in Information Technology, University of Moratuwa.
BIIT.(Spe) Bachelor of Industrial Information Technology (2008-2012)
Uva Wellassa University of Sri Lanka.

"Uva Wellassa University is not just an institution and experience, but rather a way of life in realizing our potential as students and acting on that potential to greater ourselves as human beings"

Ms. A.S.M. Chathurangani
Bsc(Hons)sp (Mineral Processing Technology)
D-Gem(SL), MGA (SL)
Senior Gemologist
Antwerp Gemological Laboratory
Sri Lanka

"High density interconnect PCB designing is a computer-aided designing and manufacturing process that requires both electronic and mechanical knowledge because the performance and durability of the final PCB depend on both electronic and mechanical features. This degree program gave me the basic knowledge related to different fields associated with PCB designing. The experience gained from the microelectronics laboratory gave me the capability to verify the performance of a PCB after its manufacturing process. Additionally, the hands-on experiences and knowledge on 3D printing and numeric controllers from the university have allowed me to find solutions quite easily for practical issues related to the industrial product designing process. All these experiences helped me thrive in my career as an electronics engineer."

Mr. D. L. Sagara Kavindra Wijesinghe
Electronics Engineer
Paraqum Technologies Pvt. Ltd.



"My ambition to become a scientist came true since I got the opportunity to join UWU family. The knowledge I gain through the interdisciplinary field of material science is helpful to develop my career life."

Ms. Dilini Liyanage
Research & Development Executive
Asian Paints (Lanka) Ltd.

"My ambition to become a scientist came true since I got the opportunity to join UWU family. The knowledge I gain through the interdisciplinary field of material science is helpful to develop my career life."

Mr. S. Thivijan
BTec (Hons), Uva Wellassa University
Quality Controller,
Eastern and Allied Agencies Pvt. Ltd.

"UWU was the place where, I was guided to start a new chapter in my life, which taught me to overcome deficiencies and build up my skills and knowledge which, values to be strong enough for achieving targets in Information Technology Industry. In fact, it helped me to strive new opportunities without letting failures which, overtake my determination to succeed. I really satisfied to stand in my current position as the managing director of my own company.

Mr. Dumith Rathnayake
Founder and Managing Director
Visanduma R & D

POSTGRADUATE DEGREES BY RESEARCH

Postgraduate Degrees by Research

Faculty of Applied Sciences offers postgraduate research degrees leading to the award of Degree of Master of Philosophy and Degree of Doctor of Philosophy. The programmes mainly involve research in a wide variety of disciplines.

Research Disciplines

- **Biotechnology**
- **Computer Science**
- **Environment Science**
- **Forest Ecology**
- **Material Science**
- **Microbiology**
- **Mineral Science**
- **Nanotechnology**
- **Natural Product Chemistry**

Mrs. M.D. Mangala Nayanakanthi
BSc (Hons) in physics (USJ)
Master of Philosophy (reading)
Research Discipline: Energy Storage Technology

"I enrolled as a postgraduate student in materials physics at Faculty of Applied Sciences, UWU in pursuit of a career in academic research. My interest is on rechargeable battery technology in the field of materials physics and very much enjoying research. Laboratories equipped with modern high-tech instruments and proper guidance help me to accomplishment of research activities of M.Phil degree. My fascination with research will provide me with the necessary ambition to success in M.Phil programme at UWU, while my extensive coursework and research preparation will provide me with the necessary skills to succeed in the postgraduate program. Finally I would like to express my gratitude to Dr. H. M. J. C. pitawala and Prof. J. L. Rathnesekara, my supervisors for their patient guidance, encouragement and useful critiques in keeping my progress on schedule."

Mr. W.A.P.P. Christopher
Bsc (Uva Wellassa University)
Master of Philosophy (2 years/ full time)
Research Discipline: Landslide characterization for mitigation.

"I consider myself privileged to have the opportunity to carry out my postgraduate research in my alma mater where I earned my Bachelors. The familiar surroundings and facilities made the environment conducive towards my studies and pushes me to test my limits in the field of research. Furthermore, the reputation of the university and the intellectuals was favorable in securing collaborations with government organizations such as Geological Survey and Mines Bureau and National Building Research Organization. I would like to appreciate and thank all the members of the Faculty Higher Degree Committee for the prompt behavior in administration and documentation which surely would pave the way towards timely completion of our research studies. Hoping to successfully complete my studies in due time to build my career as a lecturer in UWU."

Ms. V.M. Rajindra Swarnamali
BSc(Uva Wellassa)
Master of Philosophy (2 years/full time)
Research Discipline: Mineral Science

"I am so privileged to have been enrolled for an MPhil degree at UWU as a postgraduate student and the knowledge expansion as a researcher is the best achievement of my academic life. The perfect environment of UWU facilitates high-tech laboratories that have made my research activities smooth. The outcome of my MPhil degree focuses on the value addition to Sri Lankan mineral resources thus strengthening the vision of UWU. The innovative products through value addition directly address the local and foreign industry hence opening new pathways for career opportunities. I am so honored to have been supervised by experts in research field and I take this opportunity to pay gratitude to my supervisors, Dr.T.H.N.G.Amaraweera, Dr.M.M.S.N. Premetilake, Dr. H.W.M.A.C. Wijayasinghe, and Dr.N.W.B. Balasooriya for being the massive pillars of success behind this research study."


LABOMED
Labo America, Inc.
USA

FACILITIES AND SERVICES

Library

The origin of the Uva Wellassa University Library can be traced back to August 2006, when the Uva Wellassa University was formally established in Badulla.

At present, the Library is catering to over 2000 readers including both students and staff of the University. Library provides quality services and access to information. It also offers teaching and learning environment by providing a wide-ranging knowledge with diverse resources. In a center of learning, the Library functions as an information center.

The library has a physical section as well as a virtual section. The present physical Library collection encompasses over 18,000 books and over 1000 of nonbook materials. It possesses a collection covering a vast area of knowledge in Computer Science, Philosophy, Economics and Business Studies, Physics, Chemistry and Biology, Engineering and Technology, Agriculture and Animal Sciences, Management and Finance, Tourism, Aquaculture and Fisheries, Mathematical Science, etc. Dewey decimal classification system is used to classify books in the Library. The virtual library consists of online journals.

Collections and sections available within the library

- Reference Collection
- Lending Collection
- Sri Lankan Collection
- News Papers Collection & Important Articles Collection
- CD-DVD collection
- E-Book collection
- Past Paper Collection
- Periodical section (Printed & Online)
- UWU photo collection

- Students and staff Thesis collection
- Photocopy Section

Online Periodicals

- Oxford Journals - http://www.oxfordjournals.org/
- Emerald Insight - http://www.emeraldinsight.com/
- SAGE Research Methods - http://srmo.sagepub.com/
- Taylor and Francis - http://www.taylorandfrancis.com/
- Wiley Online Library - Journals - http://onlinelibrary.wiley.com/browse/publications
- ARDI - http://ardi.wipo.int
- AGORA - http://www.aginternetwork.org/en/
- Indian Journals – http://www.Indianjournals.com
- Publishing India - http://www.publishingindia.com

Normal Library Opening Hours

Monday - Friday	8.00 a.m. – 6.00 p.m.
Saturday	8.00 a.m. – 4.30 p.m.
Sunday	8.00 a.m. – 4.30 p.m.
Public Holidays	Closed

During the Semester Study Leave

Monday - Friday	8.00 a.m. – 6.00 p.m.
Saturday	8.00 a.m. – 4.30 p.m.
Sunday	8.00 a.m. – 4.30 p.m.
Public Holidays	8.00 a.m. – 4.30 p.m.

The reading area is open 24 hours a day.

Library Membership and Registration

All members of the university should register with the Library and obtain their Library cards. The students' Library cards are issued at the beginning of every academic year.

Undergraduate	No of cards	Type of cards (L – Lending, SR- Schedule Reference)
1st Year	02	L-01, SR-01
2nd Year	02	L-01, SR-01
3rd Year	03	L-02, SR-01
4th Year	04	L-02, SR-02

Regulations for Borrowing Books

All the students should return the borrowed Lending books within two weeks. Schedule Reference (SR) books will be issued only for overnight reading. For the late return books, the following fine system is in use.

Type	Fine amount (per day)
Schedule Reference (SR) Book	Rs. 5.00
Lending (L) Book	Rs. 3.00

Loss of a Library Card

If the Library users lost their Library card, they should immediately inform it to the circulation desk through a relevant form to the Librarian. After one-week verification time, a duplicate card will be issued and per card Rs. 25.00 will be charged from the borrower.

Loss and Damage of Library Books

Loss of a library book should be reported immediately to the Librarian. If the book is not found and returned within two weeks, the borrower should pay for its replacement. If a book is damaged the borrower has to pay the full cost of the book & his/her Library membership will be cancelled for 3 months. The borrower should replace the book and 25% administrative cost will be charged. If not, they are liable to pay for a multiple of the cost of books and 25% administrative costs. All payment should be made at the circulation counter in the library between 8.30 a.m. and 4.00 p.m. on week days. After the payment, the reader can obtain

their Library card.

E-mail: libraryuwu@gmail.com, librarian@uwu.lk
WEB: http://www.lib.uwu.ac.lk
Contact Number: (+94) 553560114

Accommodation

The Uva Wellassa University provides excellent hostel facilities for all 1st year and 3rd year students. Hostel facilities will be awarded on request. The rooms are furnished with beds, writing table, chairs and wardrobes. Hostels are managed by wardens and sub wardens. The University is extremely concerned about the furniture, infrastructure facilities and cleanliness of the Hostels. Therefore, it is advised to use all facilities with extra care and attention.

In-Campus Hostels

Male Hostels		Female Hostels	
Hostel Name	**Capacity**	**Hostel Name**	**Capacity**
Corel Beauty	142	Blue Sapphire	140
Silvertip	84	Catteleya	140
Total	226	Total	280

Outside Hostels

	Accommodation Capacity
Male Hostels	177
Female Hostels	393

The following facilities are available.

- Free Wi-Fi facility
- Computer facility
- Large reading areas
- 24x7 security service

The hostel code of conduct spells out the rules and regarding learner behavior in the university hostels and describes the disciplinary systems to be implemented by the university concerning transgression by learners. All the rules and procedures outline in the hostel's code of conduct.

Hostel accommodation fees

Inside hostel fee per semester per student – Rs. 1750.00
Outside hostel fee per semester per student – Rs. 2500.00

Medical Care

All University students will have access to medical care under the guidance of a physician. University Medical Center is under the supervision of a government approved Medical Officer called the University Medical Officer (UMO). All medical reports of students should be certified by the University Medical Officer, before being submitted to the Medical Board and Senate for approval. The Medical Board of University consists of three respected government medical practitioners. All cases of students requiring special attention with regard to their medical condition will be scrutinized and decided by the Medical Board.

Financial Support

Mahapola and Bursary

Financing higher studies are one of the main obstacles students and parents face most of the time. Engaging in higher education is an investment for the future life but still, students need to manage their cash flow. As students have to finance their own expenses such as food, living cost, education materials etc., it is a huge task to assure their funding.

UWU offers two schemes of financial assistance from the Government as Mahapola Higher Education Scholarship and Bursaries. Both these assistances are given on a competitive

basis and at the national level.
Students should apply for both financial supporting schemes giving necessary information such as students family income, marks obtained at G.C.E. Advanced Level, their academic achievements etc. to be taken into consideration by the Government authorities to choose the scholarship and bursary holders. Students can contact the Student Affairs Section building for relevant information.

Chancellor Scholarship

The Chancellor of Uva Wellassa University, Venerable Bengamuwe Dhammadinna Thero is very pleased about the academic programmes, student activities, and disciplines of students. It resulted to initiate a scholarship programme for UWU undergraduate students. The scholarship will be given to the students who are truly in need of financial support and the selection will be done by a committee appointed by the Ven. Chancellor thero. The selected students will receive financial support of Rs.1500.00 per month for a 10-month period up to four years/until completion of the degree programme.

However, financial support will not be given if a student is absent or repeated for a particular academic semester or not fully enrolled for the course unit.
Furthermore, if a receiver of this scholarship is found guilty of any academic or non-academic offence, his/her scholarship will be terminated. The number of scholarships awarded for following years will depend on the number of vacancies created upon graduation of fourth-year students.

Career Guidance Unit

The Career Guidance Unit (CGU) of Uva Wellassa University was established on 18th July 2013 with the following objectives.

- To develop relations between University and Employment Sector in a mutually beneficial way.
- To help undergraduates to choose and proceed on an optimal career path, based on the students ability, desire and available opportunities.
- To help undergraduates obtain an orientation to the employment sector and develop Transferable Skills such as effective communication skills, Leadership skills, Teamwork skills, and management skills so that they will become productive and efficient members of the work force.
- To liaise with private and public sector organizations to find out about existing job opportunities, bring them to the notice of graduates and direct the most suitable applicants to the organization.

The Faculty of Applied Sciences has been working closely with the CGU over the past years to facilitate students to improve their interactions with the employment sector. The Faculty of Applied Sciences is willing to arrange more events in collaboration with the CGU to create a better exposure of our undergraduates to the private and public sector organizations and thereby help undergraduates to prepare themselves for the challenges, which they will face once they join their respective industries.

Counseling & Mentoring

Mentors for Students

Each student will have a mentor to discuss academic matters and other relevant issues. The advisor/mentor will also help with other issues and counsel the student to build up his/her career. Mentoring programme is one of the unique programmes to provide a trusted friend, counselor and an advisor to each student. The mentor will be a lecturer.
Each lecturer owns a small group of students as mentees. Mentoring process starts by introducing mentors to the students during the first week of their University life and until the graduation they will have the same lecturer as the

mentor. Students should meet their mentors regularly as they provide a valuable service to the University as well as to the students.

Counseling

Counseling is one of the major activities engaging students with the course unit or area specialist. Student counsellors help student activities and play a major role while keeping UWU image up.

Senior Student Counselor:
Mr. N.P.P. Liyanage (Faculty of Animal Science and Export Agriculture)

Deputy Senior Student Counselor:
Dr. D.T. Udagedara

Faculty Senior Student Counselor (Male):
Mr. S.T.C.I. Wimaladharma

Faculty Senior Student Counselor (Female):
Dr. T.H.N.G. Amaraweera

Academic Counselors

Mineral Resources and Technology degree programme (100 & 200 Levels):
Dr. J.T. Cooray

Mineral Processing and Technology specialization:
Mr. H.P.T.S. Hewathilaka

Water Science and Technology Specialization:
Dr. N.P. Premachandra

Computer Science and Technology degree programme:
Dr. E.M.U.W.J.B. Ekanayake

Industrial Information Technology degree programme:
Dr. K.P.P.S. Pathirana

Science and Technology degree programme (100 & 200 Levels):
Dr. M. A. R. L. Samaraweera

Food Engineering and Bioprocess Technology specialization:
Dr. I. D. Singhalage

Materials Science and Technology Specialization:
Dr. M.A.S.R. Senevirathna

Mechatronics specialization:
Dr. (Ms.) K.W.S.N. Kumari.

Centre for Gender Equity and Equality (CGEE)

Gender inequalities and violence including that of sexual and gender-based violence (SGBV) in the Universities have been reported as significant shortcomings in the Sri Lankan University system. As a solution, University Grants Commission (UGC) has taken initiatives to minimize the all forms of violence including SGBV by promoting all state universities to establish Gender Equity and Equality centres/ cells. The CGEE has four faculty cells which is a mandatory requirement of the GEE policy framework and it is a sub-committee functioning under the University Gender Equity and Equality Committee, with the intention of facilitating the CGEE by creating gender sensitive environment at the faculty level.

Stipulated key functions of the CGEE

- Developing gender-sensitive university culture and university environment.
- Promoting harmonious relations between different categories of staff and students at UWU
- Monitoring in implementing the policy on GEE at the institutional level.
- Conducting awareness programmes/training for staff and students - during orientation / induction to students / staff.
- Identifying ways of preventing SGBV within the university.
- Empowering students and staff to prevent and respond to SGBV.
- Inquiring SGBV and proposing to university councils for disciplinary actions to offenders and facilities to victims.
- Disseminating information about GEE policies and GEE activities by posting / circulating relevant material through relevant channels to the university community.
- Facilitating to develop university curricula and research, and contribute other gender-related inputs to the University Community.
- Ensuring transparency, equal opportunities and equal treatment for all, both in relation to the appointment of positions, recruitments, employment and career development.
- Developing and maintaining a mechanism of redress for SGBV within the university.

Current Director : Dr. A.P. Henagamage (Faculty of Applied Sciences)

International Collaboration Centre (UWU ICC)

The UWU International Collaboration Center (UWU-ICC) was established in 2016 with the aim of internationalisation of the University. The main tasks of the UWU-ICC include;

- Building up collaboration with local and international universities, research centers, research institutes, and industries in respect to teaching, research, patenting and entrepreneurial activities.
- Establishing a platform for the exchange of local and international academia, research scholars and students.
- Promoting and coordinating the registration for postgraduate programmes of International students.
- Facilitating international research conferences, training programmes, and seminars in the University.

Current Director:
Dr. L.M.H.R. Alwis (Faculty Animal Science and Export Agriculture)

Current Faculty Coordinator:
Dr. K.W.S.N. Kumari

University Business linkage Cell

University business linkage cell (UBL cell) of UWU will act as the Promotor and Coordinator of the University-Industry Linkages and related activities in addition to incubating Entrepreneurs in-house. UBL cell operates centrally as well as faculty level with the following objectives,

- Encourage and support the entrepreneurship among the UWU community.
- Engage in venture formation by the University and monitor the venture formation process at UWU.
- Facilitate businesses-based research and new product development.
- Support the prospective entrepreneurs (students) by networking with business and research partners.
- Promote industries through quality improvement of products and services.
- To transfer technology to the Small and Medium Enterprises (SMEs) sector of the region and the country.

In order to develop the relationship between the University and Industry following focal areas are adopted.

- Organizing training and coaching activities for businesses.
- Implementing (technical) consulting service for businesses.
- Implementing an IP policy at the University.
- Promoting the creation of University owned spin-offs.
- Promoting research cooperation between Industry and the University.
- Promoting strategic alliances with the private sector in order to develop the research infrastructures and capacities at the University.
- Developing practice and business oriented student's projects.
- Involvement in Cooperate Social Responsibility (CSR) activities.

Current Director : Dr. R.A.P.I. Sampath Dharmadasa (Faculty of Animal Science and Export Agriculture)

Current Faculty Coordinator : Dr M.A.R.L. Samaraweera

Computer Center and IT Facilities

All students enrolled at Uva Wellassa University are provided with attractive IT facilities including well-equipped computer laboratories and other internet related services.

- **Computer Laboratory** – There are four well-equipped computer laboratories at UWU including a network laboratory. All these laboratories provide convenient access to reliable computing resources and common software applications required in certain areas of study.
- **Wi-Fi** – Students of UWU can enjoy the flexibility to access web and exchange resourceful information from anywhere within the university. To stay advanced and provide students with the best of the latest services, the University has established Wi-Fi zone, enabling students to access the internet through the wireless router, anytime and anywhere in the campus.
- **Student e-mail** – When you become a student of UWU, you will have the advantage of having an university e-mail account that comes with several benefits such as great discounts on desirable products and online services.
- **Virtual Learning Environment (VLE)** – A virtual learning environment (VLE) is a set of teaching and learning tools designed to enhance a student's learning experience by including computers and the Internet in the learning process. In general, VLE users are assigned a student ID and a default password where the students are expected to reset their own password.
- **Microsoft DreamSpark Account** – It is a Microsoft programme to provide students with software design and development tools free of cost available for all UWU students. To register, students must visit the Microsoft

Imagine website and verify their identity through their verified university e-mail account.

- **Video Conferencing Facility –** This is another attractive and useful IT feature provided by the university where a live, visual connection can be established between two or more people residing in separate locations for the purpose of communication.

Sports and Physical Education

The programmes in the Physical Education Division are organized to cater to competitive as well as recreational sports and physical education for the student population. It provides opportunities for the students to achieve and maintain their physical fitness and to secure a gainful use of leisure time which is very useful for their health. The programmes also seek to foster closer staff student relationship. Physical Education Division also provides facilities to develop high performance in sports locally as well as internationally.

Facilities for the following sports are provided to the students:

Badminton, Basketball, Baseball, Carom, Chess, Cricket, Elle, Football, Hockey, Karate, Netball, Road Race, Rugby, Table Tennis, Tennis, Track & Field, Taekwondo, Swimming, Volleyball, Weightlifting, Wrestling.

The Gymnasium for weight training and physical fitness is available with the above mentioned facilities. The gymnasium is also available for practicing table tennis, taekwondo, badminton etc.

Director : Ms. W.M.U.N. Keerthirathne

SOCIETIES CLUBS AND EVENTS

Currently Active Societies and Clubs

Computer Society

The Computer Society of Uva Wellassa University was founded in 2007, as the society of the University which represents the Computer Science and Technology Department. The Society offers a number of services aimed at promoting the computer technology and increasing the rate of IT literacy within the university and beyond. With the aims and objectives of contributing to the value addition of resources of the University, stimulating interest in computer science and allied courses, communicating and exchanging ideas with the Industry, other societies and universities, the society steers forward from its inception till present.

Software troubleshooting camp, Industrial visitings, Hack-athons (Ex. DeftCoders), Industrial workshops, Workshops for competition (Ex. Robofest) and Workshops for O/L or A/L students are among the activities organized by the Computer Society of UWU.

IEEE Student Branch

IEEE Student Branch of Uva Wellassa University, affiliated to the IEEE (Institute of Electrical and Electronics Engineers)-world's largest professional association for enhancement of technology. IEEE Student Branch gives numerous opportunities to meet and learn from fellow students and professionals in the field. Student Branch activities offer numerous educational, technical, and professional advantages of IEEE membership through special projects, activities, meetings, tours and field trips. IEEE Student Branch at Uva Wellassa University has been active since 25th March 2015.

SHECODERess Girls Only Algorithm Hackathon

SHECODERess is the one and only girls only Algorithm Hackathon in Sri Lanka which is organized by the IEEE Student Branch of Uva Wellassa University It was successfully held in 2019 for the 3rd time in the consecutive year. SHECODERess offers opportunities to the state universities as well as private universities and related institutes to participate. The program contains 12 hours of coding sessions, intended to provide students with an opportunity to improve their coding and problem-solving skills. All the participants get certificates while winners grant cash awards.

Robotics and Automation Society

Robotics and Automation Society of Uva Wellassa University was established on June 2017 for the betterment of the society and members it was joined with IEEE student Branch of Uva Wellassa University on September 2017, now it also acts as the Robotics and Automation Society chapter of IEEE student Branch. The purpose of "Robotics and Automation Society" is for university students to act for the betterment of the knowledge base among the university students, and also to develop a linkage between the industry and the university community, which may direct to an exchange of knowledge. Uplifting the school community of the Badulla area and country with the emerging scientific knowledge and stimulating their learning capabilities related to the field of Robotics and Automation would be a major priority.

Registration of Societies and Clubs

Societies and clubs functioning in the University should be registered at the Student Affairs Division. Application forms are obtainable from the Student Affairs Division. Duly filled application forms should be submitted to the Senior Assistant Registrar (Student Affairs) together with the recommendation of the Senior Student Counselor and the approval of the Vice Chancellor. Successfully registered societies/clubs will be informed of their registration along with the valid society/club registration number. The registration valid for one year and should be renewed annually. It is mandatory for every Society and Club to submit their annual activity plans and budgets to Student Affairs Division within the first two weeks of the first semester.

Students' Special Events

Department of Science and Technology

Food Festival

The Food Festival, organized by the third-year students of Food Engineering and Bioprocess Technology specialization area under the Department of Science and Technology is focused on preparing novel value added food items from healthy raw materials and untouched crops which have potential for marketing. This festival has been conducting for nine years consecutively as an annual event in the Department of Science and Technology since 2009. Further, the festival is organized as an essential practical component of two subjects (Animal Based Food Processing Technology, SCT 331-3 and Plant Based Food Processing Technology, SCT 338-2) which is being offered in the second semester in every year.

UWU Robot Battle

The robotic competition started in 2016 which organized by the Department of Science and Technology, Uva Wellassa University. It is open to two categories as school challenge and open challenge under two different tasks to those who are interested in robotics island-wide. Undergraduates and technology companies can participate for open challenge. UWU robot battle tests the creative skills of participants that are required to complete a rewarding task in a challenging environment. School teams are challenged to design and build a robot to follow a line and perform a specified task under competition rules and time limits while the Open

Challenge was to develop a manually controlled Battle Robot with the ability to fight with the opponent in a specific arena. This challenge was introduced in Sri Lankan history for the first time by UWU. School students', Sri Lankan's best undergraduates and technology companies with their most impressive battle bots fight on the arena of UWU robot battle.

Mecha Blast (Exhibition)

Mecha-Blast is a place to exhibit projects completed by 3rd year Mechatronics students under Mini Project course unit. This occasion is provided an opportunity to students to present their new innovative projects to colleague and staff. Also, it encourages students to expose and share the knowledge and experience with world. This is a platform for students to develop their skills such as: new products development, finding of new technologies, self-learning, critical thinking, group working, product demonstration and etc. This is conducting as an annual exhibition since 2016 and three best performances are selected and awarded by certificates. It is an evening of the exposure for innovation, technology, and spirit of the students.

Workshop for Advance Level Engineering Technology Stream Students

Workshop for Advanced Level Engineering Technology Stream conducted by the 3rd and 4th year students in Mechatronics specialization area under the Science and Technology degree programme. It has initiated 2018 and the purpose is to share the knowledge of Engineering Technology with Advanced Level students as a support for their A/L exam.

Polymetamics Magazine

Students of Materials Science and Technology under the Science and Technology degree programme together with Dr. H.M.J.C. Pitawala have taken the initiation to start "Polymetamics" magazine, 2017. Among the teaching area in UWU, Materials Science and Technology considered as one of the trusted areas, enhancing professional knowledge encompassed by students and industry. Ploymetamics is a collection of scientific articles furnished by the lecturers and undergraduates following Material Science and Technology specialization. Therefore, Polymatamics is the best way of sharing knowledge and experience in research on Material Science with students, faculty and industry.

Department of Computer Science and Informatics

Marketing Day

Second year undergraduates of Industrial Information Technology (IIT) degree programme are having a course unit as Principles of Marketing (IIT 251-3) and that course unit consists with 30 hours of theory and 15 hours of practical. In order to give the practical exposure to the students with regarding marketing mix (including product, price, place and promotion) the marketing day was started as a departmental event in 2017. The marketing day has named as 'Emporia 2k17' in 2017. It creates a platform for students to learn by doing the concepts in marketing management.

Outbound Training

In 300 level 1st semester IIT students have an opportunity to participate in a field visit under the course unit of Organizational Behavior. This course unit consists of 30 hours of theory and 30 hours of practical. These practical hours are designed in order to give a practical experience for the students regarding group dynamics, team building, trust building, time management, planning and leadership. This training programme was started in 2017 and it is a value adding experience for students in many aspects. This programme also designed to learn by doing. It refreshes the learning experience and these trainings will sharpen up the skills of students rather than traditional teaching methods.

IIT Rugby 7's

IIT Rugby is a rugby tournament organized by the students attached to Industrial Information Technology degree programme in the Uva Wellassa University. The tournament was held on the 3rd January 2015 for the first time in the Uva Wellassa history conducting annually since 2015.

CST LAN Challenge

Annual inter-degree computer gaming competition organized by Computer Science and Technology degree programme held with the intention of finding people who possess computer gaming skills. This is an open competition for all the degree programmes with teams of four participants.

Social Outreach Activities

Department of Computer Science and Informatics

Computer Laboratory Donation

The Department of Computer Science and Informatics of UWU donated a computer laboratory to Alpitiya Nawodya Maha Vidyalaya, Dambagalla, Monaragala on March 6, 2017. This donation was made as one of the events organized to mark the 10th Anniversary Celebration of the UWU. The Departments' Alumni, staff members of Faculty of Applied Sciences along with some other donors contributed to this work.

Bridging ICT Knowledge and Skills Gap

The Department of Computer Science and Informatics conducted a workshop on 'Computer Networking' strengthening its long-lasting relationship with the school community, particularly the school students. The target audience, R/Karawita Central College including those of GCE Advanced level students and teachers, was selected with a particular regard to under-resourced schools in Sri Lanka. The workshop, expected to bridge the Information and Communications Technology (ICT) knowledge and skills gap, was acknowledged by the audience.

Department of Science and Technology

Vidunimsara

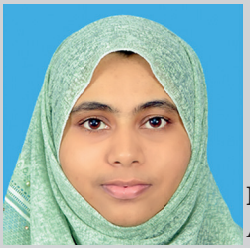
"VIDU NIMSARA" is a successful endeavour of the undergraduates of Science and Technology degree programme of Uva Wellassa University to uplift the standards of education of Uva province, has commenced since 2009. This annual seminar series targets G.C.E. Ordinary Level students of rural areas of Uva province with the purpose of upgrading results of Science and Mathematics subjects. Moreover, annually increased number of students proved, that this seminar series is appreciated by student as well as teachers and the remarkable success of the programme.

Nanasata Arunalu

1st year students of Mineral Resources and Technology Degree Programme of Uva Wellassa University arrange Nanasata Arunalu programme to give hand for school students of rural areas of Passara, Badulla, Mahiyangana divisions to increase their grade and encourage for education and acknowledge carrier paths after G.C.E. O/L examination. Last seminar series was held at Passara Central College, Passara. 12th, 13th and 14th of October 2018.

Office of the Dean - Faculty of Applied Sciences

Staff



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The Degree Plan

Code	Title of the Course Unit	Credit Value	Grade	Grade Points Earned
First Year				

Code	Title of the Course Unit	Credit Value	Grade	Grade Points Earned
Second Year				

Code	Title of the Course Unit	Credit Value	Grade	Grade Points Earned
Third Year				

Code	Title of the Course Unit	Credit Value	Grade	Grade Points Earned
Fourth Year				

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