



GAMPAHA WICKRAMARACHCHI
UNIVERSITY OF INDIGENOUS MEDICINE

STUDENT HANDBOOK

2020/2021

DEPARTMENT OF TECHNOLOGY
FACULTY OF INDIGENOUS HEALTH SCIENCES AND TECHNOLOGY

STUDENT HANDBOOK

2020/2021

CONTACT

Email : hodtech@gwu.ac.lk , dtechnology@gwu.ac.lk

Web URL: <https://gwu.ac.lk>

STUDENT HANDBOOK

2020/2021

**Bachelor of Health Science Honours in
Biomedical Technology**

**Bachelor of Health Science Honours in Health
Information and Communication Technology**



Department of Technology

Faculty of Indigenous Health Sciences and Technology

Gampaha Wickramarachchi University of Indigenous Medicine Si Lanka



Ayurveda Chakrawartha Pandith G. P. Wickramarachchi

Founder of Gampaha Siddhayurveda Medical College

"As for the traditional lamp ignited by me destroys the darkness of this assembly hall, may the wisdom of light emanation from the education program of the institute enlighten entire Sri Lanka."

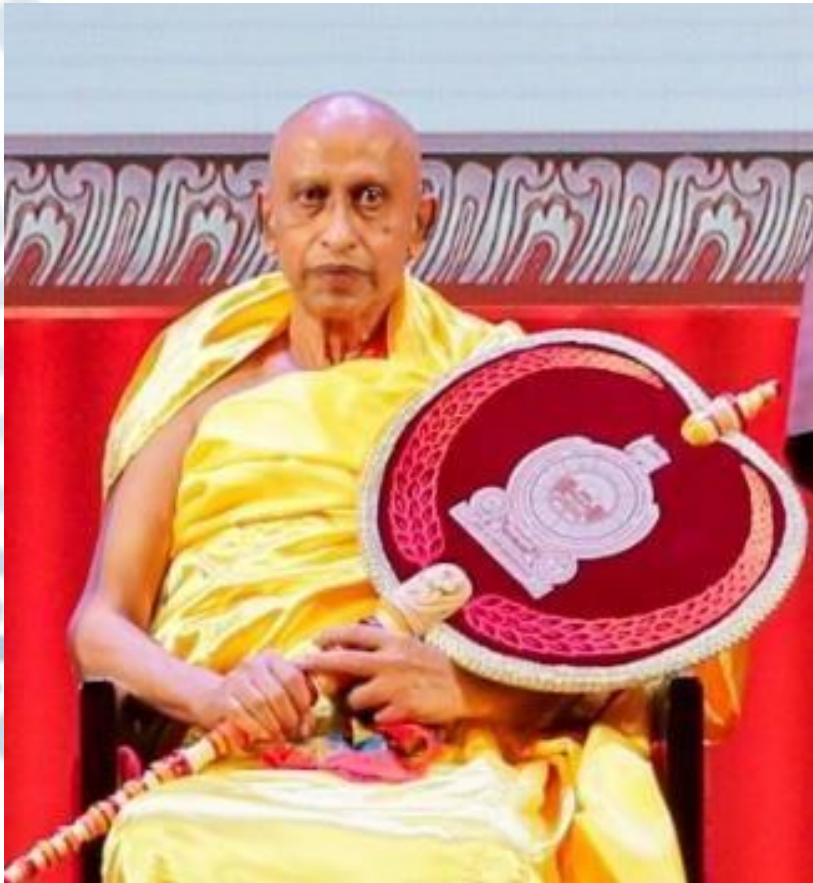
Contents

Ayurveda Chakrawartha Pandit G. P. Wickramarachchi	4
Contents	5
Chancellor of the GWUIM	7
Founding Vice Chancellor's Message	8
Vice Chancellor's Message	9
Gampaha Wickramarachchi University of Indigenous Medicine	10
History and the Introduction of the University	10
Vision	10
Mission	10
Gampaha Wickramarachchi University of Indigenous Medicine	11
The Emblem Features	12
The University Flag	13
The University Anthem	13
Administrators of the GWUIM	14
Message from Dean	15
Faculty of Health Sciences And Technology	16
(a) Department of Indigenous Medical Resources	16
(b) Department of Indigenous Health Science	16
(c) Department of Technology	17
Mission	18
Vision	18
Department of Technology	18
Bachelor of Health Science Honours in Biomedical Technology	19
Introduction	19
Goal	19
Objectives	19
Graduate Profile	20
Intended Learning Outcomes	20
Department and Courses	21
Bachelor of Health Science Honours in Health Information and Communication Technology	22
Introduction	22

Goal	22
Objectives.....	22
Graduate Profile.....	23
Intended Learning Outcomes:	23
Departments and Course:	24
Message from the Head of The Department	25
Academic Staff of The Department of Technology.....	26
Non-Academic Staff of The Department of Technology.....	29
Key to Understand The Structure of Degree Programmes	30
Bachelor of Health Science Honours in Biomedical Technology (BHSc (Hons) in BMT)	30
(A)Curriculum Background Of Bhsc Hons In BMT Study Programme	30
b) Notation of Course Units and Abbreviations used	30
Abbreviations of Subject Categories.....	31
Key to Understand The Structure of Degree Programmes	32
Bachelor of Health Science Honours in Health Information and Communication Technology (BHSc (Hons) in HICT)	32
(a) Curriculum Background of BHSc Hons in HICT Study Programme	32
(b) Notation of Course Units and Abbreviations used contd.....	33
Abbreviations of Subject Categories.....	33
Elective Course Unit Selection	34
Key Course Structure for BHSc (Honours) in BMT	36
Key Course Structure for BHSc (Honours) In HICT	44
Grade Point Values And Grading Criteria.....	52
Grade Point Average (GPA).....	53
By-Laws	54
Career Opportunities	55
Common Student Facilities Provided By The University.....	56
01.Library	56
02.Information & Communication Technology (ICT) Center	57
03.Career Guidance Unit (CGU)	58
04.Medical Centre.....	59
05.The English Language Centre (ELTC)	60
06.Prof. Janitha A. Liyanage Central Laboratory.....	61

07.Student Welfare Division	62
08.Physical Education Unit.....	65
Transition to University Life	66
Important Contact.....	66
University Map.....	66





**Sahithya Chakravarthi, Anunayaka Thero of Malwatta Chapter,
Venerable Dr. Niyangoda Dharmakeerthi Sri Sangarakkitha
Vijithasiri Thero**



Senior Professor Janitha A. Liyanage

Founding Vice-Chancellor

PhD (UK), BSc (Hons) (), CChem, CSci, FRSC, F.IChemC

The Gampaha Wickramarachchi University of Indigenous Medicine (GWUIM) was established as the 16th national university of Sri Lankan higher education system. The illustrious Gampaha Wickramarachchi Ayurveda Institute has been uplifted into a fully fledged university with effect from 01st March 2021 stepping energetically to ensure the sustainable development of the national economy with novel applications of indigenous knowledge.

The prime intention of the establishment of the GWUIM is to generate competent and knowledgeable professionals by offering nationally competitive and internationally recognized opportunities for learning and conducting research for the advancement of quality of life and environment while appreciating the indigenous knowledge systems.

Our University is privileged to have an outstanding staff and excellent infrastructure facilities at its initial stage of operation. Our undergraduate and postgraduate curricula are aligned with the industrial solicitations, thus facilitating our students to acquire exceptional in-plant training to enhance their performances. Our challenge for the future is to utilize these resources productively to establish ourselves firmly among the world's leading universities. I would like to take this opportunity to advise our new students to get actively involved in our GWUIM community to inculcate a caring attitude towards this community. In return, the GWUIM will ensure that your years at this University will be filled with excitement and experiences that you can treasure for a lifetime.

I wish you all the success.

Senior Professor Janitha A. Liyanage



Professor Ranjana W. Seneviratne

Vice-Chancellor

FRCS (England), MSc (Birmingham), MS (UoC), MBBS (UoR),

vc@gwu.ac.lk

As the incumbent Vice Chancellor of the Gampaha Wickramarachchi University of Indigenous Medicine (GWUIM), I warmly welcome you to this unique seat of learning in the sphere of tertiary education of Sri Lanka. GWUIM fosters a scholarly environment for both indigenous and modern knowledge following the establishment as a public university. It plans to expand its domains of higher education with a multitude of undergraduate degree programs that are designed to align with national interests.

The GWUIM is determined to take a giant leap in its academic endeavors with her dynamic human resources and rapidly developing physical resources. In this expedition, you will be the latest of the key stakeholder group to join. We warmly embrace all of you to the family of GWUIM and together we will continue our forward march through lands of wisdom and knowledge. The institutional progression of the GWUIM will be strongly linked with your personal and higher educational attainments. In addition to mastery of the chosen academic discipline the University has developed a range of activities including teaching of soft skills which are necessary for any kind of employment in 21st century. These will help you to become a true professional as well as a versatile, independent and patriotic citizen, ultimately a valuable and respected member of the society. Therefore, I would like to encourage you from the beginning of your life at GWUIM to harvest maximum benefits from your undergraduate program.

Finally, I wish you best of luck during and beyond your life with the GWUIM!

Professor Ranjana W. Seneviratne

History and the Introduction of the University

Gampaha Wickramarachchi University of Indigenous Medicine is the successor higher educational Institution of Sri Lanka Siddhayurveda Medical College founded by Ayurveda Chakravarthi Pandith G. P. Wickramarachchi on 19 July, 1929 as the center of learning Siddhayurveda traditions of indigenous medicine.

Ayurveda Chakravarthi Pandith G. P. Wickramarachchi, the founder of Siddhayurveda Medical College, was born on the 20th September 1889. In 1917, he proceeded to Calcuatta Ashtanga Ayurveda Vidyalaya and studied there under Kaviraj Jamini Bhūshana Roy, one of the most eminent scholars of Ayurveda in India. He was graduated with L.A.M.S. degree (Bhishagratna). He founded this institute in his personal land in Yakkala with the support of contemporary leaders of national movement.

Vision

To be a Center of Excellence in Indigenous Medical Education

Mission

To produce high quality learning environment and to promote innovative research culture in indigenous medical sciences to produce graduates equipped with knowledge and skills to cater the national and global needs



ගම්පහ වික්‍රමාරච්චි දේශීය වෛද්‍ය විශ්වවිද්‍යාලයේ නිළ ලාංඡනය මගින්

“දේශීය ශිල්ප ශාස්ත්‍ර පාදක කොට ගනිමින් විරකාලිත පැවැත්මෙන් යුතු සෞභාග්‍යමත් සශ්‍රීක වූ දේශයක්
උදෙසා විශ්වය පිළිබඳ තත්‍ය වූ ද පරිපූර්ණ වූ ද සුපරිශුද්ධ ඥාන සම්භාරයෙන් සුපෝෂිත කෘතතස්ත
කුශලතපූර්ණ සබුද්ධික සත්ප්‍රජාවගේ ප්‍රඥාලෝකයෙන් විහුණිත ශ්‍රී ලාංකේය පරමාධිපත්‍යය උදෙසා සිදුකෙරෙන
මෙහෙවර”

THE EMBLEM FEATURES

1. Ola leaves Manuscript - Heritage of the Indigenous Knowledge

තලපත් පුස්තකය - දේශීය ශිල්ප ශාස්ත්‍ර උරුමය

2. Moon and Sun

චන්ද්‍ර සූර්ය සංකේත - විරකාලීන පැවැත්ම

3. Punkalasa with Lotus flowers

නෙළුම් මල සහිත පුන් කලස - සෞභාග්‍යයමත් දේශය

4. Two springs - stems with leaves - Prolificacy and Fertility

පත්‍ර සහිත ශාඛාද්වය - ප්‍රවර්ධනය සහ සාම්ප්‍රදාය

5. Bloomong Lotus with 16 petals - Purity and Perfectness of the Science and Knowdge about the Universe

පිඤ්ඤා 16 කින් යුත් සුපිපි නෙළුම් මල - විශ්වය පිළිබඳ තත්‍ය වූ ද පරිපූර්ණ වූ ද සුපරිශුද්ධ ඥාන සම්භාරය

6. Couple of Swans holding the lightning lamp - Well-educated, skillful Intellectuals with love and compassion

පහන් වැඳ දරා සිටින නංසු යුග්මය - සුපරිශුද්ධ ඥාන සම්භාරයෙන් සුපෝෂිත කෘතභක්ත කුශලතපූර්ණ සබුද්ධික සත්ප්‍රජාව

7. Radiant Light - Wisdom

කිරණ මණ්ඩලය - ප්‍රඥාව

8. The Lion holding a sword in its right forepaw - sovereignty of Sri Lanka

කඟ පත සුරකින දරා සිටින සිංහ රූපය - ශ්‍රී ලාංකේය පරමාධිපත්‍යය

THE UNIVERSITY FLAG



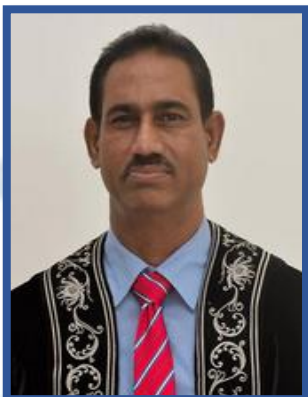
THE UNIVERSITY ANTHEM

දියනෙත කිරණින් පිබිඳෙයි දියනම
දියදම් මහිමෙන් ඔකඳයි භුවනම
දිවමන් වේ අප ලබනා විදුහර
දිදුළම් දෙරණක අබිමන් හරසර

විකුමැති දිවයුරු පියවරු බෝමා
පුද්දුන් විහිගුම් ගුණ නැත සීමා
ඉසිවර පහසින් ලද එළි බෝමා
සරසවි පියසට වැනි රන්දාමා

නිම්නැති සිරිසර පිරි අප උරුමේ
නිතියෙන් මුහුවෙත නව විදු අරුමේ
පිරිමෙසුමින් එළි ලබමින් නිබඳේ
දිවි දෙවනුව රකිනෙමු මේ මහිමේ

පබැඳුම : බන්දුල නානායක්කාරවසම්
සංගීතය : ජ්‍යෙෂ්ඨ මහාචාර්ය කෝලිත භානු දිසානායක



Registrar

Mr. B.A.N. Krishantha

MHRM (UoK), BCom (sp) (USJ), LICA (ICASL)

registrar@gwu.ac.lk



Bursar

Mr. C.G. Kothalawala

MBM (UoC), PgDBM (UoC), BCom (sp) [USJ], CPFA (London), SAT, CA

bursar@gwu.ac.lk



Librarian (Acting)

Dr. (Mrs.) Nayana Wijayasundara

PhD (Malaya), MLS (UoC), B.Sc. Engineering (Hons) (UoM)

librarian@sjp.ac.lk



Dr. N. T. B. Madusankha

Dean

PhD (Japan), MSc, BSc (Hons), ACIM (UK),
PgDip (M)SLIM, Dip (IT with e-Commerce)

The Faculty of Indigenous Health Sciences and Technology gives a rousing welcome to you, the first cohort of students to the newborn Gampaha Wickramarachchi University of Indigenous Medicine (GWUIM). You all are to embark on a groundbreaking scholarly journey enrolling to newly offered degree programs at a newly established state university, still inheriting an academic legacy which stood the test of time since 1929. The Faculty of Indigenous Health Sciences and Technology offers six in three departments:

Department of Indigenous Health Sciences, Department of Technology, and Department of Indigenous Medical Resources. Further, we serve extra- faculty undergraduate degree programs and postgraduate programs offered by the GWUIM playing an imperative role in institutional endeavors. As the academic staff of the faculty, we hold a solid determination to deliver you the best undergraduate learning experience with a view to craft your academic and professional personalities causing you to be universally employable, irrespective of the career avenue of your choice. This faculty has earned the coveted credentials to render you an all-embracing undergraduate education package to produce a highly competitive alumnus. We commit ourselves to deliver the best to the posterity of students keeping abreast of the academic and vocational dynamics beyond boundaries of the university.

On behalf of my faculty, I would like to invite you to join with the forward march of the GWUIM. The future is determined by the decision you take today.

I believe you have made the right decision.

I wish you all the good luck.

Dr. N. T. B. Madusankha

Dean – Faculty of Indigenous Health Sciences and Technology

The Faculty of Indigenous Health Sciences and Technology is in the main university premises and its departments are located throughout the country. The faculty was initiated simultaneously with the establishment of the university in 2021. The faculty is offering three Bachelor of Honors degree programs and three Bachelor of Health Science Honors degree programs in a wide spectrum of subject areas. The Faculty of Indigenous Health Sciences and Technology generally enrolls 300 undergraduates annually. The faculty offers more than 200 course units through three departments. The aim of the faculty is to incorporate the indigenous knowledge and experiences into modern health concepts.

(a) Department of Indigenous Health Science

The Department of Indigenous Health Sciences plays a key role to enhance human health through indigenous health practices aligning with the mission of the university. It commits itself to render a high-quality learning environment and to promote innovative research culture in indigenous medical sciences to produce graduates equipped with knowledge and skills to cater the national and global needs. The department prioritizes to apply philosophical knowledge in scientific way for the betterment of human life.

(b) Department of Indigenous Medical Resources

The Department of Indigenous Medical Resources is committed to generate and disseminate of knowledge, skills and attitudes for developing and utilizing indigenous medicinal resources effectively and efficiently by recognizing the needs and values of future. The department offers two undergraduate degree programs which are particularly developed to fulfill the national and global requirements in the field of indigenous medicinal resources and indigenous pharmaceuticals.

(c) Department of Technology

The department enables and opens a plethora of opportunities for innovation by acting as a bridge between indigenous medicine and modern technology. The Department of Technology offers two highly demanded undergraduate degree programs that are particularly designed to fulfill the vast requirements of the respective industries in the present and foreseeable future. Department of Technology team includes outstanding academics and researchers from Indigenous Medicine, Biomedical Technology and Information Technology fields.



Vision

“To become a center of excellence in facilitating multi-disciplinary innovative research and education, blending the strengths of indigenous medicine with technology ”

Mission

“To maintain excellent standards of multi-disciplinary education and innovation by contributing for the development of the scopes of indigenous medicine while appreciating its unique socio-cultural values”

INTRODUCTION

This is a four years honours degree in Bachelor of Health Science Honours in Biomedical Technology (BHSc (Hons) in BMT) conducted by the Department of Technology, Faculty of Indigenous Health Sciences and Technology, Gampaha Wickramarachchi University of Indigenous Medicine. The students who are qualified with noted z-score in Biosystems Technology and Engineering Technology streams of GCE A/L examination will be eligible to apply for this programme. In the present, Modern medicine domains have been developed hugely with the combination of biomedical technology in every field such as diagnosis, curative procedure, etc. Where the technologies have been updated very frequently. Unfortunately, due to lack of scientific validation of various concepts, the indigenous medicine is trailing. Hence indigenous medicine needs further advancements to develop in the healthcare system also with the help of biomedical technology. This Bachelor of Health Science Honours in Biomedical Technology Degree Programme (BHSc (Hons) in BMT) is presented to bridge the gap between indigenous medicine and technology by playing a significant role in improving human health in the current era in medical ingeniousness with the help of current and future technological innovation

GOAL

To produce professionals and entrepreneurs capable of developing a technology-based consolidated solution that requires indigenous medicine and peripheral biomedical technology systems.

OBJECTIVES

To advance the highest standards of quality of education, innovation, and research in critical areas by contributing its services and resources needs to the development of indigenous medicine with the revolution in hospitals and relevant industries while appreciating the social, cultural, and economic values of disciplines.

Bachelor of Health Science Honours in Biomedical Technology

GRADUATE PROFILE

The graduates of the discipline of Biomedical Technology of Gampaha Wickramarachchi University of Indigenous Medicine, Sri Lanka will be effective communicators and team players equipped with comprehensive multi-disciplinary knowledge on the fundamental concepts, principles, practices and technology relevant to biomechanics and biomaterials, medical informatics, medical instrumentation, biomedical applications, human-computer interaction; skills to technology device-based approaches to meet end-user needs and solve real-world problems in indigenous medicine healthcare systems paying due attention to the psycho-social, cultural, economic, infrastructural, and ethical factors affecting resourceful device applications, enhance the networking informatics as well as routine operations related to biomedical applications and attitudes to continuously improve knowledge and skills through life-long learning to provide updated services; also bridging the gap between the eastern and western practices in the biomedical sector.

INTENDED LEARNING OUTCOMES

Upon successful completion of four academic years of this Bachelor of Health Science Honours in Biomedical Technology (BHSc (Hons) in BMT) degree programme, the graduate will be able to,

1. approach technologically to address broadly defined real-world problems in medicine using biomedical instruments.
2. utilize the materials and related instruments used in indigenous medicine and modern medicine with the help of clinical practice.
3. be competent in the ethical and legal principles of indigenous medicine.
4. effectively communicate and work as a team-player
5. build a good relationship between patients and pave the way to successful diagnosis and treatment.
6. design and implement new biomedical equipment or solutions for use in small and large-scale healthcare systems.

INTENDED LEARNING OUTCOMES CONTD...

7. analyze, plan, implement and manage everyday operations of biomedical applications and instrumentation used in the healthcare industry for critical and effective decision making.
8. create innovation to improve the quality of life using biomedical technology in medicine.
9. plan and conduct research and test new procedures related to biomedical technology methods in the scopes of indigenous medicine.

DEPARTMENT AND COURSES

The Faculty of Indigenous Health Sciences and Technology of Gampaha Wickramarachchi University Indigenous Medicine offers a Bachelor of Health Science Honours in Biomedical Technology (BHSc (Hons) in BMT) Degree Programme in collaboration with different departments of the other faculties of the University.

The syllabus and curriculum are structured on a course system, which runs in academic semesters. The duration of a semester is 15 weeks. A course is a subject module bearing a credit value. A credit is a time based quantitative measure excluding the independent learning hours used in calculating the grade point average.

The course modules are organized at four academic years namely year 1, year 2, year 3 and year 4.

INTRODUCTION

The Bachelor of Health Science Honours in Health Information and Communication Technology programme is a four-year fulltime study programme consisting of a wide spectrum of courses offering practical training to produce talented graduates capable of making significant contributions for the Sri Lankan healthcare system especially in the domain of indigenous medicine. Soon after their 3rd year, all the undergraduates are expected to have an internship in relevant field, for a minimum period of 4 months. This internship is designed as a training period during which the students will have the opportunity to undergo professional experience in real world working environment. All the 4th year lectures are going to be scheduled in weekends or as online lectures, allowing the undergraduate student to start a relevant research even during their internship period.

GOAL

To produce professionals and entrepreneurs capable of developing ICT based consolidated solutions for the requirements in indigenous medicine and peripheral healthcare systems.

OBJECTIVES

To advance the highest standards of quality of education, innovation, and research in critical areas by contributing its services and resources needs to the development of indigenous medicine with the revolution in hospitals and relevant industries while appreciating the social, cultural, and economic values of disciplines

Bachelor of Health Science Honours in Health Information and Communication Technology

GRADUATE PROFILE

The graduates of the discipline of Health Information and Communication Technology of Gampaha Wickramarachchi University of Indigenous Medicine, Sri Lanka will be effective communicators and team players equipped with comprehensive multi-disciplinary knowledge on the fundamental concepts, principles, practices and technology relevant to health information management systems, mobile applications, remote communication, interactive web designing, cloud computing, big data; skills to ICT based approaches to meet end-user needs and solve real world problems in indigenous medicine healthcare systems paying due attention to the psycho social, cultural, economic, infrastructural, and ethical factors affecting health related information and communication systems/channels, enhance the smart-device based Information and communication services in healthcare as well as routine operations related to computerized administrative systems in healthcare; and attitudes to continuously improve knowledge and skills through life-long learning to provide updated services.

INTENDED LEARNING OUTCOMES:

Upon successful completion of four academic years of this Bachelor of Health Science Honours in Health Information and Communication Technology programme, the graduate will be able to,

1. Derive ICT based approaches to real-world problems in indigenous medicine healthcare systems.
2. Fulfil the end user needs in a wide variety of healthcare especially in the scopes of indigenous medicine.
3. Access and appropriately upgrade everyday operations related to computerized administrative systems in the context of healthcare, by evaluating, planning,
4. implementing and managing computerized administrative systems.

INTENDED LEARNING OUTCOMES CONTD...

5. Design and develop multimedia and hypermedia applications to enhance the smart-device based information and communication services in healthcare.
6. Implement online/offline smart IT applications using secured databases.
7. Adhere to principles of psycho-social, cultural, economic, infrastructural, and ethical factors affecting health related information and communication systems/channels.
8. Be effective communicators and team players with relevant soft skills.
9. Enhance relevant skills through life-long learning and research according to the emerging needs and trends.

DEPARTMENTS AND COURSE:

The Faculty of Indigenous Health Science and Technology of Gampaha Wickramarachchi University Indigenous Medicine offers Bachelor of Health Science Honours in Health Information and Communication Technology Programme in collaboration with the Faculty of Indigenous Medicine and the Faculty of Social Sciences and Management in the proposed university.

The curriculum is structured based on course unit system and extends through 08 academic semesters. The duration of a semester is 15 weeks. The volume of learning at each level is described in terms of credits, where one credit is considered equivalent to 50 notional learning hours for a taught course, laboratory studies course or field studies.

The course modules are organized at four academic years namely year 1, year 2, year 3 and year 4.



Dr. Y.H.P.S.S. Pathirathna

Head of the Department – Department of Technology

Ph.D. (NZ), MSc.IT (UK), MBA (IND), Pg. Dip in Computer Applications (IND), BSc.IT (UK), MIIE, MBCS, MIEE, MICERD, MICDE, MCT, MCTS, CCAI, Dip in Technology Teacher Education (Canada)

Welcome to the Department of Technology. This department is dedicated to building knowledge and skills in Health ICT and Biomedical Technology. These Subject areas are the most flourishing disciplines that cultivate at the crossroad of new trends in the Health Care Sector.

The advanced teaching methods used in our programs help our students to gain the knowledge and skills required for success in their chosen fields and create a portfolio of work that they can present to potential employers. The department of technology is committed to providing health care and ICT educational opportunities in formats that meet the needs of our students including face-to-face as well as innovative distance and hybrid methods. By combining the most futuristic teaching modalities with state-of-the-art technology, our students are assured of receiving a comprehensive educational experience.

Students will be taught by an expert and diverse panel of highly qualified academics who are recognized nationally and internationally as being at the forefront of their subject and who incorporate the very latest thinking and discoveries directly into our courses and research.

The Department values research excellence and innovation, as we believe these are key components needed to create technological products that can boost industrial productivity and lower the societal challenges faced by Sri Lanka.

Dr. Shalika Pathirathna

Head of the Department – Department of Technology



Dr. Y.H.P.S.S. Pathirathna

PhD (NZ), MSc IT (UK), MBA (IND), PgDip in Computer Applications (IND), BSc IT (UK), MIIE, MBCS, MIEE, MICERD, MICDE, MCT, MCTS, CCAI, Dip in Technology Teacher Education (Canada)

Senior Lecturer (Grade I)

Head of the Department – Department of Technology

Research Interests: Applied ICT, Software Engineering, ICT in Education



Lt.Col. Dr. Asanka Pallewatta

PhD (Denmark), MEng (Japan), BEng (Japan), Diploma in Diplomacy (Sri Lanka), Diploma in Fashion Design (Sri Lanka).

Senior Lecturer (Grade I)

Research Interests: - Biomedical Technology, Nanotechnology, Sustainable Engineering, Science Diplomacy

asanka@gwu.ac.lk



Dr. D.A.N.D. Daranagama

DEng (Japan), MEng (Japan) BSc (Special) in Botany (UoK), CIMA ADV DIP in Management Accounting

Senior Lecturer (Grade II)

Research Interests: - Enzyme technology, Gene engineering, Protein characterization, Microbial fermentation, Medicinal plants, Biomedical technology

nayani@gwu.ac.lk



Mrs. S. E. Alahakoon

MPhil (UoM), BSc (Special) in Applied Electronics (WUSL), Dip (IT with e-Commerce)

Lecturer (Probationary)

Research Interests: - Fiber optics, Electronics, Internet of Things, Biomedical technology, Communication Technology

sachi@gwu.ac.lk



Mrs. B. L. K. A. Balasooriya

MPhil (Reading) (UoM), BEng in Biomedical (India)

Lecturer (Probationary)

Research Interests: - Biomedical Engineering, Medical Image Processing, Medical Instrumentation, Machine Learning, Embedded system, Biomechanics, Medical Imaging

kasuri@gwu.ac.lk



Ms. T.H.A.S.H. Niranjala

MIT (Reading) (UoC), BSc in Business Information Technology (RUSL)

Lecturer (Probationary)

Research Interests: - Information Systems, Business computing, Big data analytics

shyama@gwu.ac.lk



Ms. N.K. Ranasinghe

**MSc (Reading) (SLIIT), BSc (Hons) in Information Technology
Special in Software Eng. (SLIIT)**

Lecturer (Probationary)

Research Interests: - Machine Learning, Cyber Security, Health Informatics, Software Engineering

naduni@gwu.ac.lk



Mr. D.M.C. Dissanayake

**B.Sc. (Special) in Computing & Information Systems (SUSL),
GradDip in Electronic & Telecommunication Engineering
(Reading), CCNA (Routing and Switching – 200-125)**

Lecturer (Probationary)

Research Interests: - Wireless Communication, Machine Learning

NON-ACADEMIC STAFF OF THE DEPARTMENT OF TECHNOLOGY



Mrs. I. U. Wijethungaarachchi

Assistant Regisar

arfiht@gwu.ac.lk



Mrs. Yashomi Hemishika

Management Assistant



Ms. H.P.M.H. Weerakoon

Management Assistant (Dean's Office)

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

Bachelor of Health Science Honours in Biomedical Technology (BHSc (Hons) in BMT)

(a) Curriculum Background of BHSc (Hons) in BMT Degree Programme

YEAR I of BHSc (Hons) in BMT study programme spans within a period of two semesters (30 weeks of academic activities). YEAR I of the study is dedicated to providing the undergraduates with the necessary knowledge in the basics of Ayurveda together with English, Mathematics, and programming subjects. Subject modules offered from the 2nd semester of the program aimed at providing a well-balanced technology-oriented subject knowledge with practical skills required for various purposes in medical fields. YEAR 2 begins with the applied aspects of Biomedical Technology, Information and Communication Technology, and Management. The graduate will be able to gain knowledge about Instrumentation and Networking, management in this year. YEAR 3 of BHSc (Hons) in BMT curriculum focuses on generating knowledge and skills, mini projects for applications in Biomedical Technology. Hands-on experience in the management of Biomedical Technology and the opportunity to solve encountered issues in the field of study is given during the study period of YEAR 4.

b) Notation of Course Units and Abbreviations used

All the courses are assigned a code number to indicate the following:

COURSE CODE	-	BHBM 00000
First four letters	-	Name of the Degree (BHBM)
First Digit	-	Year of Study
Second Digit	-	Semester of each Year (1=1 st semester, 2=2 nd semester, 3 = either first semester or second semester, 4= in both semesters)
Third and fourth Digit	-	Serial number of course unit in the relevant semester
Fifth Digit	-	Credit value

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

(b) Notation of Course Units and Abbreviations used contd.

ABBREVIATIONS IN COMMON COURSE CODES

COURSE CODE - ABCD 00000

First four letters	-	Name of the Subject Category
First Digit	-	Year of Study
Second Digit	-	Semester of each Year (1=1 st semester, 2=2 nd semester, 3= either first semester or second semester, 4= in both semesters)
Third and fourth Digit	-	Serial number of the subject in relevant category
Fifth Digit	-	Credit value

ABBREVIATIONS OF SUBJECT CATEGORIES

FIHS	Fundamentals of Indigenous Health Sciences
FMGS:	Fundamentals of Management Studies
FICT:	Fundamentals of Information Communication Technology
APST	Applied Statistics
MYMH	Music, Yoga and Meditation for Health Practices
ENGL	English Language
GWCG:	Gampaha Wickramarachchi University of Indigenous Medicine, Carrier Guidance Centre

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

Bachelor of Health Science Honours in Health Information and Communication Technology (BHSc (Hons) in HICT)

(a) Curriculum Background of BHSc (Hons) in HICT Degree Programme

YEAR I of BHSc (Hons) in HICT study programme spans within a period of two semesters (30 weeks of academic activities). YEAR I of BHSc (Hons) in HICT curriculum begins with a study of Fundamentals of Indigenous Medicine, together with Mathematics and Programming subjects. Supplementary courses will be offered to enhance the language skills and professional skills. The YEAR 2 of BHSc (Hons) in HICT curriculum begins with applied knowledge of Information and Communication Technology, Programming. Supplementary courses in Language, professional skills and Management will be provided to enhance competencies and values of the graduate. YEAR 3 of BHSc (Hons) in HICT curriculum focus on generating knowledge and skills on therapeutic applications health ICT. Hands on experience in the management of Information and communication technology and the opportunity to solve encountered issues in the field of study will be given during the study period of YEAR 4 of BHSc (Hons) in HICT curriculum.

b) Notation of Course Units and Abbreviations used

All the courses are assigned a code number to indicate the following:

COURSE CODE	-	HICT 00000
First four letters	-	Name of the Degree (BHBM)
First Digit	-	Year of Study
Second Digit	-	Semester of each Year (1=1 st semester, 2=2 nd semester, 3 = either first semester or second semester, 4= in both semesters)
Third and fourth Digit	-	Serial number of course unit in the relevant semester
Fifth Digit	-	Credit value

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

(b) Notation of Course Units and Abbreviations used contd.

ABBREVIATIONS IN COMMON COURSE CODES

COURSE CODE -	ABCD 00000
First four letters	- Name of the Subject Category
First Digit	- Year of Study
Second Digit	- Semester of each Year (1=1 st semester, 2=2 nd semester, 3= either first semester or second semester, 4= in both semesters)
Third and fourth Digit	- Serial number of the subject in relevant category
Fifth Digit	- Credit value

ABBREVIATIONS OF SUBJECT CATEGORIES

FIHS	Fundamentals of Indigenous Health Sciences
FMGS:	Fundamentals of Management Studies
FICT:	Fundamentals of Information Communication Technology
APST	Applied Statistics
MYMH	Music, Yoga and Meditation for Health Practices
ENGL	English Language
GWCG:	Gampaha Wickramarachchi University of Indigenous Medicine, Carrier Guidance Centre

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

Elective Course Unit Selection

Two degree programs of the department offer elective subjects. Students should select elective subjects based on their subject interest. Some elective subjects consist both theory and practical components. If any student selects such a subject, he or she must select both theory and practical component. Students can use following guidelines for the elective course selections.

For Bachelor of Health Science Honours in Biomedical Technology

YEAR 3 - SEMESTER I

Elective Applied Expertise Knowledge Development (Select Any 2 out of 3)

BHBM 31072	Introduction to Nuclear Medicine & Radiotherapy
BHBM 31082	3D Modelling and Animation
BHBM 31092	Medical Robotics and Automation

YEAR 3 - SEMESTER II

Elective Applied Expertise Knowledge Development (Select Any 1 out of 3)

BHBM 32082	Film-Making for eContent Development
BHBM 32092	Natural Hazards and Disaster Management
FMGS 32052	Supply Chain Management

YEAR 4 - SEMESTER I

Elective Expertise Knowledge Development (Select Any 2 of Theory –Practical-combinations out of 6)

BHBM 41032	Internet of Things (IoT) for BMT Applications
BHBM 41041	Internet of Things (IoT) for BMT Applications -Practical
BHBM 41052	Automatic Learning and Pattern Recognition
BHBM 41061	Automatic Learning and Pattern Recognition - Practical
FMGS 41082	Service Quality Management
FMGS 41091	Service Quality Management - Practical

KEY TO UNDERSTAND THE STRUCTURE OF DEGREE PROGRAMMES

For Bachelor of Health Science Honours in Health Information and Communication Technology

YEAR 2 - SEMESTER II

Elective Expertise Knowledge Development (Select only 2 out of 3)

HICT 22052	Journalism for HICT
HICT 22062	Digital Photography for eBusiness
HICT 22072	Human Resource Management (HRM) for Medical Administration

YEAR 3 - SEMESTER II

Elective Applied Expertise Knowledge Development (Select Any 2 out of 4)

HICT 32072	Wireless Communication in HICT
HICT 32082	Film-Making for eContent Development
HICT 32092	Natural Hazards and Disaster Management
FMGS 32052	Supply Chain Management

YEAR 4 - SEMESTER I

Elective Applied Expertise Knowledge Development (Select Any 2 of Theory –Practical-combinations out of 4)

HICT 41042	Artificial Intelligence for HICT
HICT 41051	Artificial Intelligence for HICT Practical
HICT 41061	Internet of Things (IoT) for HICT
HICT 41072	Internet of Things (IoT) for HICT Practical
HICT 41082	Automatic Learning and Pattern Recognition
HICT 41091	Automatic Learning and Pattern Recognition Practical
FMGS 41082	Service Quality Management
FMGS 41091	Service Quality Management Practical

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 1 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 11012	Basic Mathematics for Technology	2	—	30	-	70
BHBM 11022	Foundations of Human Biology	2	—	30	-	70
BHBM 11031	Foundations of Human Biology - Practical	1	—	-	45	05
BHBM 11042	Basic Electronics and Circuits	2	—	-	90	10
Essential Fundamental Knowledge Development						
BHBM 11051	Biomedical Technology for Indigenous Medicine	1	—	15	-	35
FIHS 11013	Fundamentals of Indigenous Medicine	3	—	45	-	105
FMGS 11012	Fundamentals of Management	2	—	30	-	70
Life Skills Development						
ENGL 11011	English Language Skills I	1	—	15	-	35
ENGL 11021	English Language Skills I - Practical	1	—	-	45	05
GWCG 11011	Life & Professional Skills Development - I	—	1	15	-	35
Total (Semester I)		15	1	180	180	440

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 1 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 12012	Fund. of 2D Engineering Drawing with CAD	2	—	-	90	10
BHBM 12022	Fund. of Medical Informatics and Programming	2	—	-	90	10
Essential Fundamental Knowledge Development						
BHBM 12033	Environment and Public Health	3	—	45	-	105
BHBM 12042	Basic Human Anatomy and Physiology	2	—	30	-	70
BHBM 12051	Basic Human Anatomy and Physiology - Practical	1	—	-	45	05
FMGS 12022	Principles of Marketing	2	—	30	-	70
FIHS 12042	Basic Health Concepts	2	—	30	-	70
Life Skills Development						
ENGL 12051	English for Technology	1	—	15	-	35
MYMH 12011	Music, Yoga and Meditation for Health Practices	—	1	-	45	05
GWCG 12021	Life & Professional Skills Development - II	—	1	-	45	05
Total (Semester II)		15	2	150	315	385
Total Year 1		30	3	330	495	825
				1650		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 2 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 21012	Chemical Sensors and Biosensors	2	—	30	-	70
BHBM 21022	Introduction to Medical Instrumentation	2	—	30	-	70
BHBM 21031	Introduction to Medical Instrumentation - Practical	1	—	-	45	05
BHBM 21042	Biomechanics and Biomaterials	2	—	30	-	70
BHBM 21052	Data Communication and Networking	2	—	30	-	70
BHBM 21061	Data Communication and Networking - Practical	1	—	-	45	05
Essential Fundamental Knowledge Development						
BHBM 21072	eHealth Fundamentals and Applications	2	—	30	-	70
BHBM 21081	eHealth Fundamentals and Applications - Practical	1	—	-	45	05
BHBM 21091	Biochemistry	1	—	15	-	35
BHBM 21101	Biochemistry - Practical	1	—	-	45	05
Life Skills Development						
GWCG 21031	Life & Professional Skills Development - III	—	1	-	45	05
Total (Semester I)		15	1	165	225	410

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 2 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 22012	Advanced Medical Instrumentation and Biomedical Simulations	2	—	30	-	70
BHBM 22021	Advanced Medical Instrumentation and Biomedical Simulations - Practical	1	—	-	45	05
BHBM 22032	Human Computer Interaction (HCI)	2	—	-	90	10
Essential Functional Expertise Knowledge Development						
BHBM 22042	Introduction to Biotechnology	2	—	30	-	70
BHBM 22051	Introduction to Biotechnology - Practical	1	—	-	45	05
BHBM 22062	Medical Image Processing and Radiation Diagnostics	2	—	-	90	10
BHBM 22071	Hospital Safety and Management	1	—	15	-	35
Application Competency Development						
APST 22032	Applied Statistics for BMT	2	—	-	90	10
Life Skills Development						
FMGS 22031	Business Communication	1	—	15	-	35
FMGS 22041	Business Communication - Practical	1	—	-	45	05
GWCG 22041	Life & Professional Skills Development - IV	—	1	-	45	05
Total (Semester II)		15	1	90	450	260
Total Year 2		30	2	255	675	670
				1600		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 3 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 31012	Advanced Mathematics for BMT	2	—	30	-	70
Essential Applied Expertise Knowledge Development						
BHBM 31022	Cardiac and Neuro Technology	2	—	30	-	70
BHBM 31031	Cardiac and Neuro Technology - Practical	1	—	-	45	05
BHBM 31042	Applications of Indigenous Medicine for Biomedical Technology	2	—	30	-	70
Analytical Competency Development						
BHBM 31051	Results-based Project Analysis & Management - I	1	—	15	-	35
BHBM 31063	BMT Mini Project – I	3	—	-	150	-
Supplementary Choice Subjects						
Elective Applied Expertise Knowledge Development (Select Any 2 out of 3)						
BHBM 31072	Introduction to Nuclear Medicine & Radiotherapy	2	—	30	-	70
BHBM 31082	3D Modelling and Animation	2	—	30	-	70
BHBM 31092	Medical Robotics and Automation	2	—	30	-	70
Life & Hard Skills Development						
BHBM 31101	Integrated Learning Portfolio (ILP)	—	1	-	-	50
Total (Semester I)		15	1	165	195	440

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 3 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
BHBM 32011	Artificial Intelligence	1	-	15	-	35
BHBM 32021	Total Productive Maintenance (TPM)	1	-	15	-	35
BHBM 32032	Wireless Communication	2	-	30	-	70
BHBM 32042	Virtual, Augmented, Mixed and Extended Reality	2	-	-	90	10
BHBM 32052	Computer Hardware and Internet of Things	2	-	-	90	10
Analytical Competency Development						
BHBM 32062	Results-based Project Analysis & Management - II	2	-	30	-	70
BHBM 32073	BMT Mini Project – II	3	-	-	150	-
Supplementary Choice Subjects						
Elective Applied Expertise Knowledge Development (Select Any 1 out of 3)						
BHBM 32082	Film-Making for eContent Development	2	-	30	-	70
BHBM 32092	Natural Hazards and Disaster Management	2	-	30	-	70
FMGS 32052	Supply Chain Management	2	-	30	-	70
Life & Hard Skills Development						
BHBM 32101	Professional Ethics and Practices	-	1	15	-	35
BHBM 32111	Integrated Learning Portfolio (ILP)	-	1	-	-	50
Total (Semester II)		15	2	135	330	385
Total Year 3		30	3	300	525	825
				1650		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 4 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Essential Evaluation & Creative Competency Development						
BHBM 41012	Ergonomics and Engineering Design	2	-	30	-	70
BHBM 41021	Topical Issues & Trends	1	-	15	-	35
FMGS 41062	Business Planning & Venture Creation	2	-	30	-	70
Supplementary Choice Subjects						
Elective Expertise Knowledge Development (Select Any 2 of Theory –Practical-combinations out of 6)						
BHBM 41032	Internet of Things (IoT) for BMT Applications	2	-	30	-	70
BHBM 41041	Internet of Things (IoT) for BMT Applications Practical	1	-	-	45	05
BHBM 41052	Automatic Learning and Pattern Recognition	2	-	30	-	70
BHBM 41061	Automatic Learning and Pattern Recognition - Practical	1	-	-	45	05
FMGS 41082	Service Quality Management	2	-	30	-	70
FMGS 41091	Service Quality Management - Practical	1	-	-	45	05
Analytical Competency Development						
BHBM 41072	Research Methodology & Proposal Development	2	-	-	90	10
Life & Hard Skills Development						
BHBM 41082	Integrated Learning Portfolio (ILP)	2	-	-	-	100
Total (Semester I)		15	0	135	180	435

KEY COURSE STRUCTURE FOR BHSc (HONS) IN BMT

Year 4 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Industry Exposure & Job Content Skills Development						
BHBM 44018	Research Project	8	-	-	800	-
BHBM 42027	Internship	7	-	-	700	-
Total (Semester II)		15	-	-	1500	-
Total Year 4		30	1	135	1680	435
				2250		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 1 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
HICT 11012	Basic Mathematics for Technology	2	-	30	-	70
HICT 11022	Introduction to Computer Systems	2	-	30	-	70
HICT 11031	Introduction to Computer Systems Practical	1	-	-	45	05
HICT 11041	Introduction to Programming	1	-	15	-	35
HICT 11052	Introduction to Programming Practical	2	-	-	90	10
Essential Fundamental Knowledge Development						
FIHS 11013	Fundamentals of Indigenous Medicine	3	-	45	-	105
FMGS 11012	Fundamentals of Management	2	-	30	-	70
Life Skills Development						
ENGL 11011	English Language Skills I	1	-	15	-	35
ENGL 11021	English Language Skills I - Practical	1	-	-	45	05
GWCG 11011	Life & Professional Skills Development I	-	1	15	-	35
Total (Semester I)		15	1	180	180	440

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 1 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
HICT 12012	Object Oriented Programming	2	-	30	-	70
HICT 12022	Object Oriented Programming Practical	2	-	-	90	10
HICT 12032	Fundamental Statistics and Analytics	2	-	30	-	70
HICT 12043	Introduction to Health Information Management	3	-	45	-	105
Essential Fundamental Knowledge Development						
FMGS 1202	Principles of Marketing	2	-	30	-	70
Life Skills Development						
MYMH 12011	Music, Yoga and Meditation for Health Practice	1	-	-	45	05
ENGL 12051	English for Technology	1	-	15	-	35
GWCG 12021	Life & Professional Skills Development II	-	1	-	45	05
Total (Semester II)		15	1	180	180	440
Total Year 1		30	2	360	360	880
				1600		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 2 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
HICT 21011	Advanced Mathematics for Technology	1	-	15	-	35
HICT 21021	Advanced Mathematics for Technology Practical	1	-	-	45	05
HICT 21032	Computer Architecture and Operating Systems	2	-	30	-	70
HICT 21042	Database Systems for HICT	2	-	30	-	70
HICT 21051	Database Systems for HICT Practical	1	-	-	45	05
HICT 21062	Data Communication and Networking	2	-	30	-	70
HICT 21071	Data Communication and Networking Practical	1	-	-	45	05
Essential Functional Knowledge Development						
HICT 21082	Introduction to Biotelemetry	2	-	30	-	70
HICT 21091	Introduction to Biotelemetry Practical	1	-	-	45	05
HICT 21102	eHealth Fundamentals and Applications	2	-	30	-	70
Life Skills Development						
GWCG 21031	Life & Professional Skills Development III	-	1	-	45	05
Total (Semester I)		15	1	165	225	410

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 2 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Essential Functional Expertise Knowledge Development						
HICT 22013	Web Design and Development	3	-	-	135	15
HICT 22022	Data Structures and Algorithms	2	-	30	-	70
HICT 22031	Data Structures and Algorithms Practical	1	-	-	45	05
HICT 22041	2D Graphics Design	1	-	-	45	05
Elective Expertise Knowledge Development (Select only 2 out of 3)						
HICT 22052	Journalism for HICT	2	-	30	-	70
HICT 22062	Digital Photography for eBusiness	2	-	30	-	70
HICT 22072	Human Resource Management (HRM) for Medical Administration	2	-	30	-	70
Application Competency Development						
APST 22042	Applied Statistics for HICT	2	-	-	90	10
Life Skills Development						
FMGS 22031	Business Communication	1	-	15	-	35
FMGS 22041	Business Communication practical	1	-	-	45	05
GWCG 22041	Life & Professional Skills Development IV	-	1	-	45	05
Total (Semester II)		15	1	105	405	290
Total Year 2		30	2	270	630	700
				1600		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 3 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Core Mandatory Subjects						
Essential Applied Expertise Knowledge Development						
HICT 31012	Information System Design	2	-	30	-	70
HICT 31021	Information System Design Practical	1	-	-	45	05
HICT 31032	Cyber Security and Data Privacy	2	-	30	-	70
HICT 31041	Cyber Security and Data Privacy Practical	1	-	-	45	05
HICT 31051	Mobile Application Development	1	-	15	-	35
HICT 31062	Mobile Application Development Practical	2	-	-	90	10
HICT 31072	3D Modelling and Animation	2	-	-	90	10
Analytical Competency Development						
HICT 31081	Results-based Project Analysis & Management -I	1	-	15	-	35
HICT 31093	Mini Project – I	3	-	-	300	-
Life & Hard Skills Development						
HICT 31101	Integrated Learning Portfolio (ILP)	-	1	00	00	50
Total (Semester I)		15	1	90	570	290

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 3 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Essential Applied Expertise Knowledge Development						
HICT 32011	Mobile Communication for Emergency Services	1	-	-	45	05
HICT 32022	Web Application Development	2	-	-	90	10
HICT 32031	Cloud Computing and Big Data in HICT	1	-	-	45	05
HICT 32042	Virtual, Augmented, Mixed and Extended Reality	2	-	-	90	10
Analytical Competency Development -						
HICT 32052	Results-based Project Analysis & Management -II	2	-	30	-	70
HICT 32063	Mini Project – II	3	-	-	300	-
Supplementary Choice Subjects						
Elective Applied Expertise Knowledge Development (Any 2 out of)						
HICT 32072	Wireless Communication in HICT	2	-	-	90	10
HICT 32082	Film-Making for eContent Development	2	-	-	90	10
HICT 32092	Natural Hazards and Disaster Management	2	-	30	-	70
FMGS 32052	Supply Chain Management	2	-	30	-	70
Life & Hard Skills Development						
HICT 32101	Professional Ethics and Practices	-	1	15	-	35
HICT 32111	Integrated Learning Portfolio (ILP)	-	1	-	-	50
Total (Semester II)		15	2	75	660	265
Total Year 3		30	3	165	1230	555
				1950		

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 4 – Semester I

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Essential Evaluation & Creative Competency Development						
HICT 41011	Topical Issues & Trends in HICT	1	-	15	-	35
HICT 41022	Research Methodology	2	-	30	-	70
HICT 41032	Research Proposal Development	2	-	-	90	10
FMGS 41062	Business Planning & Venture Creation	2	-	30	-	70
Supplementary Choice Subjects						
Elective Applied Expertise Knowledge Development (Select Any 2 of Theory –Practical-combinations out of 4)						
HICT 41042	Artificial Intelligence for HICT	2	-	30	-	70
HICT 41051	Artificial Intelligence for HICT Practical	1	-	-	45	05
HICT 41061	Internet of Things (IoT) for HICT	1	-	15	-	35
HICT 41072	Internet of Things (IoT) for HICT Practical	2	-	-	90	10
HICT 41082	Automatic Learning and Pattern Recognition	2	-	30	-	70
HICT 41091	Automatic Learning and Pattern Recognition Practical	1	-	-	45	05
FMGS 41082	Service Quality Management	2	-	30	-	70
FMGS 41091	Service Quality Management Practical	1	-	-	45	05
Life & Hard Skills Development						
HICT 41102	Integrated Learning Portfolio (ILP)	2	-	-	-	100
Total (Semester I)		15	-	120	225	405

KEY COURSE STRUCTURE FOR BHSc (HONS) IN HICT

Year 4 – Semester II

Subject Code	Subject Name	GPA Credits	NGPA Credits	T	P	IL
Industry Exposure & Job Content Skills Development						
HICT 44018	Research Project	8	-	00	800	00
HICT 42027	Internship	7	-	00	700	00
Total (Semester II)		15	-	00	1500	00
Total Year 4		30	-	120	1725	405
				2250		

GRADE POINT VALUES AND GRADING CRITERIA

Grade Point Values and Credit Values of all registered Grade Point Average course units of the Bachelor of Health Science Honours in Biomedical Technology Degree programme & Bachelor of Health Science Honours in Health Information & Communication Technology Degree programme shall be taken into account in calculating the Grade Point Average (GPA) of the student.

Performance of a student on a credited course of study will be graded based on the total marks obtained for all assessment components of the course, out of one hundred.

Marks obtained in respect of a course unit will be graded according to the following grading system. A grade point value as indicated below is assigned to each grade. 'Grades' and 'Grade Points' will be assigned based on the marks obtained by the student according to the below given Table.

Range of Marks	Grade	Point Value
85 - 100	A+	4.0
70 - 84	A	4.0
65 - 69	A-	3.7
60 - 64	B+	3.3
55 - 59	B	3.0
50 - 54	B-	2.7
45 - 49	C+	2.3
40 - 44	C	2.0
35 - 39	C-	1.7
30 - 34	D+	1.3
25 - 29	D	1.0
00 - 24	E	0.0

Grade Point Average (GPA)

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values, which is determined by dividing the total credit-weighted Grade Point Value by the total number of credits. GPA shall be computed to the second decimal place.

Example: A student who has completed one course unit with two credits, three course units each of three credits and two course units each of 1 credit with grades A, C, B, D, C+ and A+ respectively would have the GPA of 2.48 as calculated below:

$$\begin{aligned}\text{Grade point average} &= \frac{(2 \times 4.0) + (3 \times 2.0) + (3 \times 3.0) + (3 \times 1.0) + (1 \times 2.3) + (1 \times 4.0)}{2 + 3 + 3 + 3 + 1 + 1} \\ &= \frac{32.3}{13}\end{aligned}$$

$$\text{GPA} = 2.48$$

Grade point values and credit values of all registered course units in a study programme of a student shall be taken into account in calculating the GPA, unless stated otherwise.

By-laws

Bachelor of Health Science Honours in Biomedical Technology

<https://gwu.ac.lk/images/Bylaw/FIHST/DT/BHBM.pdf>

Bachelor of Health Science Honours in Health Information and Communication Technology

<https://gwu.ac.lk/images/Bylaw/FIHST/DT/HICT.pdf>

The highly competitive environment in the biomedical and health IT industries has resulted in the rapid development of cutting-edge technology in Sri Lanka. Our degree programs will provide students with the knowledge and skills they need to excel in the biomedical and IT fields. After each semester, we offer at least one month of internship to students. This program adds value to the graduate's resume, which is useful when applying for a variety of other job opportunities in a variety of other industries. With those experiences, you can begin your career as a trainee or intern in the final semester and become an expert in the following local and international job areas.

Possible careers with BHSc (Hons) BMT degree include:

Medical Instrument specialist	Biotechnologist
Biomechanical/ Biomedical Technologist	Biomechanical/ Biomedical
Medical Data Analyst	Biomedical electronic technical
Medical coding specialist	Service technician- biomedical
Medical Application analyst	Radiology Technologist

Possible careers with BHSc (Hons) HICT degree include:

Health Information systems manager	Database Administrator
Medical Data scientist	Technical Officer
Patient Information Analyst	Other IT related careers
Medical Application Developer (Mobile / Web)	QA Engineer
Software Engineer	Network Engineer
UX Designer	Information Systems Analyst

01. Library

PANDITH G.P. WICKRAMARACHCHI MEMORIAL LIBRARY



Acting Librarian

Dr. (Mrs.) Nayana Wijayasundara

PhD (Malayasia), MLS (UoM), BSc. Engineering (Hons) (UoM)

The Library of the University is located in the Pandith G.P. Wickramarachchi Memorial Library Building. The main objectives of this Library include providing resources necessary for the three main pillars of the university: teaching, learning and research in Ayurveda, Indigenous Medicine, Medical Sciences, Health Science and other related disciplines. The Library is committed to providing excellent and innovative library services and products; it offers electronic resources with remote access and automate library functions enabling efficient and effective library services for the benefit of the entire University community.

For more information

Visit : <https://gwu.ac.lk/library/index.php>

02. Information & Communication Technology (ICT) Center



Coordinator

Mr. D.S.R. Wijewardane

BSc. Agri. (Hons) (UoR), MIT (UoC)

The ICT Centre is located on the second floor of the Multi-Purpose Building. This is a common Centre providing computer facilities and services to students, academic and non-academic staff of the University. The Centre consists of a main laboratory and is equipped with 100 computers, servers and other accessories.

Learning Management Systems (LMS)

Learning Management System (LMS) is a software application or web-based technology used to plan, implement and assess a specific learning process. It is used for eLearning practices and, in its most common form, consists of two elements: a server that performs the base functionality and a user interface that is operated by instructors, students and administrators.

Typically, a Learning Management System provides an instructor with a way to create and deliver content, monitor students' participation and assess student performance. A Learning Management System may also provide students with the ability to use interactive features such as threaded discussions, video conferencing and discussion forums.

Learning Management System (LMS) of the Gampaha Wickramarachchi University of Indigenous Medicine is a web-based application used to plan, implement and assess a university learning process via eLearning practices.

The functions of GWUIM LMS:

- knowledge management
- providing an interface to create, deliver content and monitor student's participation
- assessing student's performance while gathering, organizing, sharing, analyzing knowledge in terms of resources, documents and relevant skills.

Any user with a secure login and password can access the LMS and its online learning resources.

For more Information

Visit : <https://gwu.ac.lk/index.php/ict-centre>

03. Career Guidance Unit (CGU)



Coordinator

Lt.Col. Dr. Asanka Pallewatta (*Senior Lecturer (Grade I)*)

PhD (Denmark), MEng (Japan), BEng (Japan), Diploma in Diplomacy (Sri Lanka), Diploma in Fashion Design (Sri Lanka)

The Career Guidance Unit (CDU) of the Gampaha Wickramarachchi University of Indigenous Medicine was established with the objective of enhancing the quality of professional and soft skills of the students, while strengthening the link between the undergraduates and industrial sectors. The Unit supports the University in producing capable and employable graduates who are empowered to contribute positively to the development of relevant fields.

The Unit organizes workshops, seminars, Ayurveda clinics and entrepreneurship programmes from time to time to develop abilities and skills vital for undergraduates to cope with the needs of current Ayurveda sector and related industries to develop life-long learning ambitions. In addition, undergraduates who are looking forward to career opportunities in private sector including tourism industry, pharmaceutical industry, agricultural industry, bio medical industry, yoga centre and other treatment centers will be benefited from the Unit by making them aware of these opportunities as well as by providing them with necessary guidance for placement.

Further the work life highly searches for soft skills such as interpersonal skills, communication skills, presentation skills, time management, teamwork, and organizational abilities. The Career Guidance Unit helps the students of the University of Indigenous Medicine to develop these skills.

04. Medical Centre



Chief Medical Officer

Dr. (Mrs.) K.G.C. Dissanayake (*Senior Lecturer Grade I*)
MD (Ayur) Kayacikitsa (BHU- India), BAMS (Hons)(UoC)



Nursing Officer

Mr. H.S.K. Ariyaratne
Dip. in Nursing

The University Medical centre provides and coordinates all health requirements of university students. It is open from 8.00 a.m. to 4.00 p.m. during week days except public holidays. The medical forms for all new entrants are issued from the medical centre. Completion of this form is mandatory for all students. It also provides treatments including dental care.

When a student is absent from an examination or from tutorials, practical or clinical sessions a medical certificate issued from the medical centre or a medical certificate issued by a qualified medical practitioner has to be certified by the University Medical Officer before it is accepted.

05. The English Language Centre (ELTC)



Coordinator

Dr. S.A.R.R.P. Disanayaka (Senior Lecturer Grade I)

PhD (English) (UoK), MPhil (UoK), MA (KLN), BA (USJP)

palithad@gwu.ac.lk

The English Language Centre (ELTC) of the Gampaha Wickramarachchi University of Indigenous Medicine was established in 2021, under the guidance of the founding Vice-Chancellor, Senior Professor Janitha A. Liyanage. The centre was established with the aim of facilitating the English Language courses across the faculties in the GWUIM. In addition, the ELTC is committed to effectively addressing various other English language requirements of the University.

The English Language Teaching Centre is currently conducting courses for the Faculty of Indigenous Medicine and courses will be implemented for the undergraduates studying in the Faculty of Indigenous Health Science and Technology (FIHSST) and the Faculty of Indigenous Social Sciences and Management Studies (FISSMS) as well.

Moreover, the ELTC is conducting a preparatory course for new entrants from all the faculties. The ELTC will also conduct various other activities such as workshops and seminars to improve the communication skills of the undergraduates, using the resources such as the language laboratory.

In addition, numerous virtual English language study programmes and language support services are provided by the ELTC to the entire university, in order to uplift the English language knowledge of the students of the GWUIM.

06. Prof. Janitha A. Liyanage Central Laboratory



Coordinator

Dr. A.A.J. Pushpakumara (Senior Lecturer Grade I)

PhD (UoK), PGDHD- (UoC), MS (Ay.) (BHU - India), BAMS (Hons) (UoC)

Prof. Janitha A. Liyanage Central Laboratory of Gampaha Wickramarachchi University of Indigenous Medicine has been established for the integration of science based knowledge and skills for advancement of the Ayurveda Medicine.

Prof. Janitha A. Liyanage Central Laboratory take pride on the potential and capacity to enhance the facilities for the undergraduates, postgraduates and researchers to provide their needs for the success of their activities based on the developed technology and methodology.

The Central Laboratory of the University plays a vital role by facilitating to conduct practical classes and exams of undergraduate programmes and postgraduate studies. It also provides clinical testing service to internal and external patients of Ayurveda Teaching hospital. In addition, it involves in providing analytical laboratory facilities to industries and government bodies that is an income generating process to the institute.

The Central laboratory is equipped with a lot of sophisticated instruments such as gas chromatograph, spectrophotometers, centrifuges, rotary evaporators, incubators, etc.

Senior academics and skillful laboratory technical staff have been involved in academic and research works to enhance the knowledge and skills of undergraduate students and postgraduate students of the Institute.

Following services are provided by Central Laboratory,

- Facilitate to research works to undergraduates and postgraduate students
- Bio medical samples investigation and issuing reports
- Analysis of different samples on the request of industry

07. Student Welfare Division

Assistant registrar

Ms.Himanshi Darsha Madurapperuma
BSc.Mgt.(Sp.) (SJP), AMSLIM

INTRODUCTION

Prime responsibility of the Division is to provide a wide range of services to facilitate the students with their academic activities and enhance their skills and attitudes needed for the intellectual engagement with a view to achieve the goals of the university.

LOCATION

Student Welfare Division is located in the upstairs of the Maintenance office building block number-A18 adjacent to the Deans office of Faculty of Indigenous Medicine.

CONTACT DETAILS:

E mail -stuwelfare@gwu.ac.lk / arstuw@gwu.ac.lk

Telephone-033-2226618

Ext.-140,111

STUDENT AFFAIRS

1.1 Facilities provided for the students

1. Attend to all matters with regard to providing Hostel facilities to students from among first and final year students for every Academic Year
2. Attend to matters pertaining to providing Canteen Facilities for students and staff and Photocopying Service
3. Attend to matters relating to Student Unions, Societies and Associations
4. Coordinating matters pertaining to issuing Railway Season Tickets
5. Attend to matters with regard to Scholarships and providing financial assistance to needy students (Mahapola, Bursary and other scholarships)
6. Attend to preliminary work with regard to appointment of Senior Counselors, Student Counselors, Part time Sub Wardens and Academic Wardens

No.	Hostel Name	Address
1	Weediyawatte Wickramarachchi Ladies Hostel	Pahala Weediyawatte, Yakkala
2	Parakrama Ladies Hostel	No.1/10B, Ranveli Pedesa, Yakkala
3	Karunanayake Ladies Hostel	No.65/4, Kandy Road, Yakkala
4	Mahawita Boys' Hostel	No.20, Mahawita, Yakkala
5	Ranveli Boys' Hostel	No.1/3, Ranveli Pedesa, Yakkala
6	Samagimawatha Karunanayeke Boys' Hostel	No.18/19, Samagi Mawatha, Yakkala
7	Senevirathne Boys' Hostel	No.20/18, Samagi Mawatha, Yakkala

Hostels will be provided only for First year students and Final Year students.

Hostel Rules and Regulations

<https://gwu.ac.lk/index.php/welfare>

1.2 Scholarships

1.2.1 Mahapola Scholarships

Students who are eligible for Mahapola scholarship will receive a monthly installment approved by the Mahapola Trust Fund. Students receive 10 installments within an Academic Year.

1.2.2 Bursaries

The applications are called by the Student Welfare Division for the selection of suitable students for Bursaries. Students receive an approved stipend in 10 monthly installments within an Academic Year. The students who are not entitled to receive Mahapola or other scholarships are eligible to apply for a bursary.

Note: The University can suspend a scholarship or Award temporarily or permanently in the following instances.

- a) Inadequate Attendance on Lectures Tutorials or Practical.
- b) Disorderly Behavior Inside or Outside the University Premises.
- c) Non-Registration for the Academic Year
- d) Obtaining Employment (If a scholarship holder obtains an employment after registration to the University, it should be reported to the student affairs division)

Presentation of a valid university identity card is essential in claiming payments made under any form of financial assistance. The student affairs division should be notified immediately if a student ID is lost.

08. Physical Education Unit



Coordinator

Mr. B.A.N. Krishantha (Registrar)



Instructor in Physical Education (Grade III)

Mrs. R.A.L. Lakmini Rupasinghe

The ultimate goal of the sports and Physical Education programs is to facilitate sports experiences to the University community.

Sports Activities are organized by the Physical Education Unit. Every undergraduate is entitled to the facilities provided by the university and should make the best use of such facilities.

The university has a Gymnasium in which facilities for indoor games such as Volleyball, Badminton, Netball, Carom, Chess, Table Tennis, and Weight Lifting etc. This Gymnasium is open for students and University staff to use from 08.00 am to 6.30 pm on weekdays. And the university has a Strength Training Centre.

TRANSITION TO UNIVERSITY LIFE

Welcome to the Gampaha Wickramarachchi University of Indigenous Medicine, the 16th National University of Sri Lanka!

You are special to us, for you would be the very first batch of the newly established Faculty of Indigenous Health Sciences and Technology. As the first batch of graduates of this university, you will be the "ambassadors" who have the potential to carry the university name forward.

In this journey as an undergraduate, you will be able to transform your personality through searching for knowledge, developing skills personality and character with new experiences and challenges. Throughout this journey, you will become the master of your sail by taking responsibility and coping with new challenges.

Stepping into higher education differs vastly from the secondary school education you have received. University learning is not limited only to the books and extra reading material, yet there is a lot more to engage in. Ranging from sports and extra-curricular activities to career-oriented skills, university education involves more avenues that can be explored.

Codes of conduct:

GWUIM is a community where each has individual as well as a collective responsibility to behave in a way that utilizes your privileges while protecting and respecting mutual rights and properties. Whilst working to achieve your goals in your academic career, you should always be mindful not to invade the personal boundaries of another person. In addition, you should develop and present your personality in a way that is socially acceptable as a person with integrity who follows the social etiquettes.

In the university, you may get ample chances to explore the depths of knowledge and enhance your skills and competencies. Whilst experiencing that academic freedom, you should always meet the academic responsibilities that had been bestowed upon you.

In addition, handling the university property with care and utmost diligence is expected from each and every undergraduate. Nevertheless, you should work in a manner where you are adhering to the community health guidelines whilst improving the safety of everyone around you.

Academic Support

As an undergraduate, you have to follow your studies in the English medium and do your assignments in English as well. Most of the time, you may have to communicate with your lecturers in English. Hence, the responsibility of improving your English language skills lies on you. In order to support you to develop your skills, the English Language Teaching Centre is committed to helping you as well. Apart from that, you will receive IT-related services from the IT Centre of the university.

If you come across any issue regarding any course unit you follow, ensure to contact the course coordinator of the respective course unit. Each course unit offered by each department has a separate course coordinator and resource persons who will guide you to learn the course unit. However, university education differs vastly from your high school education. It is your sole responsibility to make your notes based on the lectures taught. Your lecturers may not constantly remind you of your assignment deadlines, yet it is your responsibility to submit assignments on time since the assignment marks will be calculated towards your final grade. Especially, when submitting an assignment, you have to be mindful of the subject-specific vocabulary and techniques of academic writing.

Ensuring the safety of students

University is a place where you meet hundreds of new individuals, who had come from different backgrounds. Yet, within the university, every student should work towards one goal: to achieve the best in their academic career.

In the university, there is a system of hierarchical relations between students, teachers, university authorities, and even the larger society. While living in such a system, we may experience manipulations that are psychological, physical, or political. Yet, try not to allow these manipulations to affect you personally and violate your boundaries. In such circumstances, the student counsellors

of the faculty are there to resolve your social, personal, and physiological concerns while protecting your privacy and being non-judgmental. The academic advisors of the faculty help you solve any matters with respect to the academic program.

Acclimatization to corporate and social life

It is always a novel feeling to enter the arena of higher education as an undergraduate. You will be exposed to numerous academic-related and extra-curricular activities in the university. Whatever the extra-curricular or academic activities you may do, your aim should be to be a "career-ready" graduate when you are graduating from the university.

Engaging in various extra-curricular activities and sports will truly be beneficial for you to get to know your fellow colleagues and develop your leadership and team working skills. Especially, those will be useful when you wish to apply for an occupation after graduation. Yet, always do remember to balance your extra-curricular activities and your academic life. At the end of the day, obtaining the degree with a higher score should be your topmost priority as well.

The GWUIM consists of a Career Guidance Unit (CGU) to support your next step to be a career-ready graduate. The CGU serves as a link between the university and the corporate sector to produce capable and employable graduates.

Financial support

When you are starting your academic journey as an undergraduate, sometimes you may have concerns regarding the necessary financial support required. In such instances, you can always contact the Student Welfare Division, in terms of obtaining details about available scholarships, such as the Mahapola Scholarship and Bursary.

This is the dawn of a brand-new chapter in your life, days you and your parents / guardians dreamt of you since you were a child. Now it is time for you to make the most out of your university life, whilst wisely managing your freedom. After all, "life is what you make it".

IMPORTANT CONTACT

Important person or Division	Contact No	Email
Registrar	0332215772	registrar@gwu.ac.lk
SAR-General Administration	0332222748	sargadmin@gwu.ac.lk
SAR- Examination	0332215826	exam@gwu.ac.lk examination@gwu.ac.lk
Academic Establishment Division	0332215827	officeacad@gwu.ac.lk sarae@gwu.ac.lk
Bursar	0332223785	bursar@gwu.ac.lk
Library	0333430420	librarian@gwu.ac.lk
Student Welfare	0332226618	stuwelfare@gwu.ac.lk arstuw@gwu.ac.lk
ICT Center	0332230719	ictc@gwu.ac.lk
English Language Teaching Center	0332222748	palithad@gwu.ac.lk
Faculty academic Adviser	gayathri@gwu.ac.lk / asanka@gwu.ac.lk	
Dean - FIHST	0332224916	deanfihist@gwu.ac.lk
HOD – Department of Technology	hodtech@gwu.ac.lk ,dep	
AR - FIHST	0332215144	arfihist@gwu.ac.lk

UNIVERSITY MAP



LEGEND

- A1- Statue
- A2- Director's Office
- A3- Multi Purpose building
Ground Floor-Dept. Dravyaguna &
Dept. Ayurveda Basic Principles
1st Floor-Dept. Basic Principles
2nd Floor-ICT Centre & Mini Auditorium
- A4- Main security Office
- A5- Kudalu Pokuna
- A6- Transformer Room
- A7- Generator Room
- A8- Bhaisajyagaraya
- A9- Lecture Hall building
Ground Floor-Plant Museum
1st & 2nd Floor- Lecture Halls
- A10- Library
- A11- Main Laboratory

- A12- Student Centre
Ground Floor-Canteen & Indoor Stadium
1st Floor-Gym & Medical Centre
2nd Floor-Main Hall
- A13- Academic Building (Under Construction)
- A14- Academic Building
Ground Floor-Dept. Shalya Shalakya,
Kaumārabhṛtya and *Strī Roga*
1st Floor-Dept. Cikitsa
2nd Floor- Graduate Studies Division
- A15- Kitchen
- A16- Vehicle Park
- A17- Green House
- A18- Ground Floor- Finance Division
1st Floor- Examinations & Student Welfare
- A19- Ground Floor- Maintenance
1st Floor-Administration
- A20- Reading Room
- A21- Gampaha Wickramarachchi Ayurveda
Hospital
- A22- Administration Building (Under Construction)



STUDENT

HANDBOOK

2020/2021

DEPARTMENT
OF
TECHNOLOGY

