#### SECTION-I

### **AWH Special College**

#### THE BACKDROP

The AWH Special College is a prestigious project of the Association for Welfare of the Handicapped. This Association, popularly known as AWH is a major charitable voluntary organization.

#### MOTTO

"Enlightenment through service"

#### MISSION

We are committed to educating self motivated academicians, geneticists, technical experts, scientists, social workers and health care professionals who are dedicated to serving the Indian and international community and also are capable of facilitating rehabilitation of people with all kinds of disabilities. We also envision our geneticists to be good genetic counselors.

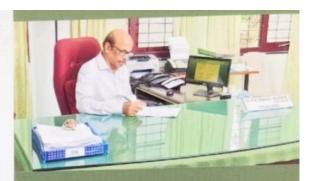
The AWH Special College was established in the year 1996 with BPT (Physiotherapy) and B.Sc (Computer Science) courses.

The BASLP course was added during the academic year 2001-2002 and MSW course was added in 2002-2003, MPT course was added during 2003-2004, B.Sc Geology was added in 2004-2005 and B.Sc Electronics in 2005-2006. B.Sc Genetics was added in 2005-2006 and MASLP in 2006-2007.

All these programmes have the administrative sanction of the Govt. of Kerala and are duly affiliated to the University of Calicut / the Kerala University of Health Sciences. BASLP and MASLP programmes are recognized by the RCI.

#### BUILDING

The AWH Special College is situated in a spacious and architecturally beautiful circular four storied building on the western side of Kallai Railway Station at Calicut. The College is functioning in a noise free, calm and sylvan surrounding and at the other end are the singing waves of the Kallai River fondling the shore.



Any plan of education should have a transformational process which not only educates the student, but also prepares him or her for a better future. Therefore our goal is to provide all students an academic experience that is demanding, rigorous, and of the highest quality-yet, one that is enjoyable and without compromising principles and values of higher education and professional education.

Learning begins in the classroom, but it continues outside as you take the knowledge you have gained in your classes and translate it into real-world applications. Therefore the emphasis is not only on memorization, grades or class rank, but also on critical thinking through participation in hypothesis-driven project work, development of strong clinical skills in the case of paramedical students and dedication to responsible, professional behavior. Our plan also includes generating the ideas that provide solutions to our challenging public problems and to train exceptionally good public leaders.

The undergraduate program we provide in Genetics is first of its kind in Kerala State. This program will open a new horizon in the study of the present disease management as well as in checking the onset of a lot of diseases as most of them have genetic predisposition.

I am happy that many of the physiotherapists, audiologists, speech pathologists, geologists, social workers and computer experts working in and out of India are qualified from this collage. This college has become internationally recognized centre of excellence.

I wish you a very bright future.

Dr. P K Abdul Kader Principal



### Association for Welfare of the Handicapped

Association for Welfare of the Handicapped (AWH) is a pioneering welfare organization centered in Calicut, Kerala. Special Education for mentally retarded and physically handicapped students, higher education and technical education are the prominent areas where attention is focused by the visionaries of AWH. All efforts are being made to make the institutions versatile, unique, and capable of participating in the process of social transformation.

AWH is committed to promoting and propagating quality education on par with international standards. Formed in 1973, and registered in 1975 under Societies Registration Act XXI of 1860; The AWH has at present 90 welfare institutions and projects and its beneficiaries exceed 10000 per annum.

Among the priorities of AWH there are programmes and projects for human resource development in the area of disability welfare. Special Education, Vocational Training, Medical Intervention and Economic Development are AWH's objectives. AWH is also interested in the adoption of latest technologies in disability management apart from providing BPT, B.Sc (Computer Science) BASLP, B.Sc Geology, B.Sc. Electronics, B.Sc Genetics, MPT, MSW and MASLP programs. The organization also conducts several other courses in the area of disability welfare management.

The Corporate Office of AWH is located at: 17/194 A, M' Square Complex Pavamani Road, Calicut- 673 001 Kerala, India Mob: 9497725022. Fax: 0495 2720028 E-mail: awhcalicut@gmail.com www.awhonline.com



#### **AWH Special College**

(Affiliated to the University of Calicut & Kerala University of Health Sciences)

Recognized by the Rehabilitation Council of India, New Delhi

21/10, Kallai, Calicut-673 003, Kerala, India Ph: 0495 2323526, 23232195, Fax: 0495 2325408 E-mail: awhkallai@awhspecialcollege.info, www.awhspecialcollege.info

#### Courses Offered

Course

Seal

B.P.T (Bachelor of Physiotherapy)	50
BASLP (Bachelor of Audiology and Speech	
Language Pathology)	30
B.Sc (Computer Science)	36
B.Sc (Electronics)	24
B.Sc (Genetics)	24
B.Sc (Geology)	24
MPT Neurology	5
MPT Musculo skeletal and sports	5
MPT Cardio respiratory	5
MPT Peadiatrics	5
MASLP (Master of Audiology & Speech	
Language Pathology)	10
MSW (Master of Social Work)	20

## SECTION - II Departments and study programmes



## DEPARTMENT OF PHYSIOTHERAPY



The Physiotherapy Department in AWH Special College was established in the year 1996 as a beacon light of hope in the emerging field of Physiotherapy education and practice. The College, during the past seventeen years, has gained a name in the profession inside an outside the state. Graduates from our Physiotherapy department are now serving the suffering humanity throughout the world validating the academic excellence they have acquired from here.

#### **Vision and Mission**

Physiotherapy has emerged as one of the most popular treatment method and has entered in every walk of today's life. The service of this young branch of medical science is used in all areas of alleviation from Pediatrics to Geriatrics. Physiotherapy joins hands with such branches of medicine as Neurology, Orthopaedics, Cardiology and Sports Medicine to heal and rehabilitate their patients to provide fitness. Its momentous role is widely appreciated today. The department envisions to bring out uniquely experienced and outstandingly trained Physiotherapy clinicians and academic experts who can be of immense use for the society. AWH aims at facilitating comprehensive and integrated development to individuals not only with excellent professional skills but also with self esteem and leadership qualities.

#### Academic programmes

#### 1. Bachelor of Physiotherapy (BPT)

The department offers a four years full time under graduate programme in Physiotherapy with six months internship. The course is affiliated to the Kerala University of Health Sciences (KUHS).

#### Eligibility

A pass in plus two / VHSE or equivalent examinations with 50% marks in Physics, Chemistry & Biology. Relaxation of marks for OBC, OEC, SC, ST students will be considered as per the university norms.

#### 2. Master of Physiotherapy (MPT)

The college provides four elective programmes of MPT namely

- 1. MPT Neurology
- 2. MPT Musculoskeletal and sports
- 3. MPT Cardiorespiratory
- 4. MPT Paediatrics

Each one is a two year full time post graduate programme in Physiotherapy and is conducted with an intention of developing human resource, to assume the leadership role in Physiotherapy, with enhanced patient care. It also formulates educational programme and undertakes research.

#### **Career Opportunities**

There are excellent job opportunities for Physiotherapists today in India and abroad.

Hospital settings, out-patient clinics, community setups, sports centres, rehabilitation schools and academic institutions are a few of the countless professional development areas in Physiotherapy.

Regular seminars on recent advances in Physiotherapy, workshop with the hands on training and community based Physiotherapy camps facilitate updating the functional efficiency and skill. Frequent lectures by pioneers of the profession would be a great experience and motivation for the students.

#### Eligibility

Candidates seeking admission to the course should have passed the BPT course of KUHS or BPT/B. Sc(PT) course of other Universities which are recognized by KUHS.



#### **DEPARTMENT OF**

## **AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY**

#### 1. BASLP (Bachelor of Audiology & Speech Language Pathology)

BASLP is a paramedical course of four years duration. The course is affiliated to the KUHS and recognized Rehabilitation Council of India (RCI).

#### Scope

A person on completing the course in the field of language pathology can work as Speech Pathologist as well as Audiologist. Since the speech and hearing is a developing branch of allied health sciences, its scope is wide spread. They can work in various settings such as:

- 1. Hospitals
- 2. Rehabilitation Centres
- 3. Private Clinics
- 4. Hearing aid centres & companies
- 5. Various industries
- 6. Special schools
- 7. Academic teaching & research
- 8. Forensic speech pathology & audiology

There is an acute scarcity of these professionals and has very high demand in India and abroad.



#### **Programme Structure**

#### 1"Year

 Introduction to Speech Language Pathology and Diagnostics and Therapeutics . Introduction to A and Audiological Evaluation . Anatomy, Physical Pathology of Speech and Hearing System . Bio Instrumentation and Acoustics . Linguistics, Ph and Language Sciences . Psychology related to and Hearing . Genetics, Neurology, Pa Clinical Practicum-Speech Language Parent Clinical Practicum Audiology

Normal and abnormal aspects of articulation and its Disorders . Normal and abnormal aspects of Diagnostic Audiology \* Part A: Educational Audional Audiona Audiona Audiona Audiona Audiona Audiona and Rehabilitative Audiology & Otolaryng Statistics and Research Methods & epidemiology in speech and hearing . Clinical Practicum-Speech Language Pathology . Clinical Practicum-Audiology

 Motor Speech Disorders
 Child Language Disorders Aphasia and other Language Disorders
 Hearing Aids Pediatric Audiology
 Environmental Audiology Part A: Scientific Enquiry in Speech and Hearing. Part B: Organization and Administration of Speech and Hearing Centres . Clinical Practicum-Speech Language Pathology . Clinical Practicum Audiology

#### Eligibility

A pass in plus two, VHSE or any equivalent examination with 50% marks in Physics, Chemistry, Biology / Mathematics. For SC, ST, and OEC/OBC candidates the minimum shall be 45% marks.

This is a four year course. The examination will be conducted by the KUHS at the end of each year in theory and practical. The candidate should have completed age of 17 on the date of admission and the upper age limit for the general candidates is 21 years and for SC/ST is 23 years.

















#### 2. MASLP (Master of Audiology and Speech Language Pathology)

This is a two year Post Graduate program. The Audiology department has a well equipped Audiology lab with all the facilities for a detailed audiological evaluation. It has been rated as one of the best audiological labs in Kerala. There are also facilities for hearing aid prescription, ear mould making and hearing aid repair. The lab has a Diagnostic Audiometer, Middle ear Analyzer. Paediatric audiometer, Brain stem evoked response audiometer Otoacoustic emission test

instrument, ASSR and Hearing aid analyzer. These sophi sticated instruments are especially useful in detecting hea ring loss in new borns and multiple handicapped

The speech department has all the test materials to carry out detailed evaluations for various speech and language disorders. Speech therapy is presently provided for various speech and language disorders with minimal charges. Good clinical exposure will be provided in the Department of Audiology and Speech Language Pathology at AWH Special College. They will also undergo postings in other rehabilitation centers of AWH.

Admission criteria: BASLP/B.Sc

(Sp & Hg)/or equivalent from any recognized University in India with minimum pass percentage required as per University or RCI norms.

Medium of instruction: English

Duration of the Course: Two academic years

Course work: Student should pursue the course as

given in the enclosed course curriculum.

Award of Degree: The respective University on successful completion of the requirements will award the degree.

Criteria of passing: Minimum marks for pass in each paper will be 50% (50% external and 50% internal) and practicum will be (50% external and 50% internal).

Attendance: Each year shall be taken as a unit for purpose of calculating attendance and a student shall be considered to have

put in required attendance for the year, if he/she has attended not less than 80% of the number of working periods (lectures, seminars) and 90% of clinics during each year. Failures to put in / meet the required attendance by any student render him / her disqualified to appear in the University examination. The candidate who will not be able to take examination for want of attendance will be declared as Failed and will have to repeat the exam subsequently by putting in required attendance. Shortage of attendance can be condoned in genuine cases of absenteeism as per rule and guidelines of respective University.





# **DEPARTMENT OF**

#### Master of Social Work (MSW)

#### Course structure

The MSW course is of two years duration. organized in four semesters with specialization in

- 1. Family and child welfare
- 2. Community development
- 3. Medical and psychiatric social work

Enabler **Activist Broker** Educator Advocate Coordinator Initiator Work Researcher Mediator Group Facilitator Negotiator Speaker

Each Semester comprises of theory and field work activity There are six papers in the first and second semesters a with concurrent field work. There are two electives and compulsory papers in the 3rd semester along with field was There are two compulsory papers and two elective papers apart from a project work in the fourth semester. Also will be summer placements and semester end placement The MSW course is affiliated to the University of Calicut.

#### Course Curriculum First Semester

History, Philosophy and fields of social work, Sociology Economics for social work, Human Growth Development, Social Casework, Community Organisa and Social Action, Concurrent Field work.

#### Second Semester

Social Group Work, Psychology for Social Work, Theon Practice of Counseling, Social Work Research, S Analysis and Strategies of Social Change, Concurrent work.

#### Third semester

Social Work Administration and Participatory Project Planning and Management, Quantitative Methods in Social Work Research, Community Health and Health Education. Social Work in Medical and Psychiatric Settings, Psychiatric Information for Social Work, Gandhian Philosophy of Community Development, Rural and Urban Community Development, Family Welfare and Population Dynamics, Child Welfare, Concurrent Field work.

#### Fourth semester

Human Resource Management in Human Service Organisations, Social Legislation, Therapeutic Approaches in Medical and Psychiatric Settings, Health Care Administration and Legislation, Environmental Studies and Disaster Management, Development Economics, Women Development, Youth Welfare and Development, Concurrent Field work, Dissertation, Block Filed work.

#### Field lab for practicing social work methods

The MSW students of the college have the unique opportunity of having a number of field programmes and projects of the parent organization viz, AWH and MET. They are:

- CBR projects at Parappanangadi (Seshy), Mankada (CAPART) and Perinthalmanna,
- About 23 special education schools for hearing impaired, blind, mentally handicapped.
- · Medical intervention programmes for rural poor, aged and children.
- · Welfare programmes for street children like ' Free Birds', 'Dreams' and 'Child Line'
- · Family counselling centres, short stay home, Dedication centre.
- Field work placements for international NGO's like CRY, Green peace, ESG, CARE, BANYAN etc ...

#### Guidance and placement cell

A career guidance and placement cell is functioning under the Department.

#### Additional courses

Short term certificate courses, seminars, workshops etc will be arranged for the students by the Department with the help of external resource persons. Computer training will be provided to first semester MSW students.

#### Extra curricular programmes

Students will get opportunities to participate in sports and cultural programmes organized by the college authority and social welfare Organizations.

A social issue committee of students is functioning in the college with the help of the faculties to deal with contemporary social issues and street play unit is constituted to create awareness among people. Seminars, workshops, classes by Guest Lectures etc will be arranged for developing knowledge of social work among students.

#### Career Opportunities

The course prepares the post graduates for a career in social works. The career opportunities are in the areas like rural and urban community development, hospitals, family counseling, school social work, child welfare and administration of NGOs.

MSWs are the most wanted skilled persons; especially in professionally managed Non Governmental Organizations (NGO), training institutions, counseling centers, autonomous bodies, Panchayath institutions etc, and in implementation of projects by UNESCO. UNICEF, WORLD BANK, WHO etc. Abundant job opportunities exist for the holders of MSW in the country and abroad.

#### Eligibility

Graduates from any recognized University with minimum of 50% marks aggregate (Part I English and Part III together).

The SC/ST candidates need to have only a pass mark at the graduate level examination. Relaxation of 5% marks to other backward communities.



#### CALICUT UNIVERSITY CHOICE BASED CREDIT SEMESTER SYSTEM(CUCBCSS)

# COMPUTER SCIENCE

#### **B.Sc. Computer Science**

The AWH Special College offers B.Sc degree Course in Computer Science. The programme has 6 semesters spread in 3 years. With effect from 2014 admission onwards. Calicut University Choice Based Credit Semester System (CUCBCSS) has been introduced for U.G curriculum.





#### **Objectives**

There are two main objectives to the B.Sc. Computer Science programme.

- To produce professionals who can directly be employed or start his/her own work as programmer, Software Consultant, Service Engineer and even an entrepreneur in industry.
- To train the students to a level where they can readily compete for seats for advanced degree courses like M.Sc. (Computer Science), MCA and MBA.

#### Skills expected to achieve on completion of study:

The Students will

- 1. Have sound theoretical & practical knowledge in the core areas like Data Base Management Systems, operating systems such as Linux, Android, etc, and high Level Languages such as C, C++, Java, PHP, etc.
- 2. Have sound skills to get job opportunities in software markets, specially in the field of IT and IT Enabled services.
- 3. Be in a position to take up self employment in India & Global Software market.

#### Programme structure

The Programme has the following courses categorized into four types viz.

- 1. Common Courses (10 theory) with 38 credits
- Core courses (12 Theory, 8 Practical, 1Elective theory, and Project) with 53 credits
- 3. Open Course (1 from other department) with 4 credits and
- 4. Complementary courses with 25 credits.

There shall be a total of 38 courses with total credit of 120.

In addition to the theory subjects, there are practical sessions also included through out the course. To impart the practical knowledge of what they have studied in the theory classes, the Computer Science department has a well equipped and air-conditioned laboratory containing 30 computers with broadband internet facility.

	PROGRAMME	STRUCTURE
	Semester I	Semester II
No	Course Title	No Course Title
2 3 4 5 6	Communication Skills in English Critical Reasoning, Writing and Presentation Communication Skills in Languages other than English Problem Solving using C. Lab-I Programming Language C Complementary-I Mathematics Optional Complementary-I	<ul> <li>Reading Literature in English</li> <li>Reading on Indian Constitution, Secularism and Sustainable Environment</li> <li>Literature in Languages other than English</li> <li>Oop concepts and Data structure using C++</li> <li>Lab-II - Data structures using C</li> <li>Complementary-II Mathematics</li> <li>Optional Complementary-II</li> </ul>
Semester III		Semester IV
2. 3. 4. 5.	Numerical skills General informatics Fundamentals of Digital Electronics Visual Programming using VB.NET Complimentary - III Mathematics Optional Complimentary III	<ol> <li>Entrepreneurship development</li> <li>Basics of Audio and Video Media</li> <li>Fundamentals of Database Management systems &amp; RDBMS</li> <li>V.B.NET &amp; RDBMS. Lab</li> <li>Complementary - IV Mathematics</li> <li>Optional Complimentary IV</li> </ol>
	Semester V	Semester VI
<ol> <li>3.</li> <li>4.</li> <li>5.</li> </ol>	Computer organization & Architecture Java Programming Web Programming using PHP Principles and Software Engineering Open Course Project Work.	<ol> <li>Android Programming</li> <li>Fundamentals of Operating Systems</li> <li>Computer Networks</li> <li>Java and PHP Programming Lab</li> <li>Android &amp; Linux shell Programming lab</li> <li>Elective Course</li> <li>Project Work</li> </ol>

Eligibility

B.Sc. Computer Science: Candidates who have passed (eligible for higher studies) the HSE or an equivalent examination with Mathematics / Statistics / Computer Science / Computer Application etc. as one of the subjects are eligible for admission. (U.O.No: GAI/JI/4756/1999 dated 11.01.2002)



# DEPARTMENT OF LECTRONICS

#### **B.Sc. Electronics (CUCBCSS)**

B.Sc Elctronics is a 6 semesters, three years, graduate programme. Each semester should have 90 instructional days with 6 hours of instruction per day. The University will conduct semester-end examinations. With effect from 2014 admission onwards, modified Calicut University Choice Based Credit Semester System Has been introduced for U.G Curriculam



On completion of the course, the student will

- have sound knowledge of the theory behind the core subjects like, Electronic Components, Electronic measuring and Testing instruments, Analog and digital IC's, Electronic Circuit Design and implementation, Trouble shooting and maintenance of electronic and electrical devices.
- have sound skills in assembly language and High level language programming, interfacing of electronic devices with computers etc.
- have basic communicative skill in the English and Hindi/Malayalam.
- be in a position to develop industrial and entrepreneur applications.

#### The main objectives to the programme are

- 1. To produce electronic professionals who can directly be employed or start his / her own work as Electronic Circuit Designer, Electronics Consultant, Service Engineer, Software Engineer and even an entrepreneur in electronics and Software Industries.
- To train the students to a level where they can readily compete for seats for advanced degree courses like M.Sc.(Electronics) MCA and MBA

#### **Programme Structure**

The Programme has the following courses categorized into five types, viz.

- 1. Common Courses (10 theory) carrying totally 1000 marks.
- 2. Core Courses carrying totally 1700 marks-including lab.
- 3. Open Course(from other department) for with 50 marks)
- 4. Elective course
- 5. Complementary courses offered by other departments

	PROGRAMMI	E STRUCTURE
No	Course Title	No Course Title
	SEMESTER I	SEMESTER II
1. 2. 3. 4. 5. 6.	Common Course 1-English Common Course 2- English Common course 3 Hindi/Malayalam Complementary course - Mathematics Complementary course Computer - fundamentals Core course Basic Electronics (Theory and Lab).	<ol> <li>Common Course I-English</li> <li>Common Course 2- English</li> <li>Common course 3 Hindi/Malayalam</li> <li>Complementary course - Mathematics</li> <li>Complementary course C Programming</li> <li>Core course Electronics Circuits (Theory and Lab)</li> </ol>
	SEMESTER III	SEMESTER IV
	General course 1 Basic Numerical skills General course 2 General informatics Analog and Digital Integrated circuits. Digital Electronics Lab Complementary course - Mathematics Complementary course Fundamentals of system tware, networks and Database Management Systems theory and Lab)	<ol> <li>General course 3 Entrepreneurship development</li> <li>General course 4 Basic Audio &amp; Video media.</li> <li>Microprocessor 8085(Theory and Lab)</li> <li>Complementary course - Mathematics</li> <li>Complementary course Visual programming (Theory and Lab).</li> </ol>
	SEMESTER V	SEMESTER VI
1. 2. 3. 4. 5. 6.	Electromagnetic theory Microcontroller 8051 (Theory and Lab). Networks Theory Analog Integrated circuits Lab. Open course (Chosen from other discipline). Project work	<ol> <li>Communication systems (Theory and Lab).</li> <li>Principles of Digital Signal Processing (Theory and Lab).</li> <li>Control Systems.</li> <li>Elective course.</li> <li>Project works.</li> <li>Core labs.</li> </ol>

The students have to study one compulsory complementary paper, viz. Mathematics, an optional complementary paper offered by any other departments (Example: C programming-offered by Computer science Dept.) up to 4th semester.

In addition to the above theory subjects, there are practical sessions also included through out the course. To impart the practical knowledge of what they have studied in the theory classes, the Electronics dept. has a well equipped Electronics laboratory

#### Eligibility

Practical examinations shall be conducted by the university at the end of even semesters

B.Sc. Electronics: Students who have studied Electronics / Physics / Mathematics as one of the optional subjects at Higher Secondary Examination level and passed (eligible for higher studies) are eligible for admission. U.O.No.GA1/JI/2924/2005 (2) dated 28.07.2005



# GENETICS

#### **B.Sc. Genetics (CUCBCSS)**

Genetics deals with the development of new therapies for life-threatening diseases, and on other hand it offers efficient and cost-effective means to produce an array of novel, value added agricultural products and biomedical tools. It has tremendous potential to increase food production, improve health care, reduce the dependency of agriculture on chemicals, lower the cost of raw materials and reduce environmental pollution. The Department of Genetics is committed to development of genetic field by creating professionals who will be competent to take up assignments in genetics field. We alone provide this course in Kerala and offer excellent laboratory training under well trained faculty members. The future goal is to launch research program where students can work on the cutting-edge areas of molecular genetics, medical genetics and population genetics.

Upon successful completion of the program, the students shall:

- Get an overall exposure to various aspects of genetics and its applications.
- Understand the potential of genetic and biotechnology and gain knowledge in the fields of medicine, forensics, environment and agriculture.
- Develop various skill sets required to be a successful geneticist.

#### Programme structure

Calicut University Choice Based Credit Semester System and Grading has been introduced for UG curriculam in the affiliated colleges of the University

Duration of the programme is 6 semesters extended in a period of three years. Each semester consists of a minimum of 90 working days, including examination, distributed over 18 weeks each of 5 working days.

The project work/industrial work, a compulsory part of the programme, will be conducted during Vth and Vlth semesters. External evaluation may be done during the Vlth semester practical examination.

The Programme has the following courses

- 1. Common courses (10 theory) with 38 credits
- 2. Core courses (12 Theory, 4 Practical, 1 Elective theory and project) with 56 credits.
- 3. Open Course (1 from other department) with 2 credits and
- 4. Complementary courses (4 theory and 1 practical with 24 credits) There shall be a total of 38 courses with total credit of 120

PROGRAM	ME STRUCTURE
SEMESTER I	SEMESTER II
No Course Title	No Course Title
<ol> <li>Communicative Skills in English</li> <li>Critical Reasoning, Writing and Presentation</li> <li>Communication Skills in Other Languages Malayalam / Hindi</li> <li>Methodology and Perspective of Sciences</li> <li>Practical</li> <li>Biochemistry - 1</li> <li>Biochemistry - Practical-1</li> <li>Biotechnology - 1</li> <li>Biotechnology Practical - 1</li> </ol>	<ol> <li>Reading Literature in English</li> <li>Readings on Indian Constitution, Secularism and Sustainable Environment</li> <li>Literature in Languages other than English</li> <li>Cell Biology</li> <li>Cell Biology Practical</li> <li>Biochemistry II</li> <li>Biochemistry Practical II</li> <li>Biotechnology II</li> <li>Biotechnology Practical II</li> </ol>
SEMESTER III	SEMESTER IV
<ol> <li>Basic Numerical Skills</li> <li>General informatics</li> <li>Basic Genetics</li> <li>Basic Genetics Practical-III</li> <li>Biochemistry - III</li> <li>Biochemistry Practical - II</li> <li>Biotechnology - III</li> <li>Biotechnology - III</li> </ol>	<ol> <li>Intellectual Property Rights</li> <li>Entrepreneurship Development</li> <li>Cytogenetics &amp; Evolutionary Genetics</li> <li>Practical</li> <li>Biochemistry - IV</li> <li>Biochemistry Practical - IV</li> <li>Biotechnology - IV</li> <li>Biotechnology Practical - IV</li> </ol>
SEMESTER V	SEMESTER VI
<ol> <li>Molecular Biology</li> <li>Molecular Genetics</li> <li>Developmental and Behavioural Genetics</li> <li>Medical Genetics</li> <li>Core Course Practical</li> <li>Open Course (Other department)</li> <li>Core Course Project</li> </ol>	<ol> <li>Current Trends in Genetics</li> <li>Genetics and Family Welfare</li> <li>Bioinformatics</li> <li>Practical I</li> <li>Genetics and Society</li> <li>Practical II</li> <li>Core Course Elective</li> </ol>

**Career Prospects** 

Training in this course prepares the graduates for the broad spectrum of job opportunities in numerous international, national and state level advanced and strategic research institutions. • Teaching in Schools and Universities Medical Hospitals and Clinics • Food Testing Laboratories • Research & Development Laboratories • Biopharmaceutical Laboratories • Environmental Laboratories • Marketing and Sales of biomedical products

Eligibility of the programme

B.Sc. Genetics: Candidates who have passed (eligible for higher studies) the Higher Secondary Examination or an equivalent examination with Physics, Chemistry and any branch of Life Science (U.O.No.GA1/JI/6814/2005 dated 16.3.2006



## DEPARTMENT OF GEOLOGY

#### **B.Sc. Geology**

Only a very few colleges in Kerala provide Geology course although it has got high demand in various sectors of human life. New combinations of Geoinformatics, Remote sensing and chemistry are given here. The yearly exposure of students to various reputed institutions, fields and places of academic importance all over India helps to realize the fascinating subject at its full sense.

#### About the subject:

Geology is the science of earth and environment concerns with the processes and products of earth and atmosphere. Geology finds its potential application in various fundamental spheres of life such as energy resources, ground water and surface water, land use and environment hazards. A geologist finds the hidden treasures beneath the earth and oceans.

Remote Sensing and Geo-informatics finds the

application of space technologies and computer techniques for scientific analysis of geo-referenced data.

#### Programme structure

Calicut University Choice Based Credit Semester System(CUCBCSS) and grading has been introduced for UG curriculam in the affiliated colleges of the University with effect from 2014 admission onwards

Duration of the programme shall be six semesters distributed in a period of three years. Each semester consists of a minimum of 90 working days, including examination, distributed over 18 weeks each of 5 working days.

The Field work and Study Tour, not less than 30 days, is a compulsory part of the programme. The Field work will be conducted during IVth and VIth semesters. External evaluation may be done during the VIth semester practical examination.

The programme leading to B.Sc. Geology shall have the following courses from four

#### types of courses viz.

- 1. Common Courses (10 theory) with 38 credits
- 2. Core courses (10 Theory,
- 8 Practical, 1 Elective theory, and Project,) with 54 credits
- 3. Open Course (one from other department) with 4 credits and
- 4. Complementary courses
- (4 Theory and 4 Practical Courses each from Chemistry and Remote

Sensing & GIS) with 24 credits.

There shall be a total of 38 courses with total credit of 120.



#### PROGRAMME STRUCTURE

	SEMESTER I		SEMESTER II
No	Course Title	N	o Course Title
1	Communicative Skills in English	1	Reading Literature in English
2	Critical Reasoning, Writing and Presentation	2	Readings on Indian Constitution, Secularism and Sustainable Environment
3	Communication Skills in Other Languages Malaylam/Hindi	3	Translation and Communication in Other Languages
4	Perspectives & Methods in Science and Earth Processes	4	Dynamic Geology and Geoinformatics
5	Field Geology	5	Geoinformatics Practical
6	Chemistry course 1	6	Chemistry course 2
7	Chemistry Practical 1	7	Chemistry Practical 2
8	Remote sensing & GIS course 1	8	Remote sensing & GIS course 2
9	Remote sensing & GIS Practical 1	9	Remote sensing & GIS Practical 2

#### SEMESTER III

1	Literature	and Contemporary Issues
2	Literature	in Other Languages

- Crystallography
- Crystallography Practical
- 5 Chemistry course 3
- 6 Chemistry Practical 3
- Physics/Statistics / Remote sensing & GIS course 3
- 8 Remote sensing & GIS Practical 3

#### SEMESTER V

- 1. Stratigraphy and physiography of India
- 2. Indian Geology
- 3. Igneous Petrology
- 4. Sedimentology
- 5. Metamorphic Geology
- 6. Open Course
- 7. Project work / Study Tour

#### Eligibility of the programme

B.Sc. Geology: Candidates who have studied Science subjects at Plus Two level are eligible for admission to B.Sc. Programme in Geology, since Geology is taught as a subject at Plus Two level in both Science and Humanities stream, those candidates who have studied Geology at Plus Two level are also eligible for the course (with effect from 2010 admission vide. U.O.No.GA1/J2/2492/07 dated 04.02.2010).

#### **Career Opportunities**

After the successful completion of B.Sc. course pupils are eligible for admission to courses M.Sc. / M.Tech / M.Sc. Tech. in Geology / Applied Geology / Remote Sensing / Geo-informatics / Environmental Science / Petroleum Geology / Mining Engineering at various universities of Kerala, outside the state and abroad. They are also eligible for admission to B.Ed. at various universities.

Geology is one of the optional subjects for civil services and similar examinations. They have very good opportunities in Oil and Natural Gas Corporation (ONGC), Geological Survey of India (GSI), Central Water Resource and Development (CWRDM), Coal India, Oil

#### SEMESTER IV

- 1 History and Philosophy of Science
- 2 Culture and Civilization
- 3 Mineralogy
- 4 Crystallography & Mineralogy
- 5 Chemistry course 4
- 6 Chemistry Practical 4
- 7 Physics/Statistics/Remote sensing & GIS course 4
- 8 Remote sensing & GIS Practical 4

#### SEMESTER VI

- 1. Structural Geology and Geotectonic
- Palaeontology Ore Forming Processes
- Indian Mineral Deposits
- **Environmental Geology**
- Structural and Economic Geology
- Petrology and Palaeontology
- 8. Project work / Study Tour

India Limited (OIL), Center for Earth Science Studies (CESS), Mineral Exploration Center (MEC), Atomic Minerals Division (AMD), National Geophysical Research Institute (NGRI), National Remote Sensing Agency (NRSA), Indian Space Research Organization (ISRO), National Institute of Oceanography (NIO), Defense Research and Development Organization (DRDO), Department of Ocean Development (DOD), Geophysical Research Laboratory (GPRL), NNRMS, IREL, Lectures in college/universities, various IITs etc.. The state government organizations include department of Mining and Geology, Ground Water Board, plus many other private sectors related to petroleum, ground water, soil survey, Ornamental and decorative stone industries, mines etc. Students get golden opportunities abroad at various fields.



Note: The College is not responsible for any change in the programme structure made by the concerned Board of studies / Academic Councils of the University 0 0 0 0 0 0 0 0 0 0 0 17

#### **SECTION - III**

#### **FEE SCHEDULE**

(The fees of BASLP, BPT, MASLP & MPT courses will be subject to regulation by AFRC in due course)

No	Study Programme	No. of Sems.or yrs	Spl fee / Caution deposit	Tuition fee for each year or semester		
				Merit	Management	NRI
1	BPT (Bachelor of Physiotherapy)	4 yrs 1/2 yr with internship	26100/-	34000/-	65000/-	100000/-
2	BASLP	4 years	37605/-	42500/-	81750/-	150000/-
3	B.Sc (Computer Science)	6 sems	1000/-	18750/-	18750/-	
4	B.Sc (Electronics)	6 sems	1000/-	18750/-	18750/-	
5	B.Sc (Genetics)	6 sems	1000/-	19500/-	19500/-	
6	B.Sc (Geology)	6 sems	1000/-	11250/-	11250/-	
7	MPT	2 yrs	34000/ yr	100000/-	200000/-	
8	MASLP	2 yrs	34000/ yr	109000/-	218000/-	
9	MSW	4 sems	1000/-	18750/-	18750/-	

- University Registration, KUHS Union and sports affiliation fees (Paramedical Stream) UG Rs.1000/- PG Rs 1200/-
- University Union fees and sports affiliation fees for all courses (UG & PG) of Calicut University @ Rs. 975/-
- Students Union fund (for all courses UG & PG) @ Rs. 750/-
- · Calendar and Identity card for each student Rs. 150 per course

#### **SECTION - IV**

#### THE AWH ADVANTAGE

**Faculty:** The college has the service of qualified, competent and efficient faculty. Guest lectures are drawn from experts in various fields for the concerned subjects from within and outside the State.

**Class rooms:** The class rooms are well laid up with comfortable furniture, various teaching aids models, OHP, LCD Projector, Laptop computer etc.

**Library:** The AWH Special College has got a good spacious computerized library, with text books and journals. There are foreign titles by renowned authors too. The Library is open from 9 am to 6 pm.

**Auditorium:** The College is equipped with well laid out auditorium with sound systems and audio-visual aids for topics and seminar presentations.

#### Laboratories:

**BPT/MPT** 

The clinical laboratory is equipped to conduct biological and hematological investigations. Cadavers are provided

for anatomy dissections. Good facilities are offered for physiotherapy to enable the students for developing skills in basic exercises. Electro therapy and Exercise therapy labs are fully equipped with Laser, SWD, Ultrasound, Treadmill, IFT, TENS, and Tilt Table etc.

#### BASLP

The audiology lab is well equipped with sophisticated equipments in A/C comforts

The following are some of the latest equipments:

IHS duet BERA

GSI Tympstar Pro

IHS duet OAE system

GSI-61 Clinical Diagnostic Audiometer

Frye Fornix hearing text box system cum insertion gain optimization (IGO) Fonix 6500 CX Real Time Hearing aid system.

Speech Science Lab facility like Doctor's Speech, Vaghmi etc.

U.V.ear mould lab.

#### B.Sc (Computer Science)

There are two computer labs with all terminals connected of LAN/WINDOWS. There are 45 systems in all. Broad Band Internet facility is made available. Both labs are with A/C comforts.

#### **B.Sc Genetics**

Cell and Molecular Biology Laboratory: • CR • Gel Documentation System • Gel Electrophoresis • Visible Spectrophotometer

Cell and Tissue Engineering Laboratory: • Laminar Hood Horizontal & Vertical • Microbial hood • Refrigerated orbital shaker • High Speed Refrigerated Centrifuge Histology Laboratory: • Oven • Tissue processing and Staining set • Binocular light & compound Microscope Other Equipments: • Compound Microscope • Freezers (minus 40) • Water Distillation Unit & Deionizer • Water bath • Hotplate • Colorimeter • Autoclave

There are full fledged labs for Geology & Electronics.

#### **SECTION - V**

#### **GENERAL**

#### Working hours and attendance:

For Courses affiliated to KUHS the classes will be from 8.30 am to 4.00 pm while for courses affiliated to the University of Calicut the classes will be from 9.30 am to 3.30 pm. Regarding attendance the University rules will be applicable.

Internal assessments: Internal assessment marks shall be awarded to students on the basis of class tests, sessional examinations, attendance, conduct and behaviours. Importance is also given for their performance in Viva-voce tests.

Hostel: Hostel facility will be provided

**Discipline:** The students should conduct themselves in the campus gentlemanly. They should cooperate to keep up the prestige and good image of the college. Actions leading to academic disruption will not be tolerated. Ragging is totally prohibited in college premises and in the hostels. The college has an anti-ragging cell comprising an anti-ragging committee and an anti-ragging squad. Anyone who is found guilty of ragging will be expelled from the

college as per section 4 and 5 of Kerala prohibition of ragging act-1998. Students are informed to desist from misbehavior in class rooms, laboratory, library or any where in the campus. Faculty members should be respected.

Students should avoid silly offences like stealing, damaging or concealing any material or property belonging to the institution. Students should also behave ethically during examinations avoiding behavior that will lead to unfair advantages to students. Marks will be deducted or not awarded for plagiarized materials.

There is uniform for college students. All the students are to dress themselves decently and in a gentlemanly manner. White overcoat is compulsory during hospital postings and laboratory works.

All the students are expected to keep up high moral standards and maintain good image of the AWH special college. Candidates called for interview shall produce the original certificates at the time of interview. The candidates are advised to keep enough copies (minimum 20 copies) of attested certificates, since it might not be possible to get back the original certificates once submitted to the college or University.

#### **SECTION - VI**

Candidates whose applications are found acceptable shall be called for an interview.

The following documents shall be brought at the time of interview.

1) Interview card

#### **HOW TO APPLY**

- Qualifying certificates and Mark lists Original and three attested copies of each
- T.C. and conduct certificate from the institution last attended
- Two copies of Passport size and one stamp size photo (Colour)
- 5. S.S.L.C Book
- SC, ST, OEC candidates should produce Community certificate, Nativity and Income certificate.
- Equivalence Certificate, if required, must be produced by the PG students.

In case, any student admitted to the college decides to cancel the admission for any reason whatsoever after the closure of admission for the academic years, the student will have to pay the tuition fee for the entire courses. Original Certificates, documents pertaining to such student shall be released only on payment of above amount.