

Specific Course Outcome of courses offered by the Department of Economics is:

Name of the Course	Course Outcome
Principles of Microeconomics	This course is designed to expose the student to the basic principles in Microeconomic Theory and illustrate the same with applications.
Principles of Macroeconomics	This course introduces students to the basic concepts in Macroeconomics. Macroeconomics and deals with the aggregate economy. In this course the students are introduced to the definition, measurement of the macroeconomic variables such as GDP, consumption, savings, investment and balance of payments. The course also discusses various theories of determining GDP in the short run. It also introduces the student to concept of inflation, its relationship with unemployment and some basic concepts in an open economy.
Indian Economy	This course is designed to enable students to have in-depth knowledge of various problems and issues faced by Indian Economy. The course will concentrate on both the achievements and the issues of the economy.
Economic History of India 1857 – 1947	This course analyses key aspects of Indian economic development during the second half of British colonial rule. This course links directly to the course on India,,s economic development after independence in 1947.
Economy of Himachal Pradesh	This course highlights the basic features, characteristics and developmental issues of the Himachal Pradesh economy.
Basic Econometrics	This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models.
Development Economics	This course reviews major trends in aggregate economic indicators in India and places these against the backdrop of major policy debates in India in the post- Independence period.
International Economics	This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. The basic aim of this course is to link international trade relations and its impact on exports of nations.
Mathematical Economics	The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. Hence in this paper a student will be initiated into various economic concepts, which are amenable to mathematical treatment.
Economic Systems	This course seeks to enrich the knowledge of the students regarding working of various

Name of the Course	Course Outcome
	economic systems. The course does not require any prior knowledge of economics.
Statistical Methods	This course introduces the student to collection and presentation of data. It also discusses how data can be summarized and analysed for drawing statistical inferences. The students will be introduced to important data sources that are available and will also be trained in the use of free statistical software to analyse data.
Economics of Rural Development	This course is designed to instill in the student a deeper understanding of rural development and issues therein. The student is expected to also achieve an appreciation of institutional efforts aimed at achieving rural development.
Demography	The main objective of this paper is to make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The study of Quantitative and Qualitative composition of population is also required to understand the dynamics of population growth.
Research Methodology	This course is designed to rigorously train the students in the concepts, methodology and reasoning involved in analyzing economic behavior of firms and markets, in general, in both static and partial equilibrium frameworks.

Name of the Course	Course Outcome
Principles of Microeconomics	This course is designed to expose the student to the basic principles in Microeconomic Theory and illustrate the same with applications.
Principles of Macroeconomics	This course introduces students to the basic concepts in Macroeconomics. Macroeconomics and deals with the aggregate economy. In this course the students are introduced to the definition, measurement of the macroeconomic variables such as GDP, consumption, savings, investment and balance of payments. The course also discusses various theories of determining GDP in the short run. It also introduces the student to concept of inflation, its relationship with unemployment and some basic concepts in an open economy.
Indian Economy	This course is designed to enable students to have in-depth knowledge of various problems and issues faced by Indian Economy. The course will concentrate on both the achievements and the issues of the economy.
Economic	This course analyses key aspects of Indian economic development during the second half

Name of the Course	Course Outcome
History of India 1857 – 1947	of British colonial rule. This course links directly to the course on India's economic development after independence in 1947.
Economy of Himachal Pradesh	This course highlights the basic features, characteristics and developmental issues of the Himachal Pradesh economy.
Basic Econometrics	This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models.
Development Economics	This course reviews major trends in aggregate economic indicators in India and places these against the backdrop of major policy debates in India in the post- Independence period.
International Economics	This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. The basic aim of this course is to link international trade relations and its impact on exports of nations.
Mathematical Economics	The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. Hence in this paper a student will be initiated into various economic concepts, which are amenable to mathematical treatment.
Economic Systems	This course seeks to enrich the knowledge of the students regarding working of various economic systems. The course does not require any prior knowledge of economics.
Statistical Methods	This course introduces the student to collection and presentation of data. It also discusses how data can be summarized and analysed for drawing statistical inferences. The students will be introduced to important data sources that are available and will also be trained in the use of free statistical software to analyse data.

Name of the Course	Course Outcome
Economics of Rural Development	This course is designed to instill in the student a deeper understanding of rural development and issues therein. The student is expected to also achieve an appreciation of institutional efforts aimed at achieving rural development.
Demography	The main objective of this paper is to make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The study of Quantitative and Qualitative composition of population is also required to understand the dynamics of population growth.
Research Methodology	This course is designed to rigorously train the students in the concepts, methodology and reasoning involved in analyzing economic behavior of firms and markets, in general, in both static and partial equilibrium frameworks.
Public Finance	This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralization in India. The course will be useful for students aiming towards careers in the government sector, policy analysis and business.
Money and Banking	This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered. The course does not require any prior knowledge of economics. .
Project Work	Project Work is one of the culmination point of the learning process, which will put to test the acquired ability of the candidate to independently take the charge of the project and use the understanding of economics developed in previous years to evaluate/analyze economic issues.
Environmental Economics	This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. The course does not require any prior knowledge of economics. The course will

Name of the Course	Course Outcome
	be useful for students aiming towards careers in the government sector, NGOs, policy analysis, business and journalism.

Course Outcome of the Zoology Department

S.No.	Name of the course	Course Outcome
1	Animal Diversity ZOOL 101 TH DSC	This course is designed to introduce students to the biodiversity of animals. After completion of this course, students will be able to understand the basic characters of different animals categorized as invertebrates and vertebrates along with the practical knowledge.
2	Comparative anatomy and development biology of Vertebrates ZOOL 102 DSC	This course offers deep insight in to the anatomy and embryology of the vertebrates. After completion of this course students will be well conversed with the anatomical details and developmental biology of the animals.
3	Physiology and biochemistry ZOOL 201 DSC	This course is designed to make students understand the physiological and biochemical phenomenon such as digestion, movement, co-ordination, sensory and motor mechanisms, hearing, vision, circulation and reproduction etc.
4	Genetics and Evolutionary biology ZOOL 202 DSC	After studying this course students will be able to understand the hereditary mechanisms involving genes and chromosomes and their regulatory mechanisms. Along with these students will be able to know the various evolutionary mechanisms such as evolution of man and other animals, plants, various adaptations in plants and animals also many other evolutionary phenomena under geological time scale
5	Medical Diagnostics ZOOL 203 SEC	This course will help the students to develop skill to perform hematology and biochemical experiments such as RBC and WBC

S.No.	Name of the course	Course Outcome
		counts, Hb count, BP monitoring, sugar analysis and urine analysis etc.
6	Apiculture ZOOL 204 SEC	This course is designed to study the rearing of honey bees. After studying this course, the students can start own apiary and become self-employed. They can earn their livelihood by selling bee products such as honey, bee wax and they can also provide bees as pollinators to the farmers during flowering season on rent basis.
7	Applied Zoology ZOOL 301(B) SEC	This course introduces student to the modern tools and techniques of the biotechnology such as cloning vectors, northern and southern blotting and PCR etc. This will equip students to make their career in the field of pharmaceuticals, microbial and biotechnological industry.
8	Aquatic Biology ZOOL 301(C) SEC	This course will acquaint students with fresh water and marine ecosystems such as lakes, rivers, estuaries and oceans as well as management of aquatic resources. After completion of this course students will be able to understand the importance of aquatic flora and fauna and contribute in saving the aquatic life from man-made pollution and other harmful activities.
9	Aquatic Biology ZOOL 301(C) DSE	This course will acquaint students with fresh water and marine ecosystems such as lakes, rivers, estuaries and oceans as well as management of aquatic resources. After completion of this course students will be able to understand the importance of aquatic flora and fauna and contribute in saving the aquatic life from man-made pollution and other harmful activities.
10	Insects, Vectors and Diseases ZOOL 302 (A) DSE	This course is designed to study the insect vectors and diseases caused by them. Studying this course will certainly help the students to identify the insects as vectors and take the precautionary measures to prevent the spread of insects and insect borne diseases.
11	Immunology ZOOL 302 (B)	This course introduces students to the working of the immune system of the body and important terms such as antigens, antibodies and vaccines, their role in defending the body from the pathogens. This course enables students to learn the importance and role of

S.No.	Name of the course	Course Outcome
		vaccination in boosting our immune system.
12	Reproductive biology ZOOL 302 (C)	This course enables students to learn the male and female reproductive system and associated reproductive technology such as ET, EFT, ZIFT, GIFT etc. This course will make students aware of the usefulness of the techniques like test-tube baby, embryo transfer and relevance of surrogacy.
13	Sericulture ZOOL 303 SEC	This course is designed to study the rearing of silkworms bees. After studying this course, the students can start own sericulture farm and become self-employed. They can earn their livelihood by selling the products such as silk shawls, sarees and other material.
14	Aquarium Fish Keeping ZOOL 304 (A) SEC	This course is designed to study the rearing of silkworms bees. After studying this course, the students can start own sericulture farm and become self-employed. They can earn their livelihood by selling the products such as silk shawls, sarees and other material.
15	Research Methodology ZOOL 304 (B)	This course introduces students to the basics of research which can be very useful in higher studies especially while doing Ph.D. and other research work.

Course Outcome of Commerce Department

Course No.	Course Title	Course Outcome
	Environmental Studies	The course is designed to expose the student to the basic environment aspects.
BC 1.1	Financial Accounting	The course is designed to expose the student to acquire conceptual knowledge of the financial accounting.

Course No.	Course Title	Course Outcome
BC 1.2	Business Organisation and Management	The course aim to provide basic knowledge to the student about the organization and management of business enterprise.
BC 1.3	Business Law	The objective of the course is to impart basic knowledge of the important business legislation along with relevant case law.
BC 1.4	Business Statistics and Mathematics	The objective of the course is to familiarize student with the application of statistical techniques in business decision making.
Year II		
BC 2.1	Company Law	The objective of the course is to impart basic knowledge of the provisions of the company act 2013.
BC 2.2	Income Tax Law and Practice	To provide basic knowledge to equip students with application of principle and provision of income tax act 1961.
BC 2.3	Computer Applications in Business	The objective of the course is to provide computer skill and knowledge for commerce students.
BC 2.4	Corporate Accounting	The objective of paper is to enable the students to acquire the basic knowledge of the corporate accounting.
BC 2.5	Cost Accounting	The objective of the course is to acquaint the students with basic concept used in cost accounting.
BC 2.6	E-Commerce	The objective of the course is to enable the students to become familiar with the mechanism for conducting business transactions through electronic means.
Year III		

Course No.	Course Title	Course Outcome
BC 3.1(a)	Human Resource Management	The course aim to acquaint students with the techniques and principle to manage human resources of organization.
BC 3.2(a)	Fundamentals of Financial Management	The course aims to familiarize the students with the principles and practice of financial management.
BC 3.3	Entrepreneurship	The course aims to orient the learner toward entrepreneurship as a career option and creative thinking and behaviour.
BC 3.4	Principles of Micro Economics	The course intents to expose the students to the basic principles in micro economics, theory and illustration with application.
BC 3.5(b)	Banking and Insurance	The course aim to impart knowledge about the basic principle of the banking and insurance.
BC 3.6(b)	Office Management and Secretarial Practice	The purpose of this course is to familiarize the students with the activities in a modern office.
BC 3.7	Personal Selling and Salesmanship	The purpose of this course is to familiarize the students with the fundamentals of personal selling and the selling process.
BC 3.8	Indian Economy	The course seeks to enable the students to grasp the major economic problem in India and their solution.

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc First Year	BIOTECH1C01	Core Course	Biochemistry & Metabolism	The course aims to provide students with a basic understanding of the molecular architecture of eukaryotic cells and organelles, including membrane structure and dynamics; the principles of bioenergetics and enzyme catalysis; the chemical nature of biological macromolecules, their three-dimensional construction, and the principles of molecular recognition
BSc First Year	BIOTECH1C02TH PR	Core Course	General Microbiology	The objective of the subject is to equip the students to gain knowledge about prokaryotic and eukaryotic cellular processes, interaction of microorganisms among themselves, with physical and chemical agents and higher order organisms in environment and biological systems to various conditions.
BSc First Year	BIOTECH1C03TH PR	Core Course	Genetics	The goal of this course to understand the inheritance pattern ,linkages and population genetics with excellent examples
BSc First Year	BIOTECH1C04TH PR	Core Course	Molecular Biology	Introduce the student into the world of Molecular Biology, to understand the transfer of genetic information from nucleic acid till protein synthesis and cell function and to help the student to know the general structure, organization and function of eukaryotic cells.
BSc First Year	GE-1 MICRO1GE01	Generic Elective	Cell Biology	The course will provide an overview of cells, their origin and evolution. How they work in healthy and diseased state. Molecular composition of cytoplasm and better understanding how living things live.

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc First Year	GE-2 CHEM GE 103	Generic Elective	Chemistry-1	
BSc First Year	ENVS1AECC02	Ability Enhancement Compulsory Course (AEC)	Environment Science	The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively towards solutions of current problems .
BSc Second Year	BIOTECH2C05	Core Course	Immunology	This course explores immunology, how the body defends itself from constant assault by parasites and pathogens. This course will present the fundamentals of both innate and adaptive immunity, emphasizing functional interactions among cells and organs. We will cover signaling, pathogen recognition and the division of labor among myeloid, lymphoid and supporting cells.
BSc Second Year	BIOTECH2C06	Core Course	Bioprocess Technology	The course will introduce the students to bioprocess technology and will impart knowledge about use of microorganisms for generating various useful products using bioprocess technology, use of bioreactors and their process parameters
BSc Second Year	BIOTECH2C07TH PR	Core Course	Recombinant DNA Technology	To familiarize the student with emerging field of biotechnology i.e. Recombinant DNA Technology as well as to create understanding in wet lab techniques in genetic techniques.
BSc	BIOTECH2C08TH	Core Course	Environmental	The main objective of the subject is to impart

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
Second Year	BIOTECH2C08PR		Biotechnology	an understanding about the use of microorganisms to solve environmental problems and taxonomic, ecological and genetic relationship among microorganisms.
BSc Second Year	BIOTECH2C09 TH BIOTECH2C09PR	Core Course	Bacteriology and virology	The thrust of this course is to make aware students with basics of bacteriology and virology by providing knowledge of bacterial viral structure growth replication and nutrition characteristics.
BSc Second Year	BIOTECH2C10TH BIOTECH2C10PR	Core Course	Microbial Physiology	The course will provide the information about growth and metabolism of microorganisms, microbial relationship. Relationship between metabolism and energy source
BSc Second Year	GE-3 MICRO2GE02TH MICRO2GE02PR	Generic Elective	Bio Analytical Tools	To develop the skills of the application of basic and advanced techniques employed in quantitative and qualitative analysis of biomolecules.
BSc Second Year	GE-4 CHEM GE 205	Generic Elective	Chemistry-2	
BSc Second Year	BIOTECH2SEC01 TH BIOTECH2SEC01 PR	Skill Enhancement Elective Course (SEC)	Enzymology	The major objective is to help students know the structure and properties of macromolecules that interact to maintain and perpetuate the living systems.
BSc Second Year	BIOTECH2SEC04 TH BIOTECH2SEC04 PR	Skill Enhancement Elective Course (SEC)	Industrial Fermentations	To provides the knowledge of basic principle of fermentation process, which will help students to design, develop and operate industrial level fermentation process.
BSc	BIOTECH3C11TH	Core Course	Animal	This course helps students to understand use

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
Third Year	BIOTECH3C11PR		Biotechnology	of biotechnology techniques in animal welfare including human by providing knowledge of transgenic animals gene therapy and assistive reproductive techniques .
BSc Third Year	BIOTECH3C12TH BIOTECH3C12PR	Core Course	Plant Biotechnology	To impart understanding of the basic principles of the plant sciences and molecular biology, as well as the integration of these disciplines, to provide healthy plants in a safe environment for food, non-food, feed and health applications.
BSc Third Year	BIOTECH3C13TH BIOTECH3C13PR	Core Course	Medical Microbiology Medical	The subject equips students with the knowledge of diagnosing and treating diseases caused by bacteria, fungi and parasites.
BSc Third Year	BIOTECH3C13TH BIOTECH3C13PR	Core Course	Medical Microbiology Medical	The subject equips students with the knowledge of diagnosing and treating diseases caused by bacteria, fungi and parasites.
BSc Third Year	BIOTECH3C14TH BIOTECH3C14PR	Core Course	Food Biotechnology	The objective of the subject is to provide learning and to develop professional skills for planning and coordinating activities in specifically, the innovative technologies applied to food production and control of food quality and safety.
BSc Third Year	BIOTECH3DSE01	Discipline Specific Elective (DSE)	Biochemical Engineering	To apply the chemical engineering principles in biological systems. Introduction to Biochemical Engineering: Comparative study of chemical and biochemical processes, Basic concepts of microbiology.

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc Third Year	BIOTECH3DSE02	Discipline Specific Elective (DSE)	Advances in Microbiology	
BSc Third Year	BIOTECH3DSE03	Discipline Specific Elective (DSE)	Ecology and Environment Management	To broaden their ecological knowledge in subjects such as energy, landscapes, air, water, natural resources and wildlife.
BSc Third Year	BIOTECH3DSE06	Discipline Specific Elective (DSE)	Molecular Diagnostics	To develop the skills of the application of basic and advanced techniques employed in quantitative and qualitative analysis of biomolecules.

Course Outcome of B Sc (Hons.) Microbiology

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc First Year	MICRO1C01TH MICRO1C01PR	Core Course	Introduction to Microbiology & Microbial Diversity	The subject will provide detailed information about growth and metabolism of microorganisms, microbial relationship. Relationship between metabolism and energy source. Diversity among microorganisms and their interaction among themselves.
BSc First Year	MICRO1C02TH MICRO1C02PR	Core Course	Bacteriology	The course provide basic knowledge of bacteria with special consideration to their growth, replication, classification and culturing techniques.
BSc First	MICRO1C03TH	Core Course	Biochemistry	The course aims to provide students with a basic understanding of the molecular

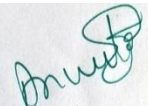
Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
Year	MICRO1C03PR			architecture of eukaryotic cells and organelles, including membrane structure and dynamics; the principles of bioenergetics and enzyme catalysis; the chemical nature of biological macromolecules, their three-dimensional construction, and the principles of molecular recognition.
BSc First Year	MICRO1C04TH MICRO1C04PR	Core Course	Virology	Through this course students will be able to understand the nature ,structure replication, and infection cycle of viruses.
BSc First Year	GE-1 BIOTECH1GE01TH BIOTECH1GE01PR	Generic Elective	Mycology and Phycology	The course aims to provide students with knowledge and understanding of the nature ,structure replication, and infection cycle of algae and fungi
BSc First Year	GE-2 BIOTECH1GE02TH BIOTECH1GE02PR	Generic Elective	Cell Biology	The course will provide an overview of cells, their origin and evolution. How they work in healthy and diseased state. Molecular composition of cytoplasm and better understanding how living things live.
BSc First Year	ENGL103	Ability Enhancement Compulsory Course (AEC)	English Communication	
BSc Second Year	ENVS1AECC02	Ability Enhancement Compulsory Course (AEC)	Environment Science	The goal is to develop a population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc Second Year	MICRO2C05TH MICRO2C05PR	Core Course	Microbial physiology & Metabolism	The course will provide the information about growth and metabolism of microorganisms, microbial relationship. Relationship between metabolism and energy source
BSc Second Year	BIOTECH2C07TH PRMICRO2C06TH MICRO2C06PR	Core Course	Environmental Microbiology	The main objective of the subject is to impart an understanding about the use of microorganisms to solve environmental problems and taxonomic, ecological and genetic relationship.
BSc Second Year	MICRO2C07TH MICRO2C07PR	Core Course	Recombinant DNA Technology	To familiarize the student with emerging field of biotechnology i.e. Recombinant DNA Technology as well as to create understanding in wet lab techniques in genetic techniques.
BSc Second Year	MICRO2C08TH MICRO2C08PR	Core Course	Industrial Microbiology	The aim of the course is to give the students broad theoretical and practical skills in industrial microbiology. To discuss the role of microorganisms in industry, as well as to carry out experiments to produce microbial metabolites.
BSc Second Year	MICRO2C09TH MICRO2C09PR	Core Course	Microbes in Sustainable Agriculture and Development	This course provides insight of how microorganisms can be used in agricultural fields and to increase the crop yield by using bio fertilizers and bioinsecticides.
BSc Second Year	MICRO2C10TH MICRO2C10PR	Core Course	Molecular Diagnostics	To develop the skills of the application of basic and advanced techniques employed in quantitative and qualitative analysis of biomolecules.
BSc Second	GE-3 BIOTECH2GE3 TH	Generic	Molecular	Introduce the student into the world of Molecular Biology, to understand the

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
Year	BIOTECH2GE3 PR	Elective	Biology	transfer of genetic information from nucleic acid till protein synthesis and cell function and to help the student to know the general structure, organization and function of eukaryotic cells.
BSc Second Year	GE-4 BIOTECH2GE04TH BIOTECH2GE04PR	Generic Elective	Immunology	This course explores immunology, how the body defends itself from constant assault by parasites and pathogens. This course will present the fundamentals of both innate and adaptive immunity, emphasizing functional interactions among cells and organs. We will cover signaling, pathogen recognition and the division of labor among myeloid, lymphoid and supporting cells.
BSc Second Year	MICRO2SEC03	Skill Enhancement Elective Course (SEC)	Biofertilizers and Biopesticides	The subject will provide the basic knowledge about biofertilizers. Type of microbes constitute potential biofertilizer candidates (nitrogen fixers, phosphate solubilizers, plant growth hormone producers, siderophore etc .
BSc Second Year	MICRO2SEC05	Core Course	Management of Human Microbial Diseases	This course Emphasis is placed on the study of infectious diseases of humans, other animals and plants. Topics covered include: introduction to microorganisms and their environment, microbial structure and function; microbial molecular biology and genetics; bacterial viruses; structure; an introduction to pathogen-host interactions; new and emerging pathogens of humans and other animals; infectious disease and mechanisms by which microbial pathogens interact with animals and plants; biotechnological applications of bacteria.

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
BSc Third Year	MICRO3C11TH MICRO3C11PR	Core Course	Food and Dairy Microbiology	The Food and dairy Microbiology Short course provides insight into the most recent developments of food-borne pathogens, toxins, and contaminants that may occur in a food plant environment. The short course is delivered in classroom and laboratory environments and includes a mixture of theory, demonstrations, and practical sessions on the fundamentals of food microbiology and food safety.
BSc Third Year	MICRO3C12TH MICRO3C12PR	Core Course	Medical Microbiology Medical	The subject equips students with the knowledge of diagnosing and treating diseases caused by bacteria, fungi and parasites.
BSc Third Year	MICRO3C13TH MICRO3C13PR	Core Course	Bioprocess Technology	The course will introduce the students to bioprocess technology and will impart knowledge about use of microorganisms for generating various useful products using bioprocess technology, use of bioreactors and their process parameters.
BSc Third Year	MICRO3C14TH MICRO3C14PR	Core Course	Instrumentation & Biotechniques	To develop the skills of the application of basic and advanced techniques employed in quantitative and qualitative analysis of biomolecules.
BSc Third Year	MICRO3DSE01	Skill Enhancement Elective Course (SEC)	Biochemical Engineering	To apply the chemical engineering principles in biological systems. Introduction to Biochemical Engineering: Comparative study of chemical and biochemical processes, Basic concepts of microbiology
BSc Third	MICRO3DSE03	Skill Enhancement	Ecology and Environment	To broaden their ecological knowledge in subjects such as energy, landscapes, air,

Year	Course Code	Course Type	Course Name	Course Outcome/ Objective
Year		Elective Course (SEC)	Management	water, natural resources and wildlife.
BSc Third Year	MICRO3DSE04	Skill Enhancement Elective Course (SEC)	Parasitology	Medical parasitology traditionally has included the study of three major groups of animals: parasitic protozoa, parasitic helminths (worms), and those arthropods that directly cause disease or act as vectors of various pathogens.
BSc Third Year	MICRO3DSE06	Skill Enhancement Elective Course (SEC)	Advances in Microbiology	The goal of this subject is to provide a platform to promote, share, and discuss various new issues and developments in different areas of Microbiology.


 Principal
 RKMV, Shimla-1.
 Principal
 R.K.M.V., Shimla