

# Course Outcomes of BA/BSc/BCom



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### Course outcomes of Anthropology

Courses Code	Outcomes
ANT-E101	To understand the definition of anthropology and its relationship with other disciplines. Man as biological and social being, cultural relativism versus men and animal kingdom. Understanding the concept of single species, Homo sapiens
ANT-E202	To understand the knowledge of physical anthropology and its relationship with others discipline. Understanding the theory of evolution including practical knowledge on identification of various instruments and Human Osteology measurements
ANT-E303	To understand the knowledge on concept and scope of social and cultural anthropology
ANT-E404	To understand the knowledge on concept and scope of prehistoric archaeology, geological time scale, tool topology & technology
ANT-H505	To understand the knowledge of physical anthropology on human genetics, Human chromosome compliment, cell division, development of life and concept of different race.
ANT-H507	To understand the knowledge of somatometry, serology, dermatoglyphics and human physiology on Palaeolithic, Mesolithic and Neolithic culture.
ANT-H608	To understand the concept on theories of social and cultural anthropology including ethnographic account of Indian anthropology.
ANT-H610(P)	To inculcate the practical knowledge of museology and field report.

### Course outcomes of Botany

Courses Code	Outcomes
BOT-E101	Understanding the theory and practical knowledge of virus & bacteria, cryptogams including identification and examination of specimens
BOT-E202	Understanding the theory and practical knowledge of Gymnosperms, Angiosperms, Palaeobotany, Applied Botany and Embryology on examination and identification of specimens
BOT-E303	Understanding theory and practical knowledge of plant geography, ecology, plant physiology microbiology
BOT-E404	Understanding the theory and practical knowledge of cytogenetic, biotechnology and biometrics.
BOT-H505	Understanding the knowledge of microbial diversity, plant pathology and embryophyta.
BOT-H506	Understanding the advance plant taxonomy, anatomy, embryology and palynology.
BOT-H507(P)	Understanding the practical knowledge of plant pathology, taxonomy, embryophyta, anatomy, embryology and palynology.
BOT-H608	Understanding the knowledge of ecology, plant physiology and molecular biology.
BOT-H609	Understanding the knowledge of cell biology, genetics, plant breeding, and biotechnology including computer applications.
BOT-H610 (P)	Understanding the practical knowledge of ecology, molecular & cell biology, genetics and biotechnology.

### Course outcomes of Chemistry

Courses Code	Outcomes
CH-E101	On completion of this course, the students will be able to understand: Atomic structure and its evolution, Identify of given elements, periodic classification, Characterize bonding between atoms & chemical bonding, basics of organic molecules, reaction mechanism, stability of organic



	molecules, mechanism of cycloalkanes, cycloalkenes and gas, liquid and solid state including inorganic analysis.
CH-E202	On completion of this course, the students will be able to understand: Acids & bases, Redox, non-aqueous solvents, stereochemistry, aromatic compounds and aromaticity, arenes & aromaticity, alkyl & aryl halides and alcohols, solutions, colloids, surface chemistry and thermodynamics including experiments of organic compounds.
CH-E303	On completion of this course, the students will be able to understand: s-p-d block elements, metallurgy, co-ordination compounds, phenols, ethers, epoxides, aldehydes, ketones, compounds of nitrogen, thermo-chemistry, thermodynamics, chemical equilibrium and kinetics including experiments of physical chemistry.
CH-E404	On completion of this course, the students will be able to understand: Lanthanides, actinides, noble gases, hard & soft acid and bases, carboxylic acids, organometallic compounds, polymers, catalysis, ionic and phase equilibria including estimation of analytical chemistry.
CH-E501(G)	On completion of this course, the students will be able to understand: Nuclear & radioactivity, non-transition elements, alloy, spectroscopy, environmental chemistry, carbohydrates, amino acids, enzymes, alkaloids, conductance, macromolecules, quantum and photochemistry including experiments of organic and physical chemistry.
CH-E601(G)	On completion of this course, the students will be able to understand: Complex compounds, metallurgy, polymers, bioinorganic, organo-metallic, elimination reactions, organic synthesis, surfactants, symmetry, medicinal and quantum chemistry including experiments of Inorganic and physical chemistry.
CH-H505	On completion of this course, the students will be able to understand: Nuclear, radioactivity, transitional and non-transitional element series, alloys, UV-visible & infrared spectroscopy, including environmental chemistry.
CH-H506	On completion of this course, the students will be able to understand: Carbohydrates, amino acids, peptides, proteins, nucleic acids, fats, oils, detergents, dyes, steroids, terpenoids, alkaloids and enzymes.
CH-H507	On completion of this course, the students will be able to understand: Mathematical & quantum chemistry, photochemistry, energetic, specific Heats, electromagnetic radiations of molecules, macromolecules and conductance.
CH-H508(P)	On completion of this course, the students will be able to understand: The practical experiments of Inorganic and physical chemistry.
CH-H608	On completion of this course, the students will be able to understand: Complex compounds, magnetic properties of transition metals, Inorganic polymers, thermo-analytical methods, organo-metallic, bio-inorganic, Inorganic rings and non-stoichiometric compounds.
CH-H609	On completion of this course, the students will be able to understand: Organo-sulphur compound, elimination reactions, organic synthesis, heterocyclic compounds, medicinal chemistry, chromatography, spectroscopy and green chemistry.
CH-H610	On completion of this course, the students will be able to understand: Quantum, diatomic molecules, electrochemistry, statistical thermodynamics, surface-active agents including computer applications.
CH-H611(P)	On completion of this course, the students will be able to understand: The practical knowledge for qualitative analysis, organic preparations and experiments of physical chemistry.

### Course outcomes of Economics

Courses Code	Outcomes
ECO -E101	Understanding the knowledge of Indian economic problems, development and populations, industrialization, agriculture, planning and development issues.
ECO -E202	Understanding the knowledge of microeconomics, theory of demand and production, perfect





	competition and price discrimination.
ECO -E303	Understanding the knowledge of walrasian system, price and employment factor, criteria of social welfare, market with asymmetric information, externalities and public goods.
ECO -E404	Understanding the knowledge of theories of income & employment, neo-classical synthesis, inflammation and growth theory.
ECO -H505	Understanding the knowledge of public finance, technique of budgeting, principle of taxation and public expenditure and borrowings and centre state financial relations.
ECO -H506	Understanding the knowledge of political economy of development, global capitalist system and evolution of society and state economy.
ECO -H507	Understanding the knowledge of quantitative methods for economics analysis including importance of statistics and mathematical in economics.
ECO -H608	Understanding the knowledge of economic growth and development, policy issues and transfer & trade policies.
ECO -H609	Understanding the knowledge of environmental economics, problems, policies, solutions, market failure, economics of sustainable development and renewable resources.
ECO -H610	Understanding the knowledge of international economics, modern theory of trade and policies and balance of payments including international monetary fund.

### Course outcomes of Education

Courses Code	Outcomes
EDN -E101	Understanding the knowledge of philosophical ,sociological role in education
EDN -E201	Understanding the knowledge of educational psychology and pedagogy with classroom behavior.
EDN -E301	Understanding the knowledge of education in ancient, medieval, British India and post-independent period including education in Manipur.
EDN -E401	Understanding the knowledge of elementary, secondary and alternative school education, continuing, population, value, environmental education with work experience.
EDN -H505	Understanding the knowledge about education evaluation and statistics in education.
EDN -H506	Understanding the knowledge of education management and education technology.
EDN -H507	Understanding the knowledge of educational guidance and curriculum construction.
EDN -H608	Understanding the knowledge of educational thought and practices of Mahatma Gandhi, Swami Vivekananda, Rabindranath Tagore, John Dewey and Jean Jacques Rousseau.
EDN-H609	Understanding knowledge about the nature and scope of child psychology including development up to pre-adolescence, development of understanding, intelligence, self and personality.
EDN-H610	Understanding the practical knowledge of experimental work & test administration of education and statistics.

### Course outcomes of English language

Courses Code	Outcomes
ENG-GI	Understanding the knowledge of grammar, essay, précis, comprehension, paragraph, report writing and short stories
ENG -GII	Understanding the knowledge of William Shakespeare : Merchant of Venice and poetries of William Blake, William Wordsworth, PB Shelley, Alfred Lord Tennyson, Robert Browning, Rabindranath Tagore etc.
ENG-E101	Understanding the knowledge of English literature on history, poetry and drama from old English to the 19 <sup>th</sup> century.
ENG -E202	Understanding the knowledge about trends in British fiction. (age-wise)
ENG -E303	Understanding the knowledge of western criticism on Aristotle's poetics, TS Elliot, DH Lawrence, William Wordsworth, Matthew Arnold, tragedy & comedy and classicism & romanticism.



ENG -E404	Understanding the knowledge of linguistics & English language.
ENG-H505	Understanding the knowledge about 20 <sup>th</sup> century British literature of poetry, fiction and drama.
ENG -H506	Understanding the knowledge about Indian writing in English of poetry, fiction and drama.
ENG -H507	Understanding the knowledge about literary theory of structuralism, post-structuralism, post-modernism, post-colonialism, feminism and Marxism.
ENG -H608	Understanding the knowledge about north-east literature including poetry, fiction and short stories.
ENG -H609	Understanding the knowledge about Commonwealth and American literature including poetry and fiction.
ENG -H610	Understanding the knowledge about European literature in translation including poetry, fiction and drama.

### **Course outcomes of History**

Courses Code	Outcomes
HIS - E101	To understand about History of ancient India from early period to 6 <sup>th</sup> century BC
HIS - E201	To understand about History of Delhi Sultanate from 1200 -1526 AD
HIS - E301	To understand about History of modern India from 1600 - 1857 AD
HIS - E401	To understand about History of modern Europe from 1789 - 1945 AD
HIS - H501	To understand about History of ancient India from 600 B.C. - 1200 AD
HIS - H502	To understand about History of Mughol India from 1526 - 1707 AD
HIS - H503	To understand about History of India national movement from 1885 -1947
HIS - H601	To understand about History of Manipur from 33 AD- 1891
HIS - H602	To understand about History of South East Asia from 1800 - 1945
HIS - H603	To understand about the History of America from 1766 - 1945

### **Course outcomes of Home Science**

Courses Code	Outcomes
HS-E101	Understanding the theory and practical knowledge of food science and nutrients.
HS-E202	Understanding the theory and practical knowledge of family resource management.
HS-E303	Understanding the theory and practical knowledge of human development and child welfare service.
HS-E404	Understanding the and practical knowledge of textile, clothing and home science extension education
HS-H505	Understanding the knowledge of food science and nutrition.
HS-H506	Understanding the knowledge of family resource management.
HS-H507(P)	Understanding the practical knowledge of food science and nutrition and family resource management.
HS-H608	Understanding the knowledge of adolescence, dynamics of marriage and counseling.
HS-H609	Understanding the knowledge of textile, clothing and home science extension.
HS-H610(P)	Understanding the practical knowledge of human development, textile clothing and extension education.

### **Course outcomes of Manipuri language**

Courses Code	Outcomes
MAN-G1	To understand the knowledge of Manipuri poetry and essay including Manipuri grammar and compositions.



MAN-G2	Understanding the knowledge of selected Manipuri dramas, novels and short stories.
MAN-E101	To comprehend literary knowledge of Manipuri poems with regard to the analysis of rhythm, expression and presentation.
MAN-E202	Understanding the knowledge of selected Manipuri short stories and novels.
MAN-E303	Understanding the knowledge of linguistic and Manipuri language including phonology.
MAN-E404	Understanding the knowledge on the criticism of translation work of Indian and Western Mythology in Manipuri literature.
MAN-E505	Understanding the knowledge of history of Manipuri literature and old Manipuri literature.
MAN-E506	Understanding the knowledge of Manipuri culture on pre-British colonial and folklore on pre-hindu and post-hindu.
MAN-H505	To enhance knowledge of Manipuri mythological poems of <i>H. Anganghal and Nilbir Shastri</i> and dramas of <i>A. Somorendra and H. Tomba</i> .
MAN-H506	Understanding the knowledge on the translation works in Manipuri novel and drama from Indian writers
MAN-H507	To understand the history of Manipuri literature and its language, plot and style in the past, middle and present times.
MAN-H608	To comprehend and interpret knowledge of old Manipuri literature
MAN-H609	Understanding the knowledge on Manipuri Culture including ritual & rite, administration, trade & commerce, economic condition, communication, art & culture, games & sports, architect & design.
MAN-H610	To trace out and discuss the knowledge of folkloristic culture in Manipuri literature including definition, nature, scope and function.

### COURSE OUTCOMES OF MATHEMATICS

COURSES CODE	OUTCOMES
MAT:E101	Understanding the concept of algebra, convergence of series, matrices and trigonometry.
MAT:E202	To understand the concept of calculus and ordinary differential equations.
MAT:E303	To understand the concept of vector, geometry and probability.
MAT:E404	To understand the concept of mechanics including dynamics, rigid dynamics and statics.
MAT:H505	To understand the concept of abstract algebra and linear algebra.
MAT:H506	To understand the concept of real number system and sequence, functions of several variables, continuity, Riemann integration, improper and multiple integrals.
MAT:H507	To understand the concept of numerical analysis and computer programming in C
MAT:H605	To understand the concept of partial differential equations, laplace transform, calculus of variation.
MAT:H606	To understand the concept of matrix space and complex analysis.
MAT:H60701	To understand the concept of higher mechanics including system of particle, motion of rigid bodies, Lagrangian and Hamiltonian mechanics and canonical transformation.
MAT:H60702	To understand the concept of fluid mechanics including kinetics, equation of motion, dimensional analysis and vortex motion.
MAT:H60703	To understand the concept of probability theory including generating functions and convergence, normal distribution and central limit theorem.
MAT:H60704	To understand the concept of cryptography public key & information security including number theory, book ciphers and DSS & IP security.
MAT:H60705	To understand the concept of spherical trigonometry and astronomy.
MAT:H60706	To understand the practical knowledge of computational mathematics laboratory.
MAT:H60707	To understand the practical knowledge of special theory of relativity and tensors.
MAT:H60708	To understand the concept of algebraic coding theory.





### Course outcomes of Physics

Courses Code	Outcomes
PHY-E101	On completion of this course, the students will be able to understand: The knowledge of dynamics, gravitation, oscillatory and central force motion and special theory of relativity including practical experiments of gravitation and surface tension.
PHY-E202	On completion of this course, the students will be able to understand: To enhance knowledge of thermodynamics, kinetic theory of gases radiation, interference and diffraction, polarization and elements of quantum optics including practical experiments.
PHY-E303	On completion of this course, the students will be able to understand: The knowledge of vector and scalar fields, electric and magnetic field and electromagnetic induction including practical experiments.
PHY-E404	On completion of this course, the students will be able to understand: The knowledge of atomic spectra, radioactivity, mass spectrographs and x-ray, nuclear detectors, models, properties and reactions including practical experiments.
PHY-E505	On completion of this course, the students will be able to understand: The knowledge of Fourier series and solution, semi-conductor diodes, bi-polar junction transistors, amplifier and mathematical physics including practical experiments.
PHY-H505	Understanding the knowledge of Electronics including basic and digital circuits, semiconductor diodes, bi-polar junction and side effect transistors, amplifiers, oscillators.
PHY-H506	Understanding the knowledge on complex variable and functions, partial differential equations, Fourier series in mathematical physics.
PHY-H507(P)	Understanding the Laboratory knowledge of Electronics including circuits, capacitors, diodes, galvanometer and transistors.
PHY-E606	Understanding the knowledge of crystal structure, thermal and magnetic properties of solid, free electron and bond theory of solid including practical experiments.
PHY-H608	Understanding the knowledge of Quantum physics, formalism, Stationary and Eigen states, particle in a one dimensional with potential barrier, harmonic oscillator and hydrogen atom.
PHY-H609	Understanding the knowledge of material physics including crystal structure, electrical and magnetic properties, lattice dynamics, low dimension and superconductivity.
PHY-H610(P)	Understanding the Laboratory knowledge on the experiments of light and spectrometer.

### Course outcomes of Political Science

Courses Code	Outcomes
PHS-E101	On completion of this course, the students will be able to understand: Political theory & dynamic with emphasis and role of politics in the social milieu.
PHS-E202	Understanding the knowledge of western political thought and theories of Plato in the product of human mind and soul.
PHS-E303	On completion of this course, the students will be able to understand: Indian freedom struggle, fasting, strike, non co-operation & civic disobedience movement and Satyagraha.
PHS-E404	On completion of this course, the students will be able to understand: Comparative government politics and British constitution including common law of precedent usages and tradition.
PHS-H505	Understanding the knowledge of International politics and balance of power among the members of the family of Nations.
PHS-H506	On completion of this course, the students will be able to understand: Understanding the knowledge of socialist thought including dialectic materialism and idealism.
PHS-H507	Understanding the knowledge and importance of public administration in modern society.
PHS-H608	To enhance knowledge on the Government and Politics of North East India including political



	organization of Manipur before British rule.
PHS-H609	On completion of this course, the students will be able to understand: Gandhian studies including Satyagraha based on self-sacrifice.
PHS-H610	On completion of this course, the students will be able to understand: The knowledge of Indian political thought including Nehru's foreign policies.



### Course outcomes of Statistics

Courses Code	Outcomes
STA-E101	On completion of this course, the students will be able to understand: The knowledge of Descriptive statistics, measures of central tendency, dispersion, moments, Skewers & Kurtosis and probability including practical knowledge on these topics.
STA-E202	On completion of this course, the students will be able to understand: The knowledge of Random variable, mathematical expectations and generating functions, correlation, curve fitting, regression analysis, limit theorems, finite difference, and numerical analysis including practical knowledge on these topics.
STA-E303	Understanding the knowledge of Discrete and continuous probability distributions, theory of estimation and attributes, sample survey and demography including practical knowledge on these topics.
STA-E404	On completion of this course, the students will be able to understand: The knowledge of Sampling distribution, testing of hypothesis, time series, Enova and design of experiments-I, and index numbers including practical knowledge on these topics
STA-E501	Understanding the knowledge of Basic mathematics, computer programming, probability distribution, theory of estimation, design of experiments and simple survey including practical knowledge on chart, sum, product, MSSEXCEL, plot, confounding and sampling.
STA-H501	On completion of this course, the students will be able to understand: The knowledge of Set theory and measure, basic mathematics, determinant and matrices, computer programming,
STA-H502	Understanding the knowledge of Normal and vicariate probability distributions, theory of estimation, design of experiments-II, correlation and curve fitting, sample distribution-II,
STA-H503(P)	On completion of this course, the students will be able to understand: The knowledge of Practical knowledge on normal distribution, test of goodness, correlation, pearsonian curves, RED, LSD, FORTRAN and MSEXCEL.
STA-E601	Understanding the knowledge of Sampling distribution, standard quality control, correlation, operation research, psychological, educational, and Indian official statistics including practical knowledge on these topics.
STA-H601	On completion of this course, the students will be able to understand: The knowledge of Statistical inference-II, statistical quality control, time series-II, sample survey-II, national income and demand and supply analysis,
STA-H602	Understanding the knowledge of Finite difference and numerical analysis-II&III, operation research, psychological and educational statistics, Indian official statistics.
STA-H603(P)	On completion of this course, the students will be able to understand: The knowledge of Practical knowledge on random and systemic sampling, trend values, control chart, finite difference, numerical, scale, IPP.



**Course outcomes of Zoology**

Courses Code	Outcomes
ZOO-E101	On completion of this course, the students will be able to understand: The knowledge of taxonomy, zoogeography and palaeozoology including laboratory practical on their principles of classification.
ZOO-E202	On completion of this course, the students will be able to understand: The knowledge of Protozoa, metazoa, porifera, coelenterate, ctenophore, platyhelminthes, nemathelminthes, annelid, arthropoda, mollusca, echinodermata and minor phyla including laboratory practical on the functional anatomy of non-chordata.
ZOO-E303	On completion of this course, the students will be able to understand: The knowledge of Chordata, agnatha, pisces, amphibian, reptilian, aves and mammalian and comparative anatomy including practical on the anatomy of chordate.
ZOO-E404	On completion of this course, the students will be able to understand: The knowledge of Biodiversity, environmental biology, applied zoology and computer application including laboratory practical on Biodiversity, environmental biology and applied zoology
ZOO-H505	On completion of this course, the students will be able to understand: The knowledge of Cellular and nuclear organization, cytoplasmic organelles, cell regulatory mechanism and genetics.
ZOO-H506	On completion of this course, the students will be able to understand: The knowledge of Evolution, adaptation, ethology, biotechnology and bioinstrumentation.
ZOO-H507(P)	On completion of this course, the students will be able to understand: The knowledge of Laboratory practical on cell biology, genetic evolution, adaptation, ethology, biotechnology and bioinstrumentation.
ZOO-E509	On completion of this course, the students will be able to understand: The knowledge of Cell biology, genetics evolution and biological techniques.
ZOO-E510(P)	On completion of this course, the students will be able to understand: The knowledge of Laboratory practical on Cell biology, genetics evolution adaptation, ethnology, and biotechnology and bioinstrumentation.
ZOO-H608	On completion of this course, the students will be able to understand: The knowledge of Animal physiology of muscle, nerve, sense organs, heart, blood, circulation, respiration, excretion endocrinology and immunology.
ZOO-H609	On completion of this course, the students will be able to understand: The knowledge of Developmental biology of genesis, fertilization, egg, foetal, tissue, metamorphosis, histology and biological chemistry
ZOO-H610(P)	On completion of this course, the students will be able to understand: The knowledge of Laboratory practical knowledge on animal physiology, endocrinology, immunology, developmental biology, histology and biological chemistry.
ZOO-E611	On completion of this course, the students will be able to understand: The knowledge of Animal physiology, histology, developmental biology and biological chemistry.
ZOO-E612(P)	On completion of this course, the students will be able to understand: The knowledge of Laboratory practical on Animal physiology, histology, developmental biology and biological chemistry

**Course outcomes of Geology**

Courses Code	Outcomes
GL-101	Understanding the theory and practical knowledge of General Geology, Structural Geology & geomorphology
GL-202	Understanding the theory and practical knowledge of Descriptive Minerology, Optical Minerology, Crystallography & Geochemistry
GL-303	Understanding the theory and practical knowledge of Petrology ( Igneous Petrology, Sedimentary Petrology & Metamorphic Petrology)



GL-404	Understanding the theory and practical knowledge of Paleontology & Stratigraphy
GL(H)-505	Understanding the theory and depth practical knowledge of Structural Geology, Tectonics and Petrology( Structural Geology & Tectonics, Igneous Petrology, Metamorphic Petrology, Sedimentary Petrology).
GL(H)-506	Understanding of Economic Geology, Economics mineral deposit of India, Mineral Economics, Fuel Geology; Mining & Exploration Geology.
GL(H)-507P	Field visit to understand the formation of rocks and different structure available on the earth and practical
GL(H)-608P	Understanding of Geophysics, Engineering Geology and Hydrogeology
GL(H)-609P	Understanding the Environmental aspect of Geology, Quaternary Geology, Photogeology, Remote Sensing and Computer Application
GL-(H) 610	Practical of rock ,mineral specimen etc

### Course outcomes of Geography

Courses Code	Outcomes
GG-101	To understand the definition of Geography and its relationship with other disciplines. Understands the contribution of Arab, Greek French and Germany geographers. Cartography and its history
GG-202	Understanding of physical geography ,solar system and origin of earth, natural process on the earth
GG-303	Understanding of human geography, Spatial distribution of racial and linguistic, Economic activities of mankind.
GG-404	Understanding of the population and settlement geography
GGL(H)-505	Understanding landform process, relationship with other disciplines. Studies of earth interiors
GG(H)-506	Understanding the geography of India
GG(H)-507P	Understanding the art of making maps, map projection
GG(H)-608P	Understanding of the Economic Geography
GG(H)-609	Understanding of the World Regional Geography
GG-(H) 610P	Practical cartography

### Course outcomes of Sociology

Courses Code	Outcomes
SOC-101	To understand the nature and scope of Sociology and its relationship with other social science. Individual society and social change.
SOC-202	To understand the sociology of India
SOC -301	Understanding of the social theory, conflict, exchange and interactionist theory
SOC-401	Understanding of Sociology of Thought
SOC-505(H)	Introduction to Sociological Research, techniques of social data collection, presentation and interpretation of data.
SOC-506(H)	Understanding of political sociology
SOC-507(H)	Understanding of Social Demography, demographic theories, population structures and population policy of India
SOC-608(H)	Understanding of sociology of gender
SOC-609(H)	Understanding of marginal group, discrimination of differently abled and HIV related victims
SOC-610(H)	Understanding of social problems, communalism, secularism and regionalism, child abuse, child labour, drug abuse and addiction etc.