Programme of Agricultural Entomology
According to 4th Dean's Committee

Programme: Agricultural Entomology
Programme outcome:

1. Attain a solid foundation in insect biology, including general entomology, basic systematics, morphology, physiology, and biodiversity.

2. Understand evolution and biodiversity generation through macro- and micro-evolutionary processes, including how these processes have formed and diversified insects.

3. Develop the ability to read and interpret scientific papers in entomology, and critically assess content.

4. Attain skills in written and verbal scientific communication.

5. Develop the ability to design and perform a scientific study on insects, and to analyze results.

6. Develop an understanding of the distributions and abundances of organisms including insects, and their interactions with each other and the environment.

7. Learn modern techniques in insect science such as molecular biology, bioinformatics, and/or imaging.

course outline of
Master of Science Agronomy (Agriculture)

Sr. No.	Code	Course Title	Course Outcome
1.	AU. Agron. 501	Modern Concepts in Crop production	To impart knowledge on advanced concepts of crop growth and productivity in relation to climate change, modern concepts of tillage and farm mechanization, principles and components of organic farming, precision farming and resource conservation technology
2.	AU. Agron. 502	Principles and Practices of Soil Fertility and Nutrient Management	To understand the knowledge on functions and deficiency symptoms of plant nutrients, nutrient cycle, preparation and use of organic manures, time and methods of commercial fertilizers application
3.	AU. Agron. 503	Principles and Practices of Weed Management	To understand the knowledge on weed biology, classification and characteristics, herbicide application techniques, different methods of weed control and integrated weed management
4.	AU. Agron. 504	Principles and Practices of Water Management	To understand the principles involved in estimating water requirement for different crops, irrigation scheduling and approaches, ideologies pertaining to water management in problem soils
5.	AU. Agron. 505	Agrometeorology and Crop Weather Forecasting	To acquire knowledge on agro meteorology and its different variables, onset and withdrawal of monsoon, crop seasons, evapo transpiration and its effect on crop production and crop weather calendars
6.	AU. Agron. 506	Agronomy of Major Cereals, and Pulses	To have knowledge about the *Kharif* cereals, *Rabi* cereals, *Kharif* pulses, and *Rabi* pulses and their cultivation practices with post harvest technologies
7.	AU. Agron. 507	Agronomy of Oilseed, Fibre and Sugar Crops	To gain knowledge about importance of oilseed, fibre and sugar crops, their beneficial and economic importance to the farming communities and cultivation practices
8.	AU. Agron. 508	Agronomy of Medicinal, Aromatic and Under- utilized Crops	To impart knowledge on importance of medicinal and aromatic plants, cultural practices, climate and soil requirements
9.	AU. Agron. 509	Agronomy of Fodder and Forage Crops	To impart knowledge on adaptation, distribution, improved varieties, quality aspects, cultural practices of important

			fodder crops, year round fodder production and management, methods of hay and silage making
10.	AU. Agron. 510	Agrostology and Agroforestry	To gain knowledge about importance and ecology of grassland, pasture and agro forestry system, crop production in agrostology and agroforestry, silvipastoral system, tree characteristics and nutritive value
11.	AU. Agron. 511	Cropping Systems	To impart knowledge on definition, concept and types of cropping system, allelopathic effects, competition relations, crop diversification for sustainability, crop residue management, plant ideotypes
12.	AU. Agron. 512	Dryland Farming	To gain knowledge about concept of dry land farming, constrains of crop production in dry land areas, drought, contingent crop planning, drought management strategies, techniques and practices of soil moisture conservation
13.	AU. Agron. 513	Principles and Practices of Organic Farming	To have knowledge about basic concept of organic farming, types of organic manures, biofertilizers, crop rotation, intercropping, allelopathy and crop diversification
14.	AU. Agron. 591*	Master Seminar	Presentation skills, discussion skills, listening skills, argumentative skils, critical thinking, help students to immerse themselves in the topic
15.	AU. Agron. 599*	Master Research	To work on a research independtly, develop thoughts and ideas, improve writing skills,

After completing master degree courses the candidates have further teaching and research studies option. Candidates can work in the private sector on applied research and product development or engage in basic research, mainly in universities or government agencies

Programme outcome of Agronomy

According to 5th Deans' Committee

- To provide the sound knowledge in the Agriculture required to solve common problems in management of crop cultivation.
- Develop the skills to manage agricultural farms, enhance quality of farm produces and their commercial utilization.
- How to operate the agricultural tools in the field.
- Identify the different agricultural tools, fertilizers, seeds and weeds.
- Get knowledge for differentiate the fertilizers and organic manures.
- Develop the understanding of the relationship between weather variables and agricultural crops.
- Students develop knowledge of principles of organic farming in context of improving human health and amelioration of the environment.
- Understand all related methods in agriculture to increase the profit from crop fields.
- Acquaint the knowledge on different Kharif, Rabi and Zaid season crops, its classification (cereal crops, oilseed crops, pulse crops, cash crops, fodder crops) and its importance in Indian economy.

- To provide the sound knowledge in the Agriculture required to solve common problems in management of crop cultivation.
- Develop the skills to manage agricultural farms, enhance quality of farm produces and their commercial utilization.
- Operate the agricultural tools in the field.
- Identify the different agricultural tools, fertilizers, seeds, and weeds.
- Get knowledge for differentiate the fertilizers, manure.
- Develop the understanding of the relationship between weather variables and agriculture.
- Students develop knowledge of principles of organic farming in context of improving human health and amelioration of the environment.
- Understand all related methods in agriculture to increase the profit from crop fields.
- Acquaint the knowledge on different Kharif, Rabi and Zaid season crops, its classification (cereal crops ,oilseed crops, pulse crops, sugar crops, fodder crops) and its importance in agriculture and national economy.

Course out come and Programme outcome (Floriculture+Environemtn + IPR)

COURSE CODE	COURSE TITLE	SEMESTER	COURSE OUTCOME	Programme outcome
• **FLORICULTURE**				
AU.VSF. 231 3 (2+1)	Production Technology of Vegetables and Flowers	III	• analyze production technology of different ornamentals • examine ornamental garden and its planning • raising of plants and their maintenence	• Thorough knowledge of the ornamental horticulture will make students well versed with the ornamental crops and its use in development of a landscape
AU.HORT 245 3 (2+1) Elective	Landscaping	IV	• planning of gardens and its commercialization • cultivation of various ornamentals • developing landscape plan for bio aesthetic planning of rural and urban areas	
• **ENVIRONMENTAL SCIENCES**				
AU. Env. 361 2(1+1)	Environmental Science	IV	• examine various ecosystems • apply knowledge of natural resources for environment conservation • observe several case studies of environmental pollution	• knowledge of environment make students aware and active in identifying problems associated with recourse use and degradatio
AU. ENV.	Environmental	III	• Knowledge of	

DM. 231	sciences and disaster management		scarcity and sustainable use of natural resources • Examine the biodiversity and its conservation • Apply knowledge to prevent any disaster	n of environment as well as finding solution
• **FOOD TECHNOLOGY**				
AU. FSN 262 2 (2+0)	Principles of food science and nutrition	VI	• examine foods and its type based on nutrition • apply knowledge of food chemistry in diet planning • observe food composition for a balanced diet	• student will have a knowledge of proper and balanced diet and the impactit has on human health
• **SOCIAL SCIENCES**				
AU.HVE.111 1(1+0)	Human Value and Ethics	I	• self exploration of principles and philosophy of life • knowledge of self motivation and ethics • awareness of body mind and soul	• Students appreciation and motivation to set a goal in life
AU.IPR.351 1(1+0)	Intellectual Property Rights	V	• Examine various IPRs in India • Importance of IPR in agricultural inventions • Use of IPR in protection and commercialization of	• Students made aware of their rights as an innovator as well as how to utilize these rights

			agricultural produce	

11	Programme outcome	The contents and subject matter in the programme is so arranged and presented that the undergraduate students can understand the realities and complexities of agriculture production and marketing system, Government policies, establishment of agro-based project and benefit from it, etc.

Programme outcome of Horticulture
According to 5th Deans' Committee

Programme outcome (PO):

After completion of the programme the students will be able to:

1. Transfer knowledge of Horticulture in the field of agricultural research especially in horticulture including fruits, vegetables, flowers, spices, medicinal and aromatic plants and their management.
2. Develop innovative agro- techniques to enhance the production and productivity of horticultural crops.
3. Increase farmers' income through adopting hi-tech horticulture.
4. Create job opportunities for the unemployed youths through teaching, research, training, extension etc., especially for the development of socially and economically depressed segment of society.
5. Establishment of models nurseries in rural areas for availability of quality planting materials.
6. Conservation and exploitation of biological diversity through crop management.
7. Prolong the post harvest storage life of horticultural commodities and increase income through value addition of the products and to reduce post harvest losses.

Programme and course outcome of Horticulture
According to 4th Deans' Committee

Course outcome

Sr. No.	Course outline	Topic	Course outcome
1.	AU. Hort. 351	Production Technology of fruit crops	• Impart basic knowledge about the importance and management of temperate fruits grown in India. • Study of commercial varieties of regional, national and international importance, ecophysiological requirements, recent trends in propagation, rootstock influence, planting system, cropping systems, root zone and canopy management, nutrient management, water management, fruit set and development, abiotic factors limiting fruit production, physiological of flowering, and remedies, quality improvement by management practices; maturity indices, harvesting, grading, packing, precooling, storage, transportation and ripening techniques.
2.	AU. Hort. 362	Production Technology of Spices, Aromatic, Medicinal and Plantation Crops	• Impart comprehensive knowledge about the production technology of medicinal and aromatic crops. • To impart knowledge on the principles of horticulture, propagation and production techniques of tropical, sub tropical, temperate spice crops • Study of Herbal industry, Indian system of medicine, indigenous Traditional Knowledge, IPR issues, Classification of medicinal crops, Systems of cultivation, Organic Production, Role of institutions and NGO's in production, GAP in medicinal crops production. • Knowledge of production technology forAromatic, Medicinal and Plantation Crops
3.	AU. Hort. 363	Post-harvest Management and Value Addition of Fruit and Vegetables	• Students will get to know about different processing techniques of fruits and vegetable crops and they make value added products like jam, jelly,

			squash, juice etc
4.	AU. Hort. 474	Commercial Fruit Production	• Students will learn different production technology for fruit Crops to gain higher productivity for marketing • learn about economic and nutritional advantages
5.	AU. Hort. 475	Nursery management for horticultural crops	• Familiarization with principles and practices of nursery management for Horticultural Crops. • Knowledge of nursery management, nursery establishment and nursery rules and regulation.
6.	AU. Hort. 476	Processing and value-addition of horticultural crops	• Students will get to know about different processing techniques of horticulturalcrops and they make value added products like jam, jelly, squash, juice etc
7.	AU.Hort. 473	Commercial Floriculture	• Students will learn different production technology of flowers for commercial production and marketing
8.	AU.Hort. 474	Protected Cultivation of Horticultural Crops and Seed Production of Vegetables and Flowers	• Students will produce different horticultural Crops under poly house/ protected cultivation • Educate principles and methods of quality seed and planting material production in and vegetables and flowers. • Definition of seed and its quality, new seed policies; DUS test, scope of vegetable seed industry in India. • Genetical and agronomical principles of seed production; methods of seed production; use of growth regulators and chemicals in vegetable and flowers seed production; floral biology, pollination, breeding behaviour, seed development and maturation; methods of hybrid seed production.

Programme outcome (PO):

After completion of the programme the students will be able to:

1. Transfer knowledge of Horticulture in the field of agricultural research especially in horticulture including fruits, vegetables, flowers, spices, medicinal and aromatic plants and their management.
2. Develop innovative agro- techniques to enhance the production and productivity of horticultural crops.
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Programme outline of Soil Sciene

According to 4th Dean's Committee

Overall Course Programme outcome:

At the end of the course, student will able to understand:

To be able about procedure of soil testing and establish soil testing laboratory in future as a entrepreneur.

To aware the students about causes, effect and remedies to prevention and mitigation of soil pollution.

Course outline of Crop Physiology

According to 4th Dean Committee

SR. NO.	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
1	**AU.Crop Physiol.241**	**Crop Physiology**	❖ Role of crop physiology in crop health. ❖ Identification of deficiency symptoms of nutrients. ❖ To understand the metabolic and synthetic pathway of biomolecules. ❖ To know the difference between C3, C4 and CAM plant. ❖ Importance of growth Harmon in Agriculture.
According to 5th Dean Committee			
SR. NO.	**COURSE CODE**	**COURSE TITLE**	**COURSE OUTCOMES**
1	**AU.Crop Physiol.121**	**Fundamentals of Crop Physiology**	❖ To impart basic knowledge on various functions and processes related to crop production, mineral nutrition, plant growth regulators and environmental stresses. ❖ Students will come to know the various functions and processes related to crop production, mineral nutrition, plant growth regulators and environmental stresses
2.	**AU. Bio.111**	**Introductory biology**	❖ The student will be able to read, understand, and critically interpret the primary biological literature in his/her area of interest. ❖ The student will be able to design, conduct, analyze, and communicate (in writing and orally) biological research. ❖ The student will recognize and be able to apply basic ethical principles to basic and applied biological/biomedical practice and will understand the role of biological/biomedical science, scientists, and practitioners in society. ❖ The student will be able to explain the process of organic evolution and its underlying principles and mechanisms. ❖ The student will be able to explain the fundamental biological processes of metabolism, homeostasis, reproduction, development, and genetics, and the relationships between form and function of biological structures at the molecular, cellular, organismal, population, and ecosystem levels of the biological hierarchy. 6. The student will

			be able to explain the importance of biodiversity at the genetic, organismal, community, and global scales.
3.	**AU.FOREST.111**	**Introduction to forestry**	❖ To impart knowledge about the basic facts of Forestry as well as agroforestry and familiarize the students with important trees suitable for agroforestry and various agroforestry systems. ❖ The students will learn about the silviculture and nursery technology of important agroforestry tree species.

Programme outcome of Horticulture
According to 4th Deans' Committee

Programme outcome (PO):

After completion of the programme the students will be able to:

1. To impart practical based knowledge on agriculture and allied sectors
2. To impart in-depth practical knowledge in rural development
3. To provide hand hold exposure on agriculture -allied sectors like Diary, Apiculture, Fishery, Poultry science etc.
4. To disseminate different rural technologies through various extension activities
5. To identify and overcome the problems encountered in day-to-day life in agriculture and social sector
6. To provide knowledge on commercial agricultural production practices
7. To make students competitive in pursuing higher studies
8. To get an exposure to a new rural area and the socio-economic condition of people
9. To provide knowledge from ancient to modern agricultural practices
10. To face the rural reality during the rural living and learning experience
11. To impart in-depth practical knowledge in crop cultivation practices
12. To cope with adverse situations during their rural staying at different remote parts of rural area
13. To provide knowledge on working of different farm implements
14. Detailed knowledge on various agri-business activities
15. To build the manpower for serving the rural community
16. To disseminate recent agricultural technologies through extension

Programme and course outcome of Horticulture
According to 5th Deans' Committee

Course outcome

Sr. No.	Course outline	Topic	Course outcome
1.	AU.Ag.Extn.111	Rural Sociology & Educational Psychology	• The students will be able to acquaint the knowledge on various aspects related to rural society, nature and structure of Indian rural society, social stratification, social institution, cultural concept, meaning and significance of agricultural extension and social groups. • Develop the evaluative thinking on need of soft skills (selfmotivation, learning attitude, positive attitude, aspiring thoughts) while improvising oneself. • Analyzing attitude on rural society, nature and structure of rural society and components of rural society
2.	AU.Ag. Extn.122	Fundamentals of Agricultural Extension Education	• The course intends to expose students to the fundamentals of extension education, extension systems in India, programme planning and rural development efforts. • The course will also provide an opportunity to students to visit different organizations involved in extension activities and rural development work
3.	AU.Ag. Extn.123	Communication Skills and Personality Development	• Acquaint the knowledge on Listening, Speaking, Reading and Writing Skills along with classification; General &

			Technical Article and writing principles of these articles; comparison between Individual & Group presentation; organization of seminars & conferences and formats of Public Speaking • Develop evaluative thinking on variations between General & Technical Articles with the way of writing, how to prepare for public speaking and the principles to be followed and significance of Field Diary & Lab Record for an agriculture student
4.	AU.Ag. Extn.244	Agricultural Journalism	• Students will learn principles and professional skills for writing, editing and seminar. • This course also imparts skills on publications production, public relations and internet communications on agriculture.
5.	AU.Ag. Extn.355	Entrepreneurship Development and Business Communication	• To impart knowledge on different extension methods and approaches used for transfer of agricultural technology. • The course will also enable to develop practical skills on preparation of different extension teaching methods.

Programme outcome (PO):

After completion of the programme the students will be able to:

1. To impart practical based knowledge on agriculture and allied sectors
2. To impart in-depth practical knowledge in rural development
3. To provide hand hold exposure on agriculture -allied sectors like Diary, Apiculture, Fishery, Poultry science etc.
4. To disseminate different rural technologies through various extension activities
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9. To provide knowledge from ancient to modern agricultural practices
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12. To cope with adverse situations during their rural staying at different remote parts of rural area

13. To provide knowledge on working of different farm implements
14. Detailed knowledge on various agri-business activities
15. To build the manpower for serving the rural community
16. To disseminate recent agricultural technologies through extension

M.Sc. ENTOMOLOGY

S. NO.	PROGRAM SPECIFIC OUTCOMES
1.	Develop fundamental knowledge on different theories, concepts of basic and applied
	Entomology and gaining detailed knowledge about insects and their usage in agriculture
2.	Creating awareness about how to maximize the utilization of natural resources and skills of teaching, research and extension activities in the field of plant protection
	specialization to entomology.
3.	Capability to implement Different basic and innovative tools of pest management in
	crop field benefiting the farming communities and their commercial use.
4.	Entrepreneurship ability in the commercial field of entomology like bee keeping, sericulture and lac culture.
5.	Skill in practical aspects like pesticide formulation, calculation of dose of specific pesticide as well as skill to handle different instruments in laboratory useful in entomological research

SCHOOL OF PHYSIOTHERAPY

Programme outcomes

PROGRAMME OUTCOMES:

Bachelor of Physiotherapy Course (BPT): It is a rewarding career in field of medical science. Physiotherapy or Physical Therapy is an allied health profession that helps people increase , maintain or restore their physical mobility, function and strength. BPT course is a full time course. Duration of the course is 4 years and six months followed by compulsory six months rotatory internship in leading hospitals. The four years include theoretical classes and clinical exposure in multi-specialty hospitals . After completing the course a student can opt for working in any hospital or can run their own clinical setups. They can go for higher studies after BPT. Various specialization options are available for students in the field of physiotherapy : orthopedics, neurology, cardiopulmonary, sports, pediatrics, gynecology, musculoskeletal etc.

ABHILASHI UNIVERSITY

ENGINEERING AND MANAGEMENT

B.TECH (C.S.E)

PROGRAM OUTCOME	• An ability to apply knowledge of computing and mathematics appropriate to the discipline. An ability to identify, formulates, and develops solutions to computational challenges. And ability to design, implements, and evaluate a computational system to meet desired needs within realistic constraints. An ability to function effectively on teams to accomplish shared computing design, evaluation, or implementation goals. • An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession. An ability to communicate and engage effectively with diverse stakeholders.

COURSE OUTCOME

IST SEM		
COURSE NAME	**COURSE CODE**	**COURSE OUTCOME**
Engineering communication skill	**AUBT-101**	To enable them to communicate confidently and competently in English language in all spheres.
Engineering mathematics-I	**AUBT-102**	Basic understanding of functions of several variables and multiple integrals
Engineering Physics	**AUBT-103**	To understand the basic concepts and experiments of modern physics
Engineering mechanics	**AUBT-104**	Understand kinematic and kinetic analysis and energy and momentum methods for attacking problems on particles, systems

		of particles and rigid bodies in motion.
Computer fundamentals and programming in C++	**AUBT-105**	To able to implement to write, compile and debug programs in C++ language.
Engineering drawing & graphics	**AUBT-106**	Students will be able to acquire thorough knowledge of carrying out various operations in mechanical engineering workshop.
Environment and ecology	**AUBT-107**	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

2ND SEM		
COURSE NAME	**COURSE CODE**	**COURSE OUTCOME**
Business communication	**AUBT-101**	To enable them to communicate confidently and competently in English language in all spheres.
Engineering mathematics-II	**AUBT-102**	Basic understanding of functions of several variables and multiple integrals
Engineering chemistry	**AUBT-103**	Understand the theory based ideas in Solid state chemistry and its importance in engineering.
Principle of electrical engineering	**AUBT-104**	Understand the construction, operating principle and characteristics of DC machine, single phase transformer and three phase induction motor.
Fundamental of electronics engineering	**AUBT-105**	Explain the operating principles of different applications of OPAMP such as Adder, Subtractor, Integrator, Differentiator, Inverting amplifier, Non-inverting amplifier etc and can compute the voltage gain.
Workshop technology	**AUBT-106**	Students will be able to acquire skills in basic engineering practice for creating objects from raw materials.
Disaster management	**AUBT-107**	To justify air, water and land resources, health and environmental restoration.

3RD SEM

COURSE NAME	COURSE CODE	COURSE OUTCOME
Probability & Statistics	AUBTCSE-201	To analyze various probabilistic use. To design statistical methods or models
Industrial economics and management	AUBTCSE-202	Utilize the tools and techniques for economic analysis of alternative 15 opportunities, considering time value of money and risk associated with returns. Recognize the fundamentals of Management thoughts that are vital for the development of conceptual frame work of Management as a discipline.
Data structure	AUBTCSE-203	To compare different algorithms, their advantages and disadvantages, choose appropriate data structure as applied to specified problem definition.
OOPS using C++	AUBTCSE-204	A competence to design, writes, compile, test and execute straightforward programs using a high level Language and also applying the knowledge of OOP.
Digital electronics	AUBTCSE-205	To state differences between number systems and describe some different codes. To explain the function of basic digital combinatorial circuits and sequential circuits.
Computer architecture and organization	AUBTCSE-206	Recognize and manipulate representations of numbers stored in digital computers. Recall the history and development of modern computers, developing an appreciation for the potential and directions for future changes.
Sociology& elements of Indian history for engineers	AUBTCSE-OE*-207	The objective of this course is to familiarize the prospective engineers with elements of Indian history and sociological concepts and theories by which they could understand contemporary issues and problems in Indian society.

4TH SEM		
COURSE NAME	COURSE CODE	COURSE OUTCOME
Optimization and Calculus of Variations	AUBTCSE-211	To understand the graphical ideas which should be used by various computer applications in Soft Computing like data mining, image processing, clustering, image capturing etc.
Human Values and Professional Ethics	AUBTCSE-212	To describe confidentiality, professional behaviour to ethical dilemmas and determine appropriate approach. CO3 To apply fundamental ethical principles of integrity, objectivity, professional competence, due care

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Database Management System	**AUBTCSE-213**	Demonstrate an understanding of relational database using normalization theory. Transform an information model into a relational database schema and to apply a data definition language, data manipulation language and/or utilities to implement the schema using a SQL.
Operating System	**AUBTCSE-214**	To know the basic principles of operating systems and compare different styles of operating systems.
Theory of Computation	**AUBTCSE-215**	To introduce students to the mathematical foundations of computation including automata theory; the theory of formal languages and grammars; the notions of algorithm, decidability, complexity, and computability.
Microprocessor & Peripherals	**AUBTCSE-216**	To define the detailing (8085 IC, RAM, ROM, keyboard, display unit, crystal oscillator etc.) of 8085 training board. CO2 To explain 8085 microprocessor instruction set, addressing mode and the procedure for storing data and execution of program.
Law for Engineers	**AUBTCSE-OE*-217**	Be able to understand some of the legal terminologies and the implications of different laws in business management. Be able to analyze situations and use effective decision making and problem solving techniques in different scenarios.

5TH SEM

COURSE NAME	COURSE CODE	COURSE OUTCOME
Computer Networks	**AUBTCSE-301**	The course objectives include learning about computer network organization and implementation, obtaining a theoretical understanding of data communication and computer networks, and gaining practical experience in installation, monitoring, and troubleshooting of current LAN systems.
Core Java	**AUBTCSE-302**	At the end of the course the participant will be able to: • Implement object oriented programming concepts. Use and create package and interfaces in a Java program. Use graphical

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		user interface in Java programs • Create applets.
Computer Graphics	**AUBTCSE-303**	Explain the core concepts of computer graphics, including viewing, projection, perspective, modelling and transformation in two and three dimensions. apply the concepts of colour models, lighting and shading models, textures, ray tracing, hidden surface elimination, anti-aliasing, and rendering.
Artificial Intelligence and Expert Systems	**AUBTCSE-304**	Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
Software Engineering	**AUBTCSE-305**	Basic knowledge and understanding of the analysis and design of complex systems. Ability to apply software engineering principles and techniques. Ability to develop, maintain and evaluate large-scale software systems.
Analysis and Design of Algorithm	**AUBTCSE-306**	Write rigorous correctness proofs for algorithms. Demonstrate a familiarity with major algorithms and data structures. Apply important algorithmic design paradigms and methods of analysis. Synthesize efficient algorithms in common engineering design situations.
Basics of Operating Systems	**AUBTCSE-OE*-307**	A successful student will be able to understand the basic components of a computer operating sys- tem, and the interactions among the various components. The course will cover an introduction on the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems.
PC Maintenance & Troubleshooting	**AUBTCSE-OE*-308**	Design and develop applications to analyze and solve all computer science related problems. Involve in perennial learning for a continued career development and progress as a computer

		professional.
Management of Information System	**AUBTCSE-OE*-309**	Relate the basic concepts and technologies used in the field of management information systems; 2. Compare the processes of developing and implementing information systems. 3. Outline the role of the ethical, social, and security issues of information systems.

6TH SEM

COURSE NAME	COURSE CODE	COURSE OUTCOME
Advanced Java	**AUBTCSE-311**	Develop error-free, well-documented Java programs; develop and test Java network, search engine, and web framework programs. Learn how to write, test, and debug advanced-level Object-Oriented programs using Java.
Distributed Operating System	**AUBTCSE-312**	To provide hardware and software issues in modern distributed systems. CO2: To get knowledge in distributed architecture, naming, synchronization, consistency and replication, fault tolerance, security, and distributed file systems.
Compiler Design	**AUBTCSE-313**	At the end of the course, students will understand different considerations and phases of compilation, the impact of language attributes upon the compilation process, the effect of hardware feature on the generated code and the practical fundamentals of compiler implementation.
Linux Administration	**AUBTCSE-314**	After completing this course, students will be able to: Perform essential Linux commands such as installation, searches and manipulating files. Operate running Linux systems by managing the boot process, scheduling jobs, updating the system,

		monitoring system performance and managing security.
Data Mining and Data Warehousing	**AUBTCSE-315**	This course gives an introduction to methods and theory for development of data warehouses and data analysis using data mining. Data quality and methods and techniques for pre-processing of data
Modeling and Simulation	**AUBTCSE-316**	Grasping modelling concepts using mean value analysis with some information technology applications. Grasping how to build appropriate simulation models together with their parameterization and the analysis of simulator output data.
Management Information Systems	**AUBTCSE-OE*-317**	Evaluate the benefits and limitations of enterprise systems and industrial networks. Explain relationships between concepts of information systems, organization, management and strategy. Identify the salient characteristics of organizations. Analyze the relationship between information systems and organizations.
Enterprise Resource Planning	**AUBTCSE-OE*-318**	To provide a contemporary and forward-looking on the theory and practice of Enterprise Resource Planning Technology. To focus on a strong emphasis upon practice of theory in Applications and Practical-oriented approach
Multimedia Technology	**AUBTCSE-OE*-319**	Define multimedia to potential clients. Identify and describe the function of the general skill sets in the multimedia industry. Identify the basic components of a multimedia project. Identify the basic hardware and software requirements for multimedia development and playback
7TH SEM		
COURSE NAME	**COURSE CODE**	**COURSE OUTCOME**

Advanced Computer Architecture	**AUBTCSE-401**	Demonstrate concepts of parallelism in hardware/software. Discuss memory organization and mapping techniques. Describe architectural features of advanced processors, Interpret performance of different pipelined processors.
Wireless & Mobile Communication	**AUBTCSE-402**	Analyze the Mobile radio propagation, fading, diversity concepts and the channel modelling. CO3: analyze the design parameters, link design, smart antenna, beam forming and MIMO systems. CO4: analyze Multiuser Systems, CDMA, WCDMA network planning and OFDM Concepts.
Information System & Securities	**AUBTCSE-403**	Students themselves can formulate simple algorithms to solve problems, and can code them in a high-level language appropriate for corporate use.
Cloud Computing	**AUBTCSE-404**	Explain the core issues of cloud computing such as security, privacy, and interoperability. Choose the appropriate technologies, algorithms, and approaches for the related issues. identify problems, and explain, analyze, and evaluate various cloud computing solutions
Big Data Analytics	**AUBTCSE-OE*-405**	To study the basic technologies that forms the foundations of Big Data. To study the programming aspects of cloud computing with a view to rapid prototyping of complex applications. To understand the specialized aspects of big data including big data application, and big data analytics
Embedded System	**AUBTCSE-OE*-406**	Foster ability to understand the internal architecture and interfacing of different peripheral devices with Microcontrollers. Foster ability to write the programs for microcontroller.
Web Technology	**AUBTCSE-OE*-407**	The students will be able to: • Analyze a web page and identify

		its elements and attributes. Create web pages using XHTML and Cascading Style Sheets. Build dynamic web pages using JavaScript (Client side programming). Create XML documents and Schemas.

8TH SEM

COURSE NAME	COURSE CODE	COURSE OUTCOME
Mobile Adhoc & Sensors Networks	**AUBTCSE-OE*-410**	To Learn the Basics of Sensor network and Mobile Ad hoc Networks with its Protocol Design. To Develop MAC routing protocol for sensor and mobile Networks. To Study an efficient protocol for sensor Network. Design the protocol for Sensor and mobile Network.
Distributed Computing	**AUBTCSE-OE*-411**	To provide hardware and software issues in modern distributed systems. CO2: To get knowledge in distributed architecture, naming, synchronization, consistency and replication, fault tolerance, security, and distributed file systems
Soft Computing	**AUBTCSE-OE*-412**	Upon successful completion of the course, students will have an understanding of the basic areas of Soft Computing including Artificial Neural Networks, Fuzzy Logic and Genetic Algorithms. Provide the mathematical background for carrying out the optimization associated with neural network learning.
Mobile Application Development	**AUBTCSE-OE*-413**	This course is concerned with the development of applications on mobile and wireless computing platforms. Android will be used as a basis for teaching programming techniques and design patterns related to the development of standalone applications and mobile portals to enterprise and commerce
Natural Language Processing	**AUBTCSE-OE*-414**	This course introduces the fundamental concepts and techniques

		of natural language processing (NLP). Students will gain an in-depth understanding of the computational properties of natural languages and the commonly used algorithms for processing linguistic information
Cyber Security & Cyber Laws	**AUBTCSE-OE*-415**	Make Learner Conversant With The Social And Intellectual Property Issues Emerging From 'Cyberspace. ... Give Learners In Depth Knowledge Of Information Technology Act And Legal Frame Work Of Right To Privacy, Data Security And Data Protection. 5. Make Study On Various Case Studies On Real Time Crimes.
Project Work – II/ Industrial Project	**AUBTCSE-416 (L)**	An ability to work in actual working environment An ability to write technical documents and give oral presentations related to the work completed

The graduates will have an ability to apply the basic knowledge to real life .problems and also to demonstrate skill for planning, design, construction and maintenance of projects, buildings, roads and other infrastructure projects.

POGRAMME OUTCOME OF BAMS

POs1- After completion of BAMS course the graduates of *Ayurveda* should have thorough knowledge of all the subjects including *Sanskrit* so that so that he/she can have the ability to interpret *Sanskrit* quotations from classical texts of *Ayurveda*

POs2- BAMS graduates must have the practical/clinical skills of all the subjects

POs3- Graduates are able to diagnose and treat the patients independently with *Ayurveda* management

POs4- Graduates should be able to conduct minor procedures and preliminary management of accidental cases

PO5- Graduates should be able to treat the patients with empathy and have proper interpersonal and communication skills as the competent health care professionals

POs6- Graduates ought to have the current knowledge of recent advances in the field by self learning and/ or participating in continuing medical education programs

POs7- Graduates shall be able to critically analyze relevant published research literature and use them appropriately to influence practice of *Ayurveda*

POs8- Graduates must be able to participate in National Health Programmes

COURSE OUTCOME OF BAMS

BAMS 1st Year

PADARTHA VIGYAN AND AYURVED ITIHAS- It explains the fundamental principles of *Ayurveda*

SANSKRIT- In *Ayurveda* it is studied because there is extensive use of this in *Ayurvedic* literature

KRIYA SHARIR- It explores the normal functions of human organs

RACHANA SHARIR- It deals with the study of human body, it is important for operative procedures and practices

MAULIK SIDDHANT AVUM ASTANG HRIDYA- Root source for *Ayurvedic* philosophy and protocol providing clear guidelines in all aspects of health

BAMS 2nd Year

DRAVYAGUNA VIGYAN- It explains the versatile action of *Ayurvedic* drugs

ROG-NIDAN- It contains many elements for diagnosis and prognosis of diseases and it also gives vast knowledge about examination of diseases and patients

RASASHATRA- It basically deals with the preparation of *Ayurvedic* medicines using herbomineral drugs, main objective is to prepare various *Ayurvedic* formulations so as to impart practical knowledge to students

CHARAK SAMHITA P- It explains the basic fundamentals of *Ayurvedic* literature

BAMS 3rd Year

AGADTANTRA- Deals with the study of poison, its therapeutic concern and medico-legal importance

SWASTHAVRITTA & YOGA- It highlights the importance of maintaining of healthy life by adopting principles of a daily regimen, seasonal regimen and ethical regimen to combat the diseases associated with lifestyle changes.

PRASUTI TANTRA EVUM STRI ROGA- It deals with the delivery of child and diseases pertaining to female reproductive system

KAUMARBHRITYA PARICHAYA- This branch deals with neonatal care, infant feeding, diet for newborn, daily and seasonal regimen and also deals with diseases and disorders relating to children including nutrition and immunization of children

CHARAK SAMHITA U- It explains the basic fundamentals of *Ayurvedic* treatment regimens

BAMS 4th Year

KAYACHIKITSA- It involves general principles and approaches related to the treatment procedure. It also offers health benefits in case of ageing or geriatrics health issues

PANCHKARMA- It deals with the purificatory procedures that helps in rejuvenating, revitalization, prevention and treatment of acute and chronic diseases.

SHALYA TANTRA- Deals with the surgical procedures with less complications, minimum blood loss and least re-occurence of disease like *Kshar Sutra Karma* in ano-rectal region

SHALAKYA TANTRA- It deals with the diseases above the clavicle i.e. concerned with disorders of ear, nose, throat, eye, dental, head & neck. It includes various preventive measures, therapeutic measures and surgical methods also

RESEARCH METHODOLOGY AND MEDICAL STATISTICS- Specific procedures/techniques used to identify, select, process and analyze information about the topic.

SCHOOL OF PHARMACY

Programme Outcomes (POs), Programme Specific Outcomes (PSOs)

Programme Outcomes (POs)

POs-1: Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.

POs-2: Planning Abilities: Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.

POs-3: Problem analysis: Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.

POs-4: Modern tool usage: Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.

POs-5: Leadership skills: Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well- being.

POs-6: Professional Identity: Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).

POs-7: Pharmaceutical Ethics: Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.

POs-8: Communication: Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.

POs-9: The Pharmacist and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.

POs-10: Environment and sustainability: Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

POs-11: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self- assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

Programme Specific Outcomes (PSOs)

PSO-1: To prepare graduate to success in technical or professional careers in various pharmaceutical industry and/ or institute and /or Health care system through excellent real time exposure to rigorous education.

PSO-2: To prepare graduate of the program to learn and adapt in a globe of constantly developing trends

PSO-3: To prepare the graduate to have foundation in science, formulation technology, synthetic knowledge, Discovery tools as per the requirement of Pharmaceutical sectors.

PSO-4: To strengthen the professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, and an ability to relate pharmaceutical sciences issues to broader social context.

PSO-5: To streams a lifelong career of personal and practicing professional growth with ethical codes and self esteem

PROGRAM OUTCOME BSC MLT

The B.Sc Medical Laboratory Technology Course is aimed at training students in the laboratory aspects of medical care with a good scientific foundation. These students will be in a position to competently assist in Biochemistry, Pathology, Microbiology Laboratories and Blood Bank in all types of health care delivery systems. Along with the basic knowledge and advanced training in latest technologies in laboratories and blood bank, these graduates will play an important role in determining the quality of health care provided.

As a nation we have gone ahead in many respects. But there are still areas, which demand attention, care and concern. The area identified by our think-tanks is “global standards in Paramedical education and training. Abhilashi University aims to provide trained, qualified, technical personnel in the field of Paramedical Science to support the medical profession.

Programme Name: B.Sc. Medical Laboratory Technology

Programme Objectives:

- To trains students to work as full-fledged lab technologists capable of collecting and storing samples, analyzing them and creating reports based on the sample for further analysis by a doctor.
- To introduce students with elements of blood bank management, materials management, supply chain management as well as lab information system management.
- To train students to clean and maintain lab equipment, manage biomedical.

Programme Outcome (POs)

- Professionally competent to perform basic laboratory test and analyse them so as to choose an appropriate course of action.

Programme Specific Outcomes (PSOs)

- Students will acquire necessary knowledge and skills to work as full-fledged lab technologists capable of collecting and storing samples, analyzing them and creating reports based on the sample for further analysis by a doctor.
- Students will have knowledge of elements of blood bank management, materials management, supply chain management as well as lab information system management.
- Students will be skilled to clean and maintain lab equipment, manage biomedical.
- Professionally competent ¬ Possess commitment to lifelong learning
- Exhibit sense of commitment to the ethical and human aspects of patients care.
- Recognize the role of the clinical laboratory technician in the assurgency of quality health care.

PROGRAMME OUTCOMES

B.A. B.Ed./B.Sc. B.Ed.

The B.A. B.Ed. /B.Sc. B.Ed. programme is a four-year integrated programme that combines general science or arts courses with professional education studies. It is a dual program. To:

- equip future teachers for nation-building following UGC and NCTE criteria.
- equip students with a broad knowledge base in preparation for careers both as elementary and secondary school teachers.
- enable students to integrate discipline knowledge with professional skills to be 21st century teachers.
- provide students with theoretical knowledge and practical abilities in a variety of scientific fields and problem-solving skills.
- develop 21st century teachers as professional and humane teachers.

PROGRAMME OUTCOMES

B.A. B.Ed.

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- provide students with theoretical knowledge and practical abilities in a variety of scientific fields and problem-solving skills.
- develop 21st century teachers as professional and humane teachers.

MBA Program Outcomes

1. Graduating students can synthesize the knowledge, skills, and tools acquired in the program within a real business they must be able to design themselves.
2. Graduating students can excel in their chosen career paths, by learning how to live, adapt, and manage business environmental change.
3. Graduating students will have an integrated knowledge of and demonstrated ability to perform as management professionals. Further, they will be prepared for continued learning throughout their career
4. Graduating students will have positive perspectives and skills that create productive managerial leaders.
5. Graduating students will understand the ethical and moral tenets of business and apply them in their jobs.
6. Graduating students will understand the complex world of innovation and entrepreneurship and have a head-start in creating their own start-up.

School of Basic Science, Deptt. of Zoology

Programme Outcomes (POs)

- Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms.
- Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment.
- Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
- Understands the complex evolutionary processes and behavior of animals.
- Correlates the physiological processes of animals and relationship of organ systems.
- Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species
- Gain knowledge of Agro based Small Scale industries like vermicomposting preparation.
- Understands about various concepts of genetics and its importance in human health.
- Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties.
- Apply the knowledge and understanding of Zoology to one's own life and work.
- Develops empathy and love towards the animals.

Programme Specific Outcomes (PSOs)

- Understand the nature and basic concepts of cell biology, genetics, biotechnology, physiology and medical zoology.
- Analyze the relationships among animals and microbes.
- Perform procedures as per laboratory standards in the areas of Animal Physiology, Environmental biology, Genetics, Medical Zoology, Endocrinology and Techniques in Biology, Toxicology, Entomology, Biochemistry, Biotechnology, Immunology and research methodology.
- Understand the applications of biological sciences in Entomology and Medicine.
- Gains knowledge about research methodologies, effective communication and skills of problem solving methods.
- Contributes the knowledge for Nation building.

Department Mathematics

Programme outcomes

- To cultivate a mathematical attitude and nurture the interests,
- To motivate for research in mathematical and statistical sciences,
- To train computational scientists who can work on real life challenging problems
- **AUMath-101. Real Analysis-1**
- To introduce basics in mathematics.
- To improve analytical skill.
- **AUMaths-102. Advanced Algebra-I**
- A major objective is to introduce students to the language and precision of modern algebra. This means that the course will be proof-based, in the sense that students will be expected to understand, construct, and write proofs.
- A challenge for all students of mathematics is to balance the understanding with the communication. There is a tendency to think you are finished once you see why a mathematical statement is true or false.
- **AUMaths-103. Ordinary differential Equations**
- define an ordinary differential equation,
- differentiate between an ordinary and partial differential equation, and
- Solve linear ordinary differential equations with fixed constants by using classical solution and Laplace transform techniques.
- **AUMaths-104. Operation Research-I**
- To do things best under the given circumstances
- This general concept has great many applications.
- **AUMaths-105. Fluid dynamics**
- Calculate the pressure distribution for incompressible fluids.
- Calculate the Hydrostatic pressure and force on plane and curved surfaces.
- Demonstrate the application point of hydrostatic forces on plane and curved surfaces.
- Formulate the problem on buoyancy solve them.
- **AUMaths-201. Real Analysis-II**
- Describe the fundamental properties of the real number that underpin the formal development of real analysis.
- **AUMaths-202. Advanced algebra-II**
- Demonstrate capacity for mathematical reasoning through analysing, proving and explaining concepts from field extensions and Galois theory.
- Explain the fundamental concepts of field extensions and Galois theory and their role in modern mathematics and applied contexts.
- **AUMaths-203. Partial Differential Equations**
- To equip students with the concepts of partial differential equations and how to solve linear Partial Differential with different methods. Students also will be Introduced to some physical problems in Engineering models that results in partial differential equations.

- **AUMaths-204. Classical Mechanics**
- To demonstrate knowledge and understanding of the following fundamental concepts in:
- the dynamics of system of particles,
- motion of rigid body,
- Lagrangian and Hamiltonian formulation of mechanics
- To represent the equations of motion for complicated mechanical systems using the Lagrangian and Hamiltonian formulation of classical mechanics.
- To develop math skills as applied to physics.
- **AUMaths-205. Solid Mechanics**
- To apply the formal theory of solid mechanics to calculate forces, deflections, moments, stresses, and strains in a wide variety of structural members subjected to tension, compression, torsion, bending, both individually and in combination, including :
- axially loaded bars
- components in pure shear
- circular shafts in torsion
- beams in bending
- thin-walled pressure vessels
- trusses
- To understand the concepts of stress at a point, strain at a point, and the stress-strain relationships for linear, elastic, homogeneous, isotropic materials.
- To determine principal stresses and angles, maximum shearing stresses and angles, and the stresses acting on any arbitrary plane within a structural element.
- 4 To draw Free Body Diagrams (FBD) for rigid bodies, beams, 2-D and 3-D structures, frames and machines, and set up equilibrium equations (i.e. forces and couples) for them.
- **AUMaths-301. Complex Analysis-I**
- Identify curves and regions in the complex plane defined by simple expressions.
- Describe basic properties of complex integration and having the ability to compute such integrals.
- Decide when and where a given function is analytic and be able to find it series development.
- Describe conformal mappings between various plane regions.
- Present the central ideas in the solution of Dirichlets problem.
- Give the main ideas in the proof of the Riemann mapping theorem.
- **AUMaths-302 Topology**
- Topology is used in many branches of mathematics, such as differentiable equations, dynamical systems, knot theory, and Riemann surfaces in complex analysis.
- It is also used in string theory in physics, and for describing the space-time structure of universe.
- **AUMaths-303 Analytic number Theory**
- Analytic number theory aims to study number theory by using analytic tools (inequalities, limits, calculus, etc).
- In this course we will mainly focus on studying the distribution of prime numbers by using analysis.
- **AUMaths-304 Operation Research –II**

- The aims of operation research include: solving operational questions, solving questions related to resources' operations, and solving decision-making questions. . . Operational research has a relation with different areas of study and it has several applications.
- Operation research is considered as a tool of productivity.
- **AUMaths-305 Mathematical Statistics**
- Calculate covariance and correlation and determine independence of random variables; obtain expectations and variances for linear combinations of random variables.
- Find the distribution of a function of random variables using the methods of distribution functions, transformations, and moment generating functions; perform bivariate transformations using Jacobians; calculate joint distributions and moments of order statistics.
- **AUMaths-401 Complex Analysis-II**
- To understand the Harmonic functions on a disc and concerned results.
- To understand the factorization of entire functions having infinite zero.
- To Understand certain theorems like Inverse Function theorem, Hardmards three circle theorem.
- **AUMaths-402 Functional Analysis**
- The objectives of the course are the study of the main properties of bounded operators between Banach and Hilbert spaces, the basic results associated to different types of convergences in normed spaces and the spectral theorem and some of its applications.
- **AUMaths -403 Advanced Discrete Mathematics**
- The course objective is to provide students with an overview of discrete mathematics. Students will learn about topics such as logic and proofs, sets and functions, probability, recursion, graph theory, matrices, Boolean algebra and other important discrete math concepts.
- **AUMaths-404 Differential Geometry**
- To get introduced to the notion of serret -frenet frame for space curves and the involutes and evolutes of space curves with the help of examples.
- To able to compute the curvature and torsion of space curves.
- To get introduced to geodesics on a surface and their characterization.
- **AUMath-405 Magneto Fluid Dynamics**
- The fundamental concept behind MFD is that magnetic fields can induce currents in a moving conductive fluid, which in turn polarizes the fluid and reciprocally changes the magnetic field itself. . The set of equations that describe MHD are a combination of the Navior Stoke's Equation of fluid dynamics and Maxwell's equations of electro-magnetism. These differential equations must be solved simultaneously, either analytically or numerically.