

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

S.No.	Department	Number
1	Applied Mathematics	<p>The Curriculum is designed and revised based on the current trends in the job market, societal and industry needs which provide a trust for national development. The job potential of the course structure is given prior importance. Periodic changes and improvements in the curriculum are made to meet the changing demands of the global world.</p> <p><u>AM 101-Algebra</u> Course Outcomes: After the completion of the course, Students will able to know</p> <ol style="list-style-type: none"> 1. Some standard theorems on Jordan-Holder & Burnside theorems. 2. To learn what the differences between first, second and third sylow theorems. 3. Students are familiar with theorem on Division algorithm and Gauss lemma. 4. Definitions and examples on modules and theorems on R-homomorphism and Schur’s lemma. <p><u>AM 102-Real Analysis</u> Course Outcomes (CO):</p> <ol style="list-style-type: none"> 1) Classify and explain open and closed sets, limit points, convergent and Cauchy convergent sequences, complete spaces, compactness, connectedness, and uniform continuity etc. in a metric space. 2) Know how completeness, continuity and other notions are generalized from the real line to metric spaces. 3) Illustrate the effect of uniform convergence on the limit function with respect to continuity, differentiability and integrability. Recognize the difference between pointwise and uniform convergence of a sequence of functions. 4) Determine the Riemann-Stieltjes integrability of a bonded function and prove a selection of theorems. <p><u>AM 103-Topology</u> Course Outcomes:</p> <ol style="list-style-type: none"> 1. Students are able to know how the topology on a space is determined by the collection of open sets and closed sets or by a basis of neighbourhoods at each point and know what it means for a function to be continuous. 2. Students are able to know the definition and basic properties of connected spaces, compact spaces

and locally compact spaces.

3. Students are able to know what it means for a metric space to be complete and able to characterize compact metric spaces.
4. Students are familiar with the Urysohn's lemma and Tietze extension theorem and can characterize metrizable spaces.

AM 104-Linear Programming

Course Outcomes:

1. Students will be able to draw graphical solutions using Linear Programming models.
2. The simplex method is used to find an optimal vector for the standard linear programming problem and the corresponding dual problem.
3. Find optimal solution of transportation problem and assignment problem

AM 105-Ordinary Differential Equations

Course Outcomes:

Students will be able

1. To know the properties and some standard theorems on Oscillation theory of the solutions of second order Differential Equations.
2. To learn how the Differential Equations are used to study various physical and real life problems such as Vibrating String using the concept of eigen values.
3. To obtain power series solutions of several important classes of second order Ordinary Differential Equations at regular singular points.
4. To discuss various kinds of special functions in detail, their properties and relations.
5. To understand the existence, uniqueness, and other properties of a solution of differential equations and to apply Picard's method of successive approximations.

M.Sc. Applied Mathematics - II Semester

AM 201-Complex analysis

Course Outcomes:

1. Students work efficiently problems on Mobius transformations & Cauchy-Riemann equations.
2. To gain the knowledge about steps of Cauchy's integral theorems and key lemma.
3. To solve the problems on Cauchy's integral formula.
4. Students learn fundamental concepts on power series and Cauchy's Hardward theorem.

AM 202-Computer Programming with C

Course Outcomes:

1. Students are able to implement programs using C.
2. Students are able to implement fundamental data structures like Arrays, Structures, Unions and Files

in C.

AM 203-Principles of Mechanics

Course Outcomes:

Students will be able

1. To apply the Variational principles in order to derive the equations of motion using Lagrangian and Hamiltonian equations.
2. To describe and understand the technique of Canonical transformations, Poisson and Lagrange's brackets.
3. To understand the concepts of stress and strain tensors and to derive their relation using Hooke's Law.
4. To gain knowledge about the properties of fluids and to analyse the fluid motion.

AM 204-Partial Differential Equations

Course Outcomes (CO):

- 1) Learn how the differential equations are used to study various physical problems such as mass attached to spring and electric circuit problem etc.
- 2) Solve the first-order linear and non-linear PDE's by using Lagrange's and Charpit's methods respectively.
- 3) Determine the solutions of linear PDE's of second and higher order with constant coefficients.
- 4) Classify second order PDE and solve standard PDE using separation of variable method.

AM 205-Operation Research

Course Outcomes (CO):

1. Formulate some real life problems into Linear programming problem.
2. Prove the optimality condition for feasible vectors for Linear programming problem and Dual Linear programming problem.
3. Learn the constructions of network and optimal scheduling using CPM and PERT.

M.Sc. Applied Mathematics - III Semester

AM 301-Functional Analysis

Course Outcomes:

1. Demonstrate an understanding of the concepts of Banach Spaces and Hilbert Spaces and their role in Mathematics
2. Demonstrate familiarity with a range of examples of these structures.
3. Apply the theory in the course to solve a variety of problems at an appropriate level of difficulty.

AM 302-Advanced Complex Analysis

Course outcomes:

- 1 Students able to find solutions of Laurent series and problems on behavior at infinity..

2. Students used some techniques to find the solutions of Residue problems.
3. To understand the theorems on Argument Principle and Dirichlet problems.
4. To formulate basic concepts on infinite products and Weierstrass theorems.

AM 303-Integral Transforms

Course Outcomes (CO):

- 1) To learn Fourier finite and Infinite transformations along with sine and cosine forms.
- 2) To learn Fourier and Laplace transformations and their applications to relevant problems.
- 3) Laplace Transformation to solve initial and boundary value problems.

AM 304-Mathematical Methods

Course Outcomes (CO):

- 1) To understand variation problem technique to solve differential equations and extremum problems
- 2) Understand the concept of Maxima and Minima.
- 3) Understand theory of calculus of variations to solve initial and boundary value problems.
- 4) Find solutions of Volterra and Fredholm integral equations.

AM 305-Fluid Mechanics

Course Outcomes:

Students will be able

1. To understand the significance of Vector Calculus and Differential Equations in modelling the fluid flow problems.
2. To solve some axial-symmetry flow problems.
3. To study some two-dimensional flows in real life.
4. To understand the concepts of stress and rate of strain tensors and their relation in viscous fluids.
5. To solve viscous fluid flow problems.

M.Sc. Applied Mathematics - IV Semester

AM 401-Discrete Mathematics

Course Outcomes (CO):

Upon completion of this course, the student will be able to:

- 1) Construct mathematical arguments using logical connectives and quantifiers.
- 2) Validate the correctness of an argument using statement and predicate calculus.
- 3) Understand how lattices and Boolean algebra are used as tools and mathematical models in the study of networks.
- 4) Learn how to work with some of the discrete structures which include sets, relations, functions, digraphs and recurrence relation.

AM 402-Measure and Integration

Course Outcomes:

Students will be able

1. To learn a lot about the advancement of basic measure and integration theory and will also learn some applications of this theory.
2. To know and understand the basic concepts of the theory of measure and integration.
3. To prove elementary theorems by themselves as well as more advanced proofs under guidance.

AM 403-Numerical analysis

Course Outcomes (CO):

- 1) Understand the errors, source of error and its effect on any numerical computations and also analyze the efficiency of any numerical algorithms.
- 2) Learn how to obtain numerical solution of nonlinear equations using bisection, Newton and fixed-point iteration methods.
- 3) Solve linear and nonlinear systems of equations numerically.
- 4) Evaluate the integrals numerically.
- 5) Learn how to solve initial and boundary value problems numerically.

AM 404-Positively ordered Semigroups

Course Outcomes:

1. Students will know the concepts of Algebra
2. The students will be able to apply 0-Archimedean element property to different theorems.
3. Students are able to use techniques to find the finitely generated semigroups.
4. To know and understand the basic concepts of naturally totally ordered semigroups and equivalent conditions on naturally totally ordered semigroups.

Advanced Algebra (Internal choice)

Course Outcomes (CO):

- 1) Understand the concepts of fields, extension of fields and irreducible polynomials.
- 2) Understand properties of finite fields and Galois theory.
- 3) Understand the concepts of vector spaces, basis, dimension and linear transformations.
- 4) Facilitates to work with mathematical problems that involve polynomial equations.

AM 405-Applied Graph Theory

Course Outcomes:

1. The students will have a strong background of graph theory.
2. The students will be able to apply principles and concepts of graph theory in diverse applications in the areas of Computer Science, Biology, Chemistry, Physics, Sociology and Engineering.
3. Students will apply the algorithms that are treated in the course for solving graph theoretical problems.
4. Students are able to use graph theory as a modelling tool.

2	Applied Microbiology & Bio Chemistry	Curriculum was designed based on the industrial and institutional needs in consultation with subject experts and industrial partners and also feedback from stakeholders. The faculty employs multi-media enabled presentation for effective curriculum development.
3	Biotechnology	<p>Program Educational Objectives (PEOs): Program educational objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.</p> <p>Program Outcomes (POs): Program outcomes describe what students are expected to know and would be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire as they progress through the program.</p> <p>Program Specific Outcomes (PSOs): Program Specific Outcomes are statements that describe what the graduates of a specific engineering program should be able to do.</p> <p>Programme Outcomes (POs) contain creating and developing among students aptitude/ skill/ ability/ capacity for I. Employment II. Research III. Critical thinking IV. Social Awareness and Interaction, V. Political Consciousness, VI. Ethics and Responsible Citizenship, and VII. Awareness of and Sensitivity to Environment and Sustainability, and VIII. Women Empowerment and Inclusive Education.</p> <p>Programme Specific Outcomes (PSOs) and Course Outcomes (COs) include producing among students: I. knowledge and skill of the subject II. Awareness of and sensitivity to local, national and global problems related to deprivation, socio- political issues, gender, environment, and discriminatory and exclusionary practices. III. interest and capacity for research and IV. employment capacity Evaluation and the level of attainment Knowledge and skill that students acquire in their subject and also their capacity for critical thinking, are evaluated through Continuous Internal Evaluation, End Semester Examinations and personal interaction. Attainment of these outcomes is excellent, with pass percentage ranging between 92% to 95% in the past 5 years. Dropout rate is low. In 40% programmes pass percentage is 100%. Majority students in Science pass in first class (60%) and many with distinction (75%).</p> <p>Regarding attainment and evaluation of (PSO& CO-II) following details can be mentioned: - University has introduced several self-financing programmes which centre on topics of gender, environment, human values and skill development. - subjects like gender,</p>

		<p>environment and sustainability and human values and professional ethics were included as core units in all post-graduate programmes.</p> <p>Vibrant NSS. - Most departments organize departmental seminars, surveys, presentations, debates, internship etc. on topics dealing with vital social, political, economic, ethical and environmental issues of the time. Some of these activities are assessed. The awareness and sensitivity level is good, gauged from the appreciable student participation in activities on these issues. Active participation of students in NSS and activities of departments attests to their sense of Ethical and Responsible Citizenship.</p> <p>Interest and aptitude for research can be estimated by the large number of candidates appearing for NET/JRF and our University Pre-Ph.D. tests. The number qualifying in these examinations is evidence of their research capability. Many qualifying NET/JRF are students pursuing their post graduate course in the university. The number of alumni who qualify in various competitive examinations, or are employed in various organizations attests to accomplishment of the outcome of employability. Achievement level of Women Empowerment and Inclusive Education is excellent considering the percentage of women students in the university.</p>
4	Business Management	<p>Department of Business Management offers two year full time MBA and M.Com programmes. MBA program offers specializations such as Marketing, Finance, Human Resource, Operations, systems etc. and M.Com Program offer specializations like Finance and Accounts and Auditing. The Department of Business Management designs the curriculum and revises it according to industry needs and by involving all stakeholders every three years. The curriculum was revised in the years 2016, 2017 and recently in the year 2018.</p> <ol style="list-style-type: none"> 1. BOS Committee was constituted with academicians, industry experts, faculty and senior students of Department of Business Management. Head and BOS chairperson collect inputs from organizations, feedback of the various stakeholders such as students, teachers, parents, alumni and industry. 2. The curriculum is developed in BOS Meeting and get approved. At the beginning of each academic year, the Department provides academic calendar and programme syllabus to the

	<p>students and faculty.</p> <p>3. For every course lesson plan is prepared by faculty and communicated to the students, Bloom Taxonomy is followed.</p> <p>4. One week orientation programme is conducted which will give overall understanding of the programmes for the first semester students immediately after admissions.</p> <p>5. Faculty adopts innovative, interactive and ICT enabled (MOOCs and blended online) teaching and learning process. Department uses student centric learning methods and encourages participative and experiential learning. The faculty members use role plays, case discussions, presentations, group discussions, projects, assignments etc. to enhance learning experience.</p> <p>6. For a group of students a faculty is allocated as mentor under mentorship program. Mentor conducts meeting in regular interval on a regular basis and does the counselling of poor performing students. Mentor also addresses the non-academic and personality issues of the students.</p> <p>7. The academic performance of students is continuously monitored by conducting course-wise concurrent evaluations, mock examinations, major and minor projects during the semester. Expert lectures, seminars, workshops, competitions are conducted to supplement classroom teaching for effective implementation of curriculum and to make the students understand emerging trends in the industry.</p> <p>8. The Department collects and analyses feedback from all the stakeholders. The quality of education is improved based on the feedback</p> <p>MBA Programme Outcomes – Abilities to</p> <p>PO1. Apply knowledge of Management theories to solve business problems</p> <p>PO2. Integrate Management practices to solve critical business problems</p> <p>PO3. Foster analytical skills for data-based decision making</p> <p>PO4. Foster Critical thinking abilities for taking intelligent and effective decisions</p> <p>PO5. Value based Leadership ability and team work.</p> <p>PO6. Understand, analyse and communicate global, economic and ethical aspects of business</p> <p>PO7. Understand, analyse and communicate legal and technological aspects of</p>
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BC				✓	✓								
BRM			✓	✓									
IEBE					✓	✓							✓
SSPD					✓				✓				✓
Comm Skills LAB				✓	✓								

MBA II SEMESTER

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
OR			✓	✓						✓		
MIS			✓				✓					
MM	✓	✓	✓							✓		
FM		✓		✓							✓	
OM			✓	✓						✓		
HRM	✓	✓			✓	✓		✓				
CTT				✓		✓	✓					
MS LAB	✓	✓	✓	✓	✓							

MBA III SEMESTER

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
BA		✓	✓	✓								
IB	✓	✓				✓	✓	✓				
BL&E						✓	✓	✓				✓
IR				✓	✓			✓				✓
SAPM			✓				✓				✓	
HRP	✓				✓		✓	✓				✓

RIM			✓	✓							✓	
Ex SKILLS			✓	✓	✓					✓		

MBA IV SEMESTER

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EB						✓	✓			✓		✓
Entp Dev				✓	✓	✓		✓		✓		
BP &Strat Mgt.			✓	✓						✓		✓
TQM		✓				✓	✓					✓
Stress Mgt.				✓	✓			✓				
Ser. Mkt.			✓			✓			✓	✓		
Int Fin			✓			✓					✓	
OD	✓	✓		✓	✓			✓				
FD			✓	✓							✓	
Entp LAB								✓	✓	✓		✓

M.Com Mapping of Programme outcomes Vs Course outcomes

SEMESTER I

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
PM	✓	✓				✓	✓			
BE&P		✓				✓		✓		
BECO		✓				✓		✓		

CFA		✓	✓	✓	✓				✓	
QT			✓			✓				
BS			✓			✓	✓		✓	✓

SEMESTER II

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
MM	✓	✓						✓		✓
FM		✓	✓		✓				✓	
HRM	✓					✓	✓	✓		
CTP&M				✓		✓		✓		
FAP			✓	✓	✓					
ED						✓	✓	✓		✓

SEMESTER III

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
PDSS						✓	✓			✓
IFRS		✓			✓			✓	✓	
AMD		✓	✓		✓	✓				
GST		✓		✓						
FM&I			✓		✓			✓	✓	
FS			✓		✓			✓	✓	

SEMESTER IV

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
IB	✓	✓				✓		✓		
EC		✓							✓	✓
B&I		✓		✓					✓	
PR	✓				✓	✓				
SAPM			✓		✓			✓	✓	✓

		IF		✓	✓		✓				✓		
5	Computer Science	<p><u>Programme Outcomes:</u> The knowledge of mathematics and computing fundamentals to apply on various real life applications for any given requirement. Skills to analyze a problem along with identify and define the logical modelling of solutions. Ability to design, implement and evaluate a computer-based system, process, component to meet stakeholder needs. Integrate and apply efficiently the contemporary IT tools to all computer applications. Analyze and review literature to invoke the research skills to design, interpret and make inferences from the resulting data. Function effectively both as a team leader and team member on multi disciplinary projects to express computing and management skills. Apply the intrinsic skills with complete focus to function as a successful entrepreneur. Communicate effectively and present technical information. Apply ethical principles and commit to professional ethics and responsibilities. Have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.</p> <p><u>Programme Specific Outcomes:</u> The students can select the suitable data model, appropriate architecture and platform to implement a system with good performance. The students can design and integrate various system based components to provide user interactive solutions for various challenges.</p>											
6	Women's Studies	<p><u>M.A. Economics</u> ECC - 1.3 PUBLIC FINANCE: Objective: To provide an in-depth knowledge to the students on the basic concept Public Finance. To enable the student to have detailed understanding of the various aspects of Public Finance like Public Expenditure, Public Revenue and Public Debt. Outcome: After the completion of the course the students will be in a position to understand the various aspect of public finance, its significance in an economy and possess complete knowledge on Taxation</p>											

and recent changes in Tax structure in our country. Students will gain knowledge on the application of various mathematical techniques in economics.

ECC 2.4 – Economics of Development and Planning: Objective: This paper provides a deep understanding of the concept of development, different growth models and techniques, problems involved and policy aspects of development both at national and international levels.

Outcomes: After completion of the course the students will be in a position to define the different aspects of economic development and planning. Economic and non-economic factors which influence development of an economy. Students can describe the different developmental models and how they are applicable to developing countries like India. Students are in a position to analyze capital formation Technological, Human Resource development influence on economy.

EIEC 3.5 E-HUMAN RESOURCE DEVELOPMENT: Objectives: To enlighten the students on the importance of human resource development for an economy, enable them to understand the human resource planning for the generation of effective human capital individually and collectively, make the students aware of the labour markets and understand the importance of employment trends and focus on the policies of Government on wages and labour towards effective Human Development.

Outcomes: After completion of the course the students will be in a position to define importance of human resource development, Human resource planning for the generation of effective human capital individually and collectively for an economy. After completion of the course the students will be in a position to define Urban Reclassification, Social Equity, Census Definition of Urban areas, Employment Opportunities– Educational facilities, Sustainable Urban Development.

ECC 4.2 –Entrepreneurship and Skill Development: Objectives: To expose the students on the basic knowledge of entrepreneurship. To provide information about the specific policies and programmes targeting the empowerment of women entrepreneurs and To enable them to understand the procedures involved in establishing of their own ventures. To equip them skills necessary for establishing enterprises

Outcomes: After completion of the course the students will be in a position to gain basic knowledge of entrepreneurship, Institutional and Organizational Support for Entrepreneurship, importance of Skill Development and Capacity Building to become Entrepreneur. After completion of the course the students will be in a position to describe Labour Problems, Wage Determination in Rural, Urban, Organized and Unorganized Sectors. Social Security and Labour Welfare in India.

M.A. Women's Studies

WCC 1.1 INTRODUCTION TO WOMEN AND GENDER STUDIES

OBJECTIVES: 1. To give an overview of the academic discipline of Women's Studies and its genesis.

		<p>2. To analyses the transformation of Academic discipline of Women’s Studies to Gender Studies 3. To create awareness on various Concepts of Gender Dimensions.</p> <p>Outcome: After completion of the course, the students are able to understand the genesis of Women’s Studies and describe different concepts related to gender. Enables the students to understand the causes and impact of various movements took place at various countries across the globe. Documentation will help the students to get in-depth narration of case studies to understand life and experiences from Gender Studies perspective</p> <p>WCC 2.4 LAWS ON GENDER EQUALITY: OBJECTIVES: This course will femalaize the students on the constitutional and legal rights for their effective participation in the family, society and work place along with the knowledge on protective mechanisms.</p> <p>Outcome: This knowledge will help the student to understand Constitutional guarantees for women, Family, Labour, Criminal and other women protective legislations, Field Visit brings change in their outlook and enhance their understanding levels about the society and helps to bridge the gap between the class room learning and out side world.</p> <p>WCC 3.2 GENDER, MEDIA AND GOVERNANCE: OBJECTIVES: To enable the students to understand the issues relating to women’s leadership and participation in local governance, To sensitizes the students on gender issues in governance and media and To enable the students to create alternative media with the gender perspective and develop a critical thinking on the presentation of gender in different media.</p> <p>Outcome : After completion of the course, students will be able to explore the need, scope and constraints of Political Participation of women. Students will get hands on experience and exposure with internship. They can understand the skills and talents necessary for job market.</p> <p>WCC 4.3 DISSERTATION: Objectives: To expose students to work with the society. To make them to apply knowledge acquired in class room in practical situations. To make them to understand with the avenues available and equip them with necessary skills to be suitable to the demands of the competitive job market.</p> <p>Outcome: Students will get hands on experience and exposure with Research on various current topics and get knowledge through Dissertation. After going through this paper the vision of students on leadership will be expanded and helps them to understand the importance leadership and capacity building and motivates them to become effective leaders.</p>
7	Education	The department vision and mission has been followed since its inception. But with a view to make the system more appropriate and relevant to the present scenario, several new ideas and innovative overtures had been included in the curriculum

		<p>Learning Objectives</p> <p>To provide pre-service teacher education programmes in general and in special education. To prepare teacher educators for both general and special education. To undertake research and guide students in their research work. To provide resource support to educational institutions, organizations, NGOs etc., To sensitize the community on issues of educational and its social significance through extension activities.</p> <p>The visions and missions have been addressed and reflected in the academic programmes starting from degree level and developing into the highest doctoral level.</p> <p>Programmes Outcomes</p> <p>After completion of the Course thus the students will be equipped with various teaching skills develop competencies in research Trained Secondary School Teachers Trained Teacher educators for teacher education institutions Trained special educators teachers for the Hearing impaired</p> <p>1.1.1BOS (20) Design and development of the Curriculum</p> <p>The department follows a systematic process in designing and development of curriculum as and when necessary. For instance, in case of introduction of a new course or subject, the issue is discussed in details in departmental committees allied to the proposed course and subject. The matter then comes up for discussion in the meeting of Board of Studies. In the meeting of Board of Studies the opinion of the external experts is always sought for. If there is a general consensus of opinion related to suitability of the course and favourable feedback from the stakeholders viz. teachers, students, experts on the subjects, the curriculum then is forwarded to the administration to be discussed in Academic Council. As such, the entire process of designing and developing curriculum goes through several phases until it is finally approved by the highest body</p>
8	English	<p>Mission Statement: To sensitize students to the power of language and literature in human society</p> <p>After completing the two year M A programme in English Language and Literature students</p>

		<p>will be able to</p> <ol style="list-style-type: none"> 1 .Identify and describe different periods of English literary history 2. Understand and appreciate sample literary texts representing different periods, different nationalities and cultures 3. Demonstrate an understanding of how language works as a powerful tool of literary expression 4. Demonstrate improved understanding of the English language and its role in the changing global scenario 5. Demonstrate confidence in using the English language for different communicative purposes 6. Recognize criticism as a meta literary field that informs the way literature is interpreted, analysed and evaluated. 7. Apply relevant critical tools for the appreciation of literary works 8. Demonstrate an understanding of basic concepts in linguistics 9. Distinguish between linguistic and literary studies 10. Demonstrate an understanding of how the field of ELT is informed by linguistic theories 11. Demonstrate an awareness of different methods and approaches in ELT 12. Apply different methods in the teaching of English 13. Demonstrate improved skills in academic writing 14. Design language courses, classroom activities and language test items.
9	Home Science	<p>Home science is an Integrated field up study that study scientific and systematic knowledge study Knowledge about various aspect of family living The department of home Science was started in the year 1983 with a post Graduate Diploma in Nutrition, Child care and Public Health and certificate course in Child Care under the Department of Nutrition and Child Development. In 1984 two programmes were introduced; P.G. Diploma in Nutrition and Dietetics and PG Diploma in Preschool Education with four regular teaching faculty. In 1988, Master of Science programmes in Food and Nutrition Science and Human Development and Family studies were introduced and the regular teaching faculty strength has increased to nine. In 1990 Ph.D programmes in Food and Nutrition Science and Human Development and Family Studies were introduced. In 1994 the faculty strength has</p>

increased to ten and three specializations in Food and Nutrition Science programme (A. Clinical Nutrition and Dietetics, B. Community Health and Nutrition, C. Food Science and Quality Control) were introduced and PG Diplomas were discontinued. In 2013, Five year M. Sc. Integrated Food Technology programme was introduced. In 2014 Bachelor of Vocational Degree programmes in Nutrition and Health Care Sciences and Fashion Technology and Apparel Designing were started with the UGC grant approval and of 1.48 crore INR. The total student strength of the department has grown from 30 students in 1983 to 600 students in 2019. The number of programmes offered has increased from 2 in 1983 to 9 in 2019. The department is offering quality programmes to students and grooming them to productive individuals.

PO-01: Application of principles and elements in designing

PO-02: Understanding and learning complete design process

PO-03: Ability to enhance the skills in different modes of dyeing and printing.

PO-04: Application of computer applications and Computer Aided Design (CAD) for textile/ fashion and apparels.

PO-05: Developing innovative ideas for textile/fashion and apparel designing.

PO-06: Acquires skills in selection, evaluation and testing of textiles, garment accessories

PO-07: Adequate skills in preparation of messages, posters making for communication and promotion, sales of products, marketing and merchandising skills.

PO-08: Developing abilities to plan and organize the fashion shows and exhibitions.

PO-09: Learning block development, style patterns and application of pattern making, different draping techniques for highly structured garments

PO-10: Acquire knowledge and skills regarding stitching techniques for various garments.

PSO-01: As Textiles /Apparel Designers, Production Supervisors, Quality Controllers, quality supervisors, Pattern Makers in Garment/ Apparel Industries.

PSO-02: As Entrepreneurs: with financial support from finance corporations / Banks.

PSO -03: They can also opt for teaching in Fashion Technology / Garment Technology Institutions as Craft Teachers, Instructors, and Technical Operators etc.

PSO-04: As work contractor for Apparel/Garment Industries.

PSO-05: Fashion Designers - Media / Film / Boutiques etc. and assistant fashion designers
PSO-06: The students after completion of the course are eligible to undergo Post Graduate Programmes M.Sc. Textiles & Clothing, M.Sc. Apparel Technology & Management, M.Sc. Fashion Technology, M.Sc. Textiles and Fashion Designing etc. in any University in India and abroad.
PSO-07: Merchandisers
PSO-08: Competitive exams
PSO-09: Job opportunities in Govt. and NGO sectors
PSO-10: Textile testing technicians
PSO-11: Cutting masters

Nutrition & Health Care Sciences:

PO-01. Application of Nutrition principles for Health Promotion & Disease Prevention
PO-02. Learning culinary skills in improving food quality, menu & Dietetic planning
PO-03. Understanding the human anatomy, physiological & metabolic processes
PO-04. Ability to enhance laboratory analytical skills in the biological samples
PO-05. Orientation of basic patient care and health care delivery & organization
PO-06. Foster Extension activities to communicate with the people
PO-07. First hand practical implications through laboratory/ Field / Institutional Visits
PO-08. Development of audio-visual aids to organize Nutrition & Health Education
PO-09. Focus on vulnerable groups viz., Pregnant/Lactating/Children/Geriatric
PO-10. Acquaint skill of project training and report writing
PSO-01. Progress for further higher Post graduation Studies
PSO-02. Dietitian
PSO-03. Medical coder
PSO-04. Nutrition & Health Care Counselor
PSO-05. Food quality Inspector
PSO-06. Supervisor at Food Industries
PSO-07. Job opportunity in Government/NGO Projects
PSO-08. Laboratory Technician

		<p>PSO-09. Competitive Exams</p> <p>PSO-10. Self-Entrepreneur</p>
10	Law	<p>1.1.1 Curriculum developed programme specific out comes</p> <p>Program outcomes of all the courses offered by Dept. of Law, SPMVV are identified at the National level by the Bar Council of India. The program specific outcomes are achieved through curriculum that is offered in the courses. After completion of the courses the students can opt for</p> <p>Practice of Law in Bar Judicial Services Legal Process outsourcing As Legal Advisor in Law firm Non Governmental organization As Public Prosecutors As Law Clerks Government Services Legal officers in PSU's and Private organizations.</p> <p>The Program outcomes of U.G course which is B.A LL.B (Integrated Program) are</p> <p>Explaining the substantial setup of the Laws and procedural aspects Drafting of deeds Interpret and analyze the legal and social problem and work towards finding solutions to the problems by the application of Laws and regulations. Inculcate Values of Rights and Duties and apply these values to real life and profession. Imbibe the Quality of life-Long Learning in the broader context of legal change. Apply ethical principles and commit themselves to Legal Professional ethics and norms of the established Legal Practices. Final year is devoted to Chamber, Practice, court visits, prison visits etc.,</p> <p>The Program outcomes of P.G course which is LL.B</p> <p>Students are equipped with the knowledge of teaching methods especially Legal Methodology. Through compulsory research component in the form of dissertation, the students learn to conduct Research study. Demonstrate and learn the Art of conducting</p>

		<p>doctrinal and empirical research and implement various tools and techniques of research. Developed organizational skills necessary for successful functioning of a Law office like organizing documents, prioritizing works, and other ancillary works.</p> <p>The program of instruction is designed to train efficient lawyers who will be leaders in all related aspects of profession. To that end they will be made familiar with general approaches to the study of Law and Legal reasoning, demonstrate the ability to identify and understand Key concepts in substantive Law, Legal theory and procedure. By introducing a paper on Communication Skills by the University in general, the students are able to demonstrate communication skills further helping them in the aspects of oral Advocacy.</p>
11	Physical Education	<p>The Curriculum of B.P.Ed and M.P.Ed are following(CBCS)Choice based credit system from 2015 onwards recommended by APSICHE. The syllabus is prepared as per the NCTE Norms. The Post-Graduation Programme(M.P.Ed) offers choice in game of Specialization. The Department has an Academic Planning board(Board of Studies) that comprises three external professors, among one as Chair person, one Industrial person and Head of the Department as members in BOS.</p>
12	Communication & Journalism	<p>The curriculum of MCJ and MBA Media management one developed and implemented for the local, regional, National .Needs of news paper, channels where students can work in Media in different positions with the theoretical knowledge and can also attain the position of Human Resource manager finance Manager Advantages of making manager of Multinational companies as the program outcome</p>
13	Social Work	-
14	Music	<p>Objectives</p> <p>The regular courses are designed as per the UGC norms and CBCS semester system. The courses in DDE are in the year end examination pattern but from June , 2019 Regular syllabus and semester system pattern adopted</p> <p>The course was designed to fulfill the needs of local, regional, National and global students. Addition of Annamacharyakritis,</p> <p>We are also offering external electives - music (Vocal Veena) Dance(Bharatanatyam and Kuchipudi) both practical and theory, Foundation Courses or SulabhaKeertanas or Outline</p>

		<p>Knowledge of instruments and classification for non-music students</p> <p>10 certificate courses are offered in 4 stages and at the end of each stage we conduct an examination in the department.</p> <p>The 4 year Advance Diploma course designed in such a way to attract International students. One batch of students already finished the course through International relation.</p>
15	Physical Sciences	<p>Physics:</p> <p><u>Programme Outcomes (POs)</u></p> <p>M.Sc Physics students are expected to acquire a core knowledge in physics, including the major premises of atomic, nuclear and particle physics, classical mechanics, quantum mechanics, electromagnetic theory, optics, special theory of relativity, electronics, and modern physics.</p> <p>Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.</p> <p>Students will realize and develop an understanding of the impact of physics and science on society.</p> <p>Develop the basic and master degree level of experiments to study the and observe the physics concepts.</p> <p>Discover of physics concepts in other disciplines such as mathematics, computer science and engineering.</p> <p><u>Programme Specific Outcomes (PSOs)</u></p> <p>The M.Sc-Physics degree is used to acquire teaching faculty jobs in junior colleges, Polytechnic colleges, UG and PG courses, and this degree is useful for those who want to pursue higher studies and join up in prestigious programs like M.Phil. or Ph.D.</p> <p>This M.Sc-Physics degree course is a way by which to acquire jobs against to teaching field like Research. Scientific, laboratories, industrial and advanced research field</p> <p>It is a way to entering as scientist, entrepreneurs and a good physicist.</p> <p><u>Course Outcomes (COs) of the Programmes offered by the University</u></p> <p>Develop the concepts of modern physics: basic knowledge of special theory of relativity and</p>

general theory of relativity, classical mechanics, statistical mechanics, elementary quantum mechanics, atomic physics, nuclear and particle physics, condensed matter physics, material sciences and basic electronics.

And accomplish theatrical and practical examinations with on time and good results.

They are able to qualify state and national level exams and Competent enough to accomplish fellowships from funding agencies like UGC, SERB, and Raman fellowships ext. To join in project fellows in reputed national and international research centers/institutions.

Chemistry:

Programme Outcomes(POs)

Chemists analyze the reactions of different chemicals once mixed with other chemicals. They help in the development of new drugs, products that are used daily and cosmetics.

Lab assistants- They are skilled personnel who perform highly mechanical, technical, and diagnostic tests in the scientific medical laboratories. Their work involves the collection of samples, studying and performing various tests on the collected samples, understand the biological specimens and chemical compounds.

Toxicologist- They use analytical techniques to identify contaminants in biological and chemical substances. They assess the risks and harmful effects that they can pose.

Programme Specific Outcomes(PSOs)

This degree course gives a solid foundation for those who want to pursue higher studies and enroll in programs like M.Phil. or Ph.D.

It is a way by which to acquire jobs in areas like Research and development Food and Drinks Industry, Medical Organizations, Utility, and Energy Research and Health Organizations.

A person who is a master of science in Organic Chemistry acquires professional as well as scientific level competency along with advanced theoretical and practical knowledge in the specialized fields.

Course Outcomes(COs) of the Programmes offered by the University

To accomplish theory and practical examinations with good score.

Competent enough to accomplish state and national level exams and fellowships from

		<p>funding agencies. Join in summer projects in reputed national research organizations. Students can choose opportunities in chemistry as a profession.</p>
16	Sericulture	<p>Curriculum for all the three courses M.Sc.Sericulture, M.Sc.Botany and M.Sc.Zoolgy, is designed in concurrence with goals and objectives of the university to inculcate women education and their empowerment. Syllabus was designed by keeping in view of the national and global concerns. The course content is changed according to the most recent developments that are taking place in the national and international level. All the three courses in addition to the core subjects have cutting edge technology introducing subjects like genetic engineering, Bioinformatics, molecular biology and also specialized subjects Post harvest technology, Value addition in Sericulture ,plant resource utilization, wild life management etc subjects which inculcate entrepreneurial skills among the students. In addition , Intensive training programs in the IV semester gives the student Industrial/Research exposure to prepare them for to launch their career.</p> <p><u>M.Sc Sericulture Course</u></p> <p>Outcomes:</p> <ul style="list-style-type: none"> ➤ To empower the women students with self- reliance ➤ To impart need based quality education and to enhance the skills, competitiveness and employability of the students ➤ Being vocational course it imparts entrepreneurial skills various sectors of Sericulture in the young minds ➤ The competent graduates have opportunities in various State and Central government sectors as Scientists, Sericulture Officers, Technical/Field Officers etc. ➤ As entrepreneurs in various Private sectors like Mulberry nurseries, Chawki centres, Grainages and Reeling units. <p><u>M.Sc Botany Course</u></p> <p>Outcomes:</p> <ul style="list-style-type: none"> ➤ Botany is a basic science and forms the foundation for most of the modern multidisciplinary subjects like, Biotechnology, Molecular Biology which deals with plant life. ➤ It facilitates in studying the rapidly developing fields like Molecular Biology, Genetic Engineering, Tissue Culture, Phytomedicine, Biochemistry and Horticulture. ➤ Students can pursue academic career as Lectures and Teachers.

		<ul style="list-style-type: none"> ➤ On completion of the course students will have broad job opportunities in various fields of Botany like Plant Taxonomy, Ethnobiology, Pathology, Palaeobotany and Palynology, Plant cytology, Plant Genetics, Plant Ecology, and as scientists in BSI and Government departments through UPSC exams. <p><u>M. Sc Zoology Course</u> Outcomes:</p> <ul style="list-style-type: none"> ➤ Zoology as a basic science forms the foundation for most of the modern subjects dealing with animal life. Irrespective of the opportunities that the currently popular courses in life sciences, Zoology continues to enjoy its own rightful status. ➤ Students can pursue academic career as Lectures and Teachers. <p>Candidates on completion of M.Sc. Course in Zoology have a broad spectrum of job opportunities, besides, as one of the subjects offered for the civil services and other competitive examinations.</p>
17	Statistics	<p><u>PROGRAMME OUT COMES</u></p> <p>The M.Sc Statistics is designed with a view to catering to present day requirements of the society.</p> <p>In sector Research and Development fields, Higher studies, Planning commission, Medical and Social Researches, Finance/Econometric Modeling using Big –Data.</p> <p>Moreover, the course structure intends to inculcate strong laboratory skills(using R-Programming, SPSS and Excel) So that students can take up independent industrial projects, consultancy in any areas of Designing of Experiments, Sample surveys, Statistical Quality Control, Operations Research, Stochastic Processes, Econometrics etc.,</p> <p>In this course we boost analytical skills among students, developing the understanding of Statistical theory and its real life applications.</p> <p><u>Course Outcomes:</u></p> <p>101:Probability: The different probability measures The different weak laws and strong laws of large numbers The characteristics functions, central limit theorem, etc.,</p> <p>102: Distribution Theory To apply all the discrete distributions in analyzing the data</p>

	<p>To use various continuous distributions whenever necessary</p> <p>To apply order statistics for distributions theory</p> <p>103: Linear Algebra and Matrix Theory</p> <p>Understand vector spaces and its orthogonal projection of a vector</p> <p>Understand the algebra of matrix</p> <p>Spectral decomposition of a real symmetric matrix</p> <p>104: Sampling Theory</p> <p>To apply various sampling methods for agricultural data.</p> <p>To explain and to compare various allocations using stratified random sampling</p> <p>To draw a conclusion about the best sampling procedure</p> <p>To use practical applications of ratio and regression of estimation</p> <p>105: Statistical Inference– I (Theory of Estimation)</p> <p>Understand problem of statistical Inference, Problem of point estimation</p> <p>Properties of point estimator such consistency un-biasedness, sufficiency.</p> <p>Obtain estimators using estimation methods such as maximum likelihood, minimum chi-square method of moments</p> <p>Understand concept of Rao-Blackwell theorem and complete</p> <p>201: Statistical Inference-II(Testing of Hypothesis)</p> <p>Understand problem of statistical Inference, Problem of testing of hypothesis</p> <p>Construct most powerful test using NP lemma</p> <p>Understand Sequential Analysis and Sequential Probability</p> <p>202: Multivariate Analysis</p> <p>Multivariate Normal distribution and its properties</p> <p>Understand Multivariate normal populations and fisher’s Discriminant function.</p> <p>Understand principal components and concept of factor analysis</p> <p>203: Linear Models and Applied Regression Analysis</p> <p>Regression analysis is the most common statistical modeling approach used in data analysis.</p> <p>In this course, students will learn the use of different useful tools used in regression analysis.</p> <p>They will learn about simple and multiple linear regression Non-Linear regression and Generalize linear models including</p>
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	<p>204:Stochastic Processes To apply stochastic models for different distributions To use birth and death poisson processes when ever necessary To students the applications of Gambler’s Reein problems To apply various inequalities in mathematical as well as stat</p> <p>205: Programming in R R is a dynamic language and an open software for statistical computing that combines the features of object oriented and functional programming. It provides a wide variety of highly extensible statistical and graphical techniques Students will learn how to perform professional level data analysis and create 2D and 3D graphics. All students while learning R syntax that they can store ,annotate and adapt for their own analyses.</p> <p>301:Statistical Applications for Data Analysis Statistical data Analysis is a procedure of performing various statistical operations Through Statistical Applications, we carry out research in various areas of statistics, ranging from theoretical studies to applied research Student get knowledge on statistical applications and implement statistics on perfect way to collect the data, employ the correct analyses and effectively present the results</p> <p>302:Design and Analysis of Experiments To know the concept of analysis of factorial experiments involving two and three levels for analyzing the data To know the concepts on Incomplete Block design , Balanced Incomplete Block Design and Partially Balanced Incomplete Block Design for</p> <p>303:Mathematical Programming Understand the concept of optimization problem, theory of duality. Explain and solve linear programming problem using simplex method, dual simplex method and carry out sensitivity analysis of LPP. Solve optimization problems using Dynamic Programming problem approach. Understanding basic concept of Goal Programming and Quadratic Programming Problem</p>
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	<p>304: Statistical Quality and Reliability The OC and ARL of Shewart's control charts Acceptance sampling plans for attribute inspection. Understand the structural properties of Coherent system</p> <p>305: Internship Gain valuable work experience, Explore a career path Develop and refine skills, Receive financial compensation, Gain confidence</p> <p>401: Operations Research Understand basic concepts of inventory problems and solve various types of Economic ordering quality Gain knowledge about Sequencing problems and various methods to solve sequencing problems. Understand basic concepts of queuing models and will be able to write and solve the steady state equations for various queuing models. Understand different concepts of Network Analysis, Construct Network Diagrams draw conclusion from Network using PERT analysis and CPM analysis</p> <p>402: Time Series Analysis & Forecasting Methods Understand the basic concepts of Time series Analysis Gain knowledge about forecasting and exponential smoothing methods. To apply the Box- Jenkin's method for forecasting Understand the different types of regression techniques</p> <p>403: Data Analysis Using SPSS SPSS is a widely used program for statistical analysis in social science and it is used by various kinds of researchers for complex statistical data analysis This software has great importance among students and professional researchers due to its capability of analyzing a wide scope as well as large amount of data</p> <p>404: Econometrics Multicollinearity Tests for Heteroscedasticity Finite Distributed lag models</p>
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		Simultaneous linear equations models
18	Telugu Studies	The curriculum has been developed recently, which is going to be implemented from the academic year 2020-2021. The curriculum is revised with the up to date changes which are of contemporary touch. Feminists, Literature Dalit Literature, Muslim Minority Literature, Regional Literature, Andhra History and Culture. The curriculum is developed keeping in view of students job opportunities and to face competitive exams like UGC NET, SET, APPSC, etc.
19	Nursing	Nursing courses is designed to help the students to develop an understanding of the philosophy objectives, theories and process of nursing in various supervised clinical settings. Curriculum is aimed at helping the students to acquire knowledge, understanding and skills in techniques of nursing and practice them in supervised clinical setting.
20	Pharmaceutical Technology	Pharmacy provides knowledge of identification, selection, synthesis, pharmacological action, formulation of drugs and medicines. Pharmacy deals with proper and safe distribution and use of drugs. Pharmacist has a doctorate degree or master degree in pharmacy is ideally suited for product development in pharmaceutical industry. Curricular developments of pharmacy is designed and unified with various branches like Pharmaceutical chemistry, Pharmaceutics, Pharmacology, Pharmaceutical analysis and Pharmacognosy. Chemistry; which focuses on synthesis of a new compound to be used as drugs, cosmetics, excipients, industrial chemicals, and preservatives. Pharmacognosy; research on cultivation of the medicinal plant and isolation and purification of the active principle of plant and animal tissue, deals with the purpose of their chemical composition and further its synthesis. Pharmaceutics; involves preparation of drug in suitable dosage forms designed and its testing to find the bioavailability of the drug and also helpful in determining the stability of dosage form during its storage and its finding its date of expiry and investigates the suitability of proposed packaging materials and container. Pharmacology deals regarding the pharmacodynamics and toxicology of new drugs. Pharmaceutical analysis; focuses on physical, chemical and biological standardization of drugs. So far various patents are under each branch based on new innovations in regarding fields. The study of all these subjects provides the knowledge to the students to work in industry and academic and research areas.
21	Engineering	A three- tier system designs and develops curriculum. Board of studies for each department (separate for Both UG and PG Programs), Standing Committee of Academic Senate and Academic Senate constitute the three-tier system. The representatives of stakeholders namely Government, Academicians, industrialists, faculty, parents, and students serve as members in the above said three-tier system.

		It ensures design and development of relevant programs to meet the needs of the students and prospective employers
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