

Programme Project Report – PPR



Name of the School: School of Sciences

Name of the Programme: M.Sc. (Mathematics with Applications in Computer Science)

S.No.	Name of Program:	M.Sc. (Mathematics with applications in Computer Science)
a.	Programmes mission & objectives:	<ul style="list-style-type: none"> • To emphasize the relevance and usefulness of mathematics from an application point of view, • To equip the learners with core mathematical knowledge and training necessary for use in many application areas, • To expose the learner to real-life problems and promote the use of mathematics in industry and applied sciences, • To develop human resource in emerging disciplines such as mathematical biology, computational mathematics, etc.
b.	Relevance of program with HEI's Mission & Goals:	Master's level degree programme for: <ul style="list-style-type: none"> • Developing linkages between the academia, the national laboratories, institutes of higher learning, industries and other users of S & T. • Promoting the use of mathematical sciences in industry and applied sciences.
c.	Nature of prospective target group of learners :	<ul style="list-style-type: none"> • Math/Stat people associated with R&D activities in the industries and S&T sectors like Engineering industries, Chamber of commerce, Financial Institution under ICRA & SEBI, PSUs such as ONGC, HAL, DRDO, ISRO, CSIR. • People willing to work in discipline like Bio-informatics, Computational Mathematics, Actuarial Sciences, Industrial Mathematics, etc. • College/high school teachers having mathematics as a major component in their Bachelor's Degree.
d.	Appropriateness of program to be conducted in open & distance learning mode to acquire specific skills & competence :	Highly appropriate programme for ODL mode as it provides a unique opportunity for pursuing higher education in applications of Mathematics in various subject areas to persons living in geographically remote areas of the country. It can help learners extend their knowledge of core mathematics and techniques to get training necessary for use in many applications areas.
e.	Instructional Design :	The University has adopted a multiple-media approach for imparting instruction to its learners for its various programmes of study. The University follows the Systems approach to instructional design. The programme was designed after undertaking need analysis; identifying and defining the target group; selection of appropriate media; course design and development; pilot testing and launch of the programme; and periodic revision. The self instructional format is used for developing Self Learning Material (SLM) in print and multiple media. Print is the predominant mode of instruction supplemented with audio and video programmes; face to face counselling sessions; interactive radio counselling (IRC) (Gyan Vani); educational TV broadcasts (Gyan Darshan) and web based counselling (Gyan Dhara)...
f.	Procedure for admissions, curriculum transaction and evaluation:	<p>Admissions: The programme has limited number of seats and the admission is merit based. Admission is mainly done online. To fulfill the mandate of inclusiveness there is a provision for submission of application offline as well.</p> <p>Curriculum Transaction: Curriculum is transacted mainly through printed Self Learning Materials (SLMs), Face to face counselling sessions (theory/ practical),</p>

		<p>audio and video programmes, interactive radio counselling (IRC) (Gyan Vani), educational TV broadcasts (Gyan Darshan) and web based counselling (Gyan Dhara)... For practical based courses practical sessions are conducted in face to face mode (which is compulsory component) in laboratories.</p> <p>Evaluation: The University uses formative/continuous and summative/ term end evaluation for assessing the progress of its learners and evaluation of their performance. Formative/ Continuous evaluation is conducted at two levels i.e. through self check exercises in-built into the SLMs; formative assessment through tutor marked assignments; practical assignments. Summative / term end evaluation is through theory and practical based term end examinations.</p>
g.	Requirement of the laboratory support and library resources:	<p>Lab support: For practical based courses practical sessions are conducted in face to face mode (which is compulsory component) in laboratories at Learner Support Centres well equipped with such facilities.</p> <p>Library resources: Library facility is available at all Learner Support Centres; Regional Centres and Headquarters of the University.</p>
h.	Cost estimate of the program and the provisions:	<p>Programme development is an ongoing process and the programme is already on offer. However, before development of the programme, cost analysis was done at the level of the School in coordination with Planning and Development Division (there is a dedicated full fledged Planning and Development Division for the policy planning of the University). The University has dedicated budgetary provisions for programme development at the level of School, Material Production and Distribution (there is a dedicated full- fledged Material Production and Distribution Division for material production and distribution) and Electronic Media Production Centre (there is a dedicated full- fledged Electronic Media Production Centre for electronic media production). Digital media production (there is a dedicated full- fledged Inter University Consortium for production of MOOCs and digital media) and delivery of the program through its dedicated Divisions namely Regional Services Division which oversees the operations of all Regional Centres and LSCs; E support Unit, Student Registration Division, Student Evaluation Division and Student Service Centre at the HQs.</p>
i.	Quality assurance mechanism and expected program outcomes:	<p>Quality Assurance mechanism: University has:</p> <ul style="list-style-type: none"> • Standard norms and procedures for course design and development; • Standard norms and procedures for establishment of LSCs, • Standard norms for appointment of academic counsellors and evaluators; • Involving external experts in maintaining quality of curriculum design and development , including student evaluation; • All activities of LSCs and examination centers are monitored by University. • 2% assignments are being monitored by faculty of School to ensure the quality of continuous evaluation <p>The University has standardized its courseware based on the credit system. To further standardize its courses it has</p>

		<p>developed its own house style. There is a mechanism in place for continuous quality assessment for design, development and delivery of its academic programmes. The quality is assured at different phases by statutory bodies of the University namely: School Board of Studies, Academic Programme Committee, Planning Board and Academic Council. Programme evaluation is the norm before undertaking revision of the programme. The above mechanism has been followed for this programme also.</p> <p>Expected programme outcomes: A well-informed post-graduate ready to take up research, teaching in the area of applied mathematics and knowledge of core mathematics and techniques necessary for use in many applications areas.</p>
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