University of Mysore

Programme Project Report (PPR)

Master of Computer Application

i. Programme's Mission and Objectives

An MCA Program conducted in the online mode is designed for young men and women already working in the IT industry.
The skills and knowledge gained from this program shall help them grow professionally in IT and Software Industry.

ii. Relevance of Program with the University of Mysore's Mission & Goals

The programmes mission and objectives are in alignment with the University's mission, vision and goals, as detailed below.

Vision
To aspire to become a world-class University by tapping human resources from all sections of society by offering them opportunities to learn across disciplines, and to build human capital, men and women of character and competence capable of being leaders of tomorrow and solving problems arising out of fast changing realities – global and local.

Mission
Built on a great legacy inherited from our founding fathers, our mission is to create an environment of stimulating intellectual dialogue across disciplines and harvest knowledge with a cutting-edge through high quality teaching, research, and extension activities leading to the generation of students who would provide leadership, vision and direction to society.

Goal
Our goal is to realize this vision by 2025. Our strategy is to develop innovative programmes in basic and emerging disciplines in a phased manner and to update them periodically so as to keep ourselves on track and on time. Our commitment is to involve the faculty and students in interactive learning environment both within and outside the University through contextual and experiential programmes so that they would be builders of a worldwide-network of knowledge-sharing and excel in their performance with a winning edge in the wider context of globalization.

Director,
Directorate of Distance Education
and Online Programme
University of Mysore,
Mysuru.

iii. Nature of Prospective Target Group of Learners

This Program is designed to target working individuals who wish to further their professional and academic qualifications, or wish to acquire domain specific knowledge and skills in their chosen profession or industry, in the field of IT and Software.

iv. Appropriateness of Programme to be conducted in Online Learning mode to acquire specific skills and competence

An IT program of this nature is apt for delivery in the online mode, given its practical nature. Its students, who would already be working in the software / IT industry, shall benefit from putting into practice their learning's on an ongoing basis, and shall be able to recognize aspects and applicability of their studies in their everyday work life.

v. Instructional Design

a. Curriculum Design

As per University Curriculum in place for campus programs.

b. For Online Mode:

E-Learning Materials Quality Standard:

The online courses should comply with the following Quality standards, namely:-
(i)_The courses should follow the following four quadrant approach, as per the SWAYAM Guidelines:-

(i) Quadrant-I is e-Tutorial; which shall contain: Video and Audio Content in an organized form, Animation, Simulations, video demonstrations, Virtual Labs, etc, along with the transcription of the video.

(ii) Quadrant-II is e-Content; which shall contain; self-instructional material (digital Self Learning Material), e-Books, illustrations, case studies, presentations etc, and also contain Web Resources such as further references, Related Links, Open source Content on Internet, Video, Case Studies, books including e-books, research papers and journals, Anecdotal information, Historical development of the subject, Articles, etc.

(iii) Quadrant-III is the Discussion forum; for raising of doubts and clarifying the same on real time basis by the Course Coordinator or his team.

(iv) Quadrant-IV is Assessment; which shall contain; Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

c. Duration of the Program

As per University duration policy for on campus programs ,in conjunction with the UGC regulation in place.

d. Faculty and Support Staff Requirement

As per UGC Regulations

e. Instructional Delivery Mechanisms

Courses to be delivered in an 'Online' mode with learning material in the form of E-SLM's, and Self Assessments being available to the students. Additionally, virtual live lectures and recorded lectures to be provided as per a fixed schedule towards the end of each term.

f. Student Support Systems

Learner Support Service via Web, Chat, Call Support. Access to counsellors at Department on University campus. Access to E-learning Library resources in student portal.

g. Syllabi
As per University Syllabus for on campus programs.

Credits Required

Students have to earn a minimum of 76 credits to get degree with 24 minimum and maximum of 48 credits in Hard Core, a minimum of 16 credits in SC, and minimum of 4 credits in Open Elective / Elective subjects.

Course List

Semester	Course Type	Course	Credits
I	Hardcore	Advanced Data Structures and Indexing	4
I	Hardcore	Object Oriented Programming with C++	4
I	Hardcore	Real Time Operating Systems	4

I	Hardcore	Advanced Database Management System	4
I	Softcore	Computer Graphics and Multimedia	4
I	Softcore	Java Programming	4
I	Softcore	Linux Programming	4
I	Softcore	E-Commerce and E-Governance	4
II	Hardcore	Data Communication and Networks	4
II	Hardcore	Artificial Intelligence	4
II	Hardcore	Embedded Systems	4
II	Hardcore	.Net with C#	4
II	Softcore	Linear Algebra and Probability Distribution	4
II	Softcore	Cloud Computing	4
II	Softcore	Data Mining and Data Warehousing	4
II	Softcore	Cryptography and Network Security	4
III	Hardcore	Theory of Complexity	4
III	Hardcore	Advanced Software Engineering	4
III	Hardcore	Python Programming	4
III	Hardcore	Machine Learning	4
III	Softcore	Digital Image Processing	4
III	Softcore	Internet of Things	4
III	Softcore	Mobile Application Design and Development	4
III	Softcore	Big Data Analytics	4
		Skill Enhancement Courses	
III	Softcore	Letex Documentation Tool	2
III	Softcore	Project Methodology and Documentation	2
IV	Hardcore	Project Work	12
		Skill Enhancement Courses	
IV	Softcore	Communication Skills and Professional Management	4

vi. *Procedure for admissions, curriculum transaction and evaluation*

a. **Admission Policy**

Admissions to be conducted twice a year (January and July), and as per common regulation for online programs already in place and in effect at the time, in conjunction with UGC Regulations.

b. **Minimum Eligibility**

As per common regulation for online programs already in place and in effect at the time, in conjunction with UGC Regulations.

c. **Fee Structure**

As per fee structure in place for online programs, and as decided by fee committee from time to time.

d. **Programme Delivery Methodology**

Courses to be delivered under the 'online' mode of learning, with students being provided Self learning material in eBook format, along with access to online Self Assessment tools. Contact Programs Sessions to be conducted online once per semester.

e. **Web Based Tools**

A Web based Portal which shall allow the student access to the following
- Admission & Enrolment Details
- Fee Details and Online Fee Payment Gateway
- Prospectus, Regulations & Syllabus
- Notifications (Admissions, fees, examinations etc)
- Course List, with completion status and scores / results
- E-Book's of SLM's.
- Self Assessment Tests (unscored)
- Continuous Assessments - CA1 & CA2
- Online PCP Lectures (Recorded or via Virtual Classroom session) as conducted each semester.
- Online Learners forum, for student to student interaction.
- Online Copy of the Grade sheet.
- Access to online support in the form of web chat, ticketed email support etc.

f. Evaluation Methodology – Tools & Methods

Internal Assessment marks to comprise the results of Continuous Assessment Tests (C1 & C2) over the duration of the Semester/Term towards 30% of the final marks, whereas the End Term Assessment, conducted at Examination centres (as per UGC Regulations) to comprise of the remaining 70%.

End Term Exam Regulations to be as per regulations governing on campus programs.

Being an online program, there shall be no provision or requirement to repeat or drop a year within the program.

vii. Requirement of the laboratory support and Library Resources

Practical Subjects in this subject can mostly be covered with access to a computer, internet and software tools (available under FOSS/Open Source). Students may be asked to make arrangements for the same at their own cost.
As per the syllabus / curriculum, should there be need for special equipment / laboratory access (other than the above mentioned regular computer lab or internet connectivity), the same shall be arranged by student on their own which shall be notified by prior intimation.
Provisions also shall be made for access to virtual Lab's and simulators via the students online study portal.

Library resources may be accessed via online.

viii. Cost Estimate of the Programme and the provisions

Upon receipt of approval from the UGC, the Finance Committee may set aside budgetary provisions towards Programme Development, Programme Delivery, Programme Maintenance. Once the programs are operational, fee receipts from the program may be used to cover the same, as per the guidance of the Syndicate and Finance Committee.

ix. Quality Assurance mechanism and expected programme outcomes

The expected outcome from these programs is a measurable increase in the skills and knowledge of the student in his/her area of study, and that increase should be reflected in a proportional increase in available job opportunities / role or profile changes in his or her current job or industry, and a change / increment in earning capability.
A Centre for Internal Quality Assurance shall be setup within 1 year of the launch of these programs (as per UGC requirements). The CIQA,

working in collaboration with the Department, shall put in place a continuous quality measurement and improvement framework, using both student – teacher feedback, and outcome measurement on data gathered from students during and after completion of their programs via surveys. The findings, action taken report and results shall be published and made available via the CIQA each year in the form of a report.

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