

**MANGALAYATAN UNIVERSITY**  
**DIRECTORATE OF DISTANCE EDUCATION**



**PROGRAM PROJECT REPORT**  
**FOR**

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**Master of Science**  
**(Information Technology)**  
*Distance Education Mode*

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**2018**

## **Introduction**

The word Mangalayatan is a combination of two words; Mangal and Ayatan. It refers to the home that endows contentment and positive vibrations. Mangalayatan symbolizes the ultimate resource that underlines well-being and prosperity. As a part of the promise to groom students into leaders of tomorrow, Mangalayatan University has strategically tied up with top organisations to have access to the best of teaching practices, training methodologies and the latest industry-oriented curriculum development methods. To be a leader in education, an institution must be founded on two basic principles: keeping the interest of students as its foremost priority and recognizing that knowledge is ever-growing, omnipresent and requires the opening of minds. At Mangalayatan University, we take pride in these two qualities being at the core of our existence. Mangalayatan (translated as the germinal bed of positive thought) aims to perpetuate a culture of hard work, embracing change and preparing oneself for the fast progressing world with the latest skills and the highest level of social and personal values. Situated 20 km from the Yamuna Expressway in Uttar Pradesh, Mangalayatan University was founded in 2006 and has graduated over 6000 students. Nearly 1300 students are currently studying on campus. Mangalayatan University vision is to give students from all kinds of background, a quality educational experience leading to legitimately rewarding career opportunities.

## **Vision**

“To be an institution where the most formative years of a young mind are spent in the guided pursuit of excellence while developing a spirit of inquisitive questioning, an ability to excel in the pressure of a fast changing professional world, and a desire to grow into a personality than a person, in an environment that fosters strong moral and ethical values teamwork, community service and environment consciousness.”

## **Mission**

- To be the enablers of a confluence of academic rigor and professional practicality.
- To train students to be skilled professionals, with the hunger and ability to become leaders.
- To hone not just the intellect of our students, but also their character and personality.
- To bring global best practices to our students through widespread use of technology.
- To empower our faculty to constantly develop new skills and excel professionally.
- To provide the best campus environment to students and faculty with all facilities to nurture their interests.

## **M. Sc. (MASTER OF SCIENCES) INFORMATION TECHNOLOGY:**

M. Sc. (IT) is one of the most sought bachelor degree programmes after 12<sup>th</sup>. With the growing use of Computers and Information Technology in day to day life,

Information technology has its phases of growth from Simple Office Automation to Decision Support, Re-Engineering and Organization Transformation. In general, information technology degrees tend to focus on the mathematical and theoretical foundations of computing rather than emphasizing specific technologies. Graduates with an information technology background are able to perform technology tasks relating to the processing, storing, and communication of information between computers, mobile phones, and other electronic devices. Information technology as a field emphasizes the secure management of large amounts of variable information and its accessibility via a wide variety of systems both local and worldwide.

## **Goals**

Information Technology is a continually changing and thriving career field that needs highly educated persons. The Master's programme in Information Technology aims to combine a scientific mindset with specialist technical knowledge, enabling graduates to analyze, design, validate and implement state-of-the-art ICT systems in their operational context. The main goal of the Information Technology programme is to develop both theoretical and practical competence for research, development and practical implementation in Information technology. Also, the aim of this program is to produce graduates with the advanced knowledge, principles, and skills in term of theoretical and practical foundation for designing, implementing and managing information technology solutions and resources and also recognizing the impact of technology on individuals, organization and society.

The main goals of this program are:

- To provide an opportunity of higher education in the field of Information Technology for the discontinued students of school education.
- To provide post graduates, an extensive knowledge of and understand the issues relevant to their specific field of study.
- To enhance the availability of continuing education to the rural people, economically weaker section of the society and women.
- To facilitate the post graduates that help them to contribute to scientific research, and independently design, conduct and present the results of small-scale research.
- To make the unemployed as employed and entrepreneurs by providing the necessary skills and knowledge of computer and information technology.
- To provide alternative path to wider potential learners who are in need of refresher courses to update their skills.
- To facilitate all those learners who look upon education as a lifelong activity or who wish to acquire new knowledge.
- To educate them to be a well rounded and well informed citizens.

## **Job Opportunities**

A graduate holding the degree of M.Sc. in I.T. can work in a wide range of industries including for-profit/ not-for-profit business, education, and healthcare. Experts in computer technology may be employed by a large corporation or run their own companies as entrepreneur. Positions that graduates may hold include IT manager, college IT professor, senior software engineer/programmer/developer, IT director,

information technology specialist, or system administrator. Because computers are needed in virtually every organization, the sky is the limit as employment opportunities are abundantly available to IT experts. For IT post-graduates, job opportunities exist in public as well as in private sector. After this course candidate will be able to handle digital commerce, software development and can achieve organizational goals objectives. Also they can control the maintenance of software network to handle the technological challenges. The candidate get healthy remuneration with different job profiles such as software engineer, application programmer, IT analyst and testing engineer etc. The M. Sc. graduates can find job openings in various areas in several sectors such as Automobiles, Banking, Business, Entertainment, Finance, Information Technology, Manufacturing, Communication, Defence, Education, Electronics, Marketing, Product Manufacturing, Railways etc.

Some of the esteemed job profiles you can attain after a successful completion of M.Sc.(IT) are:

- Application Programmer
- Computer Information Specialist
- Computer Support Specialist
- Database Administrator
- Enterprise Information Officer
- Graphic Designer
- Hardware & Network Expert
- Information Architect
- Information Security Coordinator
- System Designer
- Legal Information Specialist
- Maintenance Technician
- Information Systems Manager
- System Analyst
- Quality Analyst
- Strategic Information Planner
- Online Editor
- System Administrator
- Web Designer

Also, there are various certification courses available, which can be pursued by aspirants who have completed M.Sc. in Information Technology degree. Some of the popular courses include the following.

- Digital Film Making Courses
- Video Editing & Visual / Special Effects courses
- Web Designing & Development Courses
- Diploma Program in Multimedia & Web Technology
- Hardware Network & Security Courses
- Software Programming & Development Courses
- Animation Courses
- Designing Courses

## **Credit System**

The MU, DDE proposes to follow the 'Credit System' for most of its programs. Each graduate program requires 80 credits from all learning activities. Each credit amounts to 30 hours of study comprising all learning activities. Thus, a 4 credit course involves 80 hours of study. All courses are 4 credit courses except the project/mini project course which is of 8 credits. This helps the student to understand the academic effort one has to put in, in order to successfully complete a course. Completion of an academic programme requires successful clearing of both, the assignments and the term-end examination of each course in a programme.

## **Delivery systems**

The DDE, MU follows a ICT mediated enabled approach for instruction. The methodology of instruction in DDE, MU is different from that of the conventional/regular programs. Our ODL system is more learner-oriented and the learner is an active participant in the teaching-learning process. Most of the instruction is imparted through distance, rather than face-to-face communication. DDE, MU academic delivery system comprises:

## **Print Material**

The printed material of the programme is supplied to the students in batches of blocks for every course. A block which comes in the form of a booklet generally comprises 5 units.

## **Counselling Sessions**

Normally, counselling sessions are held as per a schedule drawn beforehand by the Study Centre Coordinator. There will be 6 counselling sessions of 2½ hour duration for each course in face to face mode.

## **Admission**

### ***Target Group***

Distance Education of MU shall target the working professionals as well as those who cannot attend a full-time program due to constraints. The candidates desirous of taking admission in M. Sc.(IT) program shall have to meet the eligibility norms as prescribed for the program.

### ***Eligibility***

Graduation degree (3 years or 4 years degree program). Diploma will not be acceptable.

## ***Cost Estimation of Program & Provision***

<b>Name of the Program</b>	<b>Degree</b>	<b>Duration</b>	<b>Year</b>	<b>Admission Fee</b>	<b>Tuition Fee</b>	<b>Exam Fee</b>	<b>Total (in Rs.)</b>
Master of Science (IT)	PG	2-4 Years	1	1000	15000	1000	17000
			2		15000	1000	16000
Total							19000

### **Course Duration**

**Minimum** – Two years, **Maximum** - Four academic years

**Medium of Course:** English

**Medium of Examination:** English

### **Assignments**

The topic of assignments will be available with DDE. Students are required to submit the assignments within stipulated time. Each assignment will be of 40 marks.

### **Admission Process**

Admission to the M. Sc.(IT) Programme will be done on the basis of screening of candidate's eligibility on first come first serve basis. Admission shall not be a right to the students and MU, DDE shall retain the right to cancel any admission at any given point of time if any irregularity is found in the admission process, eligibility etc.

### **Maximum Duration**

The maximum duration of the M. Sc.(IT) Programme is four years. Thereafter, students seeking completion of the left over course(s) will be required to seek fresh admission.

### **Evaluation**

The evaluation system of the programme is based on two components:

- A. Continuous evaluation in the form of assignments (weightage 40%). This component carries a weightage of 40%. There will be one graded assignment and one graded project per course. These assignments are to be submitted to the Co-ordinator of the DDE/Study Centre to which the student is assigned or attached with.
- B. Term-end examination (weightage 60%) will be held twice every year in the months of June and December. The students are at liberty to appear in any of the examinations conducted by the University during the year. A student will be allowed to appear in the Term-End Examination, only after he/she has registered for that course and submit the assignment. For appearing in the Examination,

every student has to submit an Examination form through online ([www.mangalayatan.in](http://www.mangalayatan.in)) before the due dates as given in the schedule of operations. If a student misses any term-end examination of a course for any reason, he/she may appear for any of them or all the courses subject to the maximum of 8 courses in the subsequent term-end examinations. This facility will be available until a student secures the minimum pass grade in the courses but up to a maximum period of four semesters, since the date of registration of the course is valid for four semesters. Beyond this period he/she may continue for another four semesters by getting Re-registration by paying fee again. In that case, the score of qualified assignments and/or term-end examination will be retained and the student will be required to complete the left out requirements of such re-registered courses.

## **QUALITY ASSURANCE**

DDE of Mangalayatan University follows a two-step process for quality assurance:

1. Through University's Compliance & Quality Assurance Cell (CQAC)
2. Through DDE's own Centre for Internal Quality Assurance (CIQA)

### **Compliance & Quality Assurance Cell (CQAC)**

Development of a culture that recognizes the importance of quality and quality assurance is essential in institutions of higher learning. Quality assurance is a new paradigm of academic and administrative management. The changing educational landscape calls for setting up a formal and effective mechanism for the approval, periodic review, monitoring, evaluation and assessment of quality of the programmes in higher education institutions. It is in this vain that the proposal by National Assessment and Accreditation Council (NAAC) to establish Compliance & Quality Assurance Cell (CQAC) has been undertaken by every accredited institution of learning. The quality assurance activities are not just limited to collecting data; rather it is also expected to analyze the data for enhancing quality, providing accountability, establishing stakeholder confidence and creating trust in the institution's performance. Since quality assurance is a continuous process, CQAC is now becoming a central theme in Higher Education, ever endeavouring to work towards realization of the goals of quality enhancement and sustenance.

### **Objectives of CQAC**

There are following objectives of CQAC:

- To develop and implement a strategy for conscious, consistent and continuous enhancement of quality to improve the academic and administrative performance and standards of the programmes of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture, accountability, and institutionalization of best practices and awards.

### **Strategies**

The CQAC shall evolve the mechanisms and procedures for ensuring

- Timely, efficient and progressive performance of academic, administrative and financial tasks. The relevance and quality of academic and research programmes.
- Equitable access to and affordability of academic programmes for various sections of society.
- Optimization and integration of modern methods of teaching and learning and the credibility of evaluation procedures.
- The adequacy, maintenance and functioning of the support structure and services for Research sharing and networking with other institutions in India and abroad.

### **Function**

The CQAC shall have the following functions:

- To ensure heightened level of clarity and focus in institutional functioning towards quality enhancement.
- To ensure internationalization of quality of culture.
- To ensure enhancement of integration among the various activities of the institution and institutionalize good practices.
- To provide a sound basis for decision-making to improve University functioning,
- To act as a dynamic system for quality sustenance.

### **Monitoring Mechanism**

The CQAC look after the working of University with reference to NAAC and ensure the complete the necessary documents.

### **Centre for Internal Quality Assurance (CIQA)**

DDE has formed a Centre for Internal Quality Assurance (CIQA) in accordance with the ODL Regulations 2017 notified by DEB/UGC. The functions of CIQA are:

#### **Objectives and Functions of CIQA**

The objective of establishment of Centre for Internal Quality Assurance (CIQA) is to develop and put in place a comprehensive and dynamic internal quality assurance system to provide high quality programmes of DDE.

- To plan, guide and monitor Quality Assurance (QA) and Quality Enhancement (QE) activities of the department.
- To track and monitor the functioning of all the departmental governance committees as per target dates and take corrective action if required.

- To identify areas with deficiencies and scope of improvements across all the processes/activities and facilities of the department.
- To suggest methods/procedures for overcoming the deficiencies and improving the overall quality of the department
- To channelize and systematize the efforts and measures toward academic excellence.
- To facilitate the learner-centric environment for quality teaching and learning process.
- To finalize the Annual Quality Assurance Report (AQAR) of the department and submit the same to CQAC for further action.

### **Activities of CIQA**

To fulfil the above objectives the Departmental Quality Assurance (DQAC) shall:

- Prepare a Programme Project Report for each programme according to the norms and guidelines prescribed by the DEB and wherever necessary by the appropriate regulatory authority having control over the programme.
- Get the Programme Project Report approved by the appropriate authority of the DDE and before launch of the programme.
- Oversee the development of Study Learning Material (SLM), integration of Information and Communication Technology (ICT), setting up of Learning Centre's and coordination with the parent institution and relevant Regulatory authorities.
- Put in place monitoring mechanism to ensure the proper implementation of Programme Project Reports.
- Design annual plans for quality level enhancement at the level of the DDE and ensure their implementation.
- Arrange for feedback responses from students, employers and other stakeholders for quality related institutional processes.
- Develop quality benchmarks or parameters for the various academic and administrative activities of the DDE.
- Obtain information from other DDE on various quality benchmarks or parameters and best practices.
- Organize workshops or seminars on quality related themes.
- Suggest restructuring of programmes in order to make them relevant to the job
- Develop and implement innovative practices in major areas leading to quality enhancement in services to the learners.
- Cultivate creativity and innovation in the faculty and staff
- Coordinate between the DDE and the Commission for various quality related issues or guidelines.
- Record activities undertaken on quality assurance in the form of an annual report.
- To coordinate recognition and accreditation of the DDE.