

Nepal Open University
Manbawan, Lalitpur, Nepal
Faculty of Science, Health and Technology

Program: M. Phil in Information and Communication Technology (MPhil in ICT)

Duration: Eighteen Months (3 Semester)

Total Credits: 39 (45Hrs)

Introduction:

The objective of this course is to involve students and researchers into the specific research area in the field of Information Technology. Students and researchers will get the in-depth knowledge of recent trends in Information Technology and finally they will be able to conduct the research-led activities in the domain they have chosen. The research in this course focuses on the emerging technologies such as Data Science, Cloud Computing, Big data, and Internet of Things etc. This course also develops the researchers, capable of making the research contributions to the nation building in various areas of Information Technology.

Program Objectives:

The objectives of the program are to produce high-level professional manpower to work in teaching, research and academic fields, and to serve in government, non-government, public and private enterprises. This program aims to upgrade independent research abilities among the teachers, academics and the professionals in various fields. The specific objectives of the MPhil program are:

1. Training the students for deeper knowledge and research skills in the key areas of information science, communication technology and organization behavior, research methodologies, human resource management, and IT governance;
2. Providing in-depth knowledge in the areas of research methods; and
3. Preparing the students to pursue Ph.D. in the field of ICT.

Eligibility:

Candidates, who have successfully completed Master's degree in ICT or IT as recognized by Nepal Open University with at least Second Division with minimum 2.7 CGPA in a scale of 4 are eligible for M. Phil in Information and Communication Technology. Proficiency in English language is essential as it is the language of instruction, examination, and writing term papers and thesis. There is a provision of entrance test for admission to the MPhil in ICT (Maximum Seat -50 and Minimum -10)

Course Duration:

M Phil

Minimum : 1.5 year (Full time)

Maximum : 4.5 Year (Part Time)

Mode of delivery: Online, face to face and (blended).

Scholarships: 10% of admitted students (Tuition fee waiving) as per university rules and regulation.

Evaluation Scheme:

- In-semester: 40%
- End-semester: 60%

In Semester Evaluation (40%)	End Semester Evaluation (60%)
a) Unit Assignment/Project/Task (20%) b) Critical Comment/Review (15%) c) Interaction with the Tutor (5%)	a) Short answer questions b) Long answer questions or research paper writing (With a focus on higher order thinking skills such as analysis, synthesis, evaluation, innovation etc.)

Table 1: List of compulsory courses offered for the first year first Semester

Course Code	Course Title	FM	PM	Credits	HRS
ICT701	Advanced Research Methodology	100	50	3	45
ICT702	Data Science	100	50	3	45
ICT703	Digital Governance	100	50	3	45
ICT704	Advanced Programming Techniques	100	50	3	45
ICT705	IT Management	100	50	3	45
Total		500		15	

Year: I Semester: Second

Course Code	Course Name	FM	PM	Credits	HRS
ICT 751	Cloud Computing and Big Data	100	50	3	45
ICT 752	Integrated Communications	100	50	3	45
ICT 753	Database Management System	100	50	3	45
ICT 754	Advanced Software Engineering	100	50	3	45
ICT 755	Research Project (Preliminary Dissertation Works)	100	50	3	45
Total		500		15	

Year: II Semester: Third

Course Code	Course Name	Credits
ICT 801	Elective	3
ICT 899	Dissertation	6
Total		9

Elective Subjects:

- **Machine Learning**
- **Knowledge Engineering**
- **Deep Learning**
- **Fuzzy Logic**
- **Embedded System**
- **Modeling and Simulation**
- **Artificial Intelligence**
- **Computational Mathematics**
- **Analytical Hierarchical Process**
- **Wireless Sensor Network**
- **Data Mining**
- **Mobile Computing**
- **Web Technology**
- **Natural Language Processing**
- **Geographical Information System**
- **Educational Technology**
- **Internet of Things**
- **Wireless Communication**
- **5-G Net work**
- **Information Security**