



Nepal Open University Course Structure of Bachelor of Information Technology
(BIT)



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NEPAL OPEN UNIVERISITY
Manbhawan, Lalitpur



BIT Course Structure

Introduction

The Bachelor of Information Technology (BIT) program is four-year (8th semester) Bachelor degree, designed to equip learners with a comprehensive understanding of applying Information and Communication Technologies across diverse fields. This program prepares graduates for dynamic jobs in the field of the changing landscape of information technology. It ensures that students can successfully connect theoretical knowledge with applied solutions by combining demanding academic study with useful, real-world problem-solving strategies. This program often adopts a more practical orientation, incorporating specialized studies that align with current industry demands such as web technologies, mobile computing, Artificial Inteligent, Blockchain Technology, Data Science and Cyber security. It ensures that students can successfully connect theoretical knowledge with applied solutions by combining demanding academic study with useful, real-world problem-solving strategies.

Title

The title of the program is Bachelor of Information Technology (BIT).

Objective

The objective of BIT at the Faculty of Science, Health and Technology of **Nepal Open University (NOU)** is to produce high quality IT professionals in various domain of Information Technology.

Duration of the Program

The course of study for BIT shall be covered over a period of eight semesters (four academic years). The academic year begins as university's calendar.

Medium of Instruction

The medium of instruction and examination in BIT program shall be English.

Entry Requirement

The entry requirement for students in BIT is Intermediate Level or Higher Secondary level (10+2) or equivalent in any discipline from a recognized institution. Besides the basic academic requirement, an entrance examination will be conducted for all applicants by the concerned Dean's office.

Admission Procedure

The entrance test application form and the information brochure shall be provided on request by the concerned Dean's office. The concerned Dean's office scrutinizes the applications. The eligible candidates are informed to appear in the entrance test. The exact date for the entrance test is



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communicated to the applicants by the concerned Dean's office. The candidates shall be admitted on merit basis. The subjects and weightage of each subject for the Entrance test will be as follow:

English: 35%; Mathematics: 35%, Computer Science: 20% and General Knowledge: 10%

The concerned Dean's office may also hold interviews for the candidates before their final selection for admission. The candidates, who are given provisional admission pending submission of the qualifying certificates, are required to submit all necessary documents within a week of the beginning of regular classes. Otherwise, the admission will be annulled.

Academic Schedule

The academic session of the University consists of two semesters per year. For BIT program, student admission may commence either in the Fall semester or in the Spring semester, as approved by the university. The concerned Dean's office of the NOU publishes its yearly academic calendar.

Student Evaluation

The students' academic performance during a semester is evaluated using the system of continuous assessment (Internal Assessment and External Assessment). Dean's office conducts the internal assessment during the session and the University conducts the external assessment (Final Examination) at the end of each semester. Final practical examination shall be conducted by the subject teacher or the Dean office in the presence of the external examiner assign by the university.

Each course shall have internal evaluation marks of 50% evaluated by the concerned faculty member. Generally, each course will have a written end semester examination (Final Examination) of 50% marks at the end of each semester. The internal marks shall be awarded on the basis of continuous assessment and practical examination. The mark weightage and time allocated for different assessment is given below.

Examination Scheme (Subjects with Practical)				
Internal Assessment		External Assessment		Total
Theory	Practical	Theory	Practical	
20%	30% (3 Hrs.)	50% (3 Hrs.)	-	100%



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Examination Scheme (Subjects without Practical)		
Internal Assessment	External Assessment	Total
50%	50% (3 Hrs.)	100%

To pass in a subject, a student must obtain a minimum of 40% in that subject in internal assessment and D grade in the final examination. Students must pass ‘Theory Internal Assessment’, ‘Practical Assessment’ and ‘Final Examination’ separately.

The Credit System

Each course is assigned a certain number of credits depending generally upon its lecture, tutorial and practical work hours in a week. In theory subjects, one hour lecture per week is assigned one credit as a general rule whereas in practical subject one hour lecture and one hour practical work is assigned one credit.

Grading System

The grade (marks) awarded to a student in a course is based on his/her consolidated performance in session and final examinations. The letter grade in any particular subject is an indication of a student's relative performance in that course. The pattern of grading is as follows:

Letter	Grade	Grade Point Description
A	4.0	Excellent
A-	3.7	
B +	3.3	
B	3.0	Good
B -	2.7	
C+	2.3	
C	2.0	Work satisfying minimum requirement for credits
F	0	Fail

Only in very rare and unusual circumstances, if a student cannot finish all the required work for the course, he/she may be awarded an incomplete grade "I". If all the required work is not completed within the following semester, the grade of "I" will automatically be converted to an "F". A student receiving an “I” grade does not need to register for that subject in the following semester to complete the required works.

The performance of a student in a semester shall be evaluated in terms of the Semester Grade Point Average (SGPA) which is the grade point average for the semester. The cumulative grade point average (CGPA) is the grade point average for all completed semesters.



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SGPA = Total honor points earned in a semester / Total number of credits registered in a semester

CGPA = Total honor points earned / Total number of credits completed

Attendance Requirement

The students must attend every lecture, tutorial and practical classes. However, to accommodate for sickness and other contingencies, the attendance requirement shall be a minimum of 80% of the classes actually held. If a student fails to attend 80% of the classes in any particular subject, he/she shall not be allowed to take the final examination in that subject.

Normal and Maximum Duration of Stay at University

The normal duration for completing BIT program at the NOU will be four years. The maximum duration for the completion of the requirements will be the normal duration plus four years or decide by academic council.

Course Registration

The academic record of a student is maintained in terms of the courses for which he/she registers in any semester, and the grades he/she obtains in those courses. Registration for courses is done at the beginning of each semester. Since registration is a very important procedural part of the credit system, it is absolutely essential that all registration process should be done by students themselves in university portal.

Repeating a Course

A course may be taken only once for a grade, except when a student receives F grade. Since passing of all core courses individually is a degree requirement, the student must retake the failing courses when offered and must successfully complete the course. The grade earned on the retake will substitute the grade earned first time the course was taken.

Practical classes:

- **Primary Mode:** Practical classes are primarily conducted during **online classes**. To enhance effectiveness, the university mandates a **two-weeks contact session** as physical mode in every semester. The contact session calls students to the university for **face-to-face revision** of the practical classes.
- **Teacher Remuneration:** Teachers who conduct these revision practical classes during the contact session are compensated with remuneration equivalent to **1 credit**.

This blended learning approach ensures students benefit from the flexibility of online learning while reinforcing their practical skills through intensive, in-person revision sessions.



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Award of Degree

NOU awards Bachelor in Information Technology (BIT) degree upon completion of all requirements as prescribed in the curriculum. The university awards grades as explained in the curriculum on the basis of individual student's relative performance. Cumulative Grade Point Average (CGPA) for the degree shall be awarded upon completion of all requirements.

Scrutinizing of Final Examination Paper

Students may apply for re-totaling or rechecking of their grades as per University rule, upon payment of prescribed fee.

Note: The provisions of this document are not to be regarded as a binding contract between the University and the students. The University reserves the right to change any provisions or requirements contained in this document at any time, without pre-notification, within the students' term of residence.



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	Subject Code	First Semester	Credit
1	TEFCP101	Fundamental of Computer and Computer Programming	4
2	TESOT102	Society and Technology	3
3	TEWET103	Web Technology I	3
4	TETEE104	Technical English	3
5	TECOM105	Computational Mathematics	3
		Total	16
		Second Semester	
1	TEWET151	Web Technology II	3
2	TEPYP152	Python Programming	3
3	TEDMS153	Database Management System	3
4	TEDSA154	Data Structure and Algorithm	3
5	TEDIL155	Digital Logic	3
		Total	15
		Third Semester	
1	TEOOP201	Object Oriented Programming	3
2	TEHCI202	Human-Computer Interaction	3
3	TEMCA203	Microcontroller and Computer Architecture	3
4	TEPRS204	Probability and Statistics	3
5	TESAD205	System Analysis & Design	3
		Total	15
		Fourth Semester	
1	TESOE251	Software Engineering	3
2	TENUM252	Numerical Method	3
3	TECOG253	Computer Graphics	3
4	TEOPS254	Operating System	3
5	TEDIM255	Digital Marketing	3



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6	TEPRO256	Project I	3
		Total	18
		Fifth Semester	
1	TEADP301	Advance Programming	3
2	TECLC302	Cloud Computing	3
3	TEDCN303	Data Communications & Computer Network	3
4	TESPM304	Software Project Management	3
5	TEARI305	Artificial Intelligence	3
		Total	15
		Sixth Semester	
1	TEDSA351	Data Science and Analytics	3
2	TEBCT352	Block Chain Technology	3
3	TEMSD353	Multimedia System Development	3
4	TEDEV354	DevOps	3
5	TEPRO355	Project II	3
		Total	15
		Seventh Semester	
1	TECYS401	Cyber Security	3
2	TEMAL402	Machine Learning	3
3	TEEGA403	e-Governance and Application	3
4		Elective I	3
5		Elective II	3
		Total	15
		Eighth Semester	
1	TEIEI451	IT Entrepreneurship and Innovation	3
2		Elective III	3
3		Elective IV	3
4	TEPRO499	Internship/Capstone Project	6
		Total	15
		Total No. of Credits	124
Seventh Semester Electives Subjects:			



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Elective I:

1. TESSA420 System Administration
2. TESQA421 Software Testing and Quality Assurance
3. TEHCA422 Human-Centered Artificial Intelligence
4. TEDEL423 Deep Learning
5. TECRN424 Cryptography and Network Security

Elective II:

1. TEDAA430 Database Administration
2. TEIOT431 Internet of Things
3. TEMOP432 Mobile Programming
4. TEBDA433 Big Data and Analytics
5. TEETH434 Ethical Hacking

Eight Semester Elective Subjects:

Elective III:

1. TEERP460 Enterprise Resource Planning
2. TEDAM461 Data Mining
3. TEDCA462 Data Center Administration
4. TESNA463 Social Network Analysis
5. TEDIG464 Digital Forensic

Elective IV:

1. TEIIM470 IT infrastructure Management
2. ITMIS471 Management Information System
3. ITNEP472 Network Programming
4. ITBUA473 Business Analytics
5. ITSEA474 Security Audit