



त्रिभुवन विश्वविद्यालय
विज्ञान तथा प्रविधि अध्ययन संस्थान
डीनको कार्यालय

कीर्तिपुर, काठमाडौं, नेपाल

विज्ञान तथा प्रविधि अध्ययन
डीनको कार्यालय
कीर्तिपुर २०४५

पत्र सङ्ख्या
च.नं.

मिति : ०७६।४।९

Bachelor's in Information Technology (BIT) कार्यक्रम संचालानार्थ प्रस्ताव आव्हान
गरिएको सूचना

त्रिभुवन विश्वविद्यालय, विज्ञान तथा प्रविधि अध्ययन संस्थान अन्तर्गत **Bachelor's in Information Technology (BIT)** कार्यक्रम संचालन हुनेगरि त्रि.वि. प्राज्ञिक परिषद्बाट उपाधी सहित पाठ्यक्रम पारित भए अनुसार विज्ञान तथा प्रविधि अध्ययन संस्थानले यस शै.स.०७६।०७७ मा विज्ञान तथा प्रविधि अध्ययन संस्थान अन्तर्गतको कार्यक्रम संचालन गरिरहेका उपत्यका भित्रका र उपत्यका बाहिरका गरि जम्मा ५ वटा आंगिक क्याम्पसमा प्रारम्भिक रूपमा **Bachelor's in Information Technology (BIT)** कार्यक्रम संचालन गर्ने कार्यक्रम तय गरे अनुसार उपत्यका भित्रका र उपत्यका बाहिरका आंगिक क्याम्पसहरूबाट सो कार्यक्रम आन्तरिक श्रोतमा संचालन गर्ने गरि १५ दिन भित्रमा यस कार्यालयमा प्रस्ताव सहितको आवेदन पेश गर्न सूचित गरिन्छ। प्राप्त प्रस्तावमा अध्ययन संस्थानबाट सम्भाव्यता अध्ययन हुनेछ र सम्भाव्यता अध्ययन खर्च सम्बन्धित क्याम्पसले नै व्यहोर्नु पर्नेछ। तोकिए भन्दा बढी आवेदन पर्न आएमा उत्कृष्टताको आधारमा चयन गरिने छ।

Bachelor's in Information Technology (BIT) विषयको Course Structure र अन्य जानकारी यसै साथ संलग्न छ।

प्रा.डा. राम प्रसाद खतिवडा
डीन



TRIBHUVAN UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY

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BACHELOR'S IN INFORMATION TECHNOLOGY (BIT)

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EFFECTIVE FROM 2075/076(2018)

Tribhuvan University
Institute of Science and Technology

Course of Study

Bachelors in Information Technology

(BIT)

2018

Eligibility Condition for Admission

Who seeks admission to BIT program

Should have successfully completed twelve years of schooling in any stream.

Should have secured a minimum of second division.

Should have successfully passed the entrance examination conducted by Institute of Science and Technology (IOST), TU.

Prepared by

Computer Science and Information Technology Subject Committee

The course is of eight semesters (four academic years). There is a separate semester examination at the end of each semester.

Introduction:

The Bachelors in Information Technology (BIT) curriculum is designed by closely following the courses practiced in accredited international universities, subject to the condition that the intake students are twelve years of schooling in any stream or equivalent from any recognized board. In addition to the foundation and core Information Technology courses, the program offers several elective courses to meet the undergraduate academic program requirement and to fulfill the demand for development and implementation of new technology.

Students enrolled in the four year BIT program are required to take foundation and core courses of Information technology, courses of mathematics, statistics, management, economics, sociology, psychology, research methodology and technical writing, and some elective courses. All undergraduate students are required to complete 120 credit hours of Information Technology and allied courses, and will have opportunity in the field of software development, information security, database administration, network and system administration, and in all the sectors that develop and/or use Information Technology.

Objective:

The main objective of BIT program is to provide students intensive knowledge and skill to design, develop, and use information technology in different areas. It is envisaged that graduate of this program will be equipped with necessary knowledge of Information Technology to compete in this global world.

Eligibility Condition for Admission

A student who seeks admission to BIT program:

- Should have successfully completed twelve years of schooling in any stream.
- Should have secured a minimum of second division.
- Should have successfully passed the entrance examination conducted by Institute of Science and Technology (IOST), TU.
- Complied with all the application procedures.

Course Duration:

The entire course is of eight semesters (four academic years). There is a separate semester examination after the end of each semester.

Hours of Instruction:

a) **Working days:** 90 days in a semester

b) **Class hours:**

- 3 credit hours courses with theory and labs is equivalent to 3 hours lecture and 3 hours lab = 6 working hrs per week.
- 3 credit hours theory-only course is equivalent to 3 hours lecture and 2 hours tutorial = 5 working hrs per week.

Evaluation

Theory course should have internal weightage of 20% and external weightage of 80%. For the course having lab work, the internal weightage is 20%, lab work weightage is 20% and external weightage is 60%. A student should secure minimum of 40% in each category to pass a course. The final score in each course will be the sum of overall weightage of in all categories. There will be a separate practical examination for the 20% weightage of lab work conducted by concerned college in the presence of an external examiner.

- The project work and internship are evaluated by different evaluators. To pass project work and internship, students should secure at least 40% marks in the evaluation of each evaluator and final score will be the sum of all the evaluations. For the evaluation of final presentation, an external examiner will be assigned from the IOST.

The Grading System

A student having passed his/her 8 semesters (4 years) of study will be graded as follows:

- **Distinction:** 80 % and above (8 semester's average)
- **First Division:** 70 % and above (8 semester's average)
- **Second Division:** 55 % and above (8 semester's average)
- **Pass Division:** 40 % and above (8 semester's average)

Attendance Requirement:

Students are required to attend regularly all theory and practical classes and should maintain 80 percent attendance in each course separately.

Final Examination:

Institute of science and technology, Tribhuvan University, will conduct the final examination at the end of each semester. 80% weightage will be given to the final examination for theory course and 60% will be given for the course having both theory and practical.

Course Structure:

Semester I

Course Code	Course Title	Credit Hours	Full Marks
BIT101	Introduction to Information Technology	3	100
BIT102	C Programming and Design	3	100
BIT103	Digital Logic and Communications	3	100
MTH104	Basic Mathematics	3	100
SCO105	Sociology	3	100
Total		15	500

Semester II

Course Code	Course Title	Credit Hours	Full Marks
BIT151	Microprocessor and Computer Architecture	3	100
BIT152	Discrete Structure	3	100
BIT153	Object Oriented Programming	3	100
STA154	Basic Statistics	3	100
ECO155	Economics	3	100
Total		15	500

Semester III

Course Code	Course Title	Credit Hours	Full Marks
BIT201	Data Structures and Algorithms	3	100
BIT202	Database Management System	3	100
BIT203	Numerical Methods	3	100
BIT204	Operating Systems	3	100
MGT205	Principles of Management	3	100
Total		15	500

Semester IV

Course Code	Course Title	Credit Hours	Full Marks
BIT251	Web Technology I	3	100
BIT252	Artificial Intelligence	3	100
BIT253	Systems Analysis and Design	3	100
BIT254	Network and Data Communications	3	100
ORS255	Operations Research	3	100
Total		15	500

Semester V

Course Code	Course Title	Credit Hours	Full Marks
BIT301	Web Technology II	3	100
BIT302	Software Engineering	3	100
BIT303	Information Security	3	100
BIT304	Computer Graphics	3	100
ENG305	Technical Writing	3	100
Total		15	500

Semester VI

Course Code	Course Title	Credit Hours	Full Marks
BIT351	NET Centric Computing	3	100
BIT352	Database Administration	3	100
BIT353	Management Information System	3	100
RSM354	Research Methodology	3	100
	Elective I	3	100
Total		15	500

List of Electives:

1. Geographical Information System (BIT355)
2. Multimedia Computing (BIT356)
3. Wireless Networking (BIT357)
4. Society and Ethics in IT (BIT358)
5. Psychology (PSY359)

Semester VII

Course Code	Course Title	Credit Hours	Full Marks
BIT401	Advanced Java Programming	3	100
BIT402	Software Project Management	3	100
BIT403	E-commerce	3	100
BIT404	Project work	3	100
	Elective II	3	100
Total		15	500

List of Electives:

1. DSS and Expert System (BIT405)
2. Mobile Application Development (BIT406)
3. Simulation and Modeling (BIT407)
4. Cloud Computing (BIT408)
5. Marketing (MGT409)

Semester VIII

Course Code	Course Title	Credit Hours	Full Marks
BIT451	Network and System Administration	3	100
BIT452	E Governance	3	100
BIT453	Internship	6	200
	Elective III	3	100
Total		15	500

List of Electives:

1. Data Warehousing and Data Mining (BIT454)
2. Knowledge Management (BIT455)
3. Image processing (BIT456)
4. Network Security (BIT457)
5. Introduction to Telecommunications (BIT458)