

**RAJARSHI JANAK UNIVERSITY**  
**CURRICULUM STRUCTURE**  
**Bachelor of Computer Science and Information**  
**Technology (BSc CSIT)**

<b>Semester I</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
CSMT 101	Mathematics-I	3	40	60	100
CSPH 102	Physics	3	40	60	100
CSEN 103	Technical Communication English	3	40	60	100
CSIT 104	Computer Concept and Programming	3	40	60	100
CSIT 105	Digital Logic	3	40	60	100
<b>Semester II</b>					
CSMT201	Mathematics-II	3	40	60	100
CSIT 202	Object Oriented Programming in C++	3	40	60	100
CSIT 203	Discrete Structure	3	40	60	100
CSST 204	Statistics-I	3	40	60	100
CSIT 205	Microprocessor and Microcontroller	3	40	60	100
<b>Semester III</b>					
CSIT 301	Computer Organization and Architecture	3	40	60	100
CSIT 302	Data Structures and Algorithms	3	40	60	100
CSIT 303	Numerical Methods	3	40	60	100
CSST 304	Statistics-II	3	40	60	100
CSIT 305	Database Management Systems	3	40	60	100
<b>Semester IV</b>					
CSIT 401	Computer Graphics	3	40	60	100
CSIT 402	Operating Systems	3	40	60	100
CSIT 403	System analysis and Design	3	40	60	100
CSIT 404	Java Programming	3	40	60	100
CSIT 405	Web Technology	3	40	60	100
<b>Semester V</b>					
CSIT 501	Programming in Python	3	40	60	100
CSIT 502	Theory of computation	3	40	60	100
CSIT 503	Computer Network	3	40	60	100
CSIT 504	Analysis and Design of	3	40	60	100

	Algorithm				
	Elective-I	3	40	60	100
CSIT 510	Project-I	3	80	20	100

**List of Electives**

CSIT 505	Image Processing				
CSIT 506	Data Analytics and Visualization				
CSIT 507	Multimedia System				
CSIT 508	Operations Research				
CSIT 509	E-Commerce				

**Semester VI**

CSIT 601	Software Engineering	3	40	60	100
CSIT 602	Cryptography and Network Security	3	40	60	100
CSIT 603	Artificial Intelligence	3	40	60	100
CSIT 604	Simulation and Modelling	3	40	60	100
CSIT 605	Research Methodology	3	40	60	100
	Elective-II	3	40	60	100

**List of Electives**

CSIT 606	Mobile Application Development				
CSIT 607	Wireless Communication and Networking				
CSIT 608	Unix Shell Programming				
CSIT 609	E-Governance				
CSIT 610	.Net Technology				

**Semester VII**

CSIT 701	Compiler Design and Construction	3	40	60	100
CSIT 702	Distributed and Cloud Computing	3	40	60	100
CSIT 703	Data warehousing and Data Mining	3	40	60	100
CSIT 704	Machine Learning	3	40	60	100
	Elective-III	3	40	60	100
CSIT 711	Project-II	6	160	40	200
CNCE 712	Constitution of Nepal and Eastern Philosophy*	Non-Credit		100	100

**\*Non-Credit But Compulsory**

**List of Electives**

CSIT 706	Software Project Management				
CSIT 707	Software Architecture and Design Pattern				
CSIT 708	Management Information System				
CSIT 709	Neural Network				

CSIT 710	Embedded System				
<b>Semester VIII</b>					
CSIT 801	Professional and Social Ethics in IT	3	40	60	100
CSIT 802	Management and Entrepreneurship in IT Industry	3	40	60	100
	Elective-IV	3	40	60	100
CSIT 808	Internship	6	120	80	200
CSIT 809	Research Seminar	2	50		50
<b>List Of Electives</b>					
CSIT 803	Internet of Things (IoT)				
CSIT 804	Natural Language Processing				
CSIT 805	Software Quality Assurance				
CSIT 806	Geographical Information System				
CSIT 807	Introduction to Quantum Computing				

**NOTE: For Elective Subjects, from the enrolled students, minimum 50% students should be interested and subject can be applied to the facility available in the campus.**

**Note:**

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