

Syllabus Mapping for AKTU University

Department/Year	Course Name	Spoken Tutorial Software E- Resource for learning
<u>B.Tech All Departments</u>		
First Year	RCS101/RCS201 - Computer System and Programming in C	C, C++
	RCE 151/ RCE 251 -Computer Aided Engineering Graphics	GIMP, Inkscape
<u>B.Tech - IT Department</u>		
2 nd Year	RCS-305: DATA STRUCTURES USING-C	C, C++
	RCS-35: DATA STRUCTURES USING-C / Java	C, C++, Java
	RCE – 151 -Computer Aided Engineering Graphics	GIMP, Inkscape, QCAD
	RCS – 451 – Operating Systems Lab	Linux & Ubuntu
	RCS – 454 - Python Language Programming Lab	Python
3 rd Year	NCS-502 Database Management System	MYSQL
	NCS- 503 Principle of Programming Language	JAVA and Netbeans
	NCS- 504 Web Technology	PHP, Perl, Drupal
	NIT-063 – Bioinformatics	Biopython
4 th Year	NOE- 074 Introduction to Bio Technology	CellDesigner, Biopython
	NCS – 752 – Project	LaTeX – Useful for technical writing in projects
	NIT - 751 - CRYPTOGRAPHY AND NETWORK SECURITY LAB (using 'C')	C

<u>B. Tech. (Computer Science and Engineering / Computer Engineering & information Technology)</u>		
2 nd Year	RCS-305: DATA STRUCTURES USING-C	C, C++
	RCS-35: DATA STRUCTURES USING-C / Java	C, C++, Java
	RCE – 151 -Computer Aided Engineering Graphics	GIMP, Inkscape, QCAD
	RCS – 451 – Operating Systems Lab	Linux & Ubuntu
	RCS – 454 - Python Language Programming Lab	Python
3 rd Year	NCS-502 Database Management System	MySQL
	NCS- 503 Principle of Programming Language	C, C++
	NCS- 504 Web Technology	PHP, Perl, Drupal
	NCS- 505 Computer Architecture	-Introduction to Computers (ICT) -LibreOffice Suite
4 th Year	NOE- 074 Introduction to Bio Technology	CellDesigner, Biopython
	NCS – 751 - DISTRIBUTED SYSTEM LAB ('UNIX' platform, using 'C++' , Java program)	Unix, C++, Java Programming
	NCS – 752 – Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Chemical Engineering)</u>		
2 nd Year	NCH303:FLUID MECHANICS	OpenFoam
3 rd Year	NCH011 – Computational Fluid Dynamics	OpenFoam
	NCH554 - FLOW SHEETING LAB (using a simulation package/ programming environment)	DWSIM – Chemical process simulator, Openmodelica

4 th Year	NCH-017: BIOPROCESS ENGINEERING PRINCIPLES	CellDesigner, Biopython
	NCH 852: PROJECT	LaTeX – Useful for technical writing in projects
B. Tech. (Civil Engineering)		
2 nd Year	NCE 351 FLUID MECHANICS	OpenFoam
	NCE -354 BUILDING PLANNING & DRAWING LAB	QCAD
	NCE 454 COMPUTER BASED STATISTICAL & NUMERICAL TECHNIQUES LAB ('C' Language)	C
3rd Year	NCE 553: CAD LAB I (ANALYSIS SOFTWARE LIKE ANSYS , ADINA , NISA, MATLAB)	Scilab equivalent to MATLAB
4 th Year	NCE –051 COMPUTER AIDED	QCAD
	NOE-074: INTRODUCTION TO BIOTECHNOLOGY	CellDesigner, Biopython
	NCE – 851 – Project	LaTeX – Useful for technical writing in projects
B.Tech (Electrical Engineering, Electrical & Electronics Engg.)		
2 nd Year	NEE-353: NUMERICAL TECHNIQUE LAB (S/W Based Experiments using MATLAB or Equivalent software)	Scilab
	NEE-451: ELECTRO-MECHANICAL ENERGY CONVERSION–II LABORATORY(Develop Computer Program in 'C' language or use MATLAB or Equivalent software)	C, C++, Scilab (equivalent to MATLAB)

3rd Year	NEE-552: CONTROL SYSTEM LABORATORY Software based experiments (Use MATLAB, LABVIEW software etc.)	Scilab
	EEC 501 INTEGRATED CIRCUITS	Ngspice
	NEE-551:POWER ELECTRONICS LABORATORY(Software based experiments(PSPICE/MATLAB))	Scilab
4th Year	NCS-039 OBJECT ORIENTED SYSTEMS AND C++	C, C++
	NOE-074: INTRODUCTION TO BIOTECHNOLOGY	CellDesigner, Biopython
	NEN – 754 – Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Electronics Engineering, Electronics & Communication Engineering, Electronics & Instrumentation Engineering)</u>		
2nd Year	NEC-401 DATA STRUCTURE	C, C++
3rd Year	EEC 501 INTEGRATED CIRCUITS	Ngspice
	NIC-551 CONTROL SYSTEM-I LAB (Toolboxes In MATLAB)	Scilab
4th Year	NOE-074: INTRODUCTION TO BIOTECHNOLOGY	CellDesigner, Biopython
	NEN – 851 – Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Environmental Engineering)</u>		
2nd Year	NCE 301 FLUID MECHANICS	OpenFoam
	NCE- 354 – Building Planning & Drawing Lab	QCAD

3rd Year	NEN 654: CAD Lab	QCAD
4th Year	NOE-074: INTRODUCTION TO BIOTECHNOLOGY	CellDesigner, Biopython
	NEN – 851 – Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Mechanical Engineering)</u>		
2nd Year	NCE-301: FLUID MECHANICS	OpenFoam
	NME-352:MACHINE DRAWING-I LAB(Computer aided drafting)	QCAD
3 rd Year	NME-652 : MACHINE DESIGN-II (Computer and Language)	C, C++
4 th Year	NAE – 754– Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Agricultural Engineering)</u>		
1 st Year	NAG-252 : Fundamentals of Computer Programming	C, C++
	NCE-151/251 : Computer Aided Engineering Graphics	QCAD
2 nd Year	NAG-352:Fluid Mechanics Lab	OpenFoam
4th Year	NAG753 - Project	LaTeX – Useful for technical writing in projects
<u>B. Tech. (Biotechnology)</u>		
1 st Year	NCS-101/NCS-201 Computer System and Programming in C - Basics of Computer - Introduction to operating system	C, C++ Introduction to Computers Linux & Ubuntu
	NCE-151/251 : Computer Aided Engineering Graphics	QCAD
2 nd Year	NBT-302:Fluid Flow and Solid Handling	OpenFoam
	NBT-354: Genetics & Molecular Biology Lab	CellDesigner, Biopython

3rd Year	NBT-551: Genetic Engineering Lab	Biopython
	NBT-552: Bioinformatics	Biopython
4th Year	NBT- 753 - Project	LaTeX – Useful for technical writing in projects
MCA		
1 st Year	NMCA-113 – COMPUTER CONCEPTS AND PROGRAMMING Basics of Computer Introduction to operating system Basics of programming	- Introduction to Computers - Linux & Ubuntu - C, C++
	NMCA-151 Programming Lab	C, C++
	NMCA-251 – DATA STRUCTURES USING ‘C/ C++’	C, C++
	NMCA-252 COMPUTER BASED NUMERICAL AND STATISTICAL TECHNIQUES LAB	C
2 nd Year	NMCA 351- DATABASE MANAGEMENT SYSTEMS LAB	MySQL
	NMCA 314 - INTERNET & JAVA PROGRAMMING	- Introduction to computers, - Java, Netbeans, Java Business Application
	NMCA-412 – WEB TECHNOLOGY	PHP, Perl, Drupal