Ramgarhia Polytechnic College, Phagwara



Computer Science and Engineering Department

Head of Department: Er. Poonam Rana

Name of the Faulty: Er. Pankaj Soni

Discipline: Computer Science and Engineering Department

Semester: 5th

Subject: Minor Project

Lesson Plan Duration: 16 Weeks

RATIONALE

Minor project work aims at exposing the students to the various industries dealing with computers. It is expected from them to get acquainted with computer environment possess desired attitudes. For this purpose student during middle of the course are required to be sent for a period of two to four weeks at a stretch in different establishments. Depending upon the interest of students they are sent for exposure to:

Course Outcomes

After undergoing the subject, students will be able to:

- CO1: Industrial practices in installation and maintenance of computers and computer networks
- CO2: Fabrication of computers
- CO3: Fault diagnosis and testing of computers
- CO4: Industrial practices in respect of documentation and fabrication
- CO5: A variety of computers and peripherals in assembly organizations
- CO6: Software package development organizations
- CO7: Maintenance of database
- CO8: Write be stored procedure or functions which can be attached as the library objects to the main projects
- CO9: Write a procedure function to convert number of words.
- CO10: Write a procedure function to convert all data function (create your own) Database connectivity, (SQL server, Oracle, Access), Library classes in C++ (same application).,
- CO11: Design web applications using PHP

PO ⇒	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO I.							
CO1	\checkmark						
CO2		\checkmark					
CO3			\checkmark				
CO4			\checkmark				
CO5				\checkmark			
CO6				\checkmark			
CO7					\checkmark		
CO8					\checkmark		
CO9						\checkmark	
CO10						\checkmark	
CO11							\checkmark

Syllabus

Units	Details					
1.	Minor project w	vork aims at exposing the students to the	various industries	dealing with		
	computers. It is expected from them to get acquainted with computer environment					
	possess desired attitudes. For this purpose, student during middle of the course are					
	required to be	required to be sent for a period of two to four weeks at a stretch in different				
	establishments.	Depending upon the interest of students	they are sent for e	exposure to:		
2.	1) Industrial pr	actices in installation and maintenance	e of computers a	nd computer		
	networks					
	2) Fabrication of	f computers				
	3) Fault diagnos	sis and testing of computers				
	4) Industrial pra	actices in respect of documentation and fa	abrication			
	5) A variety of	computers and peripherals in assembly or	rganizations			
	6) Software pac	kage development organizations				
	7) Maintenance	of database				
	8) Write be stor	ed procedure or functions which can be a	ttached as the libr	ary objects to		
	the main pro	ojects				
	9) Write a proce	edure function to convert number of word	ls.			
	10) Write a pro	cedure function to convert all data functi	on (create your o	wn) Database		
	connectivity, (SQL server, Oracle, Access), Library classes in C++ (same application).,					
	11) design web applications using PHP					
3.	As a minor project activity each student is supposed to study the operations at site and					
	prepare a detail project report of the observations/processes/activities by him/her. The					
	students should be guided by the respective subject teachers; each teacher may guide a $\int \frac{1}{2} dx dx$					
	group of 4 to 5 students.					
4.	The teachers along with field supervisors/engineers will conduct performance					
	assessment of students. Criteria for assessment will be as follows:					
		Criteria	Weightage			
	(a)	Attendance and Punctuality	15%			
	(b)	Initiative in performing tasks/creating	30%			
		new things				
	(c)	Relation with people	15%			
	(d)	Report Writing	40%			

Delivery/Instructional Methodologies

Sr.No.	Description
1.	Chalk and Talk
2.	PowerPoint Presentation

Assessment Methodologies

Sr. No.	Description	Туре
1.	Student Assignment	Direct
2.	Test	Direct
3.	Board Examination	Direct
4.	Student Feedback	Direct

Gaps in the syllabus - to meet industry/profession requirements

S.NO.	DESCRIPTION	PROPOSED ACTIONS	PO MAPPING
	N/A	N/A	N/A

Topics beyond syllabus/advanced topics

Units	Details	Hours
N/A	N/A	N/A

Web Source References

Sr. No.	URL
1.	https://nptel.ac.in/

Lesson Plan

	Practical				
Week	Practical Day	Торіс			
1st	1st	Selection of the Project assignment: Introduction to the subject and different areas for selection of the topic			
	2nd	Continue Previous discussion			
	3rd	Analysing the aptitudes and Interest of students			
2nd	1st	Analysing the usefulness and scope of the project			
	2nd	Reconsidering the alternate areas of project			
		Discussion on Possibilities, Pros and Cons of the			
	3rd	different projects			
3rd		Assessing the boundaries of the project			
	1st	assignment			
		Discussion on the Hardware and Software			
	2nd	requirements of the different Projects			
	3rd	Selection of the Project assignment			
4th	1st	Feasibility Study of the selected Project:			
		Discussion about different possibilities and limitations of theselected			
		projects			
	2nd	Studying the Project assignment and assessing the technical feasibility of the			
		Project			
	3rd	Continue Previous discussion			

5th	1 st	Studying the Project assignment and assessing the Behavioral and
		economic feasibility of the Project
		containe reastantly of the Project
	2nd	Continue Previous discussion
	3rd	Finalize the Project feasibility report
6th		Planning of the Project- selecting the tools
oui	1st	and software and hardware to be used
	2nd	Assessing the availability of the tools and technical support
	2110	for the project
	3rd	Soloction of the software and Hardware for
	510	development of the project
7.1	1.4	Designing and developing the Project
/th	1st	Designing and developing the Project
	2nd	Generation of the SRS Document which include the expected outcomeand
		working of the project
	2	Continue Descione medi
0.1	Sra	Decision the close of the set of
8th	14	Designing the algorithm and flowchart as per the
	Ist	requirement of the project
	2nd	Continue Previous Work
	3rd	Continue Previous Work
9th	1st	Development and Coding of the algorithms in the language or software
		selected by the students
	2nd	Continue Previous Work
	3rd	Continue Previous Work
10th	1st	Continue Previous Work
	2nd	Continue Previous Work
	3rd	Continue Previous Work
11th	1 et	Continue Previous Work
1111	150	Continue Trevious work
	2nd	Continue Previous Work
	3rd	Continue Previous Work
10.1		
12th	lst	Continue Previous Work
	2nd	Continue Previous Work
	2110	Continue Trevious work
	3rd	Continue Previous Work
	1st	Execution of the project: execution of the project to assess its working
13th		
	2nd	Preparing real time and manual data for execution of the project
	3rd	Execution of the project and checking documentation
14th	1st	Testing the developed Project
	2nd	Testing the Project on manually created data and detecting andcorrecting
		syntax and logical errors
	3rd	Testing the Project on real time data and compare the results with the
		requirements specified at the start of the project assignment

15th	1st	Report Writing: Deciding the format and Report
	2nd	Deciding the chapter scheme and topics to be covered
	3rd	Writing the report as per the decided scheme
16th	1st	Writing the report as per the decided scheme
	2nd	Evaluation of the report and Rework if needed
	3rd	Evaluation of the report and Rework if needed

NBA has defined the following seven POs for an Engineering diploma graduate:

i) **Basic and Discipline specific knowledge**: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

ii) **Problem analysis:** Identify and analyze well-defined engineering problems using codified standard methods.

iii) **Design/ development of solutions**: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

iv)**Engineering Tools, Experimentation and Testing**: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

v) **Engineering practices for society, sustainability and environment**: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

vi) **Project Management**: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

vii) **Life-long learning**: Ability to analyze individual needs and engage in updating in the context of technological changes.

Program Specific Outcomes (PSOs)

PSOs are a statement that describes what students are expected to know and be able to do in a specialized area of discipline upon graduation from a program. Program may specify 2-4 program specific outcomes, if required.

These are the statements, which are specific to the particular 11 program. They are beyond POs. Program Curriculum and other activities during the program must help in the achievement of PSOs along with POs.