CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Criteria 1

Curricular Aspects

Metric 1.3.2	Number of value-added courses for imparting transferable and life skills offered during last five years
1.3.2.1	How many new value-added courses are added within the last five years.

Supporting Documents

1	Brochure or any other document relating to value added courses **(Year : 2018-19)**

INDEX

Criteria 1.3.2- Number of value-added courses for imparting transferable and life skills

Faculty of Technology & Engineering

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

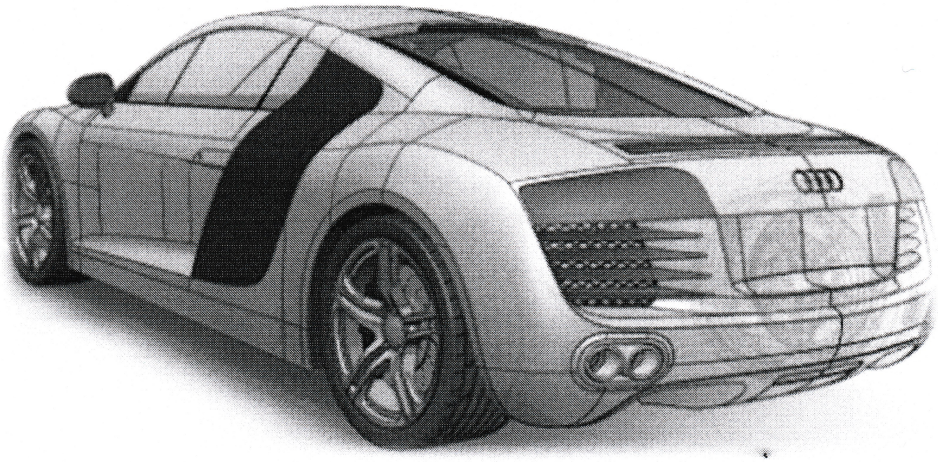
CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY
CHAMOS MATRUSANSTHA DEPARTMENT OF MECHANICAL ENGINEERING

A

Certificate Course

on

SOLIDWORKS



SOLIDWORKS® 3D CAD software shortens product development time and reduces design cost. Communicate to the designers better with 3D CAD. Save time & money with SOLIDWORKS 3D. In mechanical engineering, you might use it to create manufacturing processes as well as to design motor parts, robots and other innovative objects. It can also be useful for student projects.

Course objectives:

- Training for different modules of SOLIWORKS.
- Understand the real-world problems in drafting.
- Appear and clear the CSWA Exam.

Course Syllabus:

SR. NO.	TOPICS	DURATION
1.	Introduction to Solidworks and CSWA	2 hours
2.	Fundamentals of CAD Design and Industrial Drawings	2 hours
3.	Introduction to the Software and its various tools	2 hours
4.	Basic Part Modeling	10 hours
5.	Basic Assembly Modelling	10 hours
6.	Basic Assembly Modelling & documentation	02 hours
7.	Solidworks Documentation & Problem solving for exam	02 hours
	CSWA CERTIFICATE EXAM	03 hours

Course outcomes:

- Student have hands-on experience of Solidworks software.
- Directly interact with live industrial demands for CAD.
- The international certification helps students in placement drive.

Course Duration: 15 Days (January 2019 to June 2019)

Dr. Vijay Chaudhary
HOD, MED

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT),
CHANGA – 388 421
Chandubhai S. Patel Institute of Technology
CHAMOS Matrusanstha Department of Mechanical Engineering
M.S. Patel Department of Civil Engineering

Aptitude Sessions

Course Objective:

This course aims to make students able to critically evaluate various real-life situations by resorting to an analysis of key issues and factors. They should be smart enough to read between the lines and understand various language structures. This Aptitude Training helps them to demonstrate various principles involved in solving mathematical problems and thereby reducing the time taken for performing job functions.

Learning Outcomes:

On successful completion of the course the students will be able to:

- Understand the basic concepts of quantitative ability.
- Understand the basic concepts of logical reasoning skills.
- Acquire satisfactory competency in use of verbal reasoning.
- Solve campus placements aptitude papers covering Quantitative Ability, Logical Reasoning and Verbal Ability.
- Compete in various competitive exams like CAT, CMAT, GATE, GRE, GATE, UPSC, GPSC etc.

Course Structure:

Sr.No.	Topic	Duration

Syllabus for Quantitative Aptitude

1 Competency 1: Simple equations, Ratio, Proportion, Variation, Percentages Simple equations

Simple Equation 2 hrs

- Definition of Linear Equations
- Formation of simple equations
- Problems on Ages, Fractions and Digits
- Indeterminate system of equations
- Special cases in indeterminate system of equation

Ratio and proportion 1 hr

- Definition of Ratio
- Properties of Ratios
- Comparison of Ratios
- Problems on Ratios
- Compound Ratio
- Problems on Proportion, Mean proportional and Continued Proportion

Variation 2 hrs

- Direct variation
- Inverse variation
- Joint variation
- Problems on Variations

2 Competency 2: Percentages, Profit and loss, Partnership, Simple interest and Compound interest, Quadratic equations, progressions

Percentages 2 hrs

- Introduction
- Converting a percentage into decimals
- Converting a Decimal into a percentage
- Percentage equivalent of fractions
- Problems on percentages

Profit And Loss 1 hr

- Problems on Profit and Loss percentage
- Relation between Cost Price and Selling price
- Discount and Marked Price
- Two different articles sold at same Cost Price
- Two different articles sold at same Selling Price
- Gain% / Loss% on Selling Price

Partnership 1 hr

- Introduction
- Relation between capitals, Period of investments and Shares

Simple Interest 1 hr

- Definitions
- Problems on interest and amount
- Problems when rate of interest and time period are numerically equal

Compound Interest 1 hr

- Definition and formula for amount in compound interest
- Difference between simple interest and compound interest for 2 years on the same principle and time period.

Quadratic equations 2 hrs

- General form of Quadratic equations
- Finding the roots of Quadratic equations
- Nature of the roots
- Relation between the roots
- Maximum and minimum value of Quadratic Expression

Syllabus for Analytical Reasoning

3 Competency 3

Deductions 2 hrs

- Finding the conclusions using Venn diagram method
- Finding the conclusions using syllogism method

Connectives 2 hrs

- Definition of a simple statement
- Definition of compound statement
- Finding the Implications for compound statements
- Finding the Negations for compound statements

4 Competency 4

Analytical Reasoning puzzles 2 hrs

- Problems on Linear arrangement
- Problems on Circular arrangement
- Problems on Double line-up
- Problems on Selections
- Problems on Comparisons

5 Competency 5:

Clocks 1 hr

- Finding the angle when the time is given
- Finding the time when the angle is known
- Relation between Angle, Minutes and Hours
- Exceptional cases in clocks

Calendars 1 hr

- Definition of a Leap Year
- Finding the number of Odd days
- Framing the year code for centuries
- Finding the day of any random calendar date

Blood Relations 1 hr

- Defining the various relations among the members of a family
- Solving Blood Relation puzzles
- Solving the problems on Blood Relations using symbols and notations

Verbal Ability and Reading Comprehension

Long and Short passages 8 hrs

- Main idea in the passage
- Assumption
- Inferences, Statements, Arguments
- Synonyms-Antonyms, Vocabulary Usage, Analogies
- Sentences Completion
- Phrasal meaning and usage
- Misfit Sentence/Error Corrections
- Sequences of Sentences
- Summary Writing
- Para-Completion
- Critical Reasoning

Para-Jumbles

- Jumbled Paragraphs 2 hrs
- Picking the Out of Context sentence from a jumbled paragraph

Personality Development

- Group Discussion and Personal Interview 8 hrs

Total Hours **40 Hrs**

Course Details:

Name of Resource Person: Mr. Rohit Joshi, Endeavor, Talisman Education Pvt Ltd. V.V. Nagar.

Duration: 40 hrs.

Duration of Course: 20th March, 2019 to 6th December, 2019

Coordinator:

Mr. Rugnesh Patel (ME)

Mr. Harmish Bhatt (ME)

Mr. Devang Patel (Civil)

Head of Deprtment

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY
Faculty of Technology & Engineering
Chandubhai S. Patel Institute of Technology

Red Hat System Administration

A. **Objective of the Course:**
The main objectives of the course are

- Understand and use essential tools for handling files, directories, command-line environments, and documentation
- Create simple shell scripts
- Operate running systems, including booting into different run levels, identifying processes, starting and stopping virtual machines, and controlling services
- Configure local storage using partitions and logical volumes
- Create and configure file systems and file system attributes, such as permissions, encryption, access control lists, and network file systems
- Deploy, configure, and maintain systems, including software installation, update, and core services
- Manage users and groups
- Manage security, including basic firewall and SELinux configuration
- Perform basic container management
- It is important for student's professional development.

B. Outline of the Course:

Sr. No.	Title of the Unit	Minimum Number of Hours
1	Managing files from the command line	04
2	Getting help in Red Hat Enterprise Linux	05
3	Creating, Viewing and Edition Text Files	04
4	Managing Local Linux Users and Group	04
5	Monitoring and Managing Linux Process	04
6	Configuring and Securing OpenSSH service	04
7	Analyzing storage log and managing Linux Networking	06
8	Scheduling Future Linux Tasks	03
9	Controlling Access to Files with Access Control Lists	03
10	Managing SELinux Security	03

Total hours: 40

C. Detail Syllabus

1	**Managing files from the command line**	**04 Hours**
	The linux file hierarchy and practice, locating file and directories, managing files through command line, path name expansion	
2	**Getting help in Red Hat Enterprise Linux**	**05 Hours**
	Man,pinfo command and practice, viewing and controlling package, creating and viewing SoS report	
3	**Creating, Viewing and Edition Text Files**	**04 Hours**
4	**Managing Local Linux Users and Group**	**04 Hours**
5	**Monitoring and Managing Linux Process**	**04 Hours**
	Processes, controlling job, background and foreground process, monitoring and managing process	
6	**Configuring and Securing OpenSSH service**	**04 Hours**
	Accessing the remote command line with SSH, SSH key based authentication, SSH service , SSH key based authentication	
7	**Analyzing storage log and managing Linux Networking**	**06 Hours**
	System log architecture, managing and controlling syslog files, System journal	
8	**Scheduling Future Linux Tasks**	**03 Hours**
	Scheduling one-time tasks with at, recurring and scheduling job with cron, managing temporary files	
9	**Controlling Access to Files with Access Control Lists**	**03 Hours**
	POSIX access control list, interpret ACLs, securing files with ACLs, grant and limit access	
10	**Managing SELinux Security**	**03 Hours**
	Managing and monitoring SELinux, SELinux modes, troubleshooting SELinux	

D. Students Learning Outcomes:

- Enables you to compete in real-world tasks using all these technologies. These certifications enable the candidates with the skills of implementing and configuring the technologies in question.
- Red Hat certification offers administration skills, developer knowledge of specialized technologies that lead your path to success.
- The Red Hat Certified Engineer (RHCE) certification program creates certified skilled IT professionals, it is also one of the leading certification programs for Linux skills.

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AWS Academy Cloud Architecting

A. Description

AWS Academy Cloud Architecting covers the fundamentals of building IT infrastructure on AWS. The course is designed to teach solutions architects how to optimize their use of the AWS Cloud by understanding AWS services and how they fit into cloud-based solutions. Although architectural solutions can differ depending on the industry, type of application, and size of the business, this course emphasizes best practices for the AWS Cloud that apply to all of them. It also recommends various design patterns to help you think through the process of architecting optimal IT solutions on AWS. Throughout the course, students will explore case studies that showcase how some AWS customers have designed their infrastructures and the strategies and services that they have implemented. Finally, this course provides opportunities for students to build a variety of infrastructures through a guided, hands-on approach.

B. Objective of the Course:

The main objectives of the course are

- Describe how cloud adoption transforms the way IT systems work
- Describe the benefits of cloud computing with Amazon Web Services
- Discuss how to design systems that are secure, reliable, high-performing, and cost efficient
- Describe principles to consider when migrating or designing new applications for the cloud
- Identify the design patterns and architectural options applied in a variety of use cases
- Define high availability, fault tolerance, and scalability
- Discuss how to avoid single points of failure
- List AWS services that have built-in fault tolerance or can be designed for fault tolerance
- Describe why load balancing is a key architectural component for AWS-powered applications
- Identify the benefits of Infrastructure as Code
- Describe how to leverage the capabilities of AWS to support automation
- Create, manage, provision, and update related resources using AWS CloudFormation
- Articulate the importance of making systems highly cohesive and loosely coupled
- Describe system coupling to support the distributed nature of applications built for the cloud
- Describe database services for storing and deploying web-accessible applications • Compare structured query language (SQL) databases with NoSQL databases
- Describe how the AWS Well-Architected Framework improves cloud-based architectures

- Describe the business impact of design decisions
- Identify the design principles and best practices of the Operational Excellence pillar
- Describe how to secure data at every layer in the application
- Describe the appropriate tools and services to provide security-focused content
- Describe the design principles and best practices of the Reliability pillar.
- Select compute, storage, database, and networking resources to improve performance
- Evaluate the most important performance metrics for your applications
- Follow best practices to eliminate unneeded costs or suboptimal resources
- Troubleshoot common errors

B. Outline of the Course:

Sr. No.	Title of the Unit	Minimum Number of Hours
1	Welcome to AWS Academy Cloud Architecting	04
2	Designing Your Environment	05
3	Designing for High Availability - Section I	04
4	Designing for High Availability - Section II	04
5	Automating Your Infrastructure	03
6	Decoupling Your Infrastructure	05
7	Designing Web-Scale Media	04
8	Is Your Infrastructure Well-Architected?	1.5
9	Well-Architected Pillar 1: Operational Excellence	05
10	Well-Architected Pillar 2: Security	04
11	Well-Architected Pillar 3: Reliability	02
12	Well-Architected Pillar 4: Performance Efficiency	04
13	Well-Architected Pillar 5: Cost-Optimization	02

Total hours: 47.5

C. Detail Syllabus

1	**Welcome to AWS Academy Cloud Architecting**	**04**
	This module provides an overview of the AWS Academy Cloud Architecting and reviews course objectives. It will walk students through the creation of their AWS accounts, used throughout the course to enhance the cloud learning journey. Upon completing this module, students will be able to: • Create an AWS training portal account.	

	• Understand how to access course materials. • Create an AWS Free Tier account and an AWS Educate account (Optional)	
2	**Designing Your Environment**	**05**
	This module guides you through how architects design their Amazon Web Services, or AWS, environments. It also establishes guidelines and patterns for selecting AWS Regions, Availability Zones, Multi-Accounts, Multi-VPCs, and subnet structures. These concepts are conveyed through a mixture of recommendations, best practices, design patterns, and questions meant to be used by architects to determine the full requirements of their solution. Upon completing this module, students will be able to: • Discuss how to design systems that are secure, reliable, high performing, and cost efficient. • Highlight principles to consider when migrating existing applications to AWS or designing new applications for the cloud. • Identify design patterns and architectural options that can be applied in a variety of use cases.	
3	**Designing for High Availability - Section I**	**04**
	This module builds on the Designing Your Environment content and explains the concepts of high availability and fault tolerance. Elastic Load Balancing and Amazon Route 53 are discussed as options for implementing a single hostname that can communicate with multiple endpoints. Concepts are reinforced with an exercise to improve an architecture, along with a group discussion to forklift an existing application. Upon completing this module, students will be able to: • Define high availability, fault tolerance, and scalability, and discuss how those concepts are used in cloud architecture. • Discuss how to avoid single points of failure. • Identify which AWS services have built-in fault tolerance, and which services can be designed for fault tolerance.	
4	**Designing for High Availability - Section II**	**04**
	This module builds on Module 3 and explores the best practices to “Avoid Single Points of Failure.” Elastic Load Balancing and Amazon Route 53 are further discussed and concepts are reinforced with another exercise and a lab that uses Auto-Scaling with AWS Lambda. Upon completing this module, students will be able to: • Define high availability, fault tolerance, and scalability, and discuss how those concepts are used in cloud architecture. • Discuss how to avoid single points of failure. • Identify which AWS services have built-in fault tolerance and which can be designed for fault tolerance.	

	• Explain why load balancing has become a key architectural component for many AWS-powered applications	
5	**Automating Your Infrastructure**	**03**
	This module provides an in-depth analysis of microservices and serverless architectures to explain how they can make the infrastructure more resilient and cost effective. The goal of this module is to teach the fundamental concepts of these non-traditional approaches to deploying applications. Upon completing this module, students will be able to: • Identify the benefits of Infrastructure as Code. • Describe how to leverage the capabilities of Amazon Web Services to support automation. • Discuss to how create, manage, provision, and update a collection of related AWS resources in an orderly and predictable way with AWS CloudFormation.	
6	**Decoupling Your Infrastructure**	**05**
	This module teaches decoupling design patterns and the need for reducing interdependencies between tiers. Students will learn best practices for using microservices and designing solutions with components. Upon completing this module, students will be able to: • Articulate the importance of making systems highly cohesive and loosely coupled. • Recall the multi-dimensional facets of system coupling to support the distributed nature of applications built for the cloud.	
7	**Designing Web-Scale Media**	**04**
	Module 7 answers the question “How do I make sure that I am using my storage in the most efficient and available way so that my applications run faster and my users have a better experience.” Students will perform a lab that implements a serverless architecture with AWS managed services. Upon completing this module, students will be able to: • Discover database services for storing and deploying web-accessible content quickly and costeffectively. • Identify key features and benefits of Amazon S3, CloudFront, Amazon RDS, and Amazon Aurora. • Compare structured query language—or SQL—databases with NoSQL databases.	
8	**Is Your Infrastructure Well-Architected?**	**1.5**
	The goal of this module is to introduce the Well-Architected Framework, and to provide a quick overview of each of its five pillars. A deeper explanation of each pillar will be included in the upcoming modules. Upon completing this module, students will be able to: • Identify the five pillars of the Amazon Web Services Well-	

	Architected Framework. • Identify how the AWS Well-Architected Framework enables you to review and improve cloudbased architectures. • Reflect on the business impact of your design decisions**.**	
9	**Well-Architected Pillar 1: Operational Excellence**	**05**
	This module focuses on the Operational Excellence pillar of the Well-Architected Framework. Operational excellence is challenging to achieve in traditional on-premises environments, where operations is perceived as a function that is isolated and distinct from the lines of business and development teams that it supports. By adopting these practices, you can build architectures that provide insight to their status, are enabled for effective and efficient operation and event response, and can continue to improve and support the goals of the business. Upon completing this module, students will be able to: • Describe the benefits and application of the Operational Excellence pillar, such as running and monitoring systems that will deliver business value, and continually improve processes and procedures. • Identify the design principles and best practices of the Operational Excellence pillar.	
10	**Well-Architected Pillar 2: Security**	**04**
	Module 10 focuses on the second pillar of the Well-Architected Framework: Security. Best practices are discussed, and you will learn how to secure data at every layer in the application. You'll participate in an exercise to recommend security enhancements in accordance with the security pillar. Upon completing this module, students will be able to: • Describe how to secure data at every layer in the application. • Identify the appropriate tools and services to provide security focused content. • Identify the design principles and best practices of the Security pillar.	
11	**Well-Architected Pillar 3: Reliability**	**02**
	This module highlights the third pillar of the Well-Architected Framework: Reliability. Best practices are shared with AWS tools to improve system reliability. You will review example architectural patterns for implementing a reliable solution and perform a Lab: Multi-Region Failover with Amazon Route 53. Upon completing this module, students will be able to: • Describe the ability of a system to recover from	

	infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues. • Identify the design principles and the best practices of the Reliability pillar.	
12	**Well-Architected Pillar 4: Performance Efficiency**	**04**
	This module provides in-depth insight into the Performance Efficiency pillar of the Well-Architected Framework. While many best practices are discussed, this module focuses on how to tune or offload components of your system to improve performance. You will participate in an exercise to improve an architecture. Upon completing this module, students will be able to: • Select compute, storage, database, and networking resources to improve your architecture's performance. • Identify design principles that can help you achieve performance efficiency. • Evaluate the most important performance metrics for your applications.	
13	**Well-Architected Pillar 5: Cost-Optimization**	**02**
	This module focuses on the Cost Optimization pillar of the Well-Architected Framework. Discover best practices, how to procure Amazon Elastic Compute Cloud instances for the lowest cost, and how to analyze or audit your resources for inefficient costs or budget overruns. Before finalizing, you'll participate in an exercise to improve an architecture. Upon completing this module, students will be able to: • Understand the principles of the cost optimization pillar. • Discover how to optimize the costs of your infrastructure. • Follow best practices to eliminate unneeded costs or suboptimal resources.	

D. Students Learning Outcomes:

- Enables you to compete in real-world tasks using all these technologies. These certifications enable the candidates with the skills of implementing and configuring the technologies in question.
- AWS certification offers administration skills, developer knowledge of specialized technologies that lead your path to success.
- The AWS certification program creates certified skilled IT professionals, it is also one of the leading certification programs for cloud computing skills.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF TECHNOLOGY AND ENGINEERING

CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY

- Career Development and Placement cell introduce the course on **"Quantitative Aptitude and Logical Reasoning"** as a value added course. It is non-credit course. The objective of the course is to enhance the logical and soft skills of the students.
- Date and Time : 4th July, 2018 To 29th September, 2018 (Every Saturday – Except third Saturday and declare holiday)
- About the course :

1. **General Aptitude**
   - 1.1 Percentage
   - 1.2 Profit Loss Discount
   - 1.3 Time Speed Distance
   - 1.4 Time & Work
   - 1.5 Ratio Proportion
   - 1.6 Allegation & Mixture
   - 1.7 Permutations & Contribution
   - 1.8 Probability
   - 1.9 Data Interpretation
2. **Logical Skills**
   - 2.1 Blood Relation
   - 2.2 Number & Alpha Series
   - 2.3 Coding – Decoding CSPIT, CHARUSAT
3. **Soft Skill**
   - 3.1 Resume Building
   - 3.2 Interview Skill, GD Skill
   - 3.3 Communication

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Faculty of Technology & Engineering
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Quantitative Aptitude and Logical Reasoning

A. Objective of the Course:
The main objectives of the course are

- The objective of the course is to enhance the candidate's aptitude. It also helps the students to find their weakness and strength.
- The students will be able to understand the importance of communication skills and this course will help them in achieving the expertise in communication skills.
- It is important for student's professional development.

B. Outline of the Course:

Sr. No.	Title of the Unit	Minimum Number of Hours
1	General Aptitude	20
2	Logical Skills	7
3	Soft Skills	5

Total hours: 32

C. Detail Syllabus

1	General Aptitude	20 Hours
1.1	Percentage	
1.2	Profit Loss Discount	
1.3	Time Speed Distance	
1.4	Time & Work	
1.5	Ratio Proportion	
1.6	Allegation & Mixtures	
1.7	Permutations & Combination	

1.8	Probability	
1.9	Data Interpretation	
2	**Logical Skills**	**7 Hours**
2.1	Blood Relations	
2.2	Number & Alpha Series	
2.3	Coding-Decoding CSPIT, CHARUSAT	
3	**Soft Skills**	**5 Hours**
3.1	Resume Building	
3.2	Interview skill, GD Skill	
3.3	Communication	

D. Instructional Method and Pedagogy:

- At the start of course, the course delivery pattern, prerequisite of the subject will be discussed.
- Lectures will be conducted with the aid of multi-media projector, black board, OHP and or Microsoft Teams.
- Attendance is compulsory.
- Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval.

E. Students Learning Outcomes:

- The Students must at the end of the course be able to: Understand the concept communication skill and soft skill.
- Students can solve the complex problem of Quantitative aptitude and logical reasoning.

F. Recommended Study Material:

Reference Books:

1. Quantitative Aptitude by Dr. R S Aggarwal.

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Accredited with Grade A by NAAC

APTITUDE BUILDING AND SOFT SKILL DEVELOPMENT

JANUARY- MARCH 2019

Aptitude Building session By
Mr. Himanshu Thakkar
Director - Expert Educare Pvt Ltd.

Registration Link:

https://forms.gle/RhApEqHoMeNcwoCi6

Soft Skill Session By
Dr. Kamal Chakravartty
Head, HRDC, CHARUSAT

Organizer:

Career Development and Placement Cell (CDPC), Charotar University of Science and Technology(CHARUSAT),Changa

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY AND RESEARCH

Aptitude Building and Soft Skill Development

(2018-19)

A. Objective of the Course

The main objective of Course are:

- The objective of the course is to enhance the candidates aptitude. It also helps the students to find their weakness and strength.
- The students will be able to understand the importance of communication skills and this course will help them to achieve the expertise in communication skills.
- It is important for the students' professional development.

B. Outline of the course:

Sr. No	Title of the Unit	No. of Hours
1	Aptitude Building	30
2	Skill Mapping Session Schedule	16

C. Detailed Syllabus

Aptitude Building		
Sr. No	Topic Name	No of Hours Required
1	Ratio and proportion & partnership	2
2	Percentage & Profit and loss	2
3	Progression	2
4	Time and work	2

5	Time and distance	2
6	Permutation and combination	2
7	Set theory	2
8	Fundamentals and applications of area and volume	2
9	Reasoning on Venn Diagram	2
10	Analytical Reasoning	2
11	Visual Reasoning	2
12	Reasoning on situation handling, coding - decoding, direction senses	2
13	Reasoning on numbers and alphabets	2
14	Sample practice questions and explanation about approach with real examples asked in placement test of major corporates / recruiters	2
15	Dos and Don'ts in Interview and discussion on frequently asked questions in interview	2
Skill Mapping Session Schedule		
16	Communication Skill /Presentation Skill	4
17	Teamwork Skill	2
18	Problem Solving Skill	2
19	Leadership Skill	2
20	Skill To work under pressure	2
21	Enterprise and Entrepreneurial Skill	2
22	Analytical Skill	2
Total Hours		**46**

D. Instructional Method and Pedagogy

- At the start of course, the course delivery pattern , pre-requisite of the subject will be discussed.
- Lectures will be conducted with the aid of multi- media projector , black board , OHP and Microsoft Teams
- Attendance is Compulsory
- Assignments based on course content will be given to the students at the end of each topic

E. Students Learning Outcomes.

- The students must at the end of course be able to Understand the concept communication skills and soft skills
- Students can solve the complex problem of Quantitative aptitude and Logical Reasoning.

F. Recommended Study Material

Reference Books

1. Quantitative Aptitude by R.S. Aggrawal.

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Faculty of Technology & Engineering
Chandubhai S. Patel Institute of Technology

CCNA Routing and Switching: Introduction to Networks

A. Objective of the Course:
The main objectives of the course are

- Work with routers, switches and wireless devices to configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing.
- Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
- Configure and troubleshoot redundancy on a switched network using STP and Ether Channel.
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Create and configure file systems and file system attributes, such as permissions, encryption, access control lists, and network file systems
- Deploy, configure, and maintain systems, including software installation, update, and core services
- Manage users and groups
- Manage security, including basic firewall and SELinux configuration
- Perform basic container management
- It is important for student's professional development.

B. Outline of the Course:

Sr. No.	Title of the Unit	Minimum Number of Hours
1	Explore the Network	04
2	Configure a Network Operating System	05
3	Network Protocols and Communications	04
4	Network Access	04
5	Ethernet	04
6	Network Layer	04
7	IP Addressing	03
8	Subnetting IP Networks	03
9	Transport Layer	03

10	Application Layer	03
11	Build a Small Network	03

Total hours: 40

C. Detail Syllabus

1	**Explore the Network**	**04 Hours**
	Globally connected, LANs, WANs and the Internet, The Network as a platform, the changing network environment	
2	**Configure a Network Operating System**	**05 Hours**
	Introduction, IOS Bootcamp, Basic Device Configuration, Address Schemes	
3	**Network Protocols and Communications**	**04 Hours**
	Rules of Communication, Network Protocols and Standards, Data transfer in the network	
4	**Network Access**	**04 Hours**
	Physical layer protocols, Network Media, Data Link Layer Protocols, Media Access Control.	
5	**Ethernet**	**04 Hours**
	Ethernet Protocol, LAN Switches, Address Resolution Protocol	
6	**Network Layer**	**04 Hours**
	Network Layer Protocols, Routing, Routers, Configure a Cisco Router.	
7	**IP Addressing**	**06 Hours**
	IPv4 Network Addresses, IPv6 Network Addresses, Connectivity Verification.	
8	**Subnetting IP Networks**	**03 Hours**
	Subnetting an IPv4 Network, Addressing Schemes, Design Considerations for IPv6.	
9	**Transport Layer**	**03 Hours**
	Transport Layer Protocols, TCP and UDP.	
10	**Application Layer**	**03 Hours**
	Application Layer Protocols, Well-Known Application Layer Protocols and Services.	
11	**Build a Small Network**	**03 Hours**
	Network Design, Network Security, Basic Network Performance, Network Troubleshooting	

D. Students Learning Outcomes:

- Students will be able to build simple LANs
- Perform basic configurations for routers and switches, and
- Implement IP addressing schemes.

Faculty of Pharmacy

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy

Packaging Material and Technology II

Hours: 30

Objectives of the Course

To make students familiar with the manufacturing and application of packages manufactured from glass and metals. The course is also set to provide preliminary information about need, principle and general methodologies adopted to carry out packaging compatibility studies.

Student Learning Outcomes/Objectives

At the end of the course, the student would be able to understand the application aspects of glass and metals in packaging. They should expected to realized the selection criterons for adhesives and rubber for various applications. The students should also be able to understand product – package compatibility and methodology to evolve those parameters.

Outline of the Course

No.	Unit
1	Testing of Packing Materials
2	Testing of Packed containers
3	Compatibility studies on Packing

Detailed Syllabus

Sr. No.	Units	References
1	Compatibility studies on Packing	1, 2
	Introduction to stability approaches for determination of shelf life studies for product in different types of packs, Impact of seals and closures on stability of product, Brief of compatibility studies including Analytical techniques in compatibility studies through a typical example.	
2	Glass and Metals as Packaging Materials	1, 2, 3, 4,5
	Types of materials, general methods of manufacturing, their physico chemical properties, characteristics, quality control tests and applications	
	i. Glass ii. Metal: Tin, Aluminum, Stainless steel iii. Rubbers and Elastomers: Properties, Types, Agents used for its manufacturing. iv. Adhesives: theory and principles of adhesion, factors affecting bond strength, different types of adhesives, adhesive tapes	
	Manufacturing considerations, brief of various methods for manufacturing packages from following types and applications:	1, 2, 3, 4
	Glass containers *Metal containers*	
3	*Printing of Packages*	3,6
	Introduction to Various Methods of Printing and Applications	

Recommended study materials

1 Pharmaceutial Packaging Technology, Edited by D.A.Dean, E.R.Evans, I.H.Hall, Taylor and Fransis.

2 Encyclopedia Of Packaging Technology, Edited By Kit L. Yam, 3rd Edition, A John Wiley & Sons, Inc., Publication.

3 Handbook of Packaging Technology, by Eiri Board (Engineers India Research Institute).

4 Global Legislation for Food Packaging Materials, edited by Rinus Rijk and Rob Veraart, Wiley.

5 Packaging Closures and Sealing Systems, Edited by Nigel Theobald and Beinda Winder, Blackwell Publishing, CRC Press.

6 Fundamentals of Packaging Technology, Saroka Walter, Institute of Packaging Professionals

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
Packaging of Pharmaceuticals

Hours: 30

Objectives of the Course

The course is structured to familiarize the students with different types of packaging materials used for various types of pharmaceuticals and cosmetic products. The subject is also aimed to provide the students an insight in current regulatory processes with respect to Pharmaceutical product & packaging thereof.

Student Learning Outcomes/Objectives

At the end of the course, the student will be able to understand the packaging of different pharmaceutical and cosmetic products & regulations concerning the same.

Outline of the Course

Sr No.	Unit
1	Packaging Solid dosage forms
2	Sterilization and Sterile Products and Packaging Aerosol Packaging
3	Packaging of Liquid , SemiSolid Dosage Form and Medicinal Devises

Transaction of the course would be through various pedagogy tools.

Detailed Syllabus

Sr.No	Units	References
1	Introduction to Pharmaceutical Packaging	2,3, 8, 10
	Packaging Solid dosage forms	3, 5, 6,9
2	Sterilization and Sterile Products Packaging	5, 8
	Aerosol Packaging	6, 7
3	Packaging of Liquid and Semisolid Dosage Forms	1, 3, 4, 5
	Types of containers, filling and packaging technology.	
	Medical devices packaging	8
	Legislation	11
	Introduction to following Acts and the area of functioning: ISO standards, Weight and measures (Packaged Commodities) Act, Indian Copyright Act.	

Recommended Study material

1. Encyclopedia of Pharmaceutical Technology Vol.1-3, Swarbric, J and Bolyln, J. C., Marcel Dekker, Inc., New York.
2. United States Pharmacopoeia-27(NF-22), 2004, United State of Pharmacoppeal convention, INC, 12601 Twinbrook Parkway, Rockville, MD 20852.
3. Pharmaceutical Packaging Technology, Dean, D. A. Evans, E. R. and Hall, j. H., Taylor and Francis, London.
4. Packaging of Pharmaceutical & Healthcare products, H. Lockhart, F. A. Paine, Champman and Hall, London.
5. Packaging of Pharmaceuticals, C.F. Ross, Newnes-Butterworth.
6. The Theory and Practice of Industrial pharmacy, Lachmann, L., Lieberman, H.A. & Kanig, J.I., Lea and Fibiger, CBS Publishers and Distributers, New Delhi.

7. Modern Pharmaceutics, Banker, G.S. & Rhodes, C.T., Marcel Dekker Inc. New York and Basel.
8. Pharmaceutical Packaging Handbook, Edward J. Bauer, Informa Healthcare.
9. Smart Packaging Technologies for fast moving consumer goods, Editor Joseph Kerry and Paul Butler, Wiley
10. Handbook of Packaging Technology, by Eiri Board (Engineers India Research Institute).
11. Pharmaceutical Jurisprudence, N.K.Jain, Vallabh Prakashan

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
Packaging of Food Products

Hours:30

Objectives of the Course

The course is considers food article as a prototype FMCG products. The course is structured to disseminate the findings with respect to the fundamentals of food preservation and role of Packaging Technology applied to Food Materials. The course also aims to provide in-depth information on designing and selection of packages for different types of food products while keeping in mind the regulations for the same.

Student Learning Outcomes/Objectives

At the end of the course, the student would be able to understand the fundamental concepts of food preservation and role of package material for the same. It is also expected that the student would posses sufficient knowledge about the novel trends for the packaging of food material.

Outline of the Course

No.	Unit
1	Food Deterioration , Food Preservation and Determination of Shelf Life
4	Food in different Packaging
5	Packaging of Dairy Products and Current Legislations related to Food Packaging in India

Detailed Syllabus

Sr.No	Units	References
1	**Food Deterioration and Methods of Preservation**	1, 2, 4
	Reasons of food deterioration, Food preservation methods (high and low temperatures, drying and water activity control, chemical preservation, fermentation and other techniques)	
	Packaged Product Quality and Shelf Life	1, 2
	Introduction, Chemical/biochemical processes, Microbiological processes, Physical and physico-chemical processes, Migration from packaging to foods, indices of failure.	
2	**Food in different Packaging**	1, 4, 6, 10
	i. *Metal Packaging*: Processing of food and drinks in metal packages, Shelf life of canned foods. ii. *Glass containers:* Attributes of food packaged in glass containers, Thermal processing of glass packaged foods, Glass pack design and specification. iii. *Plastics Packaging*: Types and use of plastics in food packaging, Food contact and barrier properties iv. *Paper and Paper board packaging*: Introduction, functional properties or paper and paperboard	
3	**Introduction to Active Packaging**	1, 9
	Packaging of Dairy products	2, 5
	Classification of dairy products, requirements of packing and packages for different types of products.	
	Legislation	3
	Introduction to Prevention of food adulteration act, Food Purchase Order.	

Recommended study materials:

1 Food and Beverage Packaging Technology, Second Edition, Edited by Richard Coles, Mark Kirwan, A John Wiley & Sons, Ltd., Publication.
2 Food Packaging and Shelf Life, A Practical Guide, edited by Gordon L. Robertson, CRC Press, Taylor and Francis Goup.
3 Global Legislation for Food Packaging Materials, edited by Rinus Rijk and Rob Veraart, Wiley.
4 Plastic Packaging Materials for Food, Edited by O.G.Piringer and A.L.Baner, Wiley.
5 Hand Book Of Milk Processing Dairy Products And Packaging Technology, by Eiri Board (Engineers India Research Institute).
6 Handbook of Packaging Technology, by Eiri Board (Engineers India Research Institute).
7 Thermal Processing of Packed Food, Donald Holdsworth, Ricardo Simpson, Springer.
8 Understanding Consumers of Food Products, Edited by Lynn Frewer and Hans Van Trijp, CRC Press, Woodhead Publishing Limited, England.
9 Smart Packaging Technologies for fast moving consumer goods, Editor Joseph Kerry and Paul Butler, Wiley.
10 Hand Book of Food Packaging Technology, by Eiri Board (Engineers India Research Institute).
11 Packaging Closures and Sealing Systems, Edited by Nigel Theobald and Beinda Winder, Blackwell Publishing, CRC Press.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
FORMULATION DESIGN AND EVALUATION- HAIR, DENTAL AND BABY CARE PRODUCTS

Hours: 30

Objectives of the Course
This course is designed to provide in depth knowledge regarding the designing, formulation, and manufacturing, quality control, packaging and labeling of various hair care and dental products.
This course also addresses the formulation aspects related to Baby care products.

Student Learning Outcomes/ objectives
At the end of the course, the student will be able to understand the formulation and development of various hair care and dental care products. The students will also understand the differences in formulation of products for adults and babies.

Outline of the Course

No.	Unit
1	Hair care products
2	Dental care products
3	Baby care products

Detailed Syllabus

Sr. No.	Units
1	Hair care products
	Anatomy and physiology of hair, classification of various hair care products. Formulation, evaluation, packaging and labeling of various hair care products like shampoo, conditioner, hair tonics, hair wave sets, lacquer, rinses, hair grooming preparation, hair bleaches and colorants, depillatories and depilatories preparations.
2	Dental care products
	Anatomy and physiology of teeth, classification of various teeth care products. Formulation, evaluation, packaging and labeling of various teeth care products like tooth paste, tooth gel, tooth powder, mouth washes and teeth whitening agents.
3	Baby care products
	Introduction, difference in adult and baby formulations, classification of various baby care products. Formulation, evaluation, packaging and labeling of various baby care products.

Reference Books

1. Cosmetics Formulation Manufacturing & Quality Control, P.P. Sharma, 4th Ed., Vandana Publications.
2. Harry's Cosmeticology, Radelph Harry, 8th edition, Chemical Publishing Company.
3. Perfumes, Soaps, Detergents and Cosmetics, S.C. Bhatia, 1st edition, CBS publishers.
4. Poucher's Perfumes, Cosmetics and Soaps, H. Butler, 10th edition, Kluwer Academic Publishers.
5. Handbook of Cosmetic Science and Technology, Andre Barel, Marc Paye, Howard I. Maibach, CRC Press.
6. Cosmetic technology, Nanda S, Nanda A, Khar RK., Birla Publications Pvt. Ltd.
7. Cosmetics: Science and Technology, Balsam S.M. and Sagarin Edward, 2nd Ed, Wiley Interscience.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
ADVANCED COSMETIC TECHNIQUES

Hours: 30

Objectives of the Course
This course aims to provide in depth knowledge regarding the designing, formulation, and manufacturing, quality control, packaging and labeling of novel cosmetic products like herbal cosmetics, cosmeceuticals, and nutricosmetics.
Student Learning Outcomes/Objectives At the end of the course, the student would be able to understand the formulation and development of newer approaches in cosmetic technology.

Outline of the Course

Sr No.	Unit
1	Novel cosmetic delivery systems
2	Cosmeceuticals, Nutricosmetics and Herbal Cosmetics
3	Introduction of Laser Technology, Aerosol technology & Cosmetic Contact Lenses

Detailed Syllabus

Sr.No	Units
1	Novel cosmetic delivery systems
	Approaches of formulation, quality control, packaging and labeling of various novel cosmetic delivery system like Vesicular system, Particulate system, Colloidal system, Iontophoresis, Cosmetic patches and Microneedles
2	Cosmeceuticals, Nutricosmetics and Herbal Cosmetics
	Introduction, Formulation aspects and Applications of various Cosmeceuticals, Nutricosmetics and Herbal cosmetics
3	Introduction of Laser Technology, Aerosol technology & Cosmetic Contact Lenses

Reference Books

1. Botanicals: A Phytocosmetic Desk Reference
2. Cosmetic nanotechnology: polymers and colloids in cosmetics, Sarah E. Morgan, Kathleen O. Havelka, Robert Y. Lochhead, American Chemical Society.
3. Novel Cosmetic Delivery Systems, Shlomo Magdassi, Elka Touitou, Marcel Dekker
4. Enhancement in Drug Delivery, ElkaTouitou, Brian W. Barry, CRC Press.
5. Delivery System Handbook for Personal Care and Cosmetic Products, MeyerRosen, Elsevier Science.
6. Cosmeceuticals and Active Cosmetics: Drugs vs. Cosmetics (Cosmetic Science and Technology) Peter Elsner, Howard I. Maibach, 2nd edition, CRS Press.
7. Controlled and Novel Drug Delivery Systems by N.K.Jain, CBS Publishers & Distributors.
8. Targeted And Controlled Drug Delivery: Novel Carrier Systems by Vyas S P, Khar R K, CBS Publishers & Distributors
9. The Theory and Practice of Industrial Pharmacy, Lachman and Lieberman, 3rd Edition, Lea &Febiger Publishers.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
REGULATORY ASPECTS IN COSMETICS INDUSTRY

Hours:30

Objectives of the Course
The course is prepared with the aim to familiarize the students with the principles of regulatory requirements in context of cosmetic industry.
Student Learning Outcomes/ objectives
At the end of the course, the student would be able to understand the fundamental concepts and essential component to maintain the quality of cosmetic products and meet the regulatory guidelines.
Outline of the Course

No.	Unit
1	Regulation of cosmetics in India, Provisions applicable to cosmetics in Drug & Cosmetic Act 1940
2	An introductory study of acts/ laws of that affect cosmetic product design, manufacture and distribution in India((with latest amendments)
3	Cosmetic advertising & labeling claims, Global regulatory issues in cosmetic industry

Detailed Syllabus

Sr.No	Units
1	Regulation of cosmetics in India, Provisions applicable to cosmetics in Drug & Cosmetic Act 1940 and Rules 1945
2	An introductory study of acts/ laws of that affect cosmetic product design, manufacture and distribution in India (with latest amendments)
	• Environmental protection act • Factory act • Consumer protection act • Patent act with Patent Rules
3	Cosmetic advertising & labeling claims, Global regulatory issues in cosmetic industry

Reference Books

1. Cosmetics Formulation Manufacturing & Quality Control, P.P. Sharma, 4th Ed.,Vandana Publications
2. Cosmetic Regulation in a Competitive Environment, Norman F. Estrin, James M.Akerson, Marcel Dekker
3. Consumer Testing and Evaluation of Personal Care Products, Howard R. Moskowitz, Marcel Dekker Incorporated
4. Global Regulatory Issues for the Cosmetics Industry, C.E. Betton, Elsevier Science.
5. The Cosmetic Industry: Scientific and Regulatory Foundations, Norman F. Estrin, Marcel Dekker Incorporated.
6. Drugs and Cosmetics act 1940 and Rules 1945
7. Environmental Protection act
8. Factory Act
9. Patent act 2005

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy
Process of Pharmacovigilance

Hours: 30

Course Outcome

- Students would be to outline processes of clinical safety data in Pharmacovigilance
- Students would be able to identify the common operational activities within drug safety departments
- Students would be able to identify the unique challenges of Pharmacovigilance in special patient populations such as pregnant women, the elderly and children

Outline of the Course

Sr. No.	Units
1.	Analysis and Presentation of clinical safety data
2.	Communications in Pharmacovigilance
3.	Drug safety evaluation in special Population

Detailed Syllabus

Sr. No.	Units
1.	Analysis and Presentation of clinical safety data • Assessment of Safety data during Preclinical, Clinical and Post approval Phases • Safety monitoring during clinical trials • Statistical methods signal detection and Pharmacovigilance evaluation data • Data mining in Pharmacovigilance • Tools used in Pharmacovigilance
2	Communications in Pharmacovigilance • Operational aspects of the drug safety function in Pharmaceutical Industry • Effective communications in Pharmacovigilance • Communication in drug safety crisis management • Communication with regulatory agencies, business partners, healthcare professional, media
3.	Drug safety evaluation in special Population • Drug safety in pediatric, geriatric and pregnancy • Vaccine safety surveillance • Risk management

References

1. Textbook of Pharmacovigilance: S K Gupta, Jaypee Brothers, Medical Publishers.
2. Practical Drug Safety from A to Z by Barton Cobert, Pierre Biron, Jones and Bartlett Publishers.
3. Mann's Pharmacovigilance: Elizabeth B. Andrews, Nicholas, Wiley Publishers.
4. Stephens' Detection of New Adverse Drug Reactions: John Talbot, Patrick Walle, Wiley Publishers.
5. An Introduction to Pharmacovigilance: Patrick Waller,Wiley Publishers.

6. Cobert's Manual of Drug Safety and Pharmacovigilance: Barton Cobert,Jones& Bartlett Publishers.
7. Textbook of Pharmacoepidemiolog edited by Brian L. Strom, Stephen E Kimmel, Sean Hennessy,Wiley Publishers.
8. A Textbook of Clinical Pharmacy Practice -Essential Concepts and Skills:G. Parthasarathi, Karin Nyfort Hansen,Milap C. Nahat.
9. National Formulary of India
10. A Text Book of Medicine by Yashpal Munjal
11. Text book of Pharmacovigilance: concept and practice by GP Mohanta and PK Manna

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Ramanbhai Patel College of Pharmacy

Overview IPR Laws in India

Hours: 30

Course outcome:

- At the end of the course, the student will be able to understand the fundamental concepts of Patents and Trademark.
- Student can able to learn the legalities of intellectual properties to avoid plagiarism and other IPR relates crime like Copy right, infringement ect.
- Student can able to understand the importance of drafting and filing of Patents as well as Trademark.
- Students would be able to implements the advanced aspects of Patent and Trademark applications in various fields

Outline of Syllabus

Sr No	Units
1.	Overview IPR Laws in India
2.	IPR Enforcement in India

Detailed Syllabus

Sr No.	Units
1.	**Overview IPR Laws in India** o Overview of IP Regime in India o Patents o Design o Trademarks o Geographical Indications o Copyright o Biodiversity act
2.	**IPR Enforcement in India**

Recommended Study material

1. Intellectual Property Right basic Concept, by M. M. S. Khatri, Atlantic Publisher and Distributors Pvt. Ltd., New Delhi.
2. Epstein on Intellectual Property: 5th Edition by Michael M. Epstein, Wolters Kulwer India Pvt. Ltd. Gurgaon, India.
3. Intellectual Property Right and Human Development in India by Shabana Talwar, First Edition, Serials Publications, New Delhi, India.
4. IPR Handbook for Pharma Students and Researchers, Parikshit Bansal, Pharma Book Syndicate, Hyderabad, India.
5. Patents, N. R. Subbaram, Pharma Book Syndicate, Hyderabad.
6. Intellectual Property Right by Nikolaus Thumm, Springer-Verlag Publications, Germany.
7. Intellectual Property - Patents, Copyright, TradeMarks and Allied Rights by Cornish, Aplin and Llewelyn, Sweet and Maxwell – Thomson Publishers, New Delhi, India
8. The Enforcement of Intellectual Property Rights: A Case Book by Louis Tc. Harms, WIPO Publishing House, Geneva.
9. Intellectual Property: From Creation to Commercialization - A Practical Guide for Innovators & Researchers by John P., MC Manus, Oak Tree Press, Ireland

Faculty of Computer Science and Applications

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

(A Constituent Institute of CHARUSAT)

organizes

A Training Program
on

Student Development Program
7th Jul, 2018 to 30th Oct,2018

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Charotar University of Science and Technology
Changa - 388421
Dist.: Anand, Gujarat

Overview of Program and its content

We have organized a "Student Development Program" for MCA Lateral semester – 3 and MSc. IT semester-3 students. Members of T&P are going to deliver sessions for improving their basics of object oriented, database technologies and aptitude skills from 7th Jul, 2018 to 30-Oct-2018.

Overview of the Content Covered

Numerical Aptitude: Numbers & Algebra |, Percentage, Average, Speed and Distance, Ratio and Proportion , Permutation and Combination , Object Oriented concepts and database fundamentals

Targeted Audience: MCA L Semester III,

M.Sc. (IT) Semester III,

MCA Semester – V

Resource Persons

Dr. Jaimin N Undavia

Mr. Nilay Ganatra

Ms. Shreya Mahida

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY
Faculty of Computer Science & Applications
Smt. Chandaben Mohanbhai Patel Institute of Computer Applications
Student Development Program

A. Objective of the Course:
The main objectives of the course are

- The objective of the course is to enhance the candidate's aptitude. It also helps the students to find their weakness and strength.
- The students will be able to understand the importance of communication skills and this course will help them in achieving the expertise in communication skills.
- It is important for student's professional development.

B. Outline of the Course:

Sr. No.	Title of the Unit	Minimum Number of Hours
1	General Aptitude	22
2	Domain Fundamental	6
3	Soft Skills	4

Total hours: 32

C. Detail Syllabus

1	General Aptitude	22 Hours
1.1	Percentage	
1.2	Profit Loss Discount	
1.3	Time Speed Distance	
1.4	Time & Work	
1.5	Ratio Proportion	
1.6	Allegation & Mixtures	
1.7	Permutations & Combination	
1.8	Probability	

1.9	Data Interpretation	
2	**Domain Fundamental**	**6 Hours**
2.1	Object Oriented Concepts	
2.2	Database Fundamentals	
3	**Soft Skills**	**4 Hours**
3.1	Resume Building	
3.2	Interview skill, GD Skill	
3.3	Communication	

D. Instructional Method and Pedagogy:

- At the start of course, the course delivery pattern, prerequisite of the subject will be discussed.
- Lectures will be conducted with the aid of multi-media projector, black board, OHP and or Microsoft Teams.
- Attendance is compulsory.
- Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval.

E. Students Learning Outcomes:

- The Students must at the end of the course be able to: Understand the concept of communication skill and soft skill.
- Students can solve the complex problem of Quantitative aptitude and logical reasoning.
- Students will be able to understand the domain fundamental course in depth.

F. Recommended Study Material:

Reference Books:

1. Quantitative Aptitude by Dr. R S Aggarwal.
2. Database Fundamentals by Navathe
3. Object Oriented Programming using C++ by Balaguruswami

Faculty of Management Studies

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

30 Hours Bridge Course for fresher MBA|PGDM Students on

COMMUNICATION SKILLS-I

Take your Managerial Communication to the Next Level!

August 06-11, 2018 | 30 Hours | 9:10 AM – 4:20 PM

- **Objectives: To hone basic linguistic and communication skills; learn styles of communication and gain insights into how to deal with people with different communication styles; help learners use the language effectively for various functions**

Course Contents

An Introduction to Communication • Communication: Definition, Process, Barriers; Introduction to C's of Communication; Types of Communication in the Professional World
Introduction to Listening Skills • Listening: Need and Significance; Types of Listening; Techniques to improve Listening Skills
Introduction to Reading Skills • Introduction to the importance of Reading Skills; Reading different types of texts; Reading, Interpreting and Analyzing; Reading and Interpreting Reports and Case Studies
Introduction to Writing Skills • Basics of good formal Writing; Good Writing Skills: Paraphrasing and Summarising; Writing for Professional purposes : Report, Emails
Presentation Skills • Basics of Public Speaking in a formal context; Understanding the art of Good Speaking: Use of Rhetoric; Developing Effective Presentation Skills: From audience analysis to preparing effective PowerPoint presentations

Faculty Coordinator: Dr. Bhaskar Pandya (9824269101) HSS Department, I²IM

INDUKAKA IPCOWALA Institute of MANAGEMENT

INDUKAKA IPCOWALA INSTITUTE OF MANAGEMENT (I²IM)
FACULTY OF MANAGEMENT STUDIES (FMS)
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES (HSS)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF MANAGEMENT STUDIES
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
MBA Programme
A Bridge Course on Communication Skills – I

Scheme:

Semester	Course Name	Contact Hours	Marks
1	Communication Skills-1	30	100

Course Objectives:

- To hone basic linguistic and communication skills (of students) required in a business organization, namely: Listening, Speaking, Reading and Writing
- To help learners develop familiarity with varied styles of communication and gain insights into how to deal with people with different communication styles
- To help learners use the language effectively for various functions

Course Components:

Module No.	Title/Topic	Contact Sessions
1	**An Introduction to Communication** • Communication: Definition, Process, Barriers • Introduction to C's of Communication • Types of Communication in the Professional World	04
2	**Introduction to Listening Skills** • Listening: Need and Significance • Types of Listening • Techniques to improve Listening Skills	05
3	**Introduction to Reading Skills** • Introduction to the importance of Reading Skills • Reading different types of texts • Reading, Interpreting and Analyzing • Reading and Interpreting Reports and Case Studies	07
4	**Introduction to Writing Skills** • Basics of good formal Writing • Good Writing Skills: Paraphrasing and Summarising • Writing for Professional purposes : Report, Emails	06

5	**Presentation Skills** • Basics of Public Speaking in a formal context • Understanding the art of Good Speaking: Use of Rhetoric • Developing Effective Presentation Skills: From audience analysis to preparing effective PowerPoint presentations • Managing Questions and Answers from the audience	**08**
Total		**30**

Instruction Methods and Pedagogy

The course is based on pragmatic learning. Classroom Teaching will be facilitated by Reading Material, Classroom Discussions, Task-based learning, projects, assignments and various interpersonal activities like case-studies, critical reading, group-work/pair-work, and presentations.

Evaluation:

Students' performance in the course will be evaluated on a continuous basis through the following components:

Sl. No.	Component	Number	Marks per incidence	Total Marks
1	Pre-Test	1	30	30
2	Assignments (Oral and Written)	4	10	40
3	Post-Test	1	30	30
Total				**100**

Learning Outcomes:

At the end of the course, the students should have polished their grammar and developed the ability to communicate effectively in business situations, they should be able to communicate message accurately, handle situation that require thoughtful communication, to use appropriate words and tones and so on.

Reference Books:

- Sanjay Kumar and PushpLata (First Edition, 2011), *Communication Skills*, Oxford University Press, New Delhi
- Krishna Mohan and Meena Banerji (2010), *Developing Communication Skills*, Macmillan Publications India Ltd., New Delhi
- M V Rodriques (2013), *Effective Business Communication*, Concept Publishing Company (P) Ltd., New Delhi

- Mohan and Meenakshi Raman (2006), *Effective English Communication Krishna,* Mcgraw-Hill Publishing Company Limited, New Delhi
- Geoffrey Leech & Jan Swartvik (1994), *A Communicative Grammar of English,* Longman Publications, New York
- Jones Leo (1979), *Functions of English*, Cambridge University Press, UK

Reference Reading:

- http://www.communicationskills.co.in/index.html
- http://www.hodu.com/default.htm
- http://www.bbc.co.uk/worldservice/learningenglish
- http://www.englishlearner.com/tests/test.html
- http://www.englishclub.com/vocabulary/idioms-body.htm
- http://dictionary.cambridge.org

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

A Bridge Course On English Language and Communication @ 1st Semester BBA (July 3-14, 2018)

This course aims at enhancing English Language and Communication of new enrolled students at the institute. Special care will be taken to LSRW Skills of Beginner Learners of English Language. This course will help you gain confidence in using English Language effectively.	The course will cover following topics: • Parts of Speech • Tenses and Moods • Active-Passive • Direct Indirect • Interrogatives • Introduction to Functional Communication • Communication for Persona, Academic and Social Use • Practice of Functional Communication
Timing	9:10 AM to 4:20 PM
Duration	30 Hours

For any query, Contact: Mr. Kaushik Trivedi (9904987756) HSS Department, I²IM

INDUKAKA IPCOWALA INSTITUTE OF MANAGEMENT (I²IM)
FACULTY OF MANAGEMENT STUDIES (FMS)
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES (HSS)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF MANAGEMENT STUDIES
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
BBA Programme
A Bridge Course on English Language and Communication

Teaching Scheme:

Semester	Course Name	Contact Hours	Marks
1	English Language and Communication	30	100

Course Objectives:

- To develop familiarity with English language and communication
- To learn the basic use of language at personal, academic and professional fronts

Course Components:

Module No.	Title/Topic	Contact Sessions
1	**English Language** • Parts of Speech • Tenses and Moods • Active-Passive • Direct Indirect • Interrogatives	10
2	**Functional Communication** • Introduction to Functional Communication • Communication for Persona, Academic and Social Use • Practice of Functional Communication	20
Total		30

Instruction Methods and Pedagogy

Teaching will be facilitated by reading material, discussion, task-based learning, projects, assignments and various interpersonal activities like case studies, critical reading, group work, independent and collaborative research, presentations, etc.

Evaluation:

Students' performance in the course will be evaluated on a continuous basis through the following components:

Sl. No.	Component	Number	Marks per incidence	Total Marks
1	Pre-Test	1	30	30
2	Assignments (Oral and Written)	4	10	40
3	Post-Test	1	30	30
Total				**100**

Learning Outcomes:

At the end of the course, the students should have developed familiarity and orientation towards English language and basic patterns of communication.

Reference Books:

- Sanjay Kumar and PushpLata (First Edition, 2011), *Communication Skills*, Oxford University Press, New Delhi
- Krishna Mohan and Meena Banerji (2010), *Developing Communication Skills*, Macmillan Publications India Ltd., New Delhi
- M V Rodriques (2013), *Effective Business Communication*, Concept Publishing Company (P) Ltd., New Delhi
- Mohan and Meenakshi Raman (2006), *Effective English Communication Krishna,*Mcgraw-Hill Publishing Company Limited, New Delhi
- Geoffrey Leech & Jan Swartvik (1994), *A Communicative Grammar of English,* Longman Publications, New York
- Jones Leo (1979), *Functions of English*, Cambridge University Press, UK

Reference Reading:

- http://www.communicationskills.co.in/index.html
- http://www.hodu.com/default.htm
- http://www.bbc.co.uk/worldservice/learningenglish
- http://www.englishlearner.com/tests/test.html
- http://www.englishclub.com/vocabulary/idioms-body.htm
- http://dictionary.cambridge.org

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Indukaka Ipcowala Institute of Management

A Bridge Course for the 3rd Semester BBA Students

LANGUAGE AND COMMUNICATION

Upskill Yourself!

July 3-14, 2018 | 30 Hours | 9:10 AM – 4:20 PM

A course aims to hone basic linguistic and communication skills (of students) required in a business organization, namely: Listening, Speaking, Reading and Writing.

Content:

- Module-1: An Introduction to Soft Skills
- Module-2: Introduction to Vocabulary for Business
- Module-3: Introduction to Basic Speaking Skills
- Module-4: Introduction to Writing well
- Module-5: Public speaking and Presentation

Faculty Coordinator: Ms. Lipi Acharya (9558439569) HSS Department, I²IM

INDUKAKA IPCOWALA Institute of MANAGEMENT

INDUKAKA IPKOWALA INSTITUTE OF MANAGEMENT (I²IM)
FACULTY OF MANAGEMENT STUDIES (FMS)
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES (HSS)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF MANAGEMENT STUDIES
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
BBA Programme
A Bridge Course on Language and Communication

Scheme:

Semester	Course Name	Contact Hours	Marks
3	Language And Communication	30	100

Course Objectives:

- To hone basic linguistic and communication skills (of students) required in a business organization, namely: Listening, Speaking, Reading and Writing
- To help learners develop familiarity with the role of soft skills in a formal environment
- To help learners use the language effectively in a formal context

Course Components:

Module No.	Title/Topic	Contact Sessions
1	**An Introduction to Soft Skills** • Basic introduction to the need of Soft Skills • Interpersonal Skills and Attitude at Work • Working in groups and teams	05
2	**Introduction to Vocabulary for Business** • Basic Business Vocabulary • Phrases and language usage • Vocabulary : Usage, Appropriacy and accuracy	05
3	**Introduction to Basic Speaking Skills** • Basic Speaking Skills : An Introduction • Speaking in formal Situations	07
4	**Introduction to Writing well** • Basic techniques to improve writing skills • Writing formal sentences and paragraphs • Writing Online: Introduction to Blogs	07
5	**Public speaking and Presentation** • Introduction to making formal presentations	06
Total		**30**

Instruction Methods and Pedagogy

The course is based on pragmatic learning. Classroom Teaching will be facilitated by Reading Material, Classroom Discussions, Task-based learning, projects, assignments and various interpersonal activities like case-studies, critical reading, group-work/pair-work, and presentations.

Evaluation:

Students' performance in the course will be evaluated on a continuous basis through the following components:

Sl. No.	Component	Number	Marks per incidence	Total Marks
1	Pre-Test	1	30	30
2	Assignments (Oral and Written)	4	10	40
3	Post-Test	1	30	30
Total				**100**

Learning Outcomes:

At the end of the course, the students should have polished their grammar and developed the ability to communicate effectively in business situations. They would learn basic workplace etiquettes and soft skills for the workplace. They would learn to present their ideas with accuracy and using appropriate language.

Reference Books:

- Sanjay Kumar and PushpLata (First Edition, 2011), *Communication Skills*, Oxford University Press, New Delhi
- Krishna Mohan and Meena Banerji (2010), *Developing Communication Skills*, Macmillan Publications India Ltd., New Delhi
- M V Rodriques (2013), *Effective Business Communication*, Concept Publishing Company (P) Ltd., New Delhi
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- http://www.bbc.co.uk/worldservice/learningenglish
- http://www.englishlearner.com/tests/test.html
- http://www.englishclub.com/vocabulary/idioms-body.htm
- http://dictionary.cambridge.org

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Indukaka Ipcowala Institute of Management (I²IM)

A Bridge Course for the 5th Semester BBA Students

Computer Assisted Academic Writing, Research & Communication Skills

Language Competency of the Future!

July 3-14, 2018 | 30 Hours | 9:10 AM – 4:20 PM

Curated Course designed for Undergraduate Students for a bright and illustrious career through enhanced language skills

- Module-1: Introduction to Formal Writing
- Module-2: Writing for Organizational Communication
- Module-3: Reading and Writing for Research
- Module-4: English for Competitive Exams
- Module-5: Creative Writing

Faculty Coordinator: Mr. Vijay Makwana (9998380041) HSS Department, I²IM

INDUKAKA IPCOWALA INSTITUTE OF MANAGEMENT (I²IM)
FACULTY OF MANAGEMENT STUDIES (FMS)
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES (HSS)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF MANAGEMENT STUDIES
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
BBA Programme (Semester V)
A Bridge Course on

Computer AssistedAcademic Writing, Research & Communication Skills

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Teaching Scheme:

Semester	Course Name	Contact Hours	Marks
5	Computer Assisted Academic Writing, Research & Communication Skills	30	100

Course Objectives:

- To hone basic linguistic and communication skills namely: Listening, Speaking, Reading and Writing
- To help learners use the language effectively for various functions
- To Prepare students to confidently appear for competitive exams

Course Components:

Module No.	Title/Topic	Contact Sessions
1	**An Introduction to Formal Writing** • Basic Introduction to Formal Writing • Structures and Usage of Formal Writing • Developing vocabulary	04
2	**Writing for Organizational Communication** • Basics of writing for an organization • Types of formal writing within an organization	08
3	**Introduction to Reading and Writing for Research** • Basic Reading Skills and Techniques • Reading and Reviewing : Texts, Newspapers and TED Talks	07
4	**English for Competitive Exams** • Introduction to Competitive Exams	06

	• E-Learning through Online Academies	
5	**Creative Writing** • Understanding the forms of creative writing • Conceptual understanding of creation of e-content • Creation of Blogs for personal and academic purposes	**05**
Total		**30**

Instruction Methods and Pedagogy

The course is based on pragmatic learning. Classroom Teaching will be facilitated by Reading Material, Classroom Discussions, Task-based learning, projects, assignments and various interpersonal activities like case-studies, critical reading, group-work/pair-work, and presentations.

Evaluation:

Students' performance in the course will be evaluated on a continuous basis through the following components:

Sl. No.	Component	Number	Marks per incidence	Total Marks
1	Pre-Test	1	30	30
2	Assignments (Oral and Written)	4	10	40
3	Post-Test	1	30	30
Total				**100**

Learning Outcomes:

At the end of the course, the students should have polished their grammar and developed the ability to communicate effectively in business situations, they should be able to communicate message accurately, handle situation that require thoughtful communication, to use appropriate words and tones and so on.

Reference Books:

• Krishna Mohan and Meena Banerji (2010), Developing Communication Skills, Macmillan Publications India Ltd., New Delhi

• Mohan and Meenakshi Raman (2006), Effective English Communication Krishna,Mcgraw-Hill Publishing Company Limited, New Delhi

• Geoffrey Leech & Jan Swartvik (1994), A Communicative Grammar of English, Longman Publications, New York

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- http://dictionary.cambridge.org

Faculty of Sciences

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. Patel Institute of APPLIED SCIENCES

Department of Biological Sciences
PD Patel Institute of Applied Sciences
Charotar University of Science and Technology

SCIENTIFIC SEMINARS 2018-19

Department of Biological Sciences, PDPIAS, CHARUSAT has introduced a course on Scientific Seminars for improving academic speaking skill of the students in the form of presentation of Seminars.

It is a Value added course (with more than 30 contact hours per year) whose objective is to improve the oratory skills of the students with enhancement of their confidence in public speaking. The course is non-credited and has been introduced to last year (semester VI) of Bachelor of Science (Biology) students.

Date and Time : Every second and fourth Saturday of the semester (Except third Saturday and declared holiday).

Scientific Seminars 2018-19

CREDITS: 0 **B.Sc. semester VI (BT/BC/MI)** **HOURS: Min 30h**

Department of Biological Sciences, PDPIAS, CHARUSAT has introduced a course on Scientific Seminars for improving academic speaking skill of the students in the form of presentation of Seminars.

It is a Value added course (with more than 30 contact hours per year) whose objective is to improve the oratory skills of the students with enhancement of their confidence in public speaking. The course is non-credited and has been introduced to last year (semester VI) of Bachelor of Science (Biology) students.

Date and Time : Every second and fourth Saturday of the semester (Except third Saturday and declared holiday).

COURSE DESCRIPTION:

1. Distribution of students among the teaching faculties as mentors
Students allotment to teachers for overall guidance and mentorship of improvement of students oratory skills

2. Selection and discussion of the topic selected by student with the respective mentors.
Students have to interact with their respective mentors about the topics selected and guidance for analysis of data and literature available for the selected topic to be presented.

3. Preparation of the presentation of the topic by the student in guidance of the mentor
Students prepare the presentation under the mentor guideship for comfortable delivery of academic seminars

4. Presentation of the topic by the student in front of the faculties and students
Students prepare and demonstrate their final seminar in front of the staff and student assembly in the department.

COURSE OUTCOME:

- Seminars help students by increasing their English fluency, confidence of speaking and improvement of conversational skills.
- The student will bea able to read, understand, discuss and present complex subjects in the field of Biology.

Dr. Aditi Buch
(Course Incharge)

Dr. Janki Thakkar
(HOD, Biological Sciences)

P. D. PATEL INSTITUTE OF APPLIED SCIENCES CHARUSAT

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