



Autonomous (2016-17)

Malad Kandivli Education Society's
NAGINDAS KHANDWALA COLLEGE
OF COMMERCE, ARTS & MANAGEMENT STUDIES
AND SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE

(Re-accredited (3rd cycle) by NAAC with 'A' Grade)

ISO 9001 : 2015 Certified

Educational Excellence Award By Indus Foundation, U.S.A.

IMC Ramkrishna Bajaj National Quality Commendation Certificate

Highlighted Syllabus


DR. (MRS.) ANCY JOSE
PRINCIPAL



**Nagindas Khandwala College
(Autonomous)**



**Syllabus Of
Course
Of**

**Bachelor of Science Information Technology
(BSC IT) Programme**

First Year

Semester II

Under Academic Autonomy and Credit, Grading and Semester System

(To be implemented during Academic Year- 2016-2017)


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**NAGINDAS KHANDWALA COLLEGE OF COMMERCE
ARTS & MANAGEMENT STUDIES AND SHANTABEN
NAGINDAS KHANDWALA COLLEGE OF SCIENCE
(AUTONOMOUS)
MALAD (W), MUMBAI - 400 084**

WEB PROGRAMMING

(Implemented during Academic Year 2016-17)
(wef 2016-17)

Modules at a Glance

Sr. No.	Topics	No. of lectures
1	Internet and world wide web, HTML5	9
2	HTML5, page layout and navigation HTML5 Tables, Forms and Media	9
3	JavaScript, operators, Statements, Core JavaScript, Events and Event Handlers	9
4	PHP	9
5	Advanced PHP and MySQL	9
	Total	45

Course Objectives:

By the end of the course, learners will be able to:

1. To Learn basics of web page design
2. To create web application with CSS
3. To use CSS to implement a variety of presentation effects to the web application.
4. Build dynamic web pages using JavaScript
5. To develop web applications with php and mysql.

Course outcome:

On completion of the course, learners will be able to:

CO1: Apply a structured approach to identifying needs, interests, and functionality of a website.
(Apply)

CO2: Design dynamic websites that meet specified needs and interests.(Create)

CO3: Design appropriate HTML, CSS, and JavaScript code from public repositories of open-source and free scripts that enhances the experience of site visitors.(Create)

CO4: Analyze the existing HTML, CSS, and JavaScript code to extend and alter its functionality, and to correct errors and cases of poor practice. (Analyse)

CO5: Create a website which is functional with all the basics and advanced HTML,CSS, Javascript alongwith jQuery and Bootstrap.(Apply)



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Detailed Syllabus:

Mod ules	Topics	No of Lectures
1	<p>(Skill Development) Internet and the World Wide Web: What is Internet? Introduction to internet and its applications, E-mail, telnet, FTP, e-commerce, video conferencing, e- business. Internet service providers, domain name server, internet address, World Wide Web (WWW): World Wide Web and its evolution, uniform resource locator (URL), browsers – internet explorer, Netscape navigator, opera, Firefox, chrome, Mozilla. search engine, web saver – apache, IIS, proxy server, HTTP protocol HTML5: Introduction, Why HTML5? Formatting text by using tags, using lists and backgrounds, Creating hyperlinks and anchors. Style sheets, CSS formatting text using style sheets, formatting paragraphs using style sheets.</p>	9
2	<p>HTML5 Page layout and navigation: Creating navigational aids: planning site organization, creating text based navigation bar, creating graphics based navigation bar, creating graphical navigation bar, creating image map, redirecting to another URL, creating division based layouts: HTML5 semantic tags, creating divisions, creating HTML5 semantic layout, positioning and formatting divisions. HTML5 Tables, Forms and Media: Creating tables: creating simple table, specifying the size of the table, specifying the width of the column, merging table cells, using tables for page layout, formatting tables: applying table borders, applying background and foreground fills, changing cell padding, spacing and alignment, creating user forms: creating basic form, using check boxes and option buttons, creating lists, additional input types in HTML5, Incorporating sound and video: audio and video in HTML5, HTML multimedia basics, embedding video clips, incorporating audio on web page.</p>	9
3	<p>Statements: Break, comment, continue, delete, do...while, export, for, for...in, function, if...else, import, labelled, return, switch, var, while, with, Core JavaScript (Properties and Methods of Each) : Array, Boolean, Date, Function, Math, Number, Object, String, regExp Document and its associated objects: document, Link, Area, Anchor, Image, Applet, Layer Events and Event Handlers : General Information about Events, Defining Event Handlers, event, onAbort, onBlur, onChange, onClick, onDbIclick, onDragDrop, onError, onFocus, onKeyDown, onKeyPress, onKeyUp, onLoad, onMouseDown, onMouseMove, onMouseOut, onMouseOver, onMouseUp, onMove, onReset, onResize, onSelect, onsubmit, onUnload</p>	9

Comment [KR1]: Focuses on skill development


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4	PHP: Why PHP and MySQL? Server-side scripting, PHP syntax and variables, comments, types, control structures, branching, looping, termination, functions, passing information with PHP, GET, POST, formatting form variables, superglobal arrays, strings and string functions, regular expressions, arrays, number handling, basic PHP errors/problems	9
5	Advanced PHP and MySQL : PHP/MySQL Functions, Integrating web forms and databases, Displaying queries in tables, Building Forms from queries, String and Regular Expressions, Sessions, Cookies and HTTP, E-Mail	9

Sr. No.	Title	Author/s	Publisher	Year
1.	Web Design The Complete Reference	Thomas Powell	Tata McGraw Hill	-
2.	HTML5 Step by Step	Faihe Wempen	Microsoft Press	2011
3.	PHP 5.1 for Beginners	Ivan Bayross Sharanam Shah,	SPD	2013



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4.	PHP Project for Beginners	SharanamShah, Vaishali Shah	SPD	2015
5.	PHP 6 and MySQL Bible	Steve Suehring, Tim Converse, Joyce Park	Wiley	2009

Practical (Skill Development)

Comment [KR2]: Focusses on skill development

1. Use of Basic Tags

- a. Design a web page using different text formatting tags.
- b. Design a web page with links to different pages and allow navigation between web pages.
- c. Design a web page demonstrating all Style sheet types

2. Image maps, Tables, Forms and Media

- a. Design a web page with Imagemaps.
- b. Design a web page demonstrating different semantics
- c. Design a web page with different tables. Design a webpages using table so that the content appears well placed.
- d. Design a web page with a form that uses all types of controls.
- e. Design a web page embedding with multimedia features.

3. Java Script

- a. Using JavaScript design, a web page that prints factorial/Fibonacci series/any given series.
- b. Design a form and validate all the controls placed on the form using Java Script.
- c. Write a JavaScript program to display all the prime numbers between 1 and 100.
- a. Write a JavaScript program to accept a number from the user and display the sum of its digits.
- d. Write a program in JavaScript to accept a sentence from the user and display the number of words in it. (Do not use split () function).
- e. Write a java script program to design simple calculator.

4. Control and looping statements and Java Script references

- a. Design a web page demonstrating different conditional statements.
- b. Design a web page demonstrating different looping statements.
- c. Design a web page demonstrating different Core JavaScript references (Array, Boolean, Date, Function, Math, Number, Object, String, regExp).

5. Basic PHP I


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- a. Write a PHP Program to accept a number from the user and print it factorial.
- b. Write a PHP program to accept a number from the user and print whether it is prime or not.
- 6. Basic PHP II**
- a. Write a PHP code to find the greater of 2 numbers. Accept the no. from the user.

- b. Write a PHP program to display the following Binary Pyramid: 1

```
0 1
1 0 1
0 1 0 1
```

7. String Functions and arrays

- a. Write a PHP program to demonstrate different string functions.
- b. Write a PHP program to create one dimensional array.

8. PHP and Database

- a. Write a PHP code to create:
- Create a database College
 - Create a table Department (Dname, Dno, Number_Of_faculty)
- b. Write a PHP program to create a database named "College". Create a table named "Student" with following fields (sno, sname, percentage). Insert 3 records of your choice. Display the names of the students whose percentage is between 35 to 75 in a tabular format.
- c. Design a PHP page for authenticating a user.

9. Email

- a. Write a program to send email with attachment.

10. Sessions and Cookies

- a. Write a program to demonstrate use of sessions and cookies.



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**Syllabus Of
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**Bachelor of Science Information Technology
(BSC IT) Programme**

First Year

Semester I

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*Bachelor of Science Information Technology
Programme at Semester I
(Implemented during Academic Year 2016-2017)*

COMMUNICATION SKILLS

Modules at a Glance

Sr. No.	Modules	No. of lectures
1	Seven Cs of Effective Communication and Understanding Communication	9
2	Writing Business Messages and Documents and Developing Oral Communication Skills for Business	9
3	Developing Oral Communication Skills for Business	9
4	Understanding Specific Communication Needs	9
5	Presentation Process	9
	Total	45

Objectives:

- To develop effective listening skills in learner so as to enable them to comprehend instructions and become a critical listener
- To develop effective oral skills so as to enable learner to speak confidently interpersonally as well as in large groups
- To develop effective writing skills so as to enable learner to write in clear, concise, persuasive and audience centred manner
- To demonstrate effective use of communication technology

Course Outcome:

- i. Study the concept, channels, objectives, methods and modes of communication.(Understand)
- ii. Understand the obstacles to communication in the business world.(Understand)
- iii. Sharpen the business correspondence, language and writing skills of the learner.(Apply)

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Detailed Syllabus:

Sr. No.	Modules / Units	No of Lectures
1	<p>(Skill Development) The Seven Cs of Effective Communication Completeness, Conciseness, Consideration, Concreteness, Clarity, Courtesy, Correctness Understanding Business Communication: Nature and Scope of Communication, Non-verbal Communication, Cross-cultural communication, Technology-enabled Business Communication</p>	9
2	<p>Writing Business Messages and Documents: Business writing, Business Correspondence, Instructions Business Reports and Proposals, Career building and Resume writing. Developing Oral Communication Skills for Business: Effective Listening, Business Presentations and Public Speaking, Conversations, Interviews</p>	9
3	<p>Developing Oral Communication Skills for Business: Meetings and Conferences, Group Discussions and Team Presentations,</p>	9
4	<p>Understanding Specific Communication Needs: Communication across Functional Areas, Corporate Communication, Persuasive Strategies in Business Communication, Ethics in Business Communication, Business Communication Aids</p>	9
5	<p>Presentation Process: Planning the presentations, executing the presentations, Impressing the audience by performing, Planning stage: Brainstorming, mind maps / concept maps, executing stage: chunking theory, creating outlines, Use of templates. Adding graphics to your presentation: Visual communication, Impress stage: use of font, colour, layout, Importance of practice and performance.</p>	9

Books and References:					
Sr. No.	Title	Author/s	Publisher	Edition	Year
1.	Business Communication	Edited by Meenakshi Raman and Prakash Singh	Oxford University Press	Second	
2.	Professional Communication	Aruna Koneru	Tata McGraw Hill		
3.	Strategies for improving your business communication	Prof. M. S. Rao	Shroff publishers and distributor		2016


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	n		s		
4.	Business Communication	Dr. Rishipal and Dr. Jyoti Sheoran	SPD		2014
5.	Graphics for Learning: Proven Guidelines for Planning, Designing, and Evaluating Visuals in Training Materials	Ruth C. Clark, Chopeta Lyons,	Pfeiffer, Wiley		2011

Practical: (Skill Development)

Comment [KR1]: Focusses on skill development

1. Communication Origami, Guessing Game, Guessing the emotion
 2. Body Language, Follow All Instructions, Effective Feedback Skills
 3. The Name Game, Square Talk (Effective Communication), Room 101 (Influential and persuasive skills)
 4. Back to Back Communication, Paper Shapes (Importance of two-way communication), Memory Test (Presentation Skills)
 5. Exercises on Communication Principles
 6. Exercises on communication icebreakers
 7. Communication exercises
- For the following practicals, Microsoft Office, Open Office, Libre Office or any other software suite can be used.
8. Use of word processing tools for communication
 9. Use of spreadsheet tools for communication
 10. Use of presentation tools for communication



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Technology
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First Year

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Green Computing

*at Semester II
(Implemented during Academic Year 2016-17)*

Modules at a Glance

No.	Modules	No. of lectures
1	Overview, Issues, Initiatives and Standards	9
2	Minimizing Power Usage and Cooling	9
3	Changing the Way of Work and Going Paperless	9
4	Recycling and Hardware Considerations	9
5	Greening Your Information Systems and Staying Green	9
	Total	45

Course Objectives :

By the end of the course, learners will be able to:

1. explain the concept of green IT
2. Give an account of environmental perspectives on IT use, standards and certifications related to sustainable IT products
3. describe green IT in relation to technology
4. evaluate IT use in relation to environmental perspectives,
5. discuss how the choice of hardware and software can facilitate a more sustainable operation, use methods and tools to measure energy consumption

Course Outcomes:

After completing this course learners will be able to:

- CO1: Describe awareness among stakeholders and promote green agenda and green initiatives in their working environments leading to green movement. (Understand)
- CO2: Recognize Objectives of Green IT for Data communication. (Analyse)
- CO3: Illustrate various green IT services and its roles. (Apply)
- CO4: Discuss the various laws, standards and protocols for regulating green IT (Understand)
- CO5: Use a range of tools to help monitor and design green systems. (Apply)



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Detailed Syllabus:

Sr. No.	Modules/Units	No of Lectures
1.	<p>Overview and Issues: Problems: Toxins, Power Consumption, Equipment Disposal, Company's Carbon Footprint: Measuring, Details, reasons to bother, Plan for the Future, Cost Savings: Hardware, Power. Initiatives and Standards:(Employability)</p> <p>Global Initiatives: United Nations, Basel Action Network, Basel Convention, North America: The United States, Canada, Australia, Europe, WEEE Directive, RoHS, National Adoption, Asia: Japan, China, Korea.</p>	9
2.	<p>Minimizing Power Usage: Power Problems, Monitoring Power Usage, Servers, Low-Cost Options, Reducing Power Use, Data De-Duplication, Virtualization, Management, Bigger Drives, Involving the Utility Company, Low- Power Computers, PCs, Linux, Components, Servers, Computer Settings, Storage, Monitors, Power Supplies, Wireless Devices, Software. Cooling: Cooling Costs, Power Cost, Causes of Cost, Calculating Cooling Needs, Reducing Cooling Costs, Economizers, On-Demand Cooling, HP's Solution, Optimizing Airflow, Hot Aisle/Cold Aisle, Raised Floors, Cable Management, Vapour Seal, Prevent Recirculation of Equipment Exhaust, Supply Air Directly to Heat Sources, Fans, Humidity, Adding Cooling, Fluid Considerations, System Design, Datacentre Design, Centralized Control, Design for Your Needs, Put Everything Together.</p>	9
3.	<p>Changing the Way of Work: Old Behaviours, starting at the Top, Process Reengineering with Green in Mind, Analysing the Global Impact of Local Actions, Steps: Water, Recycling, Energy, Pollutants, Teleworkers and Outsourcing, Telecommuting, Outsourcing, how to Outsource. Going Paperless: Paper Problems, The Environment, Costs: Paper and Office, Practicality, Storage, Destruction, Going Paperless, Organizational Realities, Changing Over, Paperless Billing, Handheld Computers vs. the Clipboard, Unified Communications, Intranets, What to Include, Building an Intranet, Microsoft Office SharePoint Server 2007, Electronic Data Interchange (EDI), Nuts and Bolts, Value Added Networks, Advantages, Obstacles.</p>	9
4.	<p>Recycling: Problems, China, Africa, Materials, Means of Disposal, Recycling, Refurbishing, Make the Decision, Life Cycle, from beginning to end, Life, Cost, Green Design, Recycling Companies, Finding the Best One, Checklist, Certifications, Hard Drive Recycling, Consequences, cleaning a Hard Drive, Pros and cons of each method, CDs and DVDs, good and bad about CD and DVDs disposal, Change the mind-set, David vs. America Online Hardware Considerations: Certification Programs, EPEAT, RoHS, Energy Star, Computers, Monitors, Printers, Scanners, All-in-Ones, Thin Clients, Servers, Blade Servers,</p>	9

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	Consolidation, Products, Hardware Considerations, Planned Obsolescence, Packaging, Toxins, Other Factors, Remote Desktop	
5.	<p>Greening Your Information Systems: Initial Improvement Calculations, Selecting Metrics, Tracking Progress, Change Business Processes, Customer Interaction, Paper Reduction, Green Supply Chain, Improve Technology Infrastructure, Reduce PCs and Servers, Shared Services, Hardware Costs, Cooling.</p> <p>Staying Green: Organizational Check-ups, Chief Green Officer, Evolution, Sell the CEO, SMART Goals, Equipment Check-ups, Gather Data, Tracking the data, Baseline Data, Benchmarking, Analyse Data, Conduct Audits, Certifications, Benefits, Realities, Helpful Organizations.</p>	

Books and References:					
Sr. No.	Title	Author/s	Publisher	Edition	Year
1.	Green IT	Toby Velte, Anthony Velte, Robert Elsenpeter	McGraw Hill		2008
2.	Green Data Center: Steps for the Journey	Alvin Galea, Michael Schaefer, Mike Ebbers	Shroff Publishers and Distributers		2011
3.	Green Computing and Green IT Best Practice	Jason Harris	Emereo		
4.	Green Computing Tools and Techniques for Saving Energy, Money and Resources	Bud E. Smith	CRC Press		2014

Project and Viva Voce (Employability)	
1.	A project should be done based on the objectives of Green Computing. A report of minimum 50 pages should be prepared. The report should have a font size of 12, Times new roman and 1.5 line spacing. The headings should have font size 14. The report should be hard bound.
2.	The project can be done individually or a group of two students.
3.	The students will have to present the project during the examination.
4.	A certified copy of the project report is essential to appear for the examination.


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