

Sacred Heart College (Autonomous)

Tirupattur, Tirupattur DT - 635 601

Accredited By NAAC(4th Cycle - under RAF) With CGPA of 3.31/4 at 'A+' Grade

PG Department of Computer Science

Organizes

Certificate Course on *Strawel Framework*

9 AM
TO
4 PM

30
HOURS

Resource Person

Prof. S. Antony Philomen Raj,
Assistant Professor, Department of
MCA, Sacred Heart College,
Tirupattur.

14-03-2019
to
21-03-2019

CONVENER

Prof. D. Gajalakshmi

ORGANIZING SECRETARY

Dr. R. Denis

MEMBER

Prof. M. Poovizhi



IInd M.Sc CS

LARAVEL FRAMEWORK SYLLABUS

Laravel Framework

- Overview
- Features
- Installation of Laravel
- Server Requirements
- Dependency Management
- Editor Setup

Controllers

- Basic Controllers
- Controller Middleware
- Restful Resource Controllers
- Controller Routing

Forms & Request

- Retrieving Input
- CSRF Protection
- Get Post Method
- Validation

Views

- Understanding Views
- Passing Data to Views
- Sharing Data with all Views
- Blade Templates
- Extends layout

Session & Cookie

Accessing Data

Storing Data

Deleting Data

Database

Connecting to Database

Migration

Model

Facades

Schema Build

Relationship

Tinker

Authentication

Auth Setup

Email Verification

Password Reset

PG AND RESEARCH DEPARTMENT OF COMPUTER APPLICATIONS
SACRED HEART COLLEGE(AUTONOMOUS), TIRUPATTUR, TIRUPATTUR-635601
ACADEMIC YEAR : 2020 - 2021

Certificate Course : .NET

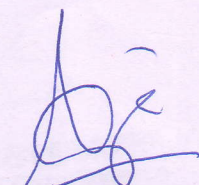
Total Hours: 30

Date: 15.03.2019

Time: 02.30 – 04.30

PROGRAMME SCHEDULE

S. No	Date	Content
1	17.03.2019	Introduction to .Net Framework
2	18.03.2019	ASP.Net page life cycle
3	21.03.2019	Server Controls
4	22.03.2019	Introduction to MVC
5	23.03.2019	MVC Projects
6	24.03.2019	MVC Projects
7	25.03.2019	Filters, Controller Extensibility and Helper Methods
8	28.03.2019	Web API and Single-page Applications
9	29.03.2019	MVC Application using MYSQL Sever
10	30.03.2019	MVC Application using MYSQL Sever
11	31.03.2019	MVC Application using MYSQL Sever


Dr. A. GEORGE LOUIS RAJA
Asst. Prof & Head,

PG & Research Dept. of Computer Applications,
Sacred Heart College (Autonomous)
Tirupattur-635 601. Tirupattur (Dt.)

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6	24.03.2019	MVC Projects
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8	28.03.2019	Web API and Single-page Applications
9	29.03.2019	MVC Application using MYSQL Sever
10	30.03.2019	MVC Application using MYSQL Sever
11	31.03.2019	MVC Application using MYSQL Sever

PG AND RESEARCH DEPARTMENT OF COMPUTER APPLICATIONS
SACRED HEART COLLEGE(AUTONOMOUS), TIRUPATTUR, TIRUPATTUR-635601
ACADEMIC YEAR : 2018 - 2019


Certificate Course : JAVA (JSP with MVC)

Total Hours: 30

Date : 12.08.2018

Course Content

- Manage application state with Sessions to track unique user actions
- Leverage Cookies to personalize a web site for a specific user
- Integrate the JSP Standard Tag Library (JSTL) to minimize scriptlet code
- Build a Multi-Lingual app using Internationalization and JSTL
- Build an MVC application with JSP and Servlets
- Generate HTML Tables with JSP and Servlets
- Add database support with JDBC: query, insert, update and delete
- Build a complete database web app with JDBC



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PG AND RESEARCH DEPARTMENT OF COMPUTER APPLICATIONS
SACRED HEART COLLEGE(AUTONOMOUS), TIRUPATTUR, TIRUPATTUR-635601
ACADEMIC YEAR : 2018 - 2019 **MCA547S - QUANTITATIVE APTITUDE**

Total Hours: 30

Date : 20.07.2018

S. No	Day Order	Time
1	II	01.30 PM - 03.30 PM

OBJECTIVES

- To obtain aptitude skills and to solve quantitative problems.

UNIT 1: Averages – Problems on numbers – Problems on ages – Percentage.

UNIT 2: Profit and loss – Ratio and proportion – Time and work – Pipes and cisterns.

UNIT 3: Partnership – Time and distance – Problems on trains.

UNIT 4: Boats and streams – Simple interest – Compound interest.

UNIT 5: Calendar – Clocks – Permutations and Combinations – Probability.

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SACRED HEART COLLEGE(AUTONOMUS), TIRUPATTUR, TIRUPATTUR-635601
ACADEMIC YEAR : 2018 - 2019 **MCA447S - TECHNICAL APTITUDE**

Total Hours: 30

Date : 20.02.2019

S. No	Day Order	Time
1	II	01.30 PM - 03.30 PM

- C
- C++
- Java
- DBMS
- Data Structures
- .NET MVC Framework
- Software Quality Assurance
- Software Testing
- Computer Network
- Linux
- PHP
- Python


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ACADEMIC YEAR : 2018 - 2019 **MCA447S - TECHNICAL APTITUDE**

Total Hours: 30

Date : 20.02.2019

S. No	Day Order	Time
1	II	01.30 PM - 03.30 PM

- C
- C++
- Java
- DBMS
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- Linux
- PHP
- Python


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- Python



**DEPARTMENT OF BUSINESS
ADMINISTRATION**
SACRED HEART COLLEGE
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**Tirupattur - 635 601, Tirupattur Dt,
Tamil Nadu, India.**

CERTIFICATE COURSE IN NGO MANAGEMENT

03-10-2018 TO 30-10-2018

30 HOURS



Department of Business Administration

Sacred Heart College (Autonomous)

Certificate Course Syllabus

Semester - III

Certificate in NGO Management

Unit – I – Concepts and Functions of NGO

Introduction – What is an NGO? – Define NGO – Does the Government Recognize NGOs? – Kinds of NGO's Functioning in India – Working of NGOs – NGO Environment – Issues in NGO Management - Aid to Development – Poverty and Development – Poverty and Exploitation – Poverty and Powerlessness – Development Indicators .

Unit – II Problem Identification

Introduction – Problem Identification – Problems of NGOs – Strengthening Voluntary Efforts – Managing People – Governance – Governance and Management – Need for Good Governance for NGOs – Ethical Challenges – Leadership – Need for Leadership with values .

Unit – III Strategy and Planning

Elements of Strategy – Introduction – Understanding your organization – Organization Development- Strategy and Planning – Strategy in the Management World – Elements of a Strategic Plan – Core Values – Strategic Goals.

Unit – IV: SWOT Analysis

Introduction – SWOT analysis – Meaning of Strengths and Weakness – Alternative Formats to Analyze Strengths and Weaknesses – Matching Strength and Weaknesses- The concept of Synergy.

Unit - V: Process of Management & Reporting

Planning – Organizing – Staffing – Directing – Controlling – Coordinating - Introduction to Communications- General Guidelines in Preparing Reports – Procedure of Reporting – Stages in Reporting – Long Reports – Short Reports.

Reference Books

1. Abell, Derek F and John S. Hammond: Strategic Market Planning: Problems and Analytical Approaches, Prentice Hall, Englewood Cliffs: New Jersey
 2. Peter Drucker: Tasks, Responsibilities, Practice, New York: Harper & Row
 3. Ansoff, H Igor: Business Strategy, Penguin Books Limited, Harmondsworth
 4. Porter, Michael E: Competitive Strategy: Techniques for Analyzing Industries and Competitors, The Free Press, A Division of Macmillan publishing Co
-



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CERTIFICATE COURSE IN TOURISM STUDIES

05-02-2019 TO 04-03-2019

30 HOURS



Semester - IV

Certificate in Tourism Management

Unit - I

Definition of tourism and the need for tourism. The birth, growth and development of tourism - factors influencing growth of tourism - tourism in India and abroad.

Unit - II

Tourism - planning - need for planning - government's role in planning - tourism under five year plans. Tourism marketing - concepts and importance - marketing functions in tourism - tourist marketing mix.

Unit-III

Tourism and culture - tourism and people: tourism and economic development - tourism and growth of related industry, tourism and employment.

Unit - IV

Tourism pricing - methods of pricing - tourism promotion - advertising costs - steps in planning an advertising campaign - tourist publicity.

Unit-V

Tourism and government administrative systems - ministry of tourism - department of tourism - Indian tourism development corporation - world tourism organization - travel agents in India.

Reference Books

1. Tourism and hotel industry in India - Anand M.M.
 2. Perspectives of Indian Tourism in India - Clib SN.
 3. Successful tourism management - Pran Nath Seth.
 4. The management of tourism - Bukart A J.
 5. The social implications of tourism development - Butler R W
-

PG and Research Department of Mathematics
Sacred Heart College (Autonomous), Tirupattur

Dear Students,

The department is planning to organize a certificate programme on “*LaTeX for Mathematics*” during the month of January, 2019.

Total course duration: 30 hours

About the Course: LaTeX is a very well developed typesetting program and is an extension of the original program TEX written by Donald Knuth. Donald Knuth says that his aim in creating TEX is to beautifully typeset technical documents especially those containing a lot of Mathematics. Since now a days, mathematics is very widely use in all branches of science, economics, commerce, so this typesetting program will definitely help students in their future work. Complex mathematical formulas can be difficult, sometimes not impossible, to generate using a standard word processor. If you want your document to look very nice, even if it's just ordinary text, LaTeX is the natural option. This is an excellent introductory course to acquaint students with the latest typesetting skills which will enable them to prepare high quality typesetting, beamer presentation.

Objective: To create understanding of LaTeX and to develop proficiency in documentation skill.

Learning Outcomes: The student will be able to learn the followings, after completing this course

- i) To create a LaTeX document.
- ii) Typeset a mathematical document using LaTeX.
- iii) Learn about graphics in LaTeX.
- iv) Create beamer presentations.

Course Coordinators

Dr. G. Britto Antony Xavier

Dr. S.U. Vasanthakumar

Head of the Department

Dr. A. George Maria Selvam

Certificate Programme – LaTeX for Mathematics

Code: M9XX

Year/Semester: II / III

Credits: 2*

Hours: 30/Sem

Objective: To train students in the preparation of projects and dissertations using LaTeX.

Unit – I: Basic Document and Bibliography

What is LATEX – Simple typesetting – Fonts Type size – Document class – page style – page numbering – Formatting lengths – parts of a document – Dividing the document – what next? – Introduction – natbib – The BIBTEX program – BIBTEX Style files – Creating a bibliographic database.

(Chapters 1 - 4)

Unit - II: Contents, Index, Glossary, Text, Row and Column

Table of contents – Index – Glossary. Borrowed words – Poetry in typing – Making lists – When order matters – Description and definitions.

(Chapters 5 - 7)

Unit – III: Typesetting Equations and Theorems

Keeping tabs – Tables – The basics – Custom commands – More on mathematics – mathematics miscellany – New operations– The many fact of mathematics – Symbols – Theory in LATEX – Designer theorem-the amsthm package – Housekeeping.

(Chapters 8 - 9)

Unit - IV: Several Kinds of boxes and Floats

LR boxes – Paragraph boxes – Paragraph boxes with specific height – Nested boxes – Role boxes – The figure environment – The table environment.

(Chapters 10 - 11)

Unit – V: Cross References in LATEX, Footnotes, Margin pars and Endnotes

Why cross reference? – Let LATEX do it – Pointing to a page-the package varioref – Pointing outside-the package xr – Lost the keys? Use lables.tex – Footnotes – Marginal notes – Endnotes.

(Chapters 12 - 13)

Book for Study

1. A Primer, *Latex Tutorials*, Indian TEX users group, Trivandrum, India. www.tug.org.in

Books for Reference

1. Peter Flynn, *A beginner's introduction to typesetting with LATEX*, Silmaril Consultants, Textual Therapy Division, 2003.
2. George Gratzer, *More Math into LATEX*, 4th Edition, Springer Science, 2007.
3. Frank Mittelbach, Michel Goossens, *The LaTeX Companion*, Second Edition, Addison-Wesley, 2004.
4. Apostolos Syropoulos, Antonis Tsolomitis, Nick Sofroniou, *Digital Typography using Latex*, With 68 Illustrations, Springer-Verlag, 2003.

5. Dr Helmut Kopka, Dr Patrick Daly, *A Guide to Latex: Document preparation for beginners and advanced users*, Addison Wesley; 3rd edition (4 January 1999)

Course Learning Outcomes

This course will enable the students to:

- prepare documents with paragraphs and sections
- insert mathematical expressions and numbered equations
- format theorems, tables and figures
- organize chapters in the preparation of projects
- prepare and publish research articles.

E Learning Resources: <https://www.latex-tutorial.com/tutorials/>
<https://www.tug.org/twg/mactex/tutorials/ltxprimer-1.0.pdf>
<https://www.latex-tutorial.com>
<http://www.tug.org.in/tutorials.html>
<https://miktex.org/>
<http://www.docs.is.ed.ac.uk/skills/documents/3722/3722-2014.pdf>

**PG and Research Department of Mathematics,
Sacred Heart College (Autonomous), Tirupattur**

Dear Students,

The department is planning to organize a certificate program on "*R Language for Statistics*" during the month of February 2018-19.

Total Course Duration: 30 hours

About the Course: R is a powerful and versatile programming language and environment widely used for data analysis and statistical computing. It has gained immense popularity in various fields, including mathematics, as it allows for efficient data manipulation, statistical analysis, and visualization. This course is designed to introduce students to the application of R in mathematical contexts, equipping them with essential skills for their future work in research and data-driven projects.

Objective: The primary objective of this course is to provide a strong foundation in using R for mathematical applications and data analysis, enabling students to proficiently work with mathematical data, perform statistical analysis, and create data visualizations.

Learning Outcomes: By completing this course, students will gain the following skills and knowledge:

1. **Introduction to R:** Students will learn to install and set up R, understand the R environment, and become familiar with the R Studio integrated development environment (IDE).
2. **Data Manipulation:** Participants will gain expertise in data manipulation techniques using R, such as importing, cleaning, and transforming data for mathematical Statistics analysis.
3. **Statistical Analysis:** Students can apply statistical methods using R for mathematical research, including hypothesis testing, regression analysis, and various statistical tests.
4. **Data Visualization:** The course will cover the creation of high-quality visualizations for mathematical data using R's powerful graphical capabilities, enabling students to effectively communicate their findings.
5. **Project Work:** Participants will have the opportunity to work on real-world mathematical projects and apply their knowledge to solve practical problems using R.

This certificate program will provide students with valuable skills in data analysis and mathematical modeling using R, making them well-prepared for future research and career opportunities in a wide range of fields, from academia to industry.

Course Coordinators

Dr. D. Ajay

Head of the Department

Dr. A. George Maria Selvam

Certificate Course - R Language for Statistics

Year/Semester: I / II

Credits: 2*

Hours: 30/Sem

Objective: To introduce to the students the novel applications of R language and to give them a hands on experience of working with data.

Unit – I: Basic Concepts in R

Assignment of values, Character, Vector arithmetic, Understanding Data types, importing/exporting data - Computation of tables and graphical representation in R: plot, pie chart, box plot, generating graphs from imported data

Unit – II: Probability Distributions

Fitting and plotting of binomial, Poisson and Normal distributions

Unit – III: Correlation and Regression

Correlation and linear regression: Representation of bivariate data through scatter diagram, Karl Pearson's, Spearman's and Kendall's coefficients of correlation, Coefficient of determination, linear regression model, Multiple Linear Regression.

Unit – IV: Tests of Hypothesis

Student's t - test, One sample Z – test, Paired data t – test

Unit – V: Chi-square test and Design of Experiments

Chi-square test: Independence of attributes and goodness of fit – Design of Experiments: Completely randomized design (CRD), Randomized block design (RBD) and Latin square design (LSD).

Books for Reference

1. Joseph Adler, *R in a Nutshell A Desktop Quick Reference*, O'reilly, 2010.
2. Mark Gardener, *Beginning R the Statistical Programming Language*, John Wiley & Sons, Inc. 2012.

Learning outcomes

Students can able

- To know about probability distribution function and different types of distributive functions.
- To know and understand about Tests of Hypothesis

E – Learning source: <https://www.r-project.org/>
<https://www.r-statistics.com/>
<http://www.r-tutor.com/elementary-statistics>

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ACADEMIC YEAR : 2018 - 2019**

MCA347S - SOFT SKILLS

Content	Topics	Hours
Introductory Module	Being someone and knowing someone Setting expectations Non-verbal Communication Move like a Machine	6 Hours
Understand self	Brief account of life My life roles rainbow Who am I Communication skills SWOT Conflict resolution Decision making Time management	10 Hours
Understand career	Life after college/ITI Career and me Understanding career Interests & Abilities Multiple Intelligence	6 Hours
Preparing for work	Workplace expectation (Digital lesson) Resume & Interview (Digital lesson) LinkedIn Week (Digital lesson) My Image (Digital lesson) Preparing for interview (Digital lesson) Mock Interview	8 Hours
TOTAL HOURS		30 HRS


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TOTAL HOURS		30 HRS