

Department of Computer Science
Meenakshi College for Women (Autonomous)
UGC Career Oriented Course

The Purpose:

The objective of the programme is to introduce career and market oriented, skill enhancing add-on orientation courses that have utility for job, self employment and empowerment for the students. At the end of three years, the students will be equipped with a Certificate / Diploma / Advanced Diploma as an add-on orientation course along with a conventional degree.

Target/Eligibility:

Undergraduate students of the following streams are eligible:

- Science (Maths, Physics, Chemistry, PBPBT, AZBT)
- Commerce (BCom, BBM)

Duration:

- 3-Year progressive course
- Two hours per day (3:00 pm to 5:00 pm), 6 days a week

Course Structure:

The Course follows a progressive approach. It includes theory and practical, hands-on and lab sessions. Each of the courses will include project work/field work at the end of each semester.

1. **Certificate Course:** *Office Suite and Web Application Development* (2-semester course)
2. **Diploma Course:** *Web Application Development* (2- semester course)
3. **Advanced Diploma Course:** *Technologies in Web Application Development* (2 - semester course)

A student can opt for any of the above courses provided the following criteria are satisfied:

- A student can take up the Diploma Course only if the Certificate Course is completed.
- A student can take up the Advanced Diploma Course only if the Diploma Course is completed.

Course Content:

Certificate Course: Office Suite and Web Application Development

Year 1 – Semester 1:

- Introduction to Computers
- Operating System Basics
- Windows Fundamentals
- Word Processing - **Microsoft Word**
- Spreadsheet Application – **Microsoft Excel**
- Presentation software–**Microsoft PowerPoint**
- Internet Concepts
- Search engines and their effective use
- **Email, Video Conferencing and Chatting, Blogs**

Year 1 – Semester 2:

- Web page design using **HTML**
- Basics of **IIS**
- Creating and hosting Web sites using **Microsoft Front Page/Macromedia Dreamweaver**
- Introduction to .NET Framework
- Web Application Development with **VB.NET and ASP.NET**

Diploma Course: Web Application Development

Year 2 – Semester 1:

- **Database Management Systems**
- **Programming with SQL**
- **Introduction to Data Access in .NET- ADO.NET**
- Developing **database-driven web applications** using **Microsoft SQL server and .NET**

Year 2 – Semester 2:

- **Scripting Languages**
- Client side and Server side Scripting
- **VB Script**
- **Java Script**
- **PHP and MYSQL**

Advanced Diploma Course : Technologies in Web Application Development

Year 3 – Semester 1:

- **XML and Web Services**
- XML Validation Techniques – **DTD and XML Schema**
- XML Processing Technologies – **DOM and SAX**
- XML Transformation Technologies – **XPATH and XQUERY**
- XML Presentation Technologies – **XFORMS and XHTML**
- **Creating Web Services** using Microsoft.NET

Year 3 – Semester 2:

- **Ajax**
- Ajax – **Best Practices**
- Building **Ajax-friendly Applications**