UNIVERSITY OF MADRAS

CHOICE BASED CREDIT SYSTEM.

BACHELOR DEGREE COURSE UNDER THE FACULTY OF SCIENCE

B.Sc. DEGREE COURSE IN DIGITAL PUBLISHING

REGULATIONS
(w.e.f. 2014 – 2015)

1. ELIGIBILITY FOR ADMISSION:

Candidates for admission to B.Sc. Degree Course DIGITAL PUBLISHING shall be required to have passed the Higher Secondary Examinations (Academic or Vocational Stream) conducted by the Government of Tamil Nadu or an Examination accepted as equivalent thereof by the Syndicate of the University of Madras with Computer Science/Mathematics as a subject of study.

2. ELIGIBILITY FOR THE AWARD OF DEGREE:

A candidate shall be eligible for the award of the Degree only if he/she has undergone the prescribed course of study in a College affiliated to the University for a period of not less than three academic years, passed the examinations all the Six-Semesters prescribed earning 140 Credits (in Parts-I, II, III, IV & V).

3. DURATION:

a) Each academic year shall be divided into two semesters. The first academic year shall comprise the first and second semesters, the second academic year the third and fourth semesters and the third academic year the fifth and sixth semester respectively.

b) The odd semesters shall consist of the period from June to November of each year and the even semesters from December to April of each year. There shall be not less than 90 working days for each semester.

4. COURSE OF STUDY:

The main Subject of Study for Bachelor Degree Courses shall consist of the following and shall be in accordance with APPENDIX-B

PART – I  TAMIL / OTHER LANGUAGES

PART – II  ENGLISH
PART – III   CORE SUBJECTS
ALLIED SUBJECTS
PROJECT/ELECTIVES WITH THREE COURSES

PART – IV
1.(a) Those who have not studied Tamil up to XII Std. and taken a Non-Tamil Language under Part-I shall take Tamil comprising of two course (level will be at 6th Standard).

(b) Those who have studies Tamil up to XII Std. and taken a Non-Tamil Language under Part-I shall take Advanced Tamil comprising of two courses.

(c) Others who do not come under a + b can choose non-major elective comprising of two courses.

2. SKILL BASED SUBJECTS (ELECTIVE) - (SOFT SKILLS)

3. ENVIRONMENTAL STUDIES

4. VALUE EDUCATION

PART – V   EXTENSION ACTIVITIES

5. EXTENSION ACTIVITIES:

A candidate shall be awarded a maximum of 1 Credits for Compulsory Extension Service.

All the Students shall have to enroll for NSS /NCC/ NSO (Sports & Games) Rotract/ Youth Red cross or any other service organizations in the college and shall have to put in Compulsory minimum attendance of 40 hours which shall be duly certified by the Principal of the college before 31st March in a year. If a student LACKS 40 HOURS ATTENDANCE in the First year, he/she shall have to compensate the same during the subsequent years.

Students those who complete minimum attendance of 40 hours in One year will get HALF A CREDIT and those who complete the attendance of 80 or more hours in Two Years will ONE CREDIT.

Literacy and population Education Field Work shall be compulsory components in the above extension service activities.
5a. TEACHING METHODS OF THE COURSE

Classes generally go like:
1. Review and group discussion of previous homework assignment or project.
2. Introduction of day’s topics, demonstration of new techniques. Students generally do in-class mini-assignments to learn new skills.
3. Demonstrations; looking at professional/commercial materials.
4. Presentation of homework or project for upcoming classes. Students then have time to work in class and receive individual help.
5. Guest speaker(s) and/or field trips.

5b. Teaching Faculty:

Three facultied from Computer Science, one faculty from English and one faculty from Journalism shall be handled the subjects of B.Sc. Degree Course in Digital Publishing.

6. SCHEME OF EXAMINATIONS:

<table>
<thead>
<tr>
<th>I Semester</th>
<th>Paper Title</th>
<th>Ins. Hrs. Theory/Lab</th>
<th>Credit</th>
<th>Int. Marks</th>
<th>Ext. Marks</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part - I</td>
<td>Tamil – I</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Part - II</td>
<td>English – I</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Core- I</td>
<td>Fundamentals of digital computers</td>
<td>5</td>
<td>4</td>
<td>25</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Core -II</td>
<td>PC software (Practical)</td>
<td>4</td>
<td>3</td>
<td>40</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>NME– I</td>
<td>Flash</td>
<td>2</td>
<td>2</td>
<td>25</td>
<td>75</td>
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<tr>
<td>SBE-I</td>
<td>Essentials of Language and communication</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Allied Paper I</td>
<td>Modern English Grammar and Usage</td>
<td>9</td>
<td>5</td>
<td>25</td>
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</table>

<table>
<thead>
<tr>
<th>II Semester</th>
<th>Paper Title</th>
<th>Ins. Hrs. Theory/Lab</th>
<th>Credit</th>
<th>Int. Marks</th>
<th>Ext. Marks</th>
<th>Max Marks</th>
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</thead>
<tbody>
<tr>
<td>Part – I</td>
<td>Tamil – II</td>
<td>4</td>
<td>3</td>
<td>25</td>
<td>75</td>
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<tr>
<td>Part – II</td>
<td>English – II</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Core –III</td>
<td>Desktop Publishing with Adobe InDesign</td>
<td>5</td>
<td>4</td>
<td>25</td>
<td>75</td>
<td>100</td>
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<tr>
<td>Core – IV</td>
<td>Adobe InDesign (Practical)</td>
<td>4</td>
<td>3</td>
<td>40</td>
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<tr>
<td>Allied Paper II</td>
<td>Introduction to communication</td>
<td>9</td>
<td>5</td>
<td>25</td>
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<tr>
<td>NME-II</td>
<td>Flash – Lab (Practical)</td>
<td>2</td>
<td>2</td>
<td>40</td>
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<td><strong>SBE-II</strong></td>
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<td>2</td>
<td>3</td>
<td>50</td>
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<tr>
<td>Internship</td>
<td>Type Writing – English*</td>
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<table>
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<td>Part - I</td>
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<td>English – III</td>
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<tr>
<td>Core - V</td>
<td>CorelDraw</td>
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<td>4</td>
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<tr>
<td>Core - VI</td>
<td>Multimedia publishing software (Practical)</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Allied Paper III</td>
<td>Design and planning for print production</td>
<td>9</td>
<td>5</td>
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<td>SBE – III</td>
<td>Personality Enrichment</td>
<td>2</td>
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<tr>
<td>EVS</td>
<td>Environmental studies</td>
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<table>
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<tbody>
<tr>
<td>Part – I</td>
<td>Tamil – IV</td>
<td>4</td>
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<td>Part – II</td>
<td>English – IV</td>
<td>4</td>
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<tr>
<td>Core - VII</td>
<td>Content design using Latex</td>
<td>5</td>
<td>4</td>
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<td>Latex lab (Practical)</td>
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<td>Allied Paper IV</td>
<td>E-Publishing concepts</td>
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<td>SBE – IV</td>
<td>Software Documentation and Presentation</td>
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<table>
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<tr>
<td>Core - IX</td>
<td>News paper and periodical publishing</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Core - X</td>
<td>Web Technology</td>
<td>5</td>
<td>4</td>
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<td>Core - XI</td>
<td>Data conversion and XML</td>
<td>5</td>
<td>4</td>
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<td>Core – XII</td>
<td>XML Lab (Practical)</td>
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<td>VI Semester</td>
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<td>Editing concepts</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Core - XV</td>
<td>Template development using QuarkXpress</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Core - XVI</td>
<td>Security Printing</td>
<td>5</td>
<td>4</td>
<td>25</td>
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<td>Elective</td>
<td>Elective – II</td>
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<tr>
<td>Core - XVII</td>
<td>QuarkXpress Lab (Practical)</td>
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<td>Project</td>
<td>Mini Project (Practical)</td>
<td>6</td>
<td>5</td>
<td>40</td>
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<td>Elective –I (Any one)</td>
<td>E-Governance</td>
<td>5</td>
<td>5</td>
<td>25</td>
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<tr>
<td>Elective-II (Any one)</td>
<td>Business Process Outsourcing and KPO</td>
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<td></td>
<td>Digital data handling</td>
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<tr>
<td></td>
<td>Computer Graphics and Multimedia Systems</td>
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<tr>
<td></td>
<td>E-Book publishing</td>
<td>5</td>
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<td>Mass Communication</td>
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<td>E-Learning</td>
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<tr>
<td>EXT</td>
<td>Extension Activities (NSS/ NCC/ SPORTS)</td>
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</table>

@ Candidate shall be submitted a certificate for training which is to be provided from a Typewriting Institute for Internship to earn the two credits.

Rest of the Regulations as followed in the Bachelor Degree Courses – under Faculty of science

*****

AC.S'13
Appendix - 30(s)
UNIVERSITY OF MADRAS
CHOICE BASED CREDIT SYSTEM.

B.Sc. DEGREE COURSE IN DIGITAL PUBLISHING

SYLLABUS
(w.e.f. 2014 – 2015)

<table>
<thead>
<tr>
<th>I Semester</th>
<th>Fundamentals of digital computers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core- I</td>
<td>Credits:4</td>
</tr>
</tbody>
</table>

Objective: To impart in-depth knowledge of Computer components such as logic gates, Boolean Algebra and circuit implementations.

UNIT – I DIGITAL CONCEPTS
Digital Computer Fundamentals – Block diagram of a computer – Components of a computer system – Digital and Analog quantities – Binary digits.

UNIT – II HARDWARE AND SOFTWARE

UNIT – III NUMBER SYSTEMS
Number Representation – Decimal, Binary, Octal, Hexadecimal and BCD numbers – Binary Arithmetic – Binary addition – Unsigned and Signed numbers – one’s and two’s complements of Binary numbers – Arithmetic operations with signed numbers – Number system conversions.

UNIT - IV BOOLEAN ALGEBRA AND LOGIC SIMPLIFICATION

UNIT – V FLIP FLOPS AND COUNTERS

TEXT BOOKS
REFERENCE BOOKS


<table>
<thead>
<tr>
<th>I Semester</th>
<th>PC Software (Practical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Lab</td>
<td>Core - II</td>
</tr>
<tr>
<td></td>
<td>Credits:3</td>
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</tbody>
</table>

Objective: This course gives an exposure to various software of Office package

**MSWORD**

1. Text Manipulations.
2. Usage of Numbering, Bullets, Footer and Headers.
3. Usage of Spell check, and Find & Replace.
4. Text Formatting.
5. Picture insertion and alignment.
7. Creation templates
8. Mail Merge Concepts

**MS-EXCEL**

9. Cell Editing
10. Usage of Formulae and Built-in Functions
11. File Manipulations
12. Data Sorting (both number and alphabets)
13. Worksheet Preparation
14. Drawing Graphs
15. Usage of Auto Formatting

**POWER POINT**

16. Inserting Clip arts and Pictures
17. Frame movements of the above
18. Insertion of new slides
19. Preparation of Organisation Charts
20. Presentation using Wizards
21. Usage of design templates

<table>
<thead>
<tr>
<th>I Semester</th>
<th>Flash</th>
</tr>
</thead>
<tbody>
<tr>
<td>NME-I</td>
<td>Credits:2</td>
</tr>
<tr>
<td>Common to B.Sc. (CS)</td>
<td></td>
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</tbody>
</table>
I Semester

| Allied Paper - I | Modern English Grammar And Usage | Credits: 5 |

| Common to BA Eng. Lit – Paper VI |

II Semester

| Major Core - III | Desktop Publishing with Adobe InDesign | Credits: 4 |

**Objective:** This course gives an introduction about desktop publishing and Adobe InDesign.

**UNIT – I INTRODUCTION:** DTP - Design Planning - elements of page layout - elements of text - elements of type - graphic Impact - final analysis.

**UNIT – II PAGE PLUS:** Buttons, Bars and off features: A Test choosing a level - the menu bar - the paste board - the tool box - the change bar - starting from scratch: placing a box - placing text - resizing text - editing text - using write plus.


**UNIT – V COLOR:** Color - Printing – Scripting – Interactive documents.

**TEXT BOOKS**

**REFERENCE BOOKS**
### II Semester

<table>
<thead>
<tr>
<th>Major Lab</th>
<th>Adobe InDesign Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core - IV</td>
<td>Credits: 3</td>
</tr>
</tbody>
</table>

**Objective:** This course gives an exposure to Adobe InDesign

1. Create a Bio- Data.
2. Create an Application Form.
3. Create a Letter Pad.
4. Create a Greeting card.
5. Create a Wedding card.
6. Create a Visiting card.
7. Create a Book Wrapper.
8. Create a Brochure.
9. Index Preparation.
10. Working with master Preparation.

### II Semester

<table>
<thead>
<tr>
<th>Allied –Paper – II</th>
<th>Introduction to Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credits: 5</td>
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</tbody>
</table>

**Objective:** This course gives an exposure for communication

**UNIT I COMMUNICATION** - Definitions, scope, forms and purpose; Types of Communication – Interpersonal, Intra personal, Mass, Organizational, Verbal, Non-verbal, Political communication; New Communication technologies and the emerging trend: global and Indian context.

**UNIT II PROCESS OF COMMUNICATION** – Source, Message, Channel, Receiver, Feedback, Encoder, Decoder, Noise in communication – types of noise - Basic Models in Communication- concept of Gate keeping; Gate keepers in mass media.

**UNIT III LANGUAGE AND COMMUNICATION:** Importance and use of language, Psychology of language, Language and Semantics: Denotative, Connotative, Contextual, Structural meanings; semiotics; Language as a barrier in multi-lingual societies and cross cultural communication – translation - problems and solutions.


**UNIT V AUDIO-VISUAL COMMUNICATION**
Audio-visual aids & techniques, use of non-projected and projected aids as black boards, Charts, Graphs, etc. Film appreciation, principles and techniques of various types of Communication research.
**REFERENCE BOOKS**


<table>
<thead>
<tr>
<th>II Semester</th>
<th>Flash Lab (Practical)</th>
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</thead>
<tbody>
<tr>
<td>NME – II</td>
<td>Credits:2</td>
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**Common to B.Sc (CS)**

<table>
<thead>
<tr>
<th>III Semester</th>
<th>Corel Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Core - V</td>
<td>Credits:4</td>
</tr>
</tbody>
</table>

*Objective: This course gives an exposure to CorelDraw*


**UNIT II DRAWING PREDEFINED SHAPES:** Rectangles- 3-Point Rectangles – Ellipses - Using the Modifier Keys- Creating Arcs and Pie Wedges – Polygons - Drawing a Star- Perfect Shapes - Drawing Perfect Shapes-Smart Drawing Tool- Smart Drawing Tool Overview

**Creating & Manipulating Text:** Creating Artistic Text - Paragraph Text- Character Formatting – Font- Paragraph Formatting- Spacing – Indents - Tabs and Indents - Frames and Columns – Bullets- Wrapping Text Around Graphics -Changing Case- Insert Symbol Character

**UNIT III SELECTING & TRANSFORMING OBJECTS** Selecting Objects with the Mouse- Digger Tool - Marquee Selection - Using the Menus - Manipulating Objects - Positioning Objects- Resizing Objects - Rotating and Skewing Objects - Manipulating Objects with Other Tools - Free Transformation Tools - Free Rotation Tool - Free Scale Tool - Free Skew Tool -
The Transform Toolbar - Undoing All Transformations.


TEXT BOOKS
Foster D Coburn III, “CorelDRAW X3 Unleashed”, Unleashed publication, USA

REFERENCE BOOKS

<table>
<thead>
<tr>
<th>III Semester</th>
<th>Multimedia Publishing Software (Practical)</th>
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</thead>
<tbody>
<tr>
<td>Major Lab Core - VI</td>
<td>Credits:3</td>
</tr>
</tbody>
</table>

Objective: This course gives an exposure to various multimedia publishing software

PHOTOSHOP (SELF LEARNING)
1. Drawing Watch using custom shapes
2. Create a poster design
3. Using multichannel mode
4. Using the sponge Tool
5. Create a greeting card
6. Adding an arrowhead.
7. Removing an element from an image
8. Applying Transformations
9. Create a multiple page newsletter

CORELDRAW
1. Create a document using versions shapes.
2. Creating spiral shapes.
3. Create two pictures one another based on mirror function.
4. Fill the color existing image, add some text
5. Create a pie model diagram.
6. Create an envelope.
7. Write a text in different paths.
8. Create an outline on existing image.
9. Create an advertisement.
10. Design a business card for a company embed photo in it.
11. Design a banner for a marriage function

<table>
<thead>
<tr>
<th>III Semester</th>
<th>Design and planning for print production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied Paper - III</td>
<td>Credits:5</td>
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</tbody>
</table>

**Objective:** To impart knowledge on various printing processes, designing, layout and planning for print production. This introductory course will provide an overview to printing.

**UNIT I INTRODUCTION**
Types of process – Letterpress, Offset, Flexography, Screen printing and Nonimpact printing processes; Introduction to image carrier preparation for different types of printing process.

**UNIT II PRINCIPLES OF DESIGN**
Basic concepts of designing, Creativity, steps in creativity; Typography; Visual ingredients of graphic design; Design consideration; Symbols and logos.

**UNIT III DESIGN LAYOUT**
Layout – purpose & advantages; layout styles; layout components; stages in preparing a layout; marking-up; Dummy, Case studies.

**UNIT IV DESIGNING FOR MEDIA**

**UNIT V DESIGN MANAGEMENT & PRODUCTION PLANNING**
Relationship between designer, customer and printer; selection and co-ordination of production process; Limitation of printing process, binding, finishing and ancillary processes on design; selection and specification of ink, paper and other materials; production strategy.

**TEXT BOOKS**

**REFERENCE BOOKS**


<table>
<thead>
<tr>
<th>IV Semester</th>
<th>Content design using Latex</th>
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<tbody>
<tr>
<td>Major Core – VII</td>
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**Objective:** To impart knowledge the Latex tool and design documents.

**UNIT I INTRODUCTION**

**UNIT II MATHEMATICAL FORMULAS**

**UNIT III GRAPHICS**

**UNIT IV CONTENT DESIGN**

**UNIT V FINAL VERSION OF A BOOK**
Table of contents – cross reference – bibliography and citation – compiling entries – Producing index.

**TEXT BOOK**

**REFERENCE BOOK**
## IV Semester

<table>
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<tr>
<th>Major Lab</th>
<th>Core - VIII</th>
<th>Credits:3</th>
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</thead>
<tbody>
<tr>
<td>Latex Lab</td>
<td></td>
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</table>

1. Demonstration of Bullets and numbering
2. List of items with different options
3. Demonstration of mathematical symbols and equations
4. Generate a train time table
5. Inserting picture in a document with alignments
6. Demonstration of various page styles
7. Draft a letter
8. New theorem/ Environment
9. Power point preparation: Five slides about your college
10. Bibliography database entry and citation generation

## IV Semester

<table>
<thead>
<tr>
<th>Allied Paper – IV</th>
<th>E-Publishing concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credits:5</td>
</tr>
</tbody>
</table>

**Objective:** To impart knowledge on application of electronic publishing in various areas, basic workflow followed in electronic publishing, software & tools needed and the emerging trends.

### UNIT I INTRODUCTION


### UNIT II PUBLISHING


Reference database – PUBMED etc. Index – author, volume, keyword.

### UNIT III WORKFLOW


### UNIT IV SOFTWARES & TOOLS

Conventional workflow, XML workflow, STM Typesetting software, Pagination software’s, Image manipulation software’s, Markup languages – fundamentals, Presentation technologies - (HTML, CSS, WML, XSL/XSL-FO), Representation technologies (XML, DTD, W3C XML Schema, DSDL), Transformation technologies (SAX, DOM, XSLT), Scripting languages (ASP, Perl), Unicodes for non-English characters.

### UNIT V EMERGING TRENDS

Future publishing Models, Digital Rights Management, Business models in Internet, Marketing, Recent trends
TEXT BOOKS

REFERENCE BOOKS

IV Semester | Software Documentation and Presentation
---|---
SBE IV | Credits:3

Objective: To study the method of documenting a project and the presentation.

UNIT I - INTRODUCTION
Need for software documentation - Understanding task orientation - Analyzing users - Writing scenarios - User informational needs - Document goals - User work motivations – Task analysis.

UNIT II - DOCUMENTATION GUIDELINES
Writing guide – Procedures – Guidelines – Writing to support – Writing steps as actions – Categorization.

UNIT III - DOCUMENTATION PLANNING
Planning and writing documents - Task list and schedule – Guidelines - Documentation procedure - Documentation plan - Review plan – Review schedule

UNIT IV - DOCUMENTATION TESTING
Usability tests – Advantages of field testing – Editing and Fine tuning – Designing orientation

UNIT V - DOCUMENTATION LAYOUTS
Laying out pages – Laying out screens - Page showing elements of document design – Screen showing elements for online design
(Students should prepare document for a project and present using power point presentation)

TEXT BOOK
1. THOMAS.T.BARKER. “Writing software documentation: a task oriented approach” Allyn &
**V Semester** | **News paper and periodical publishing**
---|---
**Major** | **Core - IX**
**Credits:** | 4

**Objective:** This course provides a detailed knowledge on the operations of newspaper and magazine companies, including their organizational structure, management functions, editorial process, production workflows and the legal issues.

### UNIT I NEWSPAPER ORGANISATION & MANAGEMENT
Organizational structure & functions - Owner, editorial organization, management, Incoming materials, financial aspects, Production, advertising, distribution and promotion. The role of copy editors, news editors, editorial cartoonist, artists, Sunday editor, sports editor, business editor, journalist & reports; editorial responsibilities.

### UNIT II NEWS AND EDITING
Basic determinants of News; Impact, unusual and prominent; Additional determinants of news; Conflict, proximity, timeliness, currency, gathering the news, sources of news; Beat system, interviewing, wire services, syndicate, news writing, copy preparation, features & reviews, editorial and opinion column, sports, photo production; Editing - manuscript editing, creative and substantive editing, technical editing.

### UNIT III PERIODICAL PUBLISHING
Types of magazines, Difference between writing for a magazine & newspaper, structure of a magazine's editorial department & roles, Designing a layout for magazine, story design, page design, web design; Redesigning.

### UNIT IV PRODUCTION & WORKFLOW
Manuscript from editorial organization: Layout & design, composition; Advertisements, Digital Newsroom, Archival of news; Press & web publishing workflows, RSS, Distributed production workflow; Press, Paper, Finishing; Off-prints and re-prints; Semi-commercial printing.

### UNIT V LEGAL ASPECTS
The press and the law libel, defense against libel, mitigation & damages, Digital Rights Management, Watermarking, Readership strategies & trends, Distribution model for newspapers & magazines, Future developments

### TEXT BOOKS

### REFERENCE BOOKS
1. Melvin Mencher, "Basic News Writing", Wm.C.Brown Company Publishers, Dubuque,
Iowa, 1983.

<table>
<thead>
<tr>
<th>V Semester</th>
<th>Web Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Core - X</td>
<td>Credits:4</td>
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</tbody>
</table>

**Common to B.Sc (Comp.Sci)/ BCA – VI semester**

<table>
<thead>
<tr>
<th>V Semester</th>
<th>Data conversion and XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Core - XI</td>
<td>Credits:4</td>
</tr>
<tr>
<td><strong>Objective:</strong> Introducing XML, exploring the concepts behind XML, creating an XML document, working with XML applications</td>
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</tbody>
</table>

**UNIT I: DATA CONVERSION**
Conversion of Text to PDF and Conversion of PDF to Word, Data Conversion from Word to HTML format, Data Conversion from Text to HTML, math keying, pre-editing workflow

**UNIT II: XML** Introduction to XML - Origins and description of the XML, Differences between XML and HTML, Differences between XML and SGML, Uses of XML, XML Document structure, DTDs, Schemas, validation, character sets and encoding, Namespaces, comments, Processing instruction, CDTA sections, XML Tools

**UNIT III: DOCUMENT** Document Type Definitions- Document type declaration, Notations, Entities, XML content models, Element structure, attribute structure, Building document structure.

**UNIT IV: CSS** Cascading Style Sheets in browsers and components, The display: block property Fonts, Text Alignment, Borders, Backgrounds, XSL Transformation, Xpath- nodes, syntax, axes and operators

**UNIT V: SCHEMA** Basic schema concepts, advanced schema concepts, schema for structures, schema for Data types. DOM-Levels of DOM, XML Tree structure, DOM core, Using DOM interfaces, DOM views, DOM style interfaces, DOM traversal and ranges

**REFERENCE BOOKS**

**Website, E-learning resources**

i) http://www.w3school/xml
ii) http://www.doc2pdf.net/
iii) http://word2cleanhtml.com

<table>
<thead>
<tr>
<th>V Semester</th>
<th>XML Lab</th>
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</thead>
<tbody>
<tr>
<td>Major Core - XII</td>
<td>Credits:3</td>
</tr>
<tr>
<td><strong>Objective: The objective of the course is working with XML applications</strong></td>
<td></td>
</tr>
<tr>
<td>1. Create an XML document to store an address book.</td>
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<tr>
<td>2. Create an XML document to store information about books and create the DTD files.</td>
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</tr>
<tr>
<td>4. Create an XML document to store resumes for a job web site and create the DTD file</td>
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<tr>
<td>7. Use Microsoft DOM to navigate and extract information from the book’s XML document.</td>
<td></td>
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<tr>
<td>8. Use Microsoft DSO to connect HTML form or VB form to the book’s XML document and display the information.</td>
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<table>
<thead>
<tr>
<th>V Semester</th>
<th>Web Applications Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Core - XII</td>
<td>Credits:3</td>
</tr>
<tr>
<td><strong>Objective: This course gives training in web design and applications.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>VB SCRIPT / JAVASCRIPT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Write a program find the square and cubes of integers between 1 and 100.</td>
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</tr>
<tr>
<td>2. Create a calculator.</td>
<td></td>
</tr>
<tr>
<td>3. Write a script to Sort numbers and strings</td>
<td></td>
</tr>
<tr>
<td>4. The form consists of two multiple choice list and one single choice list</td>
<td></td>
</tr>
<tr>
<td>a. the first multiple choice list display the major dishes available.</td>
<td></td>
</tr>
<tr>
<td>b. the second Multiple choice list display the stocks available.</td>
<td></td>
</tr>
<tr>
<td>c. The single choice list display the miscellaneous (Milkshakes, soft drinks, softy available etc.)</td>
<td></td>
</tr>
<tr>
<td>5. Write a script to create a digital clock.</td>
<td></td>
</tr>
<tr>
<td>6. Create a web page using two image file which switch black and white one another as the mouse pointer moves over the image. Use the On Mouse over and On Mouse event, onDblclick handler.</td>
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<tr>
<td>7. Build a WWW page with an image and 3 buttons., Pick three favorite graphics, Label the buttons and make each one swap in the graphic you have chosen.</td>
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</tr>
</tbody>
</table>
**ASP / ASP.NET**

1. Create an application form to apply for a new course in a college, fill the information and submit it.

2. Design Sign Up form and validate User Name (Minimum 8 character Maximum 15 and only characters and under score), Password (Minimum 8 Characters) and Retype Password (Both should be same), Phone No (Only digits), Email-id etc.

3. Create a login form, to expire, if the user does not type the password within 100 seconds

4. Demonstration of Basic Web Server Controls

5. Demonstration of DataList Web Server Controls

6. Develop an application to illustrate the usage of Request and Response Objects in ASP

7. Design a web page to display, add, delete and edit information from database.

8. Create an employee database and manipulate the records.

**V Semester**

<table>
<thead>
<tr>
<th>Elective I</th>
<th>(a) E-Governance</th>
</tr>
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<tbody>
<tr>
<td><strong>Objective:</strong> To provide exposure to the basic components E-Governance and its architecture</td>
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</table>

**UNIT – I INTRODUCTION**

**UNIT –II MODELS OF E-GOVERNANCE**

**UNIT - III E-GOVERNANCE INFRASTRUCTURE AND STRATEGIES**

**UNIT - IV DATA WAREHOUSING AND DATA MINING IN GOVERNMENT**
Introduction; National Data Warehouses: Census Data, Prices of Essential Commodities, Other areas for Data Warehousing and Data Mining: Agriculture, Rural Development, Health, Planning, Education, Commerce and Trade, Other Sectors.

**UNIT - V : CASE STUDIES**
Nepalese Context: Cyber Laws, Implementation in the Land Reform, Human Resource Management Software - India: NICNET, Collectorate, Computer-aided Administration of Registration Department (CARD), Computerization in Bhoomi, IT in Judiciary, E-Seva, E-panchayat, General Information Services of National Informatics Centre; E-Governance initiative in USA; E-Governance in China; E-Governance in Brazil and Sri Lanka.
V Semester

<table>
<thead>
<tr>
<th>Elective 1</th>
<th>(b) Business Process Outsourcing and KPO</th>
</tr>
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<tbody>
<tr>
<td>Credits:4</td>
<td></td>
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</tbody>
</table>

**Objective:** To introduce the basic concepts of outsourcing and scenario of outsourcing in India.

**UNIT I**

**UNIT II**

**UNIT III**

**UNIT IV**

**UNIT V**
KPO – Types of KPO - Career opportunities in KPO - KPO in India – Historical overview and Current trends - Future of KPO

**TEXT BOOK**

**REFERENCE BOOKS**
### Elective I

**Digital data handling**

**Objective:** To provide exposure to the basic components of digital print production workflow like networking, file formats, Database management & security issues.

#### UNIT I WORKFLOW
Workflow - types, Automated workflow - components, File Preparation, Preflighting, Digital Imposition – preRIP, postRIP, OPI, Trapping, Postscript, PDF, Metadata – JDF, XML.

#### UNIT II NETWORKING
Data transmission fundamentals, Communication media, Data interfaces, Concepts and principles of computer networks, PAN, LAN, WAN, MAN, Network Topologies, Network protocols – FTP, TCP/IP, Network Node components – Hubs, Bridges, Routers, Gateways, Switches, Internet – principles, Client/Server model

#### UNIT III FILE FORMATS & COMPRESSION TECHNIQUES

#### UNIT IV DATABASE MANAGEMENT
Database, Types, Database Management, Database Languages, Query processing, Data storage, Backup & recovery, Distributed databases, Data Warehousing, Data Mining.

#### UNIT V SECURITY

#### TEXT BOOKS

#### REFERENCE BOOKS
Objective of the course: This course introduces the fundamental concepts of Graphics and Multimedia


TEXT BOOKS

REFERENCE BOOKS

<table>
<thead>
<tr>
<th>VI Semester</th>
<th>Editing concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Core - XIV</td>
<td>Credits: 4</td>
</tr>
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</table>

Objective: The objective of this course is to give the introduction about editing concepts.

UNIT I Organization of editorial department in a newspaper - functions of editorial department; duties, responsibilities and qualifications of editorial staff: Chief editor, News editor, Sub Editors. News selection process: criteria – influencing factors; Copy desk functions, path of a copy, morgue.

UNIT II Fundamentals of reporting, news gathering, evaluation, news writing & news room procedures, Depth reporting, Trend reporting, Investigative reporting, Economic & science reporting, Preparation of news-copy for publication, Copy reading, Rewriting, Proof reading, Page making, Typography, Picture editing

UNIT III Principles of editing – editorial space – news value - copy fitting, checking facts, continuity; paragraphing, grammar, punctuation, taste, style, spelling etc; Rewriting. Headlines: Importance, functions of headlines, typography and style, language, types of headlines; readability and legibility. Picture editing: Importance of pictures, selection of news pictures, cut lines, cropping methods. Style sheet / manual.


REFERENCE BOOKS
VI Semester | Template development using QuarkXpress
---|---
Major | Core - XV | Credits:4

**Objective:** The objective of this course is to explore the QuarkXpress concepts and its usage.

**UNIT I INTRODUCTION**
Create – Save a document – Page layout – setting up pages – Controlling pages with page menu – spacing – alignment

**UNIT II TYPOGRAPHY**

**UNIT III GRAPHICS**
Creating picture boxes – importing graphics – manipulating graphics – Adding lines – Transferring graphics files – Combining text and graphics

**UNIT IV ADVANCED TOPICS**

**UNIT V BOOKS**

**TEXT BOOKS**
1. David Brown, “Power of QuarkXpress for windows”, MIS Press, 1992, USA (For chapters 1, 2 & 3).

**REFERENCE BOOKS**
VI Semester  |  Security Printing
Major Core - XVI  |  Credits:4

Objective: To understand the different technologies involved in security printing

UNIT I CURRENCY PRINTING

UNIT II CHEQUE PRINTING, NUMBERING AND BAR CODING

UNIT III COMPUTER FORMS
Paper Characteristics, Form Construction & Specification, Form Label Combination Intelligent Electronic Forms, Form Automation, Form Manufacturing & Printing.

UNIT IV HOLOGRAMS, CREDIT CARDS & PASSPORTS

UNIT V SECURITY INKS & COATING
Introduction, UV Curing, Light tell Photo chromic inks, Monochromic Inks, Invisible Phosphorescent inks, Water Resistant Inks.

TEXT BOOK

REFERENCE BOOKS
<table>
<thead>
<tr>
<th>VI Semester</th>
<th>QuarkXpress Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Lab</td>
<td>Credits:3</td>
</tr>
<tr>
<td>Core - XVII</td>
<td></td>
</tr>
</tbody>
</table>

1. Demonstration of Bullets and numbering
2. Demonstration of spell check & Find and replace
3. Prepare a student mark sheet
4. Prepare a bio data
5. Inserting picture in a document with alignments
6. Draft a letter
7. Newspaper preparation
8. Create a simple brochure
9. Demonstration of master page
10. Demonstration of style sheets
11. Building a catalog
12. Select a magazine you are interested in (or create and brand your own magazine if your feeling adventurous). Find a cover story and redesign it using images and text.

<table>
<thead>
<tr>
<th>VI Semester</th>
<th>Mini Project</th>
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<tbody>
<tr>
<td>Major</td>
<td>Credits:5</td>
</tr>
<tr>
<td>Project</td>
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</table>

*Objective: The aim of the mini project is that the student has to understand the real time E-Book development environment. The student should gain a thorough knowledge in the problem, he/she has selected and the language / software, he/she is using.*

**Project planning:**
The B.Sc (Digital Publishing) Mini Project is an involved exercise, which has to be planned well in advance. The topic should be chosen in the beginning of final year itself. Related reading training and discussions of first internal project viva voce should be completed in the first term of final year.

**Number of members:** Two or three students can form a team.

**Selection of the project work**
Project work could be of designing web pages, developing multimedia software, designing books using software studied.

**Selection of Tools**
No restrictions shall be placed on the students in the choice of platform/tools/languages to be utilized for their project work, though open source is strongly recommended, wherever possible. No value shall be placed on the use of tools in the evaluation of the project.

**Documentation**
Three copies of the project report must be submitted by each student (one for department library, one for the organization where the project is done and one for the student himself/herself). The final outer dimensions of the project report shall be 21cm X 30 cm. The color of the flap cover shall be light blue. Only hard binding should be done. The text of the report should be set in 12 pt, Times New Roman, 1.5 spaced.

Headings should be set as follows: CHAPTER HEADINGS 16 pt,
Content of the Project should be relevant and specify particularly with reference to the work. The report should contain the requirement specification of the work, Analysis, Design, Coding, testing and Implementation strategies done.

• Organizational overview (of the client organization, where applicable)
• Description of the present system
• Limitations of the present system
• The Proposed system- Its advantages and features
• Context diagram of the proposed system
• Program List (Sample code of major functions used)
• Screen layouts for each data entry screen.
• Report formats for each report.

**Project Evaluation:**

**Internal Assessment**

There shall be six components that will be considered in assessing a project work with weightage as indicated.

1. Timely completion of assigned tasks as evidenced by team meeting minutes 20%
2. Individual involvement, team work and adoption of industry work culture 10%
3. Quality of project documentation (Precision, stylistics etc) 10%
4. Achievement of project deliverables 20%
5. Effective technical presentation of project work 10%
6. Viva 30%

Based on the above 6 components internal mark (40) can be awarded.

**External Assessment**

Dissertation/Project submitted at the end of third year shall be valued by two examiners appointed by the Controller of examination for the conduct of practical exam. The board of examiners shall award 60 marks based on the following components.

1. Achievement of project deliverables - 25 Marks
2. Effective technical presentation of project work - 15 marks
3. Project Viva - 20 marks

There shall be a common written examination conducted for all the candidates in each group together for a minimum of 10 minutes consists of:

(i) Requirement Specification of Project
(ii) Design of Project
(iii) Testing and Implementation of Project
<table>
<thead>
<tr>
<th>VI Semester</th>
<th>(a) E-Book publishing</th>
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<tbody>
<tr>
<td>Elective II</td>
<td>Credits: 4</td>
</tr>
</tbody>
</table>

**Objective:** To impart knowledge on areas of publishing, editorial process, production management, distribution methods and legal aspects involved in book publishing.

**UNIT I PUBLISHING ORGANISATION**
Areas of publishing – general publishing, educational publishing, professional publishing and reference publishing; Publishing house – the role of commissioning editor, the desk editor, the designer, the production manager, the sales/marketing manager, the publishing manager.

**UNIT II EDITORIAL PROCESS AND DEVELOPMENT**
Copy editing, Page makeup, Proofs; the book editor – multipurpose functions; Discussion with author, editing educational material, decision making role; editorial technique – style sheet, reference aids; the author and his manuscript – unsolicited manuscripts, author – publisher, professional guides and societies, the literary agency, author publisher relationship, writing textbooks for children.

**UNIT III PRODUCTION & ESTIMATING IN BOOK PUBLISHING**
Pre-production planning, manuscript, layout & design, imposition, composition, anatomy of books; printing techniques; production process; technical aspects of production; Quality control – proofing stage; financial aspects; first copy cost, manufacturing cost, overheads; economics of publishing – net book, non-net book, variation in price, published price of the book.

**UNIT IV PROMOTION CHANNELS, DISTRIBUTION OUTLETS AND SALES TECHNIQUES**
Direct promotion techniques, mail order advertising, subscription books, direct mail promotion, library purchases, export and import of books, publishers and booksellers catalogues, publicity campaign, paperback distribution, the central book clearing house, economics of distribution, the role of booksellers, book marketing council, book development council.

**UNIT V DIGITAL PUBLISHING AND LEGAL ASPECTS OF BOOK PUBLISHING**
Software needs, manuscript formats and file management, editing tools, web design and publishing; copy right, types of agreement between author and publishers, agreement of sale of translation rights, illustration and artwork agreement, the outright sale of the copyright, profit sharing agreement, the royalty system, commission agreement.

**TEXT BOOKS**

**REFERENCE BOOKS**

<table>
<thead>
<tr>
<th>VI Semester</th>
<th>(b) Mass Communication</th>
</tr>
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<tbody>
<tr>
<td>Elective II</td>
<td>Credits: 4</td>
</tr>
</tbody>
</table>

**Objective:** To enable the student to understand the concepts of verbal and non-verbal communication and the concepts of journalism.

**UNIT I INTRODUCTION**
Verbal and non-verbal communication, personal communication and mass communication, theories, principles and techniques of communication, history and role of mass media in society.

**UNIT II MASS COMMUNICATION**
Characteristics; Mass media – Growth, New media context, access, control and use. Functions of Mass communication – information, education and entertainment, Social Norm, Status conferral, Privatization, Monopolization, Canalization, Inoculation, Mass society and Mass culture.

**UNIT III DYSFUNCTIONS**
Stereotyping, cultural alienation, impact on children; Regulatory mechanism: government, professional bodies and citizen groups.

**UNIT IV WRITING**
Newspaper feature & magazine, non-fiction writing, writing editorials, analytical articles, reviews, columns, commentaries & analysis.

**UNIT V BROADCAST JOURNALISM**
Gathering & reporting news for radio & television, The structure, functions and administration of a news and public affairs department in a broadcast station. Radio/TV station management.

**TEXT BOOKS**

**REFERENCE BOOKS**
Objective: To enable the student to understand the concepts of E-Learning and its impact.

UNIT - I INTRODUCTION

UNIT - II ONLINE LEARNING MANAGEMENT SYSTEMS

UNIT- III IMPLEMENTATION

UNIT –IV E-LEARNING IMPACT

UNIT – V BENEFITES

TEXT BOOKS

REFERENCE BOOK