5 Years Integrated M.C.A.

DSE8 Introduction to Search Engine Optimization
(060060607)

6th Semester

EFFECTIVE FROM JANUARY 2017
Course Code: 060060607
Course Title: DSE8 Introduction to Search Engine Optimization
Course Credits: 02
[ Lectures: 02, Tutorial: 00, Practical: 00 ]

Prerequisites By Topics: Knowledge of Web Application Development

Objectives: To imbibe the concepts of SEO in context of website development, and apply its techniques to improve search visibility.

1 Search Engine Optimization Basics
   1.1. Search Engine Optimization: Introduction and Importance
   1.2. SEO and Site architecture
   1.3. On-page and Off-page Optimization
   1.4. Search Query and its types
   1.5. Search Types: Narrow, Broad, Local, Global
   1.6. Layout of Search Engine Result Page

2 Web Search Process
   2.1. Evaluating content on a web page
   2.2. Working mechanism of Search Engine: Crawling, Indexing, Retrieving and Ranking
   2.4. Link Equity, Google PageRank
   2.5. Potential Search Engine Penalties

3 URL Rewriting
   3.1. Types of URL: Dynamic, Static, Numeric Rewritten and Keyword-Rich
   3.2. URL Rewriting: Introduction, importance and Implementation
   3.3. Redirection using 301 and 302
   3.4. Keyword Research: Introduction and Importance

4 Search Engine-Friendly Content Management
   4.1. Causes and Effect of Duplicate Content
   4.2. Methods to exclude Duplicate Content: Robot meta tag and robot.txt
   4.3. Search Engine Friendly JavaScript
   4.4. Search Engine Friendly HTML

5 SEO Techniques
   5.1. White Hat SEO and Black Hat SEO: Introduction and Importance
   5.2. Black Hat SEO Technique: Keyword Stuffing, Doorway Pages, Hidden Text or Links, Link Farms, Cloaking
   5.3. White Hat SEO Technique: Web Feed, Social Bookmarking, Traditional and Search Engine Sitemaps, Link Bait

6 Foreign Language SEO
   6.1. About Geo-Targeting and Foreign Language SEO
   6.2. Foreign Language Optimization Tips
   6.3. Foreign Language Spamming
The tool/platform/technology as an exposure to the concepts’ implementation/demonstration, shall be determined by the Course Teacher(s) with due approval of Director and/or IQAC.

Course Outcomes: Upon completion of the course, students shall be able to

CO1: Describe about search engine and ranking factors of website.

CO2: Apply URL rewriting and outline the importance of keyword research.

CO3: Demonstrate search engine optimization techniques to identify duplicate content over web pages.

CO4: Develop SEO friendly website which containing HTML or JavaScript.

CO5: Illustrate benefits of White Hat SEO techniques namely web feeds, social bookmarking, sitemap and link baits.

CO6: Analyze and evaluate the concept of Black Hat SEO techniques namely keyword stuffing, doorway pages, link farm, hidden text and cloaking.

CO7: Comprehend foreign language optimization tips and measures for spamming

Course Objectives and Course Outcomes Mapping:

To imbibe the concepts of SEO in context of website development – CO1, CO4
Apply SEO techniques to improve search visibility – CO2, CO3, CO5, CO6, CO7

Course Units and Course Outcomes Mapping:

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>Unit</th>
<th>Course Outcome</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>CO1</td>
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<tr>
<td>1</td>
<td>Search Engine Optimization Basics</td>
<td>✓</td>
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<tr>
<td>2</td>
<td>Web Search Process</td>
<td>✓</td>
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<tr>
<td>3</td>
<td>URL Rewriting</td>
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<td>4</td>
<td>Search Engine-Friendly Content Management</td>
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<tr>
<td>5</td>
<td>SEO Techniques</td>
<td>✓</td>
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<tr>
<td>6</td>
<td>Foreign Language SEO</td>
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Activities/Practicum:

The following activities shall be carried out by the students.

- How to become SEO Practitioner?
- Analyze website and prepare documentation suggesting SEO improvements

The following activities shall be carried out by the teacher.

- Demonstration of SEO Tools namely Keyword Discovery tool and Adwords tool.

Text Books:

Reference Books:

Concept Map:
It is a hierarchical / tree based representation of all topics covered under the course. This gives direct / indirect relationship / association among topics as well as subtopics.
Unit-1: Search Engine Optimization Basics

Unit-2: Web Search Process
Unit-3: URL Rewriting

Unit-4: Search Engine-Friendly Content Management
Unit-5: SEO Techniques

White Hat SEO and Black Hat SEO: Introduction and Importance

Black Hat SEO Techniques

includes
Keyword Stuffing
Doorway Pages
Hidden Text or Links

White Hat SEO Techniques

includes
Cloaking
Link Farms
Web Feed
Social Bookmarking

Traditional and Search Engine Sitemaps

Link Bait

Assessment:

- The weightage of Continuous Internal Evaluation (CIE) and University examination shall be as per the University regulations.
- At the institute level the structure of CIE for a course shall comprise of assessment parameters like Quizzes, Unit Tests, Assignments, Mini Project, and Self-Creation Parameter applicable to both theory and practical courses.
The frequency and weightage of each of above assessment parameter may vary from time to time to satisfy courses objectives and outcomes so as to achieve programme educational objectives and its outcomes.

The courses teacher is free to decide the number of assessment parameters and their frequency for a course subject to prior approval of the programme co-ordinator/Director.

The assessment policy document should be uploaded on the web before the commencement of the semester.

Syllabus for each CIE parameter shall be covered by the date of the corresponding test.

**Question Bank:**

Question Bank must be prepared which consists of several types of questions namely Matching type questions, Rearrangement of source code, missing code, Multiple Choice Questions, Fill in the blanks, Short type questions, long type questions etc. Question bank must not be exactly same as of previous years.

**Academic Honesty:**

Coursework is assumed to be accomplished individually (otherwise stated). Any portion of submission taken directly from anywhere (like statements in assignment/report etc.) without modification must be accompanied with the properly formatted reference giving credit to the author and to the source.

**UFM:**

Any ascertained fact of breaking institute policy shall be associated with one or all of the following: (i) zero marks for the work; (ii) report to the Program coordinator; (iii) report to the Director.

**Attendance:**

Attendance means being present for the entire class session. Those arriving significant late or leaving significantly early without prior permission shall be counted as ABSENT for the entire class session.

Concern teacher must clearly state his/her attendance policies at the first class meeting.