| **B.Sc.(Information Technology)** | | **Semester–V** | |
| --- | --- | --- | --- |
| **Course Name: Search Engine Optimization and Web Analytics** | | **Course Code: RJSUIT506** | |
| **Periods per week (1 Period is 50 minutes)** | | **5** | |
| **Credits** | | **3** | |
|  | | **Hours** | **Marks** |
| **Evaluation System** | **Theory Examination** | **2** | **60** |
|  | **Internal** | **--** | **40** |
|  | **Practical/Case Study** | **1** | **25** |

**Course Objective:**

* To gain indepth understanding of search engine basics, search engine optimization, key concepts and terminologies of web analytics, working of web analytics and their impact.
* To understand the principles, tools and methods of web analytics,
* To learn to apply analytics for business situations and measuring success by actionable KPI’s using quantitative and qualitative methods for web analytics

**Course Outcomes:**

**Upon completion of the course students will be able to:**

* Determine SEO Objectives and Develop SEO plan prior to Site Development.
* Explain Search Engine Optimization Techniques and Develop Keyword Generation.
* Know the concepts and terminologies related to web analytics.
* Explore various parameters used for web analytics and their impact
* Get experience on websites, web data insights and conversions using Clickstream and Qualitative Analysis.
* Explore Measuring Success by actionable KP’Is.

| **UNIT** | **Topics** | **Hours** |
| --- | --- | --- |
| I | **Basics of Search Engine**  Search Engine Basics, Algorithm based Ranking Systems: Determining Searcher Intent and Delivering Relevant, Fresh Content, Analyzing Ranking Factors, Using Advanced Search Techniques, Vertical Search Techniques, Country Specific search engines. **Determining SEO Objective and Finding Your Site’s Audience:** Setting SEO Goals and Objective Developing SEO plans Prior to Site Development, SEO for Raw traffic, Ecommerce Sales, Mindshare/Branding, Direct Marketing, Reputation Management, Ideological Influence. |  |
| II | **Search Engine Optimization**  **Getting started SEO**: Defining Your Site’s Information Architecture, Auditing an Existing Site to identify SEO Problems, Identifying Current Server Statistic Software and Gaining Access, Determining Top competitors, Benchmarking Current Indexing Status, Current Rankings, Benchmarking Current Traffic Source and Volumes, Conduct SEO/Website SWOT analysis. Keyword Generation, Creating Pages, Website Structure, Creating Content, Creating Communities, building Links Using Google Analytics, Social Media Optimization, Creating Pay-per-click Campaigns, Optimizing PPC Campaigns through Quality Score optimization, Tracking Results and Measuring Success |  |
| III | **Introduction to Web Analytics**  What is Web Analytics, Web Analytics Importance, Process of Web Analytics, Key Metrics Web Analytics and User Experience, Get to Know Your Website, A Model of Analysis, Showing Your Work, Context Matters, Data Collection, Clickstream Data, Weblogs, Beacons, JavaScript Tags, Packet Sniffing, Outcomes data, Competitive data, Search Engine Data. |  |
| IV | **Web Analytics Working & Google Analytics**  **Web Analytics Working**: Log File Analysis, Page Tagging (Cookies, Accuracy, Accounts and Profiles, Click Analytics). Metrics and Dimensions: Visits, Unique Visitors, Pageviews, Pages/Visit, Average Visit Duration, Bounce Rate, % New Visits. **Interacting with Data in Google Analytics**: Plot Rows, Secondary Dimension, Sort Type, Search, Beyond Tables, Analytics, Cookies, Accounts vs Property, Tracking Code, Tracking Unique Visitors, Demographics, Page Views & Bounce Rate Acquisitions, Custom Reporting. |  |
| V | **Clickstream and Qualitative Analysis**  Understanding Visitor Acquisition Strengths, Click Density Analysis, Measuring Visits to Purchase, Sources of Traffic, Visitor Analysis, Traffic Analysis, Internal Site Search Analysis, Search Engine Optimization (SEO) Analysis, Pay Per Click/Paid Search Analysis, Direct Traffic Analysis, Email Campaign Analysis, Rich Experience Analysis(Flash, Video, and Widgets), Customer Centricity, Site Visits, Surveys, Questionnaires, Website Surveys, Post visits, Creating and Running, Benefits of surveys, Critical components of successful strategy.  **Measuring Success,Actionable Outcome KPIs:Moving Beyond Conversion Rates ,Measuring Success for a Non-ecommerce Website** |  |

**Books and References:**

| **Sr. No** | **Title** | **Authors** | **Publisher** | **Edition** | **Year** |
| --- | --- | --- | --- | --- | --- |
| 1 | The Art of an SEO | Eric Enge, Stephan Spencer, Jessie Stricchiola | O’Reilly Publication | 3 rd Edition | 2015 |
| 2 | Advance Internet Technology | Dr. Deven Shah | Dreamtech Publication | 1st Edition | 2014 |
| 3 | Web Analytics 2.0: The Art of Online Accountability and Science Of Customer Centricity | Avinash Kaushik | Sybex | 1st Edition | 2009 |
| 4 | Practical Web Analytics for User Experience: How Analytics can help you Understand your Users | Michael Beasley | Morgan Kaufmann | 1st Edition | 2013 |
| 5 | Successful Analytics: Gain Business Insights by Managing Google Analytics | Brian Clifton | Advanced Web Metrics Ltd | 1st Edition | 2013 |
| 6 | Google Analytics | Justin Cutroni | O’Reilly |  | 2010 |
| 7 | Google Analytics Breakthrough | Eric Fettman, Shiraz Asif, Feras Alhlou | Wiley |  | 2016 |

| T.Y.B.Sc.I.T. | Semester V Theory |
| --- | --- |
| RJSUIT506  **Search Engine Optimization and Web Page Analytics** | **Course Outcomes:**   * The course will enable the student , * To gain an in-depth understanding of search engine basics, search engine optimization, key concepts and terminologies of web analytics, working of web analytics and their impact. * To understand the principles, tools and methods of web analytics, * To learn to apply analytics for business situations and measuring success by actionable KPI’s using quantitative and qualitative methods for web analytics   **Learning outcomes**:   * Determine SEO Objectives and Develop SEO plan prior to Site Development. * Explain Search Engine Optimization Techniques and Develop Keyword Generation. * Know the concepts and terminologies related to web analytics. * Explore various parameters used for web analytics and their impact * Get experience on websites, web data insights and conversions using Clickstream and Qualitative Analysis. * Explore Measuring Success by actionable KP’Is. |

Case Study/Practicals

* Develop website and setup Google Analytics account for the same and implement tracking in website.
* Create and analyze SEO Audit report for a given specific website.
* Conduct SEO/Website SWOT analysis for a given specific website.
* Study the keyword generation and Keyword Research Tools. (For E.g. Google AdWords, Word Tracker, Bing Ads Intelligence)
* Develop SEO optimized website.
* Study web analytics tools for Stat tracker and Visitor Behavior
* Study web analytics tools for conversion and blog Tools.
* Tracking and measuring success of website.
* Web Analytics Case study

Web Reference:

https://backlinko.com/mobile-seo-guide