

CIT 425: Software Development and Operations (DevOps)

Gandaki University

IV Year, I Sem

Program: Bachelor of Information Technology

Subject: Software Development and Operations (DevOps)

Course Code: CIT 425

Credit Hour: 2+1=3

Contact Hours: 45

Year: IV

Semester: I

Lab Type: Computer Lab

Lab Hours: 10

1 Course Objectives

Some of the key objectives of learning SEO and digital marketing skills are:

1. Improve website optimization strategy, conduct competitor keyword analysis, and improve landing page optimization.
2. Enhance SEO keyword research, build a SEO measurement framework and develop off page SEO tactics.
3. Create content for online consumption and mastering digital mediums for publishing engaging content.

Course Description

This course will prepare students for a successful career with a comprehensive take on digital marketing and a strong emphasis on the application of theory to practice, in subject areas such as online advertising, social media, content marketing, analytics, consumer psychology and digital advertising. It has been designed for students who are interested in fields such as marketing, media, management and social sciences.

This course will also help you to gain knowledge on how to complete a competitive analysis on a webpage, develop a solid approach for achieving a productive and successful relationship with your client, create influencer relationships and collaborations and analyze data to see which content gets the most shares, create a final report of your findings and recommendations for SEO

and present your recommendations to your client. The practical SEO training part of the course shows you how to increase traffic to your website and improve your conversion rate.

Digital Marketing is the advertising, networking or positioning of a brand, marketing of products and services online through technology. In essence, digital marketing refers to all online activities such as websites, social media and search engine optimization.

2 Course Outcomes

- This course will enable the students to get a better understanding of various foundations of the digital marketing landscape and will be able to create stories, concepts, tools, etc. and use SEO to create, promote and distribute the services and products.
- This course will enable students to understand the foundations of doing business digitally and to use online media for promoting different services and products.

3 Course Content

3.1 Introduction (3 Hrs)

1. Introduction to Digital Marketing, Digital Marketing Scope, Digital Marketing Terminologies, Introduction to Social Media Marketing.
2. Introduction to SEO (Search Engine Optimization), Business need to SEO.
3. Evolution of SEO, Popularity of SEO, Recent trends in SEO.

3.2 Search Engine Basics (5 Hrs)

1. Search Index, Search Algorithm(s), Aim of Search Engines, Organic and Paid results
2. Indexing of websites. URLs - Backlinks, Sitemaps and URL Submissions. Crawler - Bot.
3. Ranking of websites. Key Ranking Factors of different Search Engines.
4. Personalized search Results.

3.3 Indexing Web Content on Search Engine (6 hrs)

1. Basic webpage designing. Key differences/similarities between a human visitor and search engine visitor. Website core structure.
2. Tools for SEO Monitoring: Google Analytics, Bing Webmaster, Yandex Webmaster.
3. Different Frameworks available for SEO in popular programming languages like python, java, R etc.

3.4 Components of SEO (5 Hrs.)

1. On-page SEO: On-page on-site SEO factors, Google Search Console, Yahoo & Bing Webmaster tools.
2. Off-Page SEO: Off Page Activities, Introduction to Off-page optimization, Guest Article Posts. Off Page Tools: Business Listings.
3. Site Optimization Techniques: Title tags, Meta tags, Header tags optimization.

3.5 Digital Marketing (5 Hrs.)

1. Introduction to Marketing. Online Vs. Offline Marketing. Mediums for Digital Marketing: Voice, Visuals, Text, Animation.
2. Landscape of Digital Marketing. Target Audience. Strategies of Digital Marketing.
3. Key Metrics for Measuring Success.

3.6 Content Marketing (9 Hrs.)

1. Introduction to Ontology. Use of OWL files like schema.org for site indexing.
2. Understanding User Experience and User Interface Design.
3. Website optimization for different devices.
4. Planning for content Marketing

3.7 Social Media Marketing (4 Hrs.)

1. Introduction to Social Media. Attributes of Engaging Content. Digital Actions for Social Media Campaigns.
2. Opportunities of different social media for digital marketing: Facebook - page, group, marketplace etc. Twitter. LinkedIn.
3. SEO efficiency with social media.

3.8 Advertising (3 Hrs.)

1. Paid Advertising: Introduction and Types.
2. Campaigns for Advertisement: Creating and Managing PPC(Pay Per Click) Campaigns, Analytics and Reporting, Analyzing and Reporting on Digital Marketing Campaigns

3.9 Summing Up

(5 Hrs.)

1. Ethical Considerations for Marketing: Ads Writing, WordStream, Copywriting
2. Product Management with different marketing campaigns: Paper, Online, Digital etc.
3. Emails and Newsletters in Digital Marketing.
4. Content Design using AI tools for Digital Marketing and SEO.

4 Case Study

1. Study on different search engines like Google, Bing etc and key business strategies incorporated by those engines.
2. Study of different web development frameworks for SEO.
3. A case study of SEO and digital marketing in a business(choosen by student) domain: Global and Local Perspective.

5 Textbook(s):

1. Enge, E., Stricchiola, J., Spencer, S. (2015). The Art of SEO: Mastering Search Engine Optimization. United States: O'Reilly Media.
2. Digital Marketing That Actually Works the Ultimate Guide: Discover Everything You Need to Build and Implement a Digital Marketing Strategy That Gets Results. (2019). United States: Boot Camp Digital.

6 Reference(s):

1. Digital Marketing for Dummies. Ryan Deiss, Russ HenneBerry. 2nd Edition.
2. Social Media Marketing 2023: 4 BOOKS IN 1 - Social Media for Beginners, Instagram Marketing to Become an Influencer, Facebook Advertising, Google AdWords (Analytics, SEO and ADS for Your Business). Jeremy Preace.
3. The Beginner's Guide to SEO: How to Optimize Your Website, Rank Higher on Google and Drive More Traffic (The Beginner's Guide to Marketing). Jessica AinsWorth.