Vidya Pratishthan's
Kamalnayan Bajaj Institute of Engineering and Technology, Baramati.
(An Autonomous Institute)

Faculty of Science and Technology

Board of Studies

Artificial Intelligence and Data Science Engineering

Syllabus

Open Elective

(Pattern 2023)
(w.e.f. AY: 2024-25)

Course Code	Courses Name	Teaching Scheme			Examination Scheme and Marks							Credits			
		TH	PR	TU	Activity	ISE	ESE	TW	PR	OR	Total	TH	PR	TU	Total
OE2301	Digital Marketing	2					50				50	2			2
OE2312	International Relations	2					50				50	2			2
OE2314	Education and Technology	2					50				50	2			2

Syllabus: Open Electives Artificial Intelligence and Data Science Engineering (Pattern 2023) w.e.f. AY:2024-2025

	Open Electives (OE) Subjects		
OE2301	Digital Marketing	OE2311	Biotechnology
OE2302	Professional Leadership	OE2312	International Relations
OE2303	Organizational Behavior	OE2313	Universal Human Values
OE2304	Industrial Management	OE2314	Education Technology
OE2305	Disaster Management	OE2315	Design Thinking
OE2306	Energy Economic & Management	OE2316	Financial Literacy for Bharat#
OE2307	Operation Research	OE2317	Sustainability & Climate Change
OE2308	Intellectual Property Rights	OE2318	Agriculture Technology
OE2309	Cyber Laws	OE2319	Architectural Technology
OE2310	Bioinformatics		

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OE2301- Digital Marketing

Teaching Scheme:	Credits	Examination Scheme:
Theory: - 2 Hours/Week	**02**	**End Sem Exam: -50 Marks**

Prerequisites: Basics Marketing**,** Computer and Analytical skills, Social Media Awareness.

Course Objectives:

- To understand the fundamentals of digital marketing and its significance in the modern business environment.
- To learn various digital marketing strategies and tools for effective online promotion.
- To gain practical skills in using digital marketing platforms and analyzing digital marketing campaigns.
- To explore the ethical considerations and best practices in digital marketing.

Course Outcomes (COs): The students will be able to learn:

- CO1: Comprehend the core concepts and strategies of digital marketing.
- CO2: Develop and implement effective digital marketing campaigns.
- CO3: Analyze digital marketing metrics to measure campaign performance and make data-driven decisions.
- CO4: Understand and apply ethical principles in digital marketing.

Course Contents

Unit I: Introduction to Digital Marketing (06 Hours)

Definition and scope of digital marketing, Evolution and importance of digital marketing, Traditional marketing vs. digital marketing, Components of digital marketing (SEO, SEM, content marketing, social media marketing, email marketing, etc.), Digital marketing channels and strategies, The digital customer journey and buyer personas.

Unit II: Search Engine Optimization (SEO) and Search Engine Marketing (SEM) (06Hours)

Introduction to SEO, On-page and off-page SEO techniques, Keyword research and optimization, SEO tools and analytics, Introduction to SEM, Google Ads and PPC campaigns, Creating and managing SEM campaigns, Measuring and optimizing SEM performance.

Unit III: Social Media Marketing and Content Marketing (06Hour)

Introduction to social media marketing, Popular social media platforms and their features, creating a social media strategy, Content creation and curation, social media advertising and campaigns, Measuring social media performance and ROI, Content marketing strategy and planning, Blogging, video marketing, and podcasting, Content distribution and promotion.

Unit IV: Email Marketing, Analytics, and Ethical Considerations (06Hour)

Introduction to email marketing, Building and managing email lists, Creating email marketing

campaigns, Email marketing tools and automation, Measuring email marketing performance, Introduction to digital marketing analytics, Key metrics and KPIs, Tools for digital marketing analytics (Google Analytics, etc.), Ethical considerations in digital marketing, Data privacy and protection (GDPR, CCPA, etc.), Best practices for ethical digital marketing

Text Books:

1. "Digital Marketing: Strategy, Implementation and Practice" by Dave Chaffey and Fiona Ellis-Chadwick.

2. "Digital Marketing Essentials"by Jeff Larson and Stuart Draper.

3. "Marketing 4.0: Moving from Traditional to Digital" by Philip Kotler, Hermawan Kartajaya, and Iwan Setiawan.

Reference Books:

1. "Digital Marketing for Dummies" by Ryan Deiss and Russ Henneberry.

2. "Digital Marketing Excellence: Planning, Optimizing and Integrating Online Marketing" by Dave Chaffey and PR Smith.

3. "SEO 2023: Learn Search Engine Optimization with Smart Internet Marketing Strategies" by Adam Clarke.

4. "Social Media Marketing: A Strategic Approach" by Melissa Barker, Donald I. Barker, Nicholas Bormann, and Debra Zahay.

E-Resources:

1. Google Digital Garage- Free online courses on digital marketing, including certification:

[Google Digital Garage] (https://learndigital.withgoogle.com/digitalgarage)

2. HubSpot Academy- Free online courses on various digital marketing

 topics: [HubSpot Academy] (https://academy.hubspot.com/)

3. NPTEL Course: Digital Marketing: https://onlinecourses.swayam2.ac.in/cec23_mg10/preview

https://onlinecourses.swayam2.ac.in/cec23_mg10/preview

Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati (Autonomous Institute)			
OE2312- International Relations			
Teaching Scheme: Theory: - 2 Hours/Week		Credits 02	Examination Scheme: End Sem Exam: -50 Marks

Prerequisites: Communication skill

Course Objectives:

- Understand and critically analyze the main theories of international relations, including realism, liberalism, and constructivism.

- Apply these theories to contemporary global events and historical case studies.

- Evaluate the effectiveness of these organizations in addressing global issues

Course Outcomes (COs): The students will be able to learn:

- CO1: Assess how cultural, religious, and ideological factors influence international relations

- CO2: Apply these theories to analyze and interpret global events and policies.

- CO3: Exhibit knowledge of the historical evolution of the international system and significant events that .have shaped global politics

Course Contents

Unit I: Culture and Conflicts (06 Hours)

Defining Emotional Intelligence, Emotional Intelligence Components: Self-Perception and Self-Expression, Interpersonal, Decision Making Stress Management, Defining Cultural Intelligence (CI), Cultural Intelligence Component: Drive, Knowledge, Strategy, Action, CMM(Coordinated Management of Meeting, Overview of Violence, types of violence, Gender Equality.

Unit II: International Cyber Laws and Security (06 Hours)

Introduction to Cybercrime and Fundamental Issues, Evolution and Types of Cybercrime, Actors of Cybercrime, Understanding Motivated Behavior, Motives for Hacking, Cyber Attacks in a Global Context, Internet Infrastructure, Domain Name System, Importance of Internet Governance, Current Issues in Internet Governance, Introduction to Cyberwarfare, Modes of Attacks, Types of the Attacks, Future Battles: Threats to Critical Infrastructure, Components of Trust and Social Capital, Components of Trust and Social Capital, What is Safety and Security?, What Are We Protecting?, Risk Management, A Multi-level Perspective on Security and Safety, A Multi-actor Perspective on Security and Safety.

Unit III: International Businesses (06 Hour)

What is Globalization? Is Globalization New? How do Political and Social Institutions impact National Economic Development?, International Market Entry Strategies, multinational Corporations and Global Supply Chains.

Unit IV: International Digital Governance: (06 Hour)

Definition and Scope of Digital Governance, History and Development of Digital Technologies, Comparative Analysis of National Digital Policies, Role of ICANN and Other Bodies, Social Impacts of Digital Transformation

Text Books:

1. International Relations Theories: Discipline and Diversity" by Tim Dunne, Milja Kurki, and Steve Smith

2. The Globalization of World Politics: An Introduction to International Relations" by John Baylis, Steve Smith, and   Patricia Owens

3. International Politics: Enduring Concepts and Contemporary Issues" by Robert J. Art and Robert Jervis

Reference Books:

1. The Oxford Handbook of International Relations" edited by Christian Reus-Smit and Duncan Snidal

2. Essentials of International Relations" by Karen A. Mingst and Ivan M. Arreguín-Toft

E-Resources:

- **https://nptel.ac.in/courses/109103141**

- **https://archive.nptel.ac.in/courses/109/103/109103141/**

Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati (Autonomous Institute)		
OE2314 : Education and Technology		
Teaching Scheme: Theory: 2 Hours/Week	**Credits 02**	**Examination Scheme:** End Sem: 50 Marks

Prerequisites: Understanding of education principles and practices

Course Objectives:
- Develop an understanding of the concept, nature, scope and importance of Educational Technology
- Distinguish between communication and instruction in order to design sound instructional system.
- Create an awareness about models of teaching and teaching-learning aids in Educational Technology.
- Obtain total perspective of the role of techniques in educational practice.
- Acquaint with emerging trends in Educational Technology
- Reflect upon application of educational technology, as a whole, in the field of education.

Course Outcomes (COs): The students will be able to:
- CO1: Explain the concept of Educational Technology
- CO2: Produce awareness about models of teaching and teaching-learning aids in educational technology.
- CO3: Achieve total perspective of the role of techniques in educational practice.
- CO4: Make aware of emerging trends in Educational Technology.

Course Contents

Unit I: Understanding Educational Technology (06 Hours)

Concept of Educational Technology: Types of Educational Technology, difference between hardware & software technology, their role in modern educational practice. Educational Technology: Nature and assumptions, factors influencing the application of Educational Technology, development of Educational Technology.

Unit II: : Psychological Bases of Modern Technology (06 Hours)

Psychological bases of modern technologies with reference to Ausubel, Skinner and Bruner. Instructional design - cybernetic psychology and system analysis. Bloom's (Revised) taxonomy of objectives, constructivism and educational technology. Communication & Interaction: Theory of communication, types of communication, communication & language, communication in the classroom. Print & non-print media in communication, various types of print & non-print media.

Unit III: Models of Teaching & Teaching-Learning Aids (06 Hours)

Concept, meaning and characteristics of models of teaching, models of teaching strategies, assumptions and fundamental elements of teaching models. Teaching aids: Edgar Dale's cone of experience and components.

Unit IV: Innovations in Educational Technology (06 Hours)

Multimedia in Education: Computer Assisted Instruction (CAI), Tele-Conferencing, Programmed Instruction, Satellite Communication, Internet and use of multimedia presentation, web 2.0 tools, Open education resources and Information and communication technologies, ethical, social and technical issues. Recent trends in Educational Technology. Issues in context: Differently abled learners, teacher replacing technology, learner's interpersonal relationship and technology.

Text Books:

1.Apple, M. (1991): The new technology: Is it part of the solution or part of the problem in education? Computers in the Schools, 8(2), 59-81.

2. Cheng, I., Safont, L.V. & Basu, A. (2009). Multimedia in Education: Adaptive Learning and

Testing. New Jersey: World Scientific Pub Co Inc.

3.Collins, J., Hammond, M. & Wellington, J.J. (1997). Teaching and Learning with Multimedia.

London: Routledge.

Reference Books:
1. Jonassen, D.H. (ed) (2003). Learning to Solve Problems with Technology: A Constructivist Perspective, (Edn 2). California: Merrill.

2. Mayer, R.E. (2009). Multimedia Learning, (Edn 2). New York: Cambridge University Press.

3. Pathak, R. P. (2007): Shaikshik Prodyogiki Ke Naye Aayaam. Delhi: S. M. Books. Roblyer, M.D. (2007). Integrating Educational Technology into Teaching, (Edn 4). Delhi: Pearson Education India.

4. Mangal, S. K., & Mangal, U. (2017). Essentials of Educational Technology. New Delhi: PHI Private Learning Limited.

5. Moore, K. D. (2009). Effective Instructional Strategies: From theory to practice. LA: Sage

E-Resources:
1. https://onlinecourses.swayam2.ac.in/cec24_ed24/preview

Dept. Academic Coordinator	Head of Department	Dean Academic	Principal
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