



Buea Institute of Technology

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DEPARTMENT OF WEB AND SOFTWARE DEVELOPMENT

# HND E-COMMERCE AND DIGITAL MARKETING

## COURSES OVERVIEW

### FIRST YEAR: FIRST SEMESTER

#### 1. WSD201: HTML/CSS

**Credits: 6, Course State: Compulsory (C)**

➤ **Web design:**

• **Introduction to Web Design**

- History of web design
- Basic concepts
- Criteria used in web design
- Colour language
- Some examples and commentaries

➤ **Web and multimedia I :**

➤ **Web design:**

- General information on the Web Design
  - Definitions: web, web design, digital;
  - The trades of Web design;
  - The software used in the Web design;
  - The characteristics of the images for the Web;
  - Optimization of images for the Web;
  - Organization of files;
  - The nomenclature rules of files;
  - Extension of the current files;
  - Optimization of files;
  - Types of files;
  - Dimensions of a web page.

➤ **Initiation to the Web Programming:**

- Adobe Golive: Images
  - Place an image in a page;
  - Inspector palette;
  - Atlttext field;
  - Field HSpace;
  - VSpace field.

- Adobe Golive: images in rollover and the hypertext links
  - Actions open windows;
    - Internal links;
  - External Links.
- Adobe Golive: actions, sheets of CSS styles
  - Usefulness of the CSS.
  - Creation of style sheets;
  - Style sheets inter and external.
- Adobe Golive: definition of styles (HTML)
  - Definition of styles;
  - Styles classes;
  - ID styles;
  - Styles of HTML elements;
  - Character attributes;
  - Attributes of styles;
  - Apply a class style to a selection.
- Adobe Golive: Iframes
  - Creation of an Iframe;
  - Attributes of an Iframe;
  - Compatibility of iframes.
- Adobe Photoshop: images gif with transparent background
  - The bottom of the page; - substance of the image;
  - Indexedcolor.
- Adobe Golive, and HTML: scroll bar customized
  - The scrollbarcolor.

## **2. WSD203: DATABASE MANAGEMENT SYSTEMS**

**Credits: 6, Course State: Compulsory (C)**

### ➤ **Introduction to database**

- Fundamental objectives of a database
  - Less redundancy
  - Consistency
  - ACID Properties
  - Multiuser and Concurrent Access
  - Multiple views
  - Confidentiality/integrity
- Flashback on data models
  - Entity-Relationship Model
  - Relational Model
- Normalization(1NF, 2NF, 3NF)
- Relational algebra
  - Relational Algebra

- Relational Calculus
- Practicals on MS access and or Mysql
- **Database administration**
  - Introduction
  - Presentation of Mysql
  - Mysql architecture
  - Mysql server
  - Configuration of Mysql server
    - Running and Shutting down MySQL Server
    - Setting Up a MySQL User Account
    - Administrative MySQL Command
  - Mysql client
    - Presentation of client administration
    - Mysql customer program calls
    - Usage of mysql client
    - Mysql client administration
  - Presentation of data types
  - Metadata
  - Storage engine
  - Partitioning
    - Presentation and advantages of partitioning
    - Creating a partition table
    - Collecting information on partition
    - Modification and suppression of partition
  - Mysql transactions
  - Management of users and security
    - Security risks
    - Security measures
    - Privileges
    - Access level, particularly:1- users account, 2- database, 3- tables, 4- column, 5- routine storage
    - Management of user account
    - Client access control
    - Usage of secured connection
  - Maintenance of tables
  - Exporting and importing data

### 3. WSD205: PHP I

**Credits: 6, Course State: Compulsory (C)**

- **Advanced Web site programming**
  - PHP code modification
  - CSS code modification

- HTML code modification
- Practical session on PHP, CSS, HTML

#### 4. WSD245: INTRODUCTION TO SOFTWARE ENGINEERING

**Credits: 6, Course State: Compulsory(C)**

➤ **Digital electronics**

- Number systems and codes
  - Binary, octal and hexadecimal number systems
  - Conversion from one number system to the other
  - Binary codes: BCD, gray, excess – 3, 8:4:2:1; 2:4:2:1 etc
  - Alpha numeric code: ASCII

➤ **Combinational logic**

- Logic gates
- Boolean algebra
- Simplification of Boolean functions
- Applications of combinational logic

➤ **Sequential logic**

- Flip flops
- Counters
- Registers

➤ **Fundamentals of algorithms**

- Introduction to algorithms
- Algorithm approaches: greedy, dynamic programming, divide and conquer, branch and bound, introduction to complexity analysis and measures.
- Algorithms: sorting and searching, merging, tree and graph traversals, shortest path, minimum spanning tree, order statistics, string matching.

➤ **Introduction to information systems:**

• **Specification languages of an information system.**

- Data models(Entity relational models, relational models)
- Processing models(petri diagram, MERISE diagram, SADT diagram)
- Communication models
- Objects models

• **Analysis of the is – the system and opportunities offered**

- Methods of studying an existing information system
- Data representation and processing of an existing information system in terms of the models studied above.
- Quality criteria of an information system
- Criticizing the is – the system
- Study of the opportunities
- Audit

• **Design**

- Data conceptual diagrams
  - o Construction of data conceptual diagram
  - o Normalization
- Processing conceptual diagram
  - o Processing architectural diagram
- Dynamic representation
- Conceptual diagram of a communication system
- Representing a communication system
- Determination of the elements of a communication system
- Object conceptual diagram

➤ **Information Management system (MERISE)**

- From conceptual to logical level
  - Human – Computer Interface (HCI): Explain what Human computer interaction is and why it is needed
  - Ergonomic elements
  - Data organization
  - Conception of files or database
  - Coding
  - Control
  - Process organization
  - Determination of the nature of processing
- From logical to physical level
  - Programming, test
  - Documentation
  - Maintenance
- Methodology and software tools
  - General presentation of the different methodologies
  - Detail analysis of at least one of the methodologies(MERISE, SADT etc).
  - Evaluation of the cost of the detail study and development
  - Usage of software tools in conceiving and developing the software.

➤ **Introduction to software engineering**

- Software development life cycle (SDLC)
- Quality
- Specifications
- Ergonomics
- Tests
- Management of requirements
- Control of development
- Writing of specifications
- Methods of estimating the cost

## 5. GDP211: GRAPHIC AND MULTIMEDIA DESIGN

**Credits: 6, Course State: Compulsory (C)**

### ➤ **Computer graphic design**

- Digital images
- Bitmap images
- Vector images
- Characteristics of bitmap images
- Image compression
- Final improvements of images
- Practicals on the creation buttons and images for the Web
- Bitmap and vector file format
- Document and print – out format
- The Design Process
- Elements & Principles of Design
- Typography
- Color Theory & Use
- Creating images for print & web

### ➤ **Visual language:**

- Graphic representations
  - Pictorial symbols;
  - Graphic symbols; - verbal symbols.
- The basic principles of the Gestalt
  - Figure/background;
  - Opening/closing;
  - Proximity;
  - Likeness; - continuity; - color.
- Basic elements of visual language
  - Conceptual elements;
  - Visual elements;
  - Relational elements; - items practices.
- Basic principles of visual composition
  - Balance ;
  - Pace;
  - Harmony; - emphasis; - Unit.
- Composition as a whole
  - Patterns of composition;
  - Lines of force;
  - Strengths;
  - Angular constructions;
  - Golden Rule;
  - The laws of the third and fourth.

### ➤ **Communication plan in graphic design:**

- Client-target;
- The objectives of the communication;
- Axis of communication; - communication strategy;
- Strategy of creation.

➤ **Typography and layout I :**

➤ **Anatomy and typographical Classification:**

• **Anatomy of a letter**

- Wheelbase;
- Axis;
- Loop;
- Body;
- Loosed ;
- Connecting point; - height; - the keg.
- **Basic vocabulary**
- Basic Terminology; - specific terminology.
- **Typographical Classification**
- Vox classification;
- Fonts Humanes;
- Garaldes fonts;
- Reais fonts;
- Didones fonts;
- Mécanes fonts;
- Sans serif fonts;
- Fonts Incises;
- - Fonts scripts;
- Manuaires fonts;
- Fracture fonts; - Onciales fonts; - fancy fonts.

➤ **Implementation typographical Page:**

• **Introduction to the typography**

- The fonts of characters;
- Origin of the writing and fonts (first scriptures, appearance of the alphabet, write the Roman capital, write, roman, gothic Writing, Writing Renaissance, etc.).
- **Evolution of the typography**
- The families of character (fonts to serif, sans serif font, fonts, script, fonts fantasies;
- Importance of typography in the design.

• **Typology and typographical properties**

- The Capitals;
- The bold and italics;
- The condensed and the extended;
- Size and spacing;

- Line spacing and length of line;
- Character plan and background.
- **The measurement systems**
  - The Anglo-American system;
  - The European system;
  - Page layout typographical.
- **Implementation typographical page**
  - Top and bottom;
  - Relationship Figure/background;
  - Static space and space assets.
- **Steps for the Creation:**
  - **Steps for the creation: the pre production**
    - Iconographic Script: realization of the pages of trends (types of objects, materials and colors, TARGET, direct competitor and indirect).
  - **Steps for the creation: the production**
    - Analysis of the sources of inspiration;
    - Graphical research (sketch);
    - Chromatic research (sketch);
    - The final models (model);
    - Production of the model and prototyping.
  - **Steps for the creation: the postproduction**
    - Manufacture in workshop;
    - Commercial strategies;
    - Industrialization.
- **Image processing**
  - **Working With Adobe Photoshop**
    - Images, colours, copies
    - Improve and transform the images
    - Filters and effects, text
    - Vector drawing in photoshop
    - Saving, exportation and printing
    - RAW camera
    - Photoshop innovations
- **Colours**
  - Level of gray
  - Colour
  - True colour
  - Indexed colour
- **Image reproduction modes**
  - Matrix coding
  - Vector coding
  - Curve fractal



- **Compression and compaction**
- **Formats and standards**
  - Matrix image format
  - Vector image format
  - Web adapt format
- **Logo and Icons Realisation**
  - **Logotype**
    - How to create a logo;
    - Qualities of a logo.
    - Types of Logo.
- **Streaming:**
  - Introduction to streaming
  - Realizing streaming
  - Efficient and adapted methods used in importing web elements
  - Adopted tools
- **Introduction to Sound**
  - Definition of sound
  - Characteristics of sound
  - Digitalization of sound
  - Mono and stereo sound
  - Size of a sound file
  - Sound compression
- **Introduction to Video**
  - Definition of video
  - Analogue video
  - Digital video
  - Compression of digital video (notion on Codec)
- **Streaming:**
  - Introduction to streaming
  - Realizing streaming
  - Efficient and adapted methods used in importing web elements
  - Adopted tools

## 6. FRE101: BASIC FRENCH LANGUAGE I

**Credits: 2, Course State: Required (R)**

- **Etude des situations de communication**
  - Identification des facteurs de la situation de communication (émetteur, récepteur, code, canal, message, contexte) ;
  - Situation de communication et interactions verbales ;
  - Etude des éléments para verbaux (kinésique, proxémiques, mimogestuels, etc.) ;

- Identification et manipulation des figures d'expression et de pensée (métaphores, ironie, satire, parodie, etc.).
- **Typologie des textes et recherche documentaire**
  - Lecture des textes de natures diverses (littéraires/non littéraires, image fixe/image mobile, dessin de presse, caricature, etc.);
  - Analyse des textes publicitaires et des discours (scientifiques, politiques, littéraires, etc.) ;
  - Constitution et exploitation d'une documentation et montage des dossiers;
  - Lecture des textes cultivant les valeurs morales et civiques.
- **Communication orale**
  - Réalisation d'un exposé ;
  - Réalisation d'une interview ;
  - Réponse à une interview ;
  - Présentation d'un compte-rendu oral ;
  - Résumé de texte ;
  - Réalisation d'un jeu de rôles ou d'une simulation ;
  - Initiation au leadership et à la dynamique des groupes ;
  - Ecoute et lecture attentive de documents sonores et/ou graphiques ;
  - Lecture méthodique à l'oral.

## 7. ENG101: BASIC ENGLISH LANGUAGE I

**Credits: 2, Course State: Required (R)**

- **Vocabulary**
  - Technical and usual vocabulary of the specialty
- **Grammar**
- **Bilingual expression**
  - Understanding in interaction in Technical Discussions
  - Continuous oral communication: Show, explain, develop, summarize, account, comment;
  - Interactions oral communication
  - How to introduce oneself
- **Autonomous reading of "writings" of all levels**
  - Lead by a quick reading to understand the general sense;
  - Browse a text long enough to locate desired information;
  - Gather information from different parts of the document or of the different documents in order to accomplish a specific task.
- **Write clear, detailed texts**
  - Essay writing;
  - Application for employment;
  - C.V.
  - Letter of motivation;
  - Lettre / memo writing and minutes of a meeting

## 8. DIL101: DIGITAL LITERACY

**Credits: 4, Course State: Required (R)**

### ➤ **Computer fundamentals**

- Hardware
- Networks and mobile devices
- Software
- Operating system
- File management
- Security and maintenance
- Cloud computing

### ➤ **Memory Management**

- Partitioning, paging and segmentation
- Virtual memory
- Page Faults
- Address translation and page fault handling
- Memory management hardware: page table and Translation
- Memory management algorithms: fetch policy, replacement policy

### ➤ **Input / Output Management and Disk Scheduling**

- I/O devices
- Organization of I/O function
- I/O buffering
- Disk scheduling, RAID

### ➤ **File Management**

- File systems
  - o File systems interface
  - o File system structures
- Organization: files and directories
- Secondary storage management, file systems: FAT and NTFS
- File protection & Security

### ➤ **Deadlocks**

- Conditions for deadlocks
- Deadlock avoidance
- Deadlock prevention
- Research on deadlocks

### ➤ **Multi processor systems**

- Multicomputers
- Virtualization
- Distributed systems

### ➤ **Operating system security**

- Cryptography
- Authentication

- Malware etc.
- **Key applications**
  - Apps and applications
  - Using Microsoft word
  - Using Microsoft Excel
  - Database concepts
  - Using Microsoft power point
- **Living online**
  - Looking at the Internet
  - Managing media literacy
  - Digital communication
  - Understanding e – mail
  - Contacts and calendaring
  - Your life online
- **Internet Services**
  - Internet and its services
  - Operation of the Web
  - Addressing of Web documents

## **FIRST YEAR: SECOND SEMESTER**

### **1. WSD202: JAVASCRIPT**

**Credits: 6, Course State: Compulsory (C)**



### **2. WSD204: CONTENT MANAGEMENT SYSTEM (WORDPRESS)**

**Credits: 6, Course State: Compulsory (C)**

- **Introduction to CMS**
  - Installation and configuration of WordPress
  - Inatallation of XAMP and WAMP server
  - Installation of WordPress
  - Configuration of the site
- **Administration of a Web site**
  - Configuration and administration of admin parameters
  - Account and access rights
  - Updating
  - Practical session
- **Articles**
  - Articles
  - Advanced editing
  - pdf, youtube
  - Categories
  - Practical session

- **Menu**
  - Creating a menu
  - Configuring sub menu systems
- **Templets**
  - Installation and modification of templat
  - Practical session on installation and modification of templat
- **Components and modules**
  - Add a down loaded module
  - Polls
  - Contact forms
  - Slide show
  - Search module
  - Practical session
- **Other CMS**
  - Joomla
  - Drupal
- **Complete Web site**
  - Analyse an existing site
  - Creat a second WordPress installation
  - Planning and paging a site
  - Project on site creation
- **Security of a Web site**
  - Protection
  - Restoration

### 3. WSD212: INTRODUCTION TO DIGITAL MARKETING AND E-COMMERCE

**Credits: 6, Course State: Compulsory (C)**

- **E – commerce technology I :**
  - An introduction to Electronic commerce
  - The Internet and WWW
  - Use of a Website in E-Commerce
  - Internet Security
  - Internet and Extranet
- **E – commerce :**
  - Introduction to Internet Business
  - Infrastructure: The Internet and Technology
  - Business Models for Internet Business
  - Internet Business & Marketing :
  - Basic Marketing Concepts & Technology
  - B2C and B2B Marketing and Branding Strategies
  - E-Commerce Advertising
  - E-Commerce Retailing & Services

- Online Media: Publishing & Entertainment Industry
- Social Networking, Communities, & Actions
- E-Commerce & Ethics
- **Digital Marketing Foundations**
- **ERP Technologies:**
  - Overview of ERP philosophy
  - Structure of ERP systems
  - Integration of business applications - Analysis of business processes
  - ERP II
  - SAP ERP
  - Organizational structures and business processes
  - Life Cycle of ERP systems
  - Implementation of ERP projects
  - ECP diagrams
  - Processing of integrated processes with SAP ERP
  - Case studies
- **Technological infrastructure for E – commerce**
- **Keyword Research**

#### **4. WSD232: PROGRAMMING I - C**

**Credits: 6, Course State: Compulsory (C)**

- **Factual programming and Human Computer Interface**
  - Concepts on object oriented programming(OOP)
  - Practice of OOP
  - Windows applications, Web application
  - To distribute the application(setup)
  - Introduction to database programming with ADO.NET
- **C Programming**

#### **5. WSD240: ENGINEERING MATHEMATICS I**

**Credits: 6, Course State: Compulsory (C)**

- **Basic Mathematics**
  - Mathematics:
  - Functions of a real variable
    - Focus on the aesthetic aspect of the curves;
    - Tangent at a point where the vector derivative is not null;
    - The study of singular points and branches endless is not payable.
  - Vector calculation
  - Geometric modeling
- **Physical:**
  - Mechanical
    - Mechanical action;

- Balance of a solid;
- Fluid mechanics.
- **Materials**
  - The polymers; and other.
- Behavior of Materials
  - Resistance of Materials;
  - Maintenance of tissues.
- **Numerical functions of a real variable:**
  - Logarithmic and exponential functions
  - Reciprocal circular functions
  - Hyperbolic functions and their reciprocals.
- **Several real variables functions**
  - 1st and 2nd order partial derivative
  - Schwarz theorem
  - Differential applications
  - Composite functions
  - Differential forms
  - Vector operators
- **Analysis I**
  - Numerical functions of a real variable:
    - Logarithmic and exponential functions
    - Reciprocal circular functions
    - Hyperbolic functions and their reciprocals.
  - Several real variables functions
    - 1st and 2nd order partial derivative
    - Schwarz theorem
    - Differential applications
    - Composite functions
    - Differential forms
    - Vector operators
- **Taylor series and limits**
- **Integration(simple and multiple)**
- **Differential equations**
  - Linear algebra I:
- **Vector space of finite dimension  $n \leq 4$**
- **Matrices**

## 6. CVE102: CIVICS, ETHICS AND LAW

**Credits: 4, Course State: Required (R)**

- **Civics and Moral education**
  - The citizen
  - The nation

- The state
- Public goods – collective goods
- Freedoms
- Public services
- Ethical problems
- Ethics, rights and privileges
- Management and ethics of the responsibility
- Ethics and management
- Civics
- Deontology
- Moral consciousness
- The universal declaration of Human Rights
- Good governance in public services
- The importance of civics to the life of the nation
- Functions of the state and its citizens
- Deontology, Professional ethics and professionalism
- Relationship between morality, law and ethics
- Codes of ethics
- **Business Law**
- **Civil Law:**
  - Definition, characteristics, branches and sources of law
  - Scope of application of the law
  - Dimensions of law (objective law, Subjective law)
  - Legal organisation
  - The right of a legal personality
  - Marital status, name and address
  - Disabilities
  - Legal acts
  - Legal facts
- **Labour law:**
  - Definition of labour law, birth and evolution of labour law and sources
  - The employment contract (conclusion, implementation and breach)
  - Labour disputes (individual and collective)
  - The staff delegate, Trade Unions
  - Labour accidents and occupational diseases
  - Health and safety at work

## 7. IPL102: INTERGRATION TO PROFESSIONAL LIFE

**Credits: 4, Course State: Required (R)**

- **Enterprise creation**
  - Characteristics of the entrepreneur
  - Opportunity recognition



- Starting a business
- Business operation

### ➤ **Economics and Enterprise Organization(EEO)**

- Enterprise and typology of enterprises
  - Definition of an enterprise
  - Analysis mode
  - Enterprise as a production unit
  - Enterprise as a distribution unit
  - Enterprise as a social center
  - Classification of enterprise based on the following economics criteria
    - According to economic activities
    - According to dimension
    - According to judicial criteria
- Organizational structure of an enterprise
  - Distribution of tasks and power hierarchy
    - Distribution of tasks
    - Organizational structure
    - Departmental structure
    - Site location
    - Practical structure
  - Power hierarchy
    - Functional hierarchy
    - Staff and line hierarchy
  - Coordination and relationships in the enterprise
    - Coordination of tasks in the enterprise
    - Relationships in the enterprise
- Insertion of the enterprise into the economic web
- Basic notions on the enterprise environment
- Inter – enterprise relationship
  - Competing relationship
  - Complementary relationship
- Relationship between the enterprise and other aspects of the environment.

### ➤ **Income earning activities**

- Commercial policies (the 4p)
- Policy of the products
- Price policy
- Distribution policy
- Communication policy

### ➤ **Production and processing policies**

- Production policy:
  - Production on command
  - Production in series

- Continuous production
- Processing policy
  - Studies and research office
  - Methods office
  - Office of scheduling and launching
- Various production methods (influence of technology on production)
  - Mechanization, automation and computer assisted production (CAP)
  - Quality policies (Production control)
    - At the level of production factors
    - At the level of work advancement
    - At the level of quality
  - Work organization and evolution
    - Taylorization
    - Fordism
    - The actual form of a work organization
    - Robotization, enrichment,
- Know how to undertake
  - Steps of the creator
  - Steps of the decision maker
  - Steps of the manager
- Information system and decision system
  - Importance of information and communication to an enterprise
  - Organization of an information system:
- Data bank
- Database
- Communication networks
  - contribution of information as regards information system
  - Decision processing
  - Types of decision
  - Tools that helps in decision-making
- Decision in unquestionable future
- Decision in questionable future
- Capacities and participation in the company
  - Delegation of authority

➤ **General Economics**

- Introduction
  - Classification of economic actors
  - Economic operators
  - Relationship between economic agents: economic circuits ;
  - Basic notions on national accounting: aggregates and their circuit; products, revenue, expenses.
- Consumption

- Demographic elements
- The needs, the level of life, way of life.
- Individual consumption and collective consumption
- The demands
- Production
  - Production units, the sectors and branch activities
  - Production factors and their combinations, offers concentration
- Growth and development
  - Growth
    - Definition and measures
    - Growth factors
    - Growth and notions on neighbors
  - Development
    - Definition
    - Development criteria
- **The payment of the international exchanges**
  - The exchange
  - Formation of exchange rate
  - Tests of international monetary organization and its difficulties.
- **Decentralization of decision making**
- **General Accounting**
  - Heritage
  - Influx at an enterprise and its registration
  - Balance sheet and results
  - law and accounting plan
  - Buying and selling
  - Expenses and products
  - Incidental expenses on buying and selling
  - Packing supplies
  - Transport
  - Classical accounting system
  - Balancing of accounts
  - Cash regulations
  - Terms regulation
  - Depreciations
  - Provisions
- **Projects Management**
  - Project Management Overview
  - Projects in the business environment
  - Projects Definition
  - Estimates
  - Project Planning

- Project Execution
- Project Monitoring & Control
- Project Quality
- Leadership in Projects
- Projects' success & failure
- Project Closure & Audit
- Conclusions & Presentations

## SECOND YEAR: FIRST SEMESTER

### 1. WSD311: SEARCH ENGINE AND DISPLAY ADVERTISEMENT

**Credits: 6, Course State: Compulsory (C)**

- SEO
- Paid Search
- Display and Video advertising
- **Introduction to Search Engine and Display Advertising**
  - Overview of search engine advertising and display advertising
  - Understanding their role in digital marketing and the advertising ecosystem
- **Search Engine Advertising**
  - Introduction to search engine platforms (e.g., Google Ads, Bing Ads)
  - Keyword research and selection for search ad campaigns
- **Creating Effective Search Ads**
  - Ad copywriting techniques for search ads
  - Ad extensions and their impact on ad performance
- **Search Ad Campaign Execution and Management**
  - Campaign structure and organization
  - Bidding strategies and budget allocation
  - Ad targeting options (e.g., location, demographics, devices)
- **Search Ad Campaign Optimization**
  - Monitoring key performance metrics (e.g., click-through rate, conversion rate)
  - Ad testing and optimization strategies
  - Quality score improvement techniques
- **Display Advertising**
  - Introduction to display ad networks (e.g., Google Display Network, social media ad platforms)
  - Different types of display ads (e.g., banners, rich media, video)
- **Designing Compelling Display Ads**
  - Visual design principles for display ads
  - Ad format and size considerations
  - Creating engaging and persuasive ad content
- **Targeting and Segmentation in Display Advertising**
  - Audience targeting options (e.g., demographics, interests, behaviors)
  - Contextual targeting and placement selection

- **Display Ad Campaign Execution and Management**
  - Campaign setup and structure
  - Ad bidding strategies and budget management
  - Ad tracking and conversion tracking implementation
- **Display Ad Campaign Optimization**
  - Performance monitoring and analysis
  - A/B testing and creative optimization
  - Retargeting and remarketing techniques
- **Performance Measurement and Analytics**
  - Key performance indicators (KPIs) for search engine and display advertising
  - Tracking and analyzing campaign performance
  - Reporting and data interpretation for campaign optimization
- **Legal and Ethical Considerations in Advertising**
  - Compliance with advertising regulations and policies
  - Ethical practices in ad targeting, content, and data usage
- **Emerging Trends and Innovations**
  - Exploring emerging technologies and trends in search engine and display advertising
  - Adapting strategies to leverage new platforms, formats, and targeting options

## 2. WSD313: CONTENT AND SOCIAL MEDIA MARKETING

**Credits: 6, Course State: Compulsory (C)**

- **Technical Communication :**
  - Project Planning
  - Project Analysis
  - Content Development
  - Organizational Design
  - Written Communication
  - Review and Editing
  - Visual Communication
  - Content Management
  - Production and Delivery
- **Introduction to Content and Social Media Marketing**
  - Overview of content marketing and social media marketing
  - Understanding their role in digital marketing and building brand awareness
- **Target Audience Identification and Buyer Personas**
  - Defining target audiences for content and social media campaigns
  - Developing buyer personas to guide content creation and messaging
- **Content Marketing Strategies and Techniques**
  - Content ideation and planning
  - Creating compelling and valuable content
  - Content distribution and amplification strategies

- **Social Media Platforms and Content Distribution**
  - Overview of popular social media platforms (e.g., Facebook, Instagram, Twitter, LinkedIn)
  - Choosing the right social media platforms for target audiences and campaign goals
  - Optimizing content for different social media channels
- **Content Creation Across Formats**
  - Writing engaging blog posts and articles
  - Crafting attention-grabbing headlines and captions
  - Creating visually appealing images and graphics
  - Developing and editing videos for social media
- **Social Media Marketing Strategies**
  - Defining social media marketing goals and objectives
  - Developing a social media content calendar
  - Incorporating storytelling and brand messaging into social media campaigns
- **Social Media Management Tools and Analytics**
  - Introduction to social media management tools (e.g., Hootsuite, Buffer)
  - Scheduling and automating social media posts
  - Monitoring social media conversations and engagement
  - Analyzing social media metrics and campaign performance
- **Performance Measurement and Analytics**
  - Key performance indicators (KPIs) for content and social media marketing
  - Tracking and analyzing engagement, reach, conversions, and other relevant metrics
  - Reporting and data interpretation for campaign optimization
- **Legal and Ethical Considerations in Content and Social Media Marketing**
  - Copyright and intellectual property considerations
  - Privacy and data protection regulations
  - Ethical practices in content creation and social media engagement
- **Emerging Trends and Innovations**
  - Exploring emerging technologies and trends in content and social media marketing
  - Adapting strategies to leverage new platforms, formats, and social media features
- **Case Studies and Best Practices**
  - Reviewing real-world case studies of successful content and social media marketing campaigns
  - Examining best practices and success factors for effective content and social media marketing

### 3. WSD315: SEARCH ENGINE OPTIMISATION

**Credits: 6, Course State: Compulsory (C)**

- Understand the fundamentals of search engine optimization.
- Learn key concepts and terminology related to SEO.
- Perform keyword research and analysis to identify relevant target keywords.
- Optimize website structure, architecture, and navigation for search engines.
- Create high-quality, optimized content that aligns with search intent.
- Implement on-page optimization techniques to improve search rankings.
- Develop effective link building strategies and acquire high-quality backlinks.
- Understand technical SEO and website optimization for search engine crawlability and indexing.
- Monitor and measure SEO performance using analytics tools.
- Stay updated with the latest trends and algorithm changes in SEO.

#### **4. WSD317: ELECTRONIC PAYMENT SYSTEMS**

**Credits: 6, Course State: Compulsory (C)**

- **E – commerce technology II:**
  - Electronic Data Exchange
  - Electronic Payment System
  - Planning for Electronic Commerce
  - Internet Marketing
- **Introduction to Electronic Payment Systems in Digital Marketing**
  - Overview of electronic payment systems and their significance in digital marketing
  - Evolution of online transactions and the role of payment systems
- **Types of Electronic Payment Methods**
  - Understanding different types of electronic payment methods, including credit cards, debit cards, e-wallets, and cryptocurrencies
  - Exploring the features, benefits, and limitations of each payment method
- **Popular Electronic Payment Platforms**
  - Introduction to prominent electronic payment platforms, such as PayPal, Stripe, Apple Pay, Google Pay, and others
  - Exploring their integration with digital marketing channels, websites, and mobile apps
- **Security and Privacy Considerations**
  - Understanding the importance of secure transactions and protecting customer data
  - Exploring security protocols, encryption methods, and fraud prevention techniques
- **Optimizing the Checkout Process**
  - Analyzing the customer journey in the context of online transactions
  - Strategies for streamlining the checkout process, reducing friction, and minimizing cart abandonment
- **Enhancing Customer Experiences with Electronic Payments**

- Exploring ways to improve customer experiences during the payment process
- Incorporating personalized payment options, seamless integrations, and mobile-friendly solutions
- **Analyzing Transaction Data and Customer Behavior**
  - Leveraging transaction data to gain insights into customer preferences, purchasing patterns, and lifetime value
  - Tools and techniques for analyzing and interpreting payment-related data
- **Regulatory and Legal Frameworks for Electronic Payments**
  - Understanding the regulatory landscape and compliance requirements for electronic payments
  - Examining legal considerations, consumer protection laws, and payment industry standards
- **Fraud Prevention and Risk Management**
  - Identifying common types of payment fraud and risk factors
  - Implementing fraud prevention measures and risk management strategies
- **Cross-border Payments and International Considerations**
  - Exploring challenges and opportunities associated with cross-border payments
  - Understanding currency conversion, international regulations, and cultural considerations
- **Emerging Trends and Innovations**
  - Exploring emerging technologies and trends in electronic payment systems
  - Evaluating the impact of digital wallets, contactless payments, blockchain, and other innovations
- **Case Studies and Best Practices**
  - Reviewing real-world case studies of successful electronic payment implementations in digital marketing
  - Examining best practices and success factors for leveraging electronic payment systems effectively

## 5. WSD341: ENGINEERING MATHS II

**Credits: 6, Course State: Compulsory (C)**

- **Probability**
- **Combinatory analysis**
  - Calculation of probabilities
    - Kolmogorov axioms
    - Conditional and independent probabilities
    - BAYES theorem and axiom on total probability
- **Random variables**
  - Definition
  - Moment of a random variable



- Joint law and marginal laws of a pair
- Bienaymé-Tchebychev Inequality
- Basic laws on large numbers
- TCL
- **Probability laws**
- **Statistics:**
  - Graphical representation;
  - Central tendency, dispersion,(mean, mode, median, variance, and standard deviation, deciles, interquartile range);
  - Covariance;
  - Correlation coefficients and regression;
  - Least square methods;
  - Estimation of mean and standard deviation;
  - Test of hypothesis
  - Descriptive statistics;
- **Analysis III**
  - Whole series and Fourier series
  - Fourier transform, Laplace transform and Z transform

## 6. MPA313: WEB ANIMATION – ADOBE ANIMATE

**Credits: 6, Course State: Compulsory (C)**

- **Graphics Animation I:**
  - Introduction to Adobe Animate
  - Study of the Animate interface
  - Creation of Animate project and parameter setting
  - Importation of multimedia files
  - Basic concepts, creation of objects, object modeling, lighting, animation, and exportation
  - Lines creation
  - Selection and manipulation of lines
  - Pallet
- **Animation**
  - Usage of tools used in creation
  - Introduction to animation in Flash
  - Advanced techniques
  - Exportation
- **Web and multimedia II :**
- **Animation: Adobe Flash:**
  - Online Advertising: the banners
    - Types of banners;
    - Formats;
    - The animation.

- **Presentation of Flash**
  - Description of the interface;
  - Properties of a Flash document;
  - Tools and designs in Flash.
- **The palettes: Colors, gradients,; transformations, alignments**
  - Colormixer palette;
  - Colorswatches palette;
  - Apply a gradient;
  - The tool Free Transform;
  - Info palette;
  - Transform palette;
  - Align palette.
- **Adobe Flash: line of the time**
  - The Frame;
  - The Keyframe;
  - Types and Techniques of animation.
- **Adobe Flash: Symbols and Instances**
  - Typology;
  - Create a Symbol;
  - Duplicate; edit a symbol;
  - Change the properties of an instance;
  - Break a instance.
- **Adobe Flash: bitmap images**
  - Import the images;
  - Break the images;
  - Vectorize the images.
- **Macromedia Flash: animation by interpolation**
  - Motion Tween;
  - Motion Tween and motion guide;
  - Shape tween.
- **Macromedia Flash: mask layers**
  - Creation;
  - Restriction;
  - Animation.
- **Web design: Adobe Dreamweaver:**
  - Presentation of Adobe Dreamweaver
  - Preparation of a root folder and creation of a working file
  - Use of tools: menu and options to Dreamweaver
  - Achievement of the pages of a site
  - Creation of links in a site
  - The style sheets
    - Script actions;

- Programming of actions script;
- Animation and scenario;
- Interactivity.
- Import and integration of sounds to a document.
- Flash tabs;
- HTML tab.

## SECOND YEAR: SECOND SEMESTER

### 1. WSD312: EMAIL AND AFFILIATE MARKETING

**Credits: 6, Course State: Compulsory (C)**

- Email Marketing
- Analytics
- Digital Strategy
- **Introduction to Email and Affiliate Marketing**
  - Overview of email marketing and its benefits
  - Introduction to affiliate marketing and its role in digital marketing
- **Building and Growing an Email Marketing List**
  - Strategies for building an email list
  - Techniques for growing subscriber base and capturing leads
- **Email Marketing Strategies and Campaign Planning**
  - Defining marketing goals and objectives
  - Developing effective email marketing strategies
  - Creating a campaign plan and content calendar
- **Crafting Compelling Email Content**
  - Writing persuasive email copy and subject lines
  - Designing engaging email templates and layouts
  - Incorporating visuals and multimedia elements
- **Email Segmentation and Personalization**
  - Understanding audience segmentation
  - Creating targeted email campaigns based on subscriber attributes and behaviors
- **Email Deliverability and Optimization**
  - Best practices for maintaining high email deliverability rates
  - Optimizing emails for different devices and email clients
  - Conducting A/B testing for optimizing campaigns
- **Email Performance Measurement and Analytics**
  - Tracking and analyzing key email marketing metrics
  - Monitoring campaign performance and making data-driven decisions
- **Introduction to Affiliate Marketing**
  - Understanding the concept and benefits of affiliate marketing
  - Exploring different types of affiliate programs and networks
- **Finding and Evaluating Affiliate Partners**

- Identifying potential affiliate partners and networks
- Evaluating affiliate programs based on criteria such as commission structure and reputation
- **Affiliate Marketing Strategies and Campaign Planning**
  - Developing affiliate marketing strategies aligned with business goals
  - Creating a campaign plan and promotional calendar
- **Tracking and Optimizing Affiliate Marketing Campaigns**
  - Implementing tracking mechanisms and affiliate codes
  - Analyzing performance data and optimizing campaigns for maximum results
- **Legal and Ethical Considerations in Email and Affiliate Marketing**
  - Compliance with email marketing regulations and anti-spam laws
  - Ethical practices and transparency in affiliate marketing
- **Emerging Trends and Future Directions**
  - Exploring emerging technologies and trends in email and affiliate marketing
  - Adapting strategies to stay relevant in a changing digital landscape

## 2. OAS310: DIGITAL ECONOMICS & STRATEGIC MANAGEMENT

**Credits: 6, Course State: Compulsory (C)**

- **Digital Economy:**
  - **Transformation of the real economy into digital economy. Role of technology revolution in the world economy.**
  - **Digital innovation and its impact on economic growth. Concept of the “Fourth Industrial Revolution”.**
  - **Digital economy’s ecosystem :**
    - Infrastructure,
    - IT skills and growing digital population,
    - Online platforms.
    - Internet of Things
    - Cloud computing
    - E – commerce
    - E – finance
    - Data protection
    - Cybersecurity
  - **Review of regression analysis. Machine learning. AI (Artificial Intelligence)**
  - **Distributed ledger technology. Blockchain’s disruptive potential.**
  - **Firms in the digital economy :**
    - digital business models, increasing pressure to innovate,
    - large internet companies and OTT (over the top) services.
    - cross-border trade barriers.
  - **Households in the digital economy :**
    - individualization of products and services,

- changing structure of consumption,
- potential for economic participation.
- **States in the digital economy :**
  - e-government, e-public service,
  - digital enabling,
  - Evolving governance frameworks relevant to the digital economy.
- **Global technology frontiers and laggards; Comparative global overview of the advancement in innovation in the digital economy.**
- **Digital economy's social impact. The digital divide.**
- **Key factors of globalization and economic growth in the digital age**
- **Strategic management:**
  - Understand the strategic decisions that organizations make and have an ability to engage in strategic planning.
  - Explain the basic concepts, principles and practices associated with strategy formulation and implementation.
  - Integrate and apply knowledge gained in basic courses to the formulation and implementation of strategy from holistic and multi-functional perspectives.
  - Analyze and evaluate critically real life company situations and develop creative solutions, using a strategic management perspective.
  - Conduct and present a credible business analysis in a team setting.
  - Understand the crucially important role that the HRM function plays in the setting and implementation of an organization's strategy

### **3. OAS314: APPLIED MATHEMATICS AND QUALITATIVE FINANCE**

**Credits: 6, Course State: Compulsory (C)**

- **Financial analysis :**
- **Linear Algebra for economist :**

### **4. WSD380: INTERNSHIP**

**Credits: 6, Course State: Compulsory (C)**

- 8 Weeks Internship
- **Methodology for drafting the report of internship:**
  - The collection of information
  - How to make a report
  - The plan of the probationary report and the Executive Summary
  - The Table of Contents
  - The introduction of the report of internship
  - The conclusion of the Internship report
  - The Acknowledgments
  - How to build the annex
  - When to start his internship report
  - How to find a subject of Internship report

- The cover page
- How to write effectively
- Form and presentation (coverage, MSDS, summary, bibliography, glossary, index of figures, tables and illustrations)
- Instructions and typographical rules of presentation (police, spacing, titles, highlighted, punctuation, graphic charter)
- How to prepare the defense

## 5. WSD390: ACADEMIC PROJECT

### **Credits: 12, Course State: Compulsory (C)**

- Personal Practical Project (70%)
- Written Project (Project Report) (30%)
- **Project I:**
- 1. Realize a project that falls within the HND curriculum

# HND E-COMMERCE AND DIGITAL MARKETING COURSES

## FIRST YEAR: FIRST SEMESTER

SN	COURSE CODE	STATE	CREDIT VALUE	COURSE TITLE
01	WSD201	C	6	HTML/CSS
02	WSD203	C	6	Database Management Systems
03	WSD205	C	6	PHP I
04	WSD245	C	6	Introduction to Software Engineering
05	GDP211	C	6	Graphic and Multimedia Design
06	FRE101	R	2	Basic French Language I
07	ENG101	R	2	Basic English Language I
08	DIL101	R	4	Digital Literacy
<b>Total Credits:38</b>				

## FIRST YEAR: SECOND SEMESTER

SN	COURSE CODE	STATE	C. VALUE	COURSE TITLE
01	WSD202	C	6	JavaScript
02	WSD204	C	6	Content Management System (WordPress)
03	WSD212	C	6	Introduction to Digital Marketing & E-Commerce
04	WSD232	C	6	Programming I - C
05	WSD240	C	6	Engineering Mathematics I
06	CVE102	R	4	Civics, Ethics and Law
07	IPL102	R	4	Integration to Professional Life
<b>Total Credits: 38</b>				

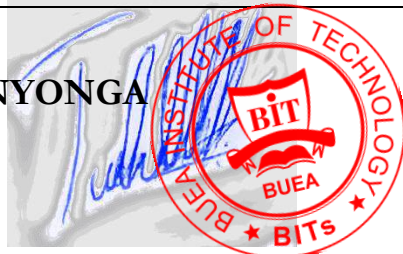
## SECOND YEAR: FIRST SEMESTER

SN	COURSE CODE	STATE	CREDIT VALUE	COURSE TITLE
01	WSD311	C	6	Search Engine and Display Advertisement
02	WSD313	C	6	Content and Social Media Marketing
03	WSD315	C	6	Search Engine Optimisation
04	WSD317	C	6	Electronic Payment Systems
05	WSD341	C	6	Engineering Mathematics II
06	MPA313	C	6	Web Animation – Adobe Animate
<b>Total Credits: 36</b>				

## SECOND YEAR: SECOND SEMESTER

SN	COURSE CODE	STATE	C. VALUE	COURSE TITLE
01	WSD312	C	6	Email and Affiliate Marketing
02	OAS310	C	6	Digital Economics & Strategic Management
03	OAS312	C	6	Applied Mathematics and Qualitative Finance
04	WSD380	C	6	Internship
05	WSD390	C	12	Academic Project II
<b>Total Credits: 36</b>				
<b>General Credits to be Obtained: 148</b>				

**TEGHEN Clovis MONYONGA**  
Dean of Studies



Date: Monday, July 17<sup>th</sup> 2023