ST. VINCENT AND THE GRENADINES COMMUNITY COLLEGE

Advanced Mobile Application Development Program
And
Mobile Application Development program

Certificate in Mobile Application Development

Introduction

Mobile application development is the process by which application software is developed for low-power handheld devices, such as tablets or mobile phones. These applications can be pre-installed on phones during manufacturing, downloaded by customers from various mobile software distribution platforms, or delivered as web applications using server-side or client-side processing (e.g. JavaScript) to provide an "application-like" experience within a Web browser. Mobile app development has been steadily growing, both in terms of revenues and jobs created and in an ever increasing global technological arena, it has become important to equip citizens of St. Vincent and the Grenadines. This will both enhance the development of Local Information Content and Applications and also increase the capacity Building and training of students in this subject area.

This programme aims to provide participants with:

1. The necessary skills and knowledge so that he or she will be able to build mobile applications across platform(android, Blackberry and IOS)
2. A qualification that is useful in the private and public sector to further their careers.
3. The essential knowledge needed to develop functional apps which can be marketed on the national, regional and international market.

Programme Objectives

1. To provide participants with a well-rounded academic and hands on training in programming.
2. The NTRC identified the delivery of an Application Development Program at the St. Vincent and the Grenadines Community College as vital to the development of this country. The opportunities that locally developed ICT applications can create on our public and private sectors are endless as most of the region and the world download apps from Europe and North America. St Vincent and the Grenadines can, with the implementation of these programs, be an exporter of these services and revenues from this emerging market can be beneficial to both the app developers and the economy of the country on a whole.

Programme Structure

The certificate in advance Mobile application development and certificate in Mobile Application development utilises a semester system. It is designed to run as a part time programme over two years. The part time programme utilises two semesters and a summer session for each of two academic years. Each semester is 15 weeks plus the examination period and the summer session is 8 weeks plus the examination period.

Qualifications for Admission for the Certificate in Advance mobile application Development

Applicants should have at least the following:

1. Five CXC-CSEC or GCE O' Level passes inclusive of Math and English A.(Grades I, II or III) or their equivalent

2. Two A Level or CAPE passes inclusive of Information Technology or Math.(Grade A B or C)

   OR

3. Holders of approved relevant certificates from the UWI School of Continuing Studies or Open Campus or other notable institution.

   OR

4. Persons who do not meet the above requirements but who have relevant work experience.

NOTE: Prospective candidates will be required to attend an interview prior to admission

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NOTE: Prospective candidates will be required to attend an interview prior to admission

Scheduling of courses for Advanced Mobile application development (Part time two years)

COURSE CODE	COURSE TITLE	Hours per week			Total Credits
		Year 1	Year 2	Hrs	

		Sem 1	Sem 2	Sem 1	Sem 2		
	GENERAL EDUCATION						
	Creative thinking and Innovation			3		3	
	Sales and Marketing		3			3	
	Management	3				3	
Minimum number of General Education Course credit required							**9**
	CORE COURSES						
	Java 1	3				3	
	Objective C 1	3				3	
	Java 2		3			3	
	Objective C 2		3			3	
	Application Development for Android			3		3	
	Application Development for IOS			3		3	
Minimum number of Core Course credits required							18
	ELECTIVES						
	Application Development for Blackberry				3	3	
	Application Development for Windows				3	3	
Minimum number of elective credits required							**3**
Minimum number of credits needed to graduate							**27**

Scheduling of courses for Mobile Application Development (Part time two years)

COURSE CODE	COURSE TITLE	Hours per week							Total Credits
		Year 1			Year 2			Hrs	
		Sem 1	Sem 2	Sum 1	Sem 1	Sem 2	Sum 2		
	GENERAL EDUCATION								
	Creative Thinking and Innovation				3			3	3
	Sales and Marketing		3					3	3
Minimum number of General Education Course credit required									**6**
	CORE COURSES								
	HTML and CSS	3						3	3
	Database Management		3					3	3
	Java 1	3						3	3
	Project					3		3	3
									15
Minimum number of elective credits required									**0**

Minimum number of credits needed to graduate								**21**

PROGRAMME COMPLETION TIMES

Students studying for a Certificate in advance Mobile application development must complete the programme in a minimum of 5 semesters including summers and a maximum of 10 semesters.

Students studying for a Certificate in Mobile application development must complete the programme in a minimum of 5 semesters including summers and a maximum of 10 semesters.

REQUIREMENTS FOR THE AWARD OF THE Certificate in Advanced Mobile Application Development

In order to qualify for the award of the Certificate in Advanced Mobile Application Development, candidates must have:

a. Completed 27 credits of which 9 are from the General education courses

b. Satisfied the course requirements for their specific programme

c. Completed the programme within the maximum allowable timeframe.

REQUIREMENTS FOR THE AWARD OF THE Certificate in Mobile Application Development

In order to qualify for the award of the Certificate in Mobile Application Development, candidates must have:

a. Completed 21 credits of which 6 are from the General education courses

b. Satisfied the course requirements for their specific programme

c. Completed the programme within the maximum allowable timeframe.

GRADING SYSTEM

The authorized grading system is as indicated below. In the determination of the Grade Point Average (GPA), the defined grades with the corresponding quality points are as indicated below.

Grade	Mark	Quality Points
A+	90% - 100%	4.00
A	85% - 89%	3.75
A-	80% - 84%	3.5
B+	75% - 79%	3.25
B	70% - 74%	3.0
B-	65% - 69%	2.75
C+	60% - 64%	2.5
C	55% - 59%	2.25
C-	50% - 54%	2.0
D	40% - 49%	1.0
F	0% - 39%	0.0

CATEGORIES OF AWARD OF THE ASSOCIATE DEGREE

The categories of award for the certificates are: Distinction, Merit and Pass
The categories are based on the GPA system as follows:

Distinction	GPA of 3.75 and above
Merit	GPA of 3.50-3.74
Pass	GPA of 1.00-3.49

DETAILED COURSE OUTLINES

1. Course title: **Management**

2. Course code: **MGMT**

3. Course Provider: SVG Community College: – Division of Arts, Science and General Studies

4. Level: **First year course**

5. Semester Semester **1**

Provided across Departments/Faculties

6. No. of credits/ Hours: 3 credits / 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description** This course is designed to expose students to the basic concepts in business. It exposes students to the different environments in which businesses exist and the various functions of businesses. It also establishes the interdependence of the various functional areas of business and how they work together for the overall success of the business.

9. Course Rationale: The purpose of this course is to ensure that participants develop a good understanding of the roles that businesses play in economic development. It also builds the foundation needed to succeed in subsequent courses in the Associate Degree in Business Studies Programme.

10. Learning Outcomes:

Upon successful completion of this course, the student will be able to;

- Explain and apply essential business concepts in the practice of business.
- Demonstrate awareness of interrelationships between different business functions.
- Analyze the different forces in the Caribbean business environment and the global environment and determine their impact on business operations.
- Outline the various legal forms of businesses and how these legal forms affect their functions.
- Outline the role of businesses in our economies.
- Explain the importance of effective business management to the success of a business.

- Evaluate the various activities that take place in the functional areas of a business.

11. Content:

- The Caribbean Business Environment
- Economic Systems
- Conducting Business in the Caribbean
- Conducting Business in a Global Environment
- Ethics and Social Responsibility in Business
- Managing the Business Enterprise
- Understanding Entrepreneurship and the Small Business
- Organizing the Business Enterprise
- Managing Human Resources
- Understanding Employee Motivation and Leadership
- Understanding Marketing Processes and Consumer Behavior
- Developing and Pricing Products
- Distributing and Promoting Products
- Financing the Business

12. Teaching Methodology Classroom discussions, group work, case study, lectures, texts, supplied readings and internet use (video clips, research medium).

13. Assessment Students will complete a course work assignment, a midterm, and a final exam. Each exam will consist of questions based on material covered both in the textbook chapters, lecture material and class discussion. **Exams** (midterm and final) comprise a total of **75%** of the final mark, while the **assignment** will contribute the last **25%** of the final mark.

(i)Assessed coursework

Assignment 1: Group Report 30%

A written 8 – 10 page report should be submitted on a business organization and must incorporate the first seven topics.

Oral Presentation of Report 10%

A creative 15-minute oral presentation on chosen report.

Final exam 60%

This paper consists of two sections. Section one is compulsory and students will be required to answer two questions in section 2.

14. Course Evaluation Formative and summative

15. Required Readings

Text:

Griffin, R. & Ebert, R. (1999International Edition) Business. (5/E) Prentice Hall. ISBN 0-13-081747-3.

Supplemental Text: Daft, Richard. (2005) Management. (7/E) Thomson South Western ISBN 0-324-31798-0.

Readings:

Other readings will be determined by the lecturer.

16. Course Calendar

Teaching Schedule

Week 1: The Caribbean Environment
Ch. 1

The Caribbean Business Environment

Specific Objectives:

Students should be able to:

1. Define the nature of the Caribbean business environment and identify its main goals and functions.

2. Describe the external environments of business.
3. Discuss how these environments affect the success or failure of any organization.

Content:

- The concept of business and the concept of profit.
- The Characteristics external environment
- Factors that may cause success or failure in an organization.

Reading: Lecturers Notes and Handouts; Required Text

Week 2: Economic Systems **Ch.2**

Economic Systems

Specific Objectives:
Students should be able to:

1. Describe the different types of global economic systems according to the means by which they control the factors of production.
2. Identify the factors used to evaluate the performance of an economic system.
3. Explain the importance of the economic environment to business.

Content:

- Factors of Production
- Different Global Economic Systems
- Evaluating the different economic systems

Reading: Lecturers Notes and Handouts; Required Text.

Week 3: Conducting Business in the Caribbean

Conducting Business in the Caribbean

Specific Objectives:
Students should be able to:

- Identify the major forms of business ownership in the Caribbean.
- Explain the advantages and disadvantages of each type of ownership.
- Demonstrate an understanding of the role of Caricom in shaping the business environment.

Content:

- Types of business organizations
- The role of government
- Natural monopolies-CWSA/VINLEC
- Caricom/CSME/COTED/ CRNM
- Lome' to Cotonou

Reading: Lecturers Notes and Handouts; Required Text.

Week 4: Conducting Business in a Global Environment

Conducting Business in a Global Environment

Specific Objectives:
Students should be able to:

1. Explain the different barriers to trade.
2. Discuss how the Caribbean responds in this global environment.
3. Describe some of the ways in which social, cultural, economic and political differences among nations affect international business.

Content:

- Barriers to International Trade
- Economic Partnership Agreement

Reading: Lecturers Notes and Handouts; Required Text..

Week 5: Ethics and Social Responsibility in Business

Ethics and Social Responsibility in Business

Specific Objectives:
Students should be able to:

1. Explain how individuals develop their personal codes of ethics and why ethics are important in the workplace.
2. Distinguish social responsibility from ethics.
3. Identify organizational stakeholders.
4. Demonstrate social consciousness.
5. Show how the concept of social responsibility applies both to environmental issues and to a firm's relationships with customers, employees, and investors.
6. Identify four general approaches to social responsibility and describe the four steps that a firm must take to implement a social responsibility program.
7. Explain how issues of social responsibility and ethics affect small business.

Content:

- Definition of ethics
- Ethical dilemmas
- The domains of human action
- Reasons for not reporting unethical conduct
- categories of ethical issues
- Factors that influence business ethics
- Whistle blowing
- Arguments for and against social responsibility
- The ethics officer
- The environmental audit

Readings: Lecturers Notes and Handouts; Required Text.

Week 6: Managing the Business Enterprise

Managing the Business Enterprise

Specific Objectives:
Students should be able to:

1. Describe the nature of management and identify the four basic functions that constitute the management process.
2. Identify different types of managers likely to be found in an organization by level and area.
3. Describe the basic skills required of managers.
4. Explain the importance of strategic management and effective goal setting in organizational success.
5. Discuss contingency planning and crisis management in today's business world.
6. Describe the development and explain the importance of corporate culture.

Content:

- Who are managers?
- The management process
- Types of managers
- Areas of management
- Management skills
- Strategic management
- Hierarchy of plans
- Management and the corporate culture
- Managing change in the culture

Readings: Lecturers Notes and Handouts; Required

- Reconstructing the past
- Memory and the power of suggestion
- In pursuit of memory
- The three-box model of memory
- The biology of memory

- How we remember
- Why we forget
- Autobiographical memories

Week 7- Understanding Entrepreneurship and the Small Business

Understanding Entrepreneurship and the Small Business

Specific Objectives:

Students should be able to:

1. Define small business.
2. Discuss the importance of small businesses to developed and developing economy, and explain popular areas of small business.
3. Explain entrepreneurship and describe some key characteristics of entrepreneurial personalities and activities.
4. Describe the business plan and the start-up decisions made by small businesses and identify sources of financial aid available to such enterprises.
5. Discuss and identify the trends in small business start-ups and the main reasons for success and failure among small businesses.

Content:

- What is small business?
- Entrepreneurship
- Characteristics of an entrepreneur
- Starting and operating a new business
- Trends in small business
- Reasons for failure and success

Readings: Lecturers Notes and Handouts; Required Text.

Week 8: Organizing the Business Enterprise

Organizing the Business Enterprise

Specific Objectives:
Students should be able to:

1. Discuss the factors that influence a firm's organizational structure.
2. Explain specialization and departmentalization as two of the building blocks of organizational structure.
3. Describe centralization and decentralization, delegation, and authority as the key ingredients in establishing the decision-making hierarchy.
4. Explain the differences among functional, divisional, matrix, and international organizational structures and describe the most popular new forms of organizational design.
5. Describe the informal organization

Content:

- What is organisational structure?
- Determinants of organisational structure
- The building blocks of organisational structure
- Establishing the decisions making hierarchy
- Tall and flat organisations
- The delegations process
- Forms of authority, organisational structure
- Organisational design for the 21st century

Readings: Lecturers Notes and Handouts; Required Text

Week 9- Managing Human Resources

Managing Human Resources

Specific Objectives:
Students should be able to:

1. Define the role of Human Resource Management.
2. Discuss the steps in developing a workforce.
3. Discuss the methods of compensation.
4. Evaluate the importance of unionized labor.
5. Identify the importance of a diverse workforce.
6. Explain why workers organize into labour unions
7. Describe the collective bargaining process.
8. Explain the methods used to resolved disputes.

Content:

- The nature of human resource management
- Planning for HR needs
- Steps in developing the workforce.
- Compensating the work force.
- Managing unionized labor.
- Why do workers unionise?
- Laws governing labour/management relations
- Collective bargaining
- Resolving disputes

Readings: Lecturers Notes and Handouts; Required Text.

Week 10 GROUP PRESENTATIONS AND REPORT

Week 11: Understanding Employee Motivation and Leadership

Understanding Employee Motivation and Leadership

Specific Objectives:

Students should be able to:

1. Identify and discuss the basic forms of behaviors that employees exhibit in organizations.
2. Describe the nature and importance of individual differences among employees.
3. Explain the meaning and importance of psychological contracts and the person-job fit in the workplace.
4. Summarize the most important models and concepts of employee motivation.
5. Describe some of the strategies and techniques used by organizations to improve employee motivation.

Content:

- Human relations in the workplace
- Motivation in the workplace
- Strategies for enhancing job satisfaction and motivation
- Managerial styles and leadership

Readings: Lecturers Notes and Handouts; Required Text

Week 12 Understanding Marketing Processes and Consumer Behavior

Understanding Marketing Processes and Consumer Behavior

Specific Objectives:
Students should be able to:

1. Explain the concept of marketing and identify the five forces that constitute the external marketing environment.
2. Explain market segmentation and how it is used in target marketing.
3. Describe the key factors that influence the consumer buying process.
4. Discuss the three categories of organizational markets.
5. Explain the definition of a product as a value package and classify goods and services.
6. Describe the key considerations in the new product development process and explain the importance of branding and packaging

Content:

- What is marketing?
- Target marketing and market segmentation
- Market research
- Understanding consumer behavior
- Organisational marketing and buying behaviour

Readings: Lecturers Notes and Handouts; Required Text.

13: Developing and Pricing Products

Developing and Pricing Products

Specific Objectives:
Students should be able to:

1. Identify a product and distinguish between consumer and industrial products.

2. Trace the stages of the product life cycle.
3. Explain the importance of branding, packaging and labeling.
4. Identify the various pricing objectives that govern pricing decisions and describe the price-setting tools used in making these decisions.
5. Discuss pricing strategies that can be used for different competitive situations and identify the pricing tactics that can be used for setting prices.

Content:

- What is a product?
- Developing new products
- The product life cycle
- Identifying Products
- Determining Prices
- Pricing strategies and tactics

Readings: Lecturers Notes and Handouts; Required Text.

Week 14: Distributing and Promoting Products

Distributing and Promoting Products

Specific Objectives:
Students should be able to;

1. Explain the meaning of distribution mix, identify the different channels of distribution, and describe the major activities in the physical distribution process.
2. Describe the role of wholesalers and explain the different types of retailing.
3. Explain the meaning of distribution mix, identify the different channels of distribution, and describe the major activities in the physical distribution process.
4. Describe the role of wholesalers and explain the different types of retailing.
5. Identify the different marketing strategies used when dealing with goods and services.

Content:

- The distribution Mix
- Wholesaling
- Retailing
- Physical Distribution
- The Importance of Promotion
- Advertising Promotions
- Personal Selling
- Sales promotion
- Publicity and Public Relations
- International Promotion Strategies
- Difference between goods and services

Week 15: Financing the Business

Financing the Business

Specific Objectives:
Students should be able to:

1. Identify and describe the various ways firms raise capital and the pros and cons of each method.
2. Identify the major stock exchanges and stock markets.
3. Describe the role of securities markets.

Content:

- Why do businesses need funds?

- Sources of short-term funds
- Sources of long-term funds
- Securities markets

Readings: Lecturers Notes and Handouts; Required Text.

Readings: Lecturers Notes and Handouts; Required Text**Final Exam:** based on the topics covered from week 11 through 15, handouts, readings, and class activities.

17. Pre-requisites:	None
18. Co-requisites:	None
19. Post-requisites	None
20. Forbidden combinations:	None

21. Academic staff member who may be contacted for more information:

Name:Mr. Shefforn Ballantine	Telephone: 784 457-5403
Title: Mr.	E-mail:
Faculty: Arts, Science and General Studies	Department:

1. Course title:	**Creative Thinking and innovation**
2. Course code:	CT01
3. Course Provider:	SVG Community College: Division of Arts, Science and General Studies
4. Level:	**1**
5. Semester	Semester **2**

Provided across Departments/Faculties

6. No. of credits hours: 3 Credits/ 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description** This course introduces the student to a working knowledge of the basic elements of design and composition delivering an understanding of the principles of aesthetics and design as they relate to digital still imaging as an expressive and communicative art form. Through lectures, critiques, demonstrations and projects, students will understand the art and design foundations of form, color composition, aesthetics as well as technical and conceptual issues of the digital image.

9. Course Rationale: The computer design field is highly competitive and a working knowledge of the visual language as it relates to design is essential to create original compelling designs. This course is intended to equip students with the necessary ability to independently articulate concepts using the visual language as fundamental to innovation in digital image design.

10. Learning Outcomes:

On completion of this course students will be able to:-

• Recognize the elements of visual composition.

• Understand and recognize expressive, symbolic and structural use of color as a compositional element.

• Be able to critically analyze a visual image/composition

• Identify the criteria for determining 'successful' art and design.

• Demonstrate ability to use elements and principles in graphic imagery.

• Increased confidence in describing and analyzing, interpreting and judging visual imagery.

• understanding design process

11. Content:

- Introduction to the visual language as a means of communication;
- The Basic Elements of Art and Design: Line, Space, Colour, Form, Texture, Pattern, Rhythm, Contrast; Balance, Movement, Structure.
- Functions and styles of drawing;
- Research Practice in Art and Design
- Design as a Creative Process- recognition and evaluation.
- The content and meaning of visual composition
- Visual Analysis and Creative Production

12. Teaching Methodology Online instruction through Moodle and Blackboard Collaborate; lectures; lecturer/student face to face interactive sessions; critique sessions where student groups critically discuss the work of their peers; Learning Blog portfolio

13. Assessment Coursework submissions/assignments: 70%; Dedication, collaboration and Participation: 20%; Creative Response (Independent research, documentation and evidence of problem solving): 10%.

14. Course Evaluation Formative and summative

15. Required Readings

Text Websites as recommended throughout duration of course as well as:-

Principles of Design, Joshua David McClurg- Genevese, Digital Web, 2005, http://www.digitalweb.com/articles/principles_of_design/

Elements of Design, Joshua David McClurg-Genevese, Digital Web, 2006, http://www.digitalweb.com/articles/elements_of_design/

Principles and Elements of Design, Joshua David McClurg-Genevese, Digital Web, 2006,

www.digital-web.com/articles/principles_and_elements_of_design/

Color: An Investigation, Joshua David McClurg-Genevese, Digital Web, 2006, http://www.digitalweb.

com/articles/color_an_investigation/

TEACHING SCHEDULE (based on a 15 week semester---- 3 classes per week)

Week 1: Introduction

Specific Objectives:

Students should be able to:

- Identify the course objective and direction of the course

Content

Introduction:

Study goals, journaling; methods of documentation.

Slide presentation: The Visual Elements in Art, Design and Everyday Life. Introduction to the Elements and the Visual Language as communication.

Week 2: Functions and styles of drawing;

Students should be able to:

- Identify the functions and styles of drawing and practically demonstrate them.

Content;

- Drawing as practice,
- Exploration and recording of the visual language.
- Observational Drawing exercise.
- Assignment 1: Annotated drawing of natural form from different viewpoints. (20 marks)

Week 3: **Research Methods in Art and Design**

Students should be able to:

Identify the different methodologies in art and design

Content;

Research Methods in Art and Design.

Week 4: **The creative process:**

Students should be able to:

Articulate the creative process

Content

- Generation of original ideas:
- Observation,
- Recording,
- Reflection,
- Research.
- Creative indicators. Assignment 2: Observe and record creative indicators in peers and public figures. (10 marks)

Week 5; **Design As a Creative Process**

Students should be able to:

- Create a design process

Content

- Design as a Creative Process- recognition and evaluation.
- Slide presentation.
- Assignment 3: Design ascribed outcome using the creative process (20 marks)

Week 6: **Presentation**

- Presentation and assessment of Assignment 3.
- Introduction to Composition: analysis content and meaning of visual composition. Examples from diverse fields of art and design. Homework:
- Research Golden Section.

Week 7: **Pattern Language**

Students should be able to:

- Design as Pattern Language

Content

- The visual Language/design as communication and Response.
- Juxtaposition of elements and properties.

Week 8: **Analysis and creative production**

Students should be able to:

- Analyse various creative productions

Content

- Combining knowledge of visual language and critical analysis based on technical and functional limitations Assignment 4.
- Analyse four selected designs from different areas using appropriate terminology.
- Provide evidence of in-depth analysis and exploration; discoveries. (20 marks)

Week 9: **Product Development**

Students should be able to:

- Identify the 9 stages of product development

Content

- Nine stages of Project Development from set brief to concept to resolution.

Week 10: Design Project Proposal

Students should be able to:

- Provide a complete proposal for a design
- Outline the various methodologies and phases for getting the project complete

Content

Introduction of Design Project proposal concept and compilation using the creative process.

Week 11: Submission of project proposal

Content

Submission of design project proposal outline: Intentions.

Week 12 Review/ Feedback

Content

Review/feedback of proposals for final project

Week 13: Product Development

Project development

Week 14: Project development

Final project development

Week 15: Presentation

Presentation of final project for group feedback and assessment

17. Pre-requisites:	none.
18. Co-requisites:	None
19. Post-requisites	None
20. Forbidden Combinations:	None

21. Academic staff member who may be contacted for more information:***

Name: Ms. Vonnie Roudette Telephone: 784 495 0503 Fax:

Mr. Ronald Greaves Telephone: 784 495 6554

.E-mail: vonnie.roudette@svgcc.vc

ronald.greaves@svgcc.vc

1. Course title:	**Database Management**
2. Course code:	IS102
3. Course Provider:	SVG Community College: Division of Arts, Science and General Studies
4. Level:	**First year course**
5. Semester	Semester **2** Provided across Departments/Faculties
6. No. of credits/ Hours:	3 Credits/ 45 Hours
7. Total study hours:	Includes: • teaching time • study time • a student's preparation time for classes
8. Course Description**	This course exposes students to key database management concepts including functional dependencies, SQL and normalization. Emphasis will be placed on the creation and manipulation of databases using Oracle, but this can be extended to any available DBMS.
9. Course Rationale:	Management information systems have emerged as an important tool to business organization and function. Most businesses today rely heavily on them to manage their day- to-day operations and to improve their efficiency. This course serves as an introduction to the concept and principles of manage that ICT graduates will need to put into practice when they enter the working world.
10. Learning Outcomes:	Describe basic concepts and principles of database management. • Explain different ways that files are organized in a database. • Create different components of a database and apply key strategies to integrate their functions. • Explain the roles of relational algebra and SQL in database management • Create a SQL driven relational database system that resolves a business problem. • Create a SQL supported distributed database that addresses an issue that a real organization is facing and addresses key security issues.

11. Content:

• Describe basic concepts and principles of database management.

• Explain different ways that files are organized in a database.

• Create different components of a database and apply key strategies to integrate their functions.

• Explain the roles of relational algebra and SQL in database management

• Create a SQL driven relational database system that resolves a business problem.

• Create a SQL supported distributed database that addresses an issue that a real organization is facing and addresses key security issues.

12. Teaching Methodology lectures, texts, supplied readings

13. Assessment **A Midterm and Final exam** (for a total of 75% of your final mark) will be required for this course.

(i) Written examinations **In class exams**: There will be a midterm and final exam consisting of multiple choice, short answer and essay type questions, each of 2 hours duration . The midterm will consist of 30% of the course grade, while the final exam will consist of 45% for a total of **75 %** of the final grade.

14. Course Evaluation Formative and summative

15. Required Readings

Text: Hoffer, J.A., Prescott, M., & Topi, H., (2008). *Modern database management* (9thed.). New Jersey: Prentice Hall.

Readings:

An introduction to database systems (latest ed.). New Jersey: Addison Wesley.

Database systems using oracle (Latest ed.). New Jersey: Prentice Hall.

Elmasri, R., & Navathe, S. Fundamentals of database systems (Latest ed.). NewJersey: Prentice Hall.

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester --- 3 classes x 2 hrs. duration per week)

Week 1 and 2: Introduction

Students should be able to:

- Identify the various Database Concepts
- Identify the various approaches

Content

• Basic Concepts – character, field, record, table/file, database, Database Management System, primary key, foreign key, secondary key, composite key, super key, candidate key

• The traditional/file oriented approach

• The database approach

• Advantages of databases

• Components of a DBMS – DDL, DML, Query Language, Report Generator

• The relational databases – hierarchical, network, relational, object-oriented, object-relational

Week 3 and 4: Database Design

Students should be able to;

- Identify the methodologies involved in designing a database
- Able to design a database

Content

• The Database Management System Life Cycle - Database Analysis, Database Design, Database Implementation, Database Testing and Evaluation, Operation, Database Maintenance

• Roles of database personnel - Data modelers, Business Analysts, Database Designers, Systems Analysts, Programmers and Database Administrators.

• Database Design – Conceptual, Logical, Physical

• Database Schema

• Entity- Relationship Diagrams

• Entity and Referential Integrity

• Functional Dependencies

• Computation of Closures

• Armstrong's Axioms

• Covers and their role in determining redundant FDs

• 1st, 2nd, 3rd Normal Forms

• Assessment of file layouts as they affect the functioning of a database.

• Physical and logical data organization.

Week 5 and 6: Introduction to relational Algebra and SQL

Students should be able to;

- Outline the role of DML and DDL
- Write SQL commands

Content

• The role of Relational DMLs and DDLs.

• The difference between relational algebra and relational calculus.

• Introduction to Relational algebra – Simple projection, selection, difference, renaming, union, intersection, division, join (natural, equi, inner, outer) and Cartesian product.

• SQL Commands - CREATE TABLE (using constraints – primary key, foreign key), ALTER TABLE, INSERT, SELECT (using WHERE, GROUP BY, ORDER BY, HAVING, aggregate functions, logical operators, comparison operators), SELECT sub queries, UPDATE, DELETE, CREATE VIEW, CREATE INDEX, DROP TABLE, DROP VIEW, DROP INDEX, GRANT and REVOKE, COMMIT and ROLLBACK.

Week 7: Midterm Exam: based on topics covered from week 1 through 6

Week 8 - 11: Distributed Databases

Students should be able to

- Explain and contrasts the various types of Databases
- Assess the various types of databases available

Content

Characteristics of a distributed database

• Definition of logical database, local and global application, global intelligence

• Assessment of a distributed database versus a loose connection of independent site

• Terms and concepts used in distributed databases – transparency, homogeneous versus heterogeneous distribution, fragmentation – vertical/horizontal, replication, and allocation

• Advantages and disadvantages of a distributed database

• Data mart

• Data warehouse

• Differences between data warehouse and operational database

• On-line analytical processing

• Data mining

• Transactions – Atomic, Consistent, Isolated, Durable (ACID)

• Concurrency control

Week 12 and 13: The role of the Data Dictionary

Students should be able to;

- Define and explain the various roles of Data Dictionary
- Management of the Data Dictionary

Content

• Database protection methods - backup and restore methods.

• Integrity Preservation – keys (primary and foreign), data validation, authority levels

• Security Control – unauthorized access and use, encryption, anti-virus, firewall, SQL views

Week 14: Review

Review of all material covered

Readings:

An introduction to database systems (Latest ed.). New Jersey: Addison Wesley.

Database systems using oracle (Latest ed.). New Jersey: Prentice Hall.

Elmasri, R., & Navathe, Fundamentals of database systems (Latest ed.). New Jersey:

Prentice Hall.

Week 15: Final Exam: based on topics covered from week 7 through 13

17. Pre-requisites: None

18. Co-requisites: None

19. Post-requisites None

20. Forbidden combinations: None

21. Academic staff member who may be contacted for more information:

Name: Ayodel Pompey	Telephone: 784 457-5403	Fax:
Title: Mr.	E-mail:	
Faculty: Arts, Science and General Studies	Department:	

1. Course title: **Java 1 Programming**

2. Course code: JV101

3. Course Provider: SVG Community College: Division of Arts, Science and General Studies

4. Level: **First year course**

5. Semester in which it will be offered : Semester **1**

Provided across Departments/Faculties

6. No. of credits/ Hours: 3 Credits/ 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description**

This course is for enterprise application developers wishing to build a mobile front-end. It is also applicable to games developers wishing to develop for mobile phones as well as programmers wishing to extend their platform capabilities.

8. Course Rationale:

Java is ubiquitous from the high-end servers, through to the desktop, and now down to mobile devices such as telephones and personal digital assistants (PDAs). The advent of the J2 Micro Edition (recently updated to simply, "Java ME") means that Java programs can now be installed and executed on such mobile devices. This course covers programming on the Java ME platform. It introduces the highly compact Java ME virtual machine (referred to as the kvm) and compares it to its desktop cousin. Device types (called Configurations and capabilities (called Profiles) are covered and programming aspects for each are individually presented. The Mobile Information Device Profile (MIDP) and the Connected Limited Device Configuration (CLDC) are covered as the basis for many of the Java-enabled (Java ME) phones, and comparisons with the Connected Device Configuration (CDC) for PDA's are made.

9. Learning Outcomes:

On completion of the course delegates will be able to:

- Explain the purpose of the Java ME configurations and profiles

- Describe the Connected Limited Device Configuration (CLDC)

- Describe the Mobile Information Device Profile (MIDP)

- Develop a Java ME based game on the MIDP

-interact with an Enterprise Java server Details.

10. Content:

- The Java platform
- Java Virtual Machine
- Java Tools
- Object Orientation
- Java Syntax
- Abstract Types
- J2ME Architecture
- Overview of Mobile Information Device Profile (MIDP)

12. Teaching Methodology lectures, assignments, and laboratory exercises.

13. Assessment **A Midterm and Final exam** (for a total of 75% of your final mark) will be required for this course.

(i) Written examinations **In class exams**: There will be a midterm and final exam consisting of multiple choice, short answer and essay type questions, each of 2 hours duration . The midterm will consist of 30% of the course grade, while the final exam will consist of 45% for a total of **75 %** of the final grade.

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14. Course Evaluation Formative and summative

Approaches

15. Required Readings

- Effective JAVA (Latest edition) Joshua Bolch.

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester --- 3 classes x 2 hrs. duration per week)

Week 1 and 2: The Java platform

The student must be able to;

- Understand the concepts involved with Java

Content

- Java History
- The Java Editions
- Java ME: Java Micro/Mobile Edition
- Java SE: Java Standard Edition
- Java EE: Java Enterprise Edition

Week 3 and 4 : **Java Virtual Machine**

The Student must be able to;

- Understand loaders, paths and finalizes.

Content

- The Java Virtual Machine
- Java environments
- Bytecode and bytecode example
- Runtime loading
- Classloaders
- Class paths
- JIT and hotspot
- Garbage collection and finalizes

Week 5 and 6: Java Tools

Students should be able to;

- Identify the various tools for JAVA
- Demonstrate good knowledge of running a JAVA code

Content

- Types of Java application (application, applet, servlet etc.)
- Applets as applications
- Java security model
- SDK tools
- Compilation
- Running Java code
- Debugging
- Other common tools
- The Java Virtual Machine
- Bytecode

Week 7 and 8 – Object Orientation

Students should be able to;

- Identify different types of objects
- Object orientation eases maintenance by the use of encapsulation and information hiding.

Content

- Benefits of Object Orientation
- What is an object?
- Classes
- Fields and methods
- Class member's vs instance members
- Messages and method invocation

Week 9 and 10: Java Syntax

Students should be able to;

- Learn to program in JAVA
- Learn how JAVA is written and identified.

Content

- Garbage collection
- Comparison of objects
- Primitive data types
- Compilation and execution of Java code
- Packages
- Java sourcefile structure
- Defining classes and interfaces
- Defining methods and fields
- JavaDoc
- Looping and conditional constructs

- Creating instances
- Java expressions
- Accessing members
- Arrays

Week 11 and 12 Abstract Types

Students should be able to;

- Effective identify and use Abstract types

Content

- Constructors and static initialisers
- Finalizers
- Inheritance
- Casting
- Abstract classes
- Interfaces
- Modifiers in Java

Week 13 and 14- J2ME Architecture

Students should be able to;

- Identify the configurations and architecture

Content

Overview of J2ME

Configurations and Profiles

Connected Limited Device Configuration (CLDC)

Connected Device Configuration (CDC)

Mobile Information Device Profile (MIDP)

Foundation Profile

J2ME architecture

Related Java systems

Week 15 - Overview of Mobile Information Device Profile (MIDP)

Students should be able to;

- Write a program in JAVA

Content

- Features of the MIDP
- MIDlets
- Control flow in MIDlets
- Midlet suites
- Deployment of Midlets
- Midlet JAR and JAD files
- Java Application Manager compared with Java Web Start

17. Pre-requisites: None

18. Co-requisites: None

19. Post-requisites

20. Forbidden combinations: none

21. **Academic staff member who may be contacted for more information:*****

Name: David Browne Telephone: 784 457-5403
Fax:

Title: Mr. E-mail:

Faculty: Arts, Science and General Studies

1.Course title: **Java 2 Programming**

2. Course code: JV102

3. Course Provider: SVG Community College: Division of Arts, Science and General Studies

4. Level: **First year course**

5. Semester Semester **2**

Provided across Departments/Faculties

6. No. of credits/ Hours: 3 Credits / 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description**

This course is for enterprise application developers wishing to build a mobile front-end. It is also applicable to games developers wishing to develop for mobile phones as well as programmers wishing to extend their platform capabilities.

9. Course Rationale:

Java is ubiquitous from the high-end servers, through to the desktop, and now down to mobile devices such as telephones and personal digital assistants (PDAs). The advent of the J2 Micro Edition (recently updated to simply, "Java ME") means that Java programs can now be installed and executed on such mobile devices. This course covers programming on the Java ME platform. It introduces the highly compact Java ME virtual machine (referred to as the kvm) and compares it to its desktop cousin. Device types (called Configurations and capabilities (called Profiles) are covered and programming aspects for each are individually presented. The Mobile Information Device Profile (MIDP) and the Connected Limited Device Configuration (CLDC) are covered as the basis for many of the Java-enabled (Java ME) phones, and comparisons with the Connected Device Configuration (CDC) for PDA's are made.

9. Learning Outcomes:

On completion of the course delegates will be able to:

- Explain the purpose of the Java ME configurations and profiles

- Describe the Connected Limited Device Configuration (CLDC)

- Describe the Mobile Information Device Profile (MIDP)

- Develop a Java ME based game on the MIDP

-interact with an Enterprise Java server Details.

10. Content:

- MIDP User interfaces
- Data Structures
- Exceptions
- Input and Output with Java ME
- Networking
- Multi threading in Java
- Inner classes

12. Teaching Methodology lectures, assignments, and laboratory exercises.

13. Assessment **A Midterm and Final exam** (for a total of 75% of your final mark) will be required for this course.

(i) Written examinations **In class exams**: There will be a midterm and final exam consisting of multiple choice, short answer and essay type questions, each of 2 hours duration . The midterm will consist of 30% of the course grade, while the final exam will consist of 45% for a total of **75 %** of the final grade.

.

14. Course Evaluation Formative and summative

Approaches

15. Required Readings

Main Texts

- **Effective JAVA (Latest edition) Joshua Bolch.**

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester --- 3 classes x 2 hrs. duration per week)

Week 1 and 2 : MIDP User interfaces

Students should be able to;

- Understand and explain MIDP user interfaces

Content

- Display issues with MIDP
- The LCD UI package
- Screens, Displayables and Commands
- Building and Testing with the J2ME Wireless Toolkit
- Multi-screen J2ME Applications
- Alerts and Forms
- Graphics with J2ME
- Keypress manipulation with J2ME
- Pointer support

Week 3 and 4: Data Structures

Students should be able to;

- Understand Data structures

Content

- What is a collection
- Collection Framework
- Collection interfaces (Set,List,Map)
- Iterators
- Collection implementations
- Choosing implementations
- Arrays Class
- Collections Class
- Wrappers

Week 5 and 6: Exceptions

Students should be able to;

- Use exceptions to handle errors and other exceptional events
- Identify an event that occurs during the execution of a program that disrupts the normal flow of instructions

Content

- Exceptions
- The try/catch/finally block
- Creating custom exception types
- Advice for debugging exceptions
- Input and output
- Input and output streams
- Stream concatenation
- Common stream types
- Text streams
- Object streams and serialization

Week 7 and 8 -**Input and Output with Java ME**

Students should be able to;

- Write code using JAVA ME

Content

- Connections
- Using Http Connection
- Other supported protocols
- Record management system
- Reading and writing records
- Searching records with filters
- Sorting records with comparators

Week 9 and 10- Networking

Students should be able to;

- Provide a point-to-point channel for applications that require reliable communications

Content

- Client/server networking
- TCP/IP networking
- Client and server coding in Java
- UDP/IP networking
- The URL object
- RMI overview

Week 11 and 12: Multi-threading in Java

Students should be able to

- Use multithreading in JAVA

Content

- Threads in Java
- The Thread class
- Creating new threads
- Stopping and controlling threads
- Synchronisation issues
- Deadlock
- Inter-thread communications through wait/notify

Week 13 and 14:**Inner classes**

Students should be able to;

- Identify and use inner classes

Content

- Static inner classes
- Member inner classes
- Local inner classes
- Anonymous inner classes

Week 15; Final Exams

17. Pre-requisites: Java 1

18. Co-requisites: None

19. Post-requisites

20. Forbidden combinations:

21. Academic staff member who may be contacted for more information:***

Name: David Browne Telephone: 784 457-5403 Fax:

Title: Mr. E-mail:

Faculty: Arts, Science and General Studies

1. Course title: **Objective C 1 Programming**

2. Course code: OBC101

3. Course Provider: SVG Community College: Division of Arts, Science and General Studies

4. Level: **Second** year course

5. Semester Semester **1**

Provided across Departments/Faculties

6. No. of credits/ Hours: 3 Credits/ 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description** If you are interested in becoming an iPhone or IPad application programmer, this course is for you. The Objective – C Programming training course presents the tools and skills needed to create applications for these mobile platforms, outlining the foundations of the Objective – C language. This course breaks down the process of becoming an IPhone developer, from getting started with the tools and the language to build user interfaces and working with the unique features of the IPhone. With multiple hands on exercises and demonstration projects, the core development tools for Iphone (Xcode, interface builder and instruments), the language (Objective- C) and the framework (Coca touch) will be explored. Coca will be used to create applications in the same way that OS X itself is created, since much of Coca is implemented in Objective – C, if you have knowledge in C or C+ you will be able to draw upon your existing background.

9. Course Rationale:

Objective-C is a general-purpose, object-oriented programming language that adds Smalltalk-style messaging to the C programming language. It is the main programming language used by Apple for the OS X and iOS operating systems and their respective APIs, Cocoa and Cocoa Touch.

10. Learning Outcomes:

- Design, Create and Develop Coca applications in Objective C for Macintosh using the Model-View-Controller (MVC) architecture
- Effectively use auto releasing Macintosh memory
- Develop and implement Objective C classes that use accessors and mutators
- Use Class categories, introspection and protocols
- Use control outlets and bindings
- Implement and control event responder claims

11. Content:

- Getting Started
- The tools
- Basics of C
- Memory and Pointers – Part 1
- Memory and Pointers – Part 2
- Thinking in Objects
- Writing in Objective C
- Memory Management
- Core Iphone Project Skills
- Debugging and Troubleshooting
- Using UI controls
- Custom views and Drawing
- Table Views
- Multi- View Applications
- Using the Image Picker
- Using the Accelerometer
- Saving Data
- Animation and Audio
- Finishing Touches

12. Teaching Methodology Classroom discussions, lectures, texts, Lab: SPSS

13. Assessment

Course Work- 60%(Lab Exercises-30%, Individual and Group Assignments-30%)

Exam- 40% (Midterm-10%. End of Term -30%).

14. Course Evaluation Formative and summative

15. Required Readings

Text **Objective – C for Absolute Beginners.IPhone, IPad and Mac Programming Made**

Latest Edition, Gary Bennette,Mitchell Fisher, Brad Lees.

Resources: Laptop/ Computer lab/SPSS software

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester---- 3 classes x 2 hrs. duration per week)

Week 1 and 2 : Learning outcomes/ Objective

Students should be able to;

- Identify what will be done during the program
- Understand the basic concepts about application development

Content

- Registering as an IPhone Developer
- Installing the Iphone SDK
- Joining the Apple Iphone Developer Program
- Building a "simple" IPhone application

Week 3: The Tools

Students should be able to;

- Use various tools such as Xcode and Iphone simulator for the development of applications

Content

- Using Xcode
- Using interface builder
- Using the Iphone simulator

Week 4 and 5: Basics of C

- Understand and use C to map efficiently to typical machine instructions

Content

- Coding statements and syntax
- Code Formatting
- Variables
- Operators
- Functions
- Scope
- Conditionals
- Creating a first Program
- Compiling and Running a First Program

Week 6 and 7 : Memory and Pointers- Part 1

Students should be able to;

- Explain how pointers and memory work and how to use them.

Content

- Arrays
- Loops
- Test Strings
- Multidimensional Arrays
- Pointers
- Dynamic Memory
- Strings and Dynamic Memory

Week 8: Memory and Pointers- Part 2

Students should be able to;

- Explain how pointers and memory work from the basic concepts through all the major programming techniques

Content

- Arrays and Strings
- Data Structures
- Header Files

Week 9 and 10: Thinking in Objects

Students should be able to;

- Solve problems using the object-oriented paradigm

Content

- Structures and Classes
- Accessors
- Inheritance
- Compositions

- Lifetime of Objects
- Built-in-classes

Week 11 and 12: Writing Objective-C

Students should be able to;

- Extend the standard ANSI C programming language by providing syntax for defining classes and methods.
- It also promotes dynamic extension of classes and interfaces that any class can adopt.

Content

- Introducing Objective - C
- Object Orientation basics
- Creating a simple Objective-C project
- Using existing classes in Coca
- Optionalvideo:Format Specifiers
- Calling Methods in Objective-C
- Core Foundation Value Classes(NSSTRING,NSNumbering,NSData,NSArray,NSDictionary,NSDate,NSSet,NSValue)
- Writing your own classes
- Compiling and running your own application

Week 13: Memory Management

Students should be able to;

- Use various methodologies for efficient memory management

Content

- Introduction to Memory Management
- Object Lifetime
- Cleaning Up
- Using Auto Release Pools

Week 14: **Core IPhone Project Skills**

Students should be able to;

- Have the necessary skills needed use and create a Iphone app

Content

- Using the different IPhone Project templates
- Using Model –View- Controller (MVC)
- Basic Interaction
- Dismissing the Keyboard
- Understanding Delegation
- How Your application works
- Alerting the user

Week 15; Final Exam

17. Pre-requisites: None

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18. Co-requisites: None

19. Post-requisites -

20. Forbidden combinations: -

21. Academic staff member who may be contacted for more information:***

Name: Mc Raynold Thomas Telephone: 784 457-5403 Title: Miss. E-mail:

Faculty: Arts, Science and General Studies Department:

1. **Course title:** **Objective C 2 Programming**

2. **Course code**: OBC102

3. **Course Provider**: SVG Community College: Division of Arts, Science and General Studies

4. **Level**: **Second** year course

5. **Semester** Semester **2**

Provided across Departments/Faculties

6. **No. of credits/ Hours**: 3 Credits/ 45 Hours

7. **Total study hours**: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description** If you are interested in becoming an iPhone or IPad application programmer, this course is for you. The Objective – C Programming training course presents the tools and skills needed to create applications for these mobile platforms, outlining the foundations of the Objective – C language. This course breaks down the process of becoming an IPhone developer, from getting started with the tools and the language to build user interfaces and working with the unique features of the IPhone. With multiple hands on exercises and demonstration projects, the core development tools for Iphone (Xcode, interface builder and instruments), the language (Objective- C) and the framework (Coca touch) will be explored. Coca will be used to create applications in the same way that OS X itself is created, since much of Coca is implemented in Objective – C, if you have knowledge in C or C+ you will be able to draw upon your existing background.

9. Course Rationale:

Objective-C is a general-purpose, object-oriented programming language that adds Smalltalk-style messaging to the C programming language. It is the main programming language used by Apple for the OS X and iOS operating systems and their respective APIs, Cocoa and Cocoa Touch.

10. Learning Outcomes:

- Design, Create and Develop Coca applications in Objective C for Macintosh using the Model-View-Controller (MVC) architecture
- Effectively use auto releasing Macintosh memory
- Develop and implement Objective C classes that use accessors and mutators
- Use Class categories, introspection and protocols
- Use control outlets and bindings
- Implement and control event responder claims

11. Content:

- Debugging and Troubleshooting
- Using UI controls
- Custom views and Drawing
- Table Views
- Multi- View Applications
- Using the Image Picker
- Using the Accelerometer
- Saving Data

- Animation and Audio
- Finishing Touches

12. Teaching Methodology Classroom discussions, lectures, texts, Lab: SPSS

13. Assessment

Course Work- 60%(Lab Exercises-30%, Individual and Group Assignments-30%)

Exam- 40% (Midterm-10%. End of Term -30%).

14. Course Evaluation Formative and summative

15. Required Readings

Text **Objective – C for Absolute Beginners.IPhone, IPad and Mac Latest Edition, Gary Bennette, Mitchell Fisher,Brad Lees.**

Resources: Laptop/ Computer lab/SPSS software

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester---- 3 classes x 2 hrs. duration per week)

Week 1 and 2: Debugging and troubleshooting

Students should be able to;

- Perform debugging and trouble shooting in C Programming

Content

- Troubleshooting your applications
- Creating and using breakpoints

- Using Zombies to fix problems

Week 3**: Using UI controls**

Students should be able to;

- Effectively use UI controls

Content

- Creating interfaces in interface builder
- Using and customizing the picker
- Using Data Sources
- Selecting an item in the picker
- Understanding and using the Apple UI guidelines

Week 4 and 5 : Custom Views and Drawing

Students should be able to;

- Create basic drawings
- Create your own views that are robust and reusable.

Content

- View and Drawing framework
- Basic Geometry
- Creating Shapes
- Converting geometry structures to strings
- Basic Drawings
- Bezier paths
- Images

- Shadows
- Gradients
- Refactoring View Code
- Text
- Mouse and Keyboard Events

Week 6: Table Views

Students should be able to;

- Create and use tables for various applications

Content

- Creating a simple table
- Reusing table cells
- Customizing the table
- Customizing table view cells

Week 7: Multi-View Applications

Students should be able to;

- Use multi view applications and create a utility application

Content

- Introduction to Multi view Applications
- Creating a utility application
- Using a tool bar
- Using a tab bar

Week 8: Using the Image Picker

Students should be able to;

- Understand and Utilize image picker

Content

- Understanding the image picker
- Using the image picker
- Checking for available image sources

Week 9: Using the Accelerator

Students should be able to;

- Understand and utilize the accelerator

Content

- Accelerometer Concepts
- Switching Orientation
- Reacting to a shake event
- Accessing accelerometer data

Week 10 and 11 : Saving Data

Students should be able to;

- Understand the concept of saving data on the Iphone Platform

Content

- Options for saving data on an IPhone
- Saving IPhone application data to property list
- Saving IPhone application preferences

Week 12 and 13: Animation and Audio

- The student should be able to understand and use core animation functions inclusive of audio

Content

- Core animation basics
- Using Simple animation
- Core audio basics
- Playing audio files

Week 14: **Finishing Touches**

Students should be able to;

- Create finishing touches to an application such as an icon

Content

- Creating an application launch image
- Creating an application icon
- Introduction to instruments

- Where to go from here

Week 15; Final Exam

17. Pre-requisites: Objective-C Programming 1

18. Co-requisites: None

19. Post-requisites **None**

20. Forbidden **None**

combinations:

21. Academic staff member who may be contacted for more information:***

Name: Mc Raynold Thomas **Telephone: 784 457-5403**
Title: Mr. **E-mail:**

Faculty: Arts, Science and General Studies **Department:**

1. **Course title:** **HTML/ CSS**

2. **Course code**: HTML101

3. **Course Provider**: SVG Community College: Division of Arts, Science and General Studies

4. **Level**: **Second** year course

5. **Semester** Semester **2**

   Provided across Departments/Faculties

6. **No. of credits/ Hours**: 3 Credits/ 45 Hours

7. **Total study hours**: Includes:

   - teaching time
   - study time
   - a student's preparation time for classes

8. **Course Description**** If you are interested in developing applications for major platforms and you are not interested in learning native languages for each platform, this course is for you. The course utilizes HTML,CSS ad Phone Gap for the production of functional apps for the more popular mobile platforms.

10. **Course Rationale:**

HTML or HyperText Markup Language is the main mark up language for creating web pages and other information that can be displayed in a web browser.HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behaviour of HTML web pages.

Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a mark up language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation.CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts.[1] This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for tableless web design).

PhoneGap is a mobile development framework produced which enables software programmers to build applications for mobile devices using JavaScript, HTML5, and CSS3, instead of device-specific languages such as Objective-C.The resulting applications are hybrid, meaning that they are neither truly native (because all layout rendering is done via web views instead of the platform's native UI framework) nor purely web-based (because they are not just web apps, but are packaged as apps for distribution and have access to native device APIs). onward it is even possible to freely mix native and hybrid code snippets.

10. Learning Outcomes:

- Learn the basics
- Learn to create links in HTML documents
- Learn to add images to HTML documents
- Learn to create HTML tables
- See how forms are built in HTML
- Learn the benefits of CSS
- Learn to avoid using deprecated tags and attributes
- Learn CSS Syntax
- Learn to use div and span tags appropriately
- Learn most of the common properties and their values
- Learn HTML new additions

11. Content:

- Introduction to HTML
- Paragraphs, Headings and text
- HTML Links
- HTML Images
- HTML Lists
- HTML Tables
- HTML Forms
- Sections and Articles
- HTM5 Audio and Video
- HTML 5 Forms
- HTML 5 New Form Attributes
- HTML5 New Form Field Attributes
- New Form Elements
- HTML5 Web storage and offline Technologies
- HTML5 Canvas

12. Teaching Methodology Classroom discussions, lectures, texts, Lab: SPSS

13. Assessment

Course Work- 60%(Lab Exercises-30%, Individual and Group Assignments-30%)

Exam- 40% (Midterm-10%. End of Term -30%).

14. Course Evaluation Formative and summative

15. Required Readings

Text **HTML & CSS. Learn how to build websites**

Resources: Laptop/ Computer lab/SPSS software

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester---- 3 classes x 2 hrs. duration per week)

Week 1: Introduction to HTML

Students should be able to;

- Understand the concept and characteristics of HTML

Content

- Getting started
- A simple HTML Document
- The HTML skeleton
- HTML Element

Week 2**: Paragraphs, Headings and text**

The student should be able to;

- Create a simple HTML page

Content

- Paragraphs
- Breaks and horizontal rules
- Creating a HTML Page

- Quoted text
- Preformatted text
- Phrase elements
- Formatting Elements

Week 3 : HTML Links

Students should be able to;

- Demonstrate a working knowledge of HTML links

Content

- Text Links
- Absolute Vs. Relative Paths
- Targeting New Windows
- Email Links
- Adding Links
- Anchors
- The title Attribute

Week 4: HTML Images

Student should be able to;

- Create image links and successfully ad images and links to pages

Content

- Inserting Images
- Image Links

- Adding Images to the Page

Week 5: HTML List

The student should be able to;

- Create a HTML list

Content

- Unordered list
- Ordered List
- Definition
- Creating List

Week 6: HTML Tables

The student should be able to;

•Create a HTML table

Content

- Creating tables
- Attributes
- Merging Cells
- Creating table

Week 7: HTML Forms

The student should be able to;

•Create a HTML form

Content

- How HTML Forms Work
- The Form Tag
- Form Elements
- Creating a registration form
- Adding check boxes and radio buttons
- Adding a select menu and a textara

Week 8 : Sections and Articles

The student should be able to;

•Have a good understanding of sections and articles

Content

- The section tag
- The article tag
- Outlining
- Accessibility

Week 9: HTML5 Audio and Video

The student should be able to;

•Show a good working demonstration of HTML 5 Audio and Video

Content

- Supported Video Types
- The audio element
- The video element
- Accessibility
- Scripting Media Elements
- Dealing with non supporting Browers

Week 10: **HTML5 Forms**

The student should be able to;

• Have a good working knowledge in HTML 5 forms

Content

- Modernizr
- New input types

Week 11: **HTML5 New Form Attributes and New form Elements**

The student should be able to;

- Have practical and theoretical knowledge of the new form attributes and form elements of HTML 5.

Content

- Requirement
- Placeholder
- Autofocus
- Autocomplete
- Form
- Pattern
- Datalist
- Progress and meter

Week 12: **HTML5 Web storage and offline technologies and HTML5 Canvas**

The student should be able to;

•Have practical and theoretical knowledge web storage and offline technologies of HTML 5.

Content

- Overview of HTML5 Web storage
- Web storage(local and session)
- Web SQL Database
- Other Storage methods
- Getting Started with Canvas
- Drawing Lines

- Color and transparency
- Rectangles
- Circles and Arcs
- Images
- Text

Week 13: **CSS**

The student should be able to;

•Have practical and theoretical knowledge of CSS.

Content

- Benefits of Cascading Style Sheets
- CSS Rules
- Selectors
- Precedence of selectors
- The Cascade
- Creating an embedded style sheet
- Creating an external style sheet
- Adding inline styles
- Media types
- DIV and Span
- Divs and Spans
- Units of measurement
- The inherit value

- @import

Week 14: **CSS Fonts**

The student should be able to;

- Have practical and theoretical knowledge of CSS Fonts

Content

- Font- the old way
- Font-family
- Font size
- Font family and font size
- Font-style
- Font-varient
- Font-weight
- Font style, font variant and font weight
- Letter spacing
- Word spacing
- Line height
- Text align
- Text decoration
- Text indent
- Text transform
- Vertical align
- White space
- Text properties

- About color values
- Color
- Background color
- Background image
- Colors and background

Week 15. FINAL Exam

17. Pre-requisites: None

18. Co-requisites: None

19. Post-requisites **None**

20. Forbidden **None**

combinations:

21. Academic staff member who may be contacted for more information:***

Name: Maurice John **Telephone: 784 457-5403** **Title: Mr.**
E-mail:

Faculty: Arts, Science and General Studies **Department:**

1. Course title: **Java Script**

2. **Course code**: JVS101

3. **Course Provider**: SVG Community College: Division of Arts, Science and General Studies

4. **Level**: **Second** year course

5. **Semester** Semester **2**

Provided across Departments/Faculties

6. **No. of credits**/ Hours 3 Credits/ 45 Hours

7. **Total study hours**: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. **Course Description**** JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It is also being used in server-side programming, game development and the creation of desktop and mobile applications. JavaScript is a prototype-based scripting language with dynamic typing and has first-class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the Self and Scheme programming languages. It is a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles

9.Course Rationale: This programming language is necessary in order for the development of app across platform with the use of phone gap

10. Learning Outcomes:

- Learn how JavaScript is used
- Learn JavaScript syntax
- Learn to work with JavaScript Variables
- Learn to create your own functions in JavaScript
- Learn how to write flow control logic in JavaScript
- Introduction to jquery
- Introduction to Ajax

11. Content:

- JavaScript Basics
- JavaScript Syntax
- JavaScript objects, methods and properties
- Event Handlers
- Variables, Arrays and operators
- JavaScript Operators
- JavaScript Functions
- User defined functions
- Conditionals and loops
- JavaScript Form Validation
- Storage
- J Query
- Ajax

12. Teaching Methodology Classroom discussions, lectures, texts, Lab: SPSS

13. Assessment

Course Work- 60%(Lab Exercises-30%, Individual and Group Assignments-30%)

Exam- 40% (Midterm-10%. End of Term -30%).

14. Course Evaluation Formative and summative

15. Required Readings

Text .

Resources: Laptop/ Computer lab/SPSS software

16. Course Calendar

TEACHING SCHEDULE (based on a 15 week semester---- 3 classes x 2 hrs. duration per week)

Week 1: JavaScript Basics

The student should be able to;

- Have a basic understanding of JavaScript

Content

- The HTML DOM

Week 2**: JavaScript Syntax**

The student must be able to;

- Understand the basic rules of JavaScript Syntax

Content

- Basic Rules
- Dot Notation
- Square Bracket Notation

Week 3 : JavaScript Objects, Methods and Properties.

The student must be able to;

- Identify and outline the JavaScript methods and properties

Content.

- Methods
- Dot notation
- The Implicit window object
- The get element by ido method

Week 4: Variables Arrays and operators

The student should be able to;

- Use variables arrays and operators

Content

- Java Script Cariables
- A loosely typed Language
- Storing User Entered Data

Week 5: Arrays

The student should be able to;

- Identify and use arrays

Content

- Associative Arrays
- Array properties and methods

Week 6: JavaScript Functions

The student should be able to

- Perform all java script options

Content

- Built in Functions
- Number (object)
- String (object)

- isNaN(object)
- parsefloatO and ParselentO

Week 7: User Defined functions

The Student should be able to;

- Identify and use user defined functions

Content

- Functions Syntax
- Passing values to functions
- A Note on Variable Scope
- Returning Values from Functions

Week 8 and 9: Conditionals and Loops

The Student should be able to;

- When and how to use conditionals and loops
- Identify the characteristics and properties of conditionals and loops

Content

- Conditionals

If-else if-else conditions

Switch/case

- Loops

  While loop syntax

  Do …while loop syntax

  For loop syntax

Week 10 and 11: JavaScript Form Validation

The student should be able to

- Perform form validation

Content

- Accessing Form Data
- Basics of form validation
- Validating radio buttons
- Validating checkboxes
- Validating select menus
- Focus,blur and change events
- Validating textareas

Week 12: **Storage**

The student should be able to;

- Store data

Content

- JSON

Week 13: **JQuery**

The Student should be able to ;

- Demonstrate a working knowledge if JQuery

Content

- Basic Flow of a JQuery
- Using $(document)readyO
- Selecting Elements
- Operating on selections
- Working with selections
- CSS, Styling and Dimensions
- Traversing
- Events handling
- Manipulating the DOM
- Creating New Elements

Week 14: **HTML5 Ajax**

The student should be able to ;

- Identify the key concepts and utilize HTML 5 Ajax

Content

- Key Concepts
- GET VS POST
- Data Types
- Asynchronous
- Forms
- Working with JSONP
- Ajax Events

17. Pre-requisites: None

18. Co-requisites: None

19. Post-requisites **None**

20. Forbidden **None**

combinations:

21. Academic staff member who may be contacted for more information:***

Name: Maurice John **Telephone: 784 457-5403** **Title: Mr.**
E-mail:

Faculty: Arts, Science and General Studies **Department:**

Course title: **Sales and Marketing**

2. Course code: MGMT 200

3. Course Provider: SVG Community College: – Division of Arts, Science and General Studies

4. Level: **First year course**

5. Semester Semester **1**

Provided across Departments/Faculties

6. No. of credits/ Hours: 3 Credits/ 45 Hours

7. Total study hours: Includes:

- teaching time
- study time
- a student's preparation time for classes

8. Course Description** Students are introduced to those characteristics necessary for the establishment and maintenance of good customer service. The practical course places emphasis on effective selling techniques, methods of handling objections, presenting and closing sales. Students learn to handle and package customers' purchases. In this course, students will also learn to assess customer value and loyalty, marketing performance and how the different marketing strategies contribute to the profitability and growth of their organizations. While blending theoretical and practical applications, this course teaches modern marketing and analytical models that make students more valuable in the workplace.

9. Course Rationale: The purpose of this course is to ensure that participants learn the strategic importance of marketing to an enterprise, whether it be a profit oriented business firm and the fundamental asset of a corporation is its customers. Hence, the supreme importance of the "marketing concept" is an attempt to identify and satisfy its customers' needs and wants.

10. Learning Outcomes:

Upon successful completion of this course, the student will be able to;

1. Perform experiential analysis to understand the challenges facing Marketing Managers
2. Create forward-looking metrics to better estimate future market trends and company success
3. Develop competency in leading edge Marketing Performance tools
4. Detailed assessment of Marketing's contribution to the Enterprise's financial performance
5. Analyse different pricing strategies and the role pricing plays in product positioning
6. Assess the profit impact of different Marketing strategies in a modern organization
7. Evaluate the effectiveness of Marketing strategies in a modern organization
8. Identify and critique unjust practices in local and global systems

9. Develop a Marketing Plan

10. **Content**:

- Understanding Marketing
- Gathering Information
- Creating Customer Value
- Analysing Business Markets
- Identifying Market Segments and Targets
- Creating Brand Equity
- Crafting the Brand Position
- Setting Product Strategy
- Developing Pricing Strategies and Programs
- Designing and Managing Integrated Marketing Channels
- Managing Mass Communications
- Managing Personal Communications:

12. Teaching Methodology	Classroom discussions, group work, case study, lectures, texts, supplied readings and internet use (video clips, research medium).
13. Assessment	Students will complete a course work assignment, a midterm, and a final exam. Each exam will consist of questions based on material covered both in the textbook chapters, lecture material and class discussion. **Exams** (midterm and final) comprise a total of **75%** of the final mark, while the **assignment** will contribute the last **25%** of the final mark.

(i)Assessed coursework

Assignment 1:	Group Report	30%

Group proposal (3 people maximum)

1. List some potential projects that you are interested in undertaking.

2. Check if market data is available for this project to be undertaken.

3. Check if the market data includes breakdowns by product category.

4. Check that market share data is available for at least the last five years.

5. Based on the above considerations determine if the project is feasible or not.

6. Submit a list of 3 projects in preference order to the Instructor for approval.

Oral Presentation of Report 10%

A creative 15-minute oral presentation on chosen report.

Final exam 60%

This paper consists of two sections. Section one is compulsory and students will be required to answer two questions in section 2.

14. Course Evaluation Formative and summative

15. Required Readings

Text:

Kotler, Keller, Cunningham & Sivaramakrishnan, Marketing Management, Most Recent Edition Pearson:

Other readings will be determined by the lecturer.

16. Course Calendar

Teaching Schedule

Week 1: Understanding Marketing Management

Understanding Marketing Management

Specific Objectives:

Students should be able to:

- Develop Marketing Strategies and Plans
- Explain the Marketing Plan

Content:

- Charasterics of Market Driven Organizations.
- Market Plan Project and its components

Reading: Lecturers Notes and Handouts; Required Text

Week 2: Gathering Information — Ch.2

Gathering Information

Specific Objectives:

Students should be able to:

- Conducting Marketing Research and Forecasting Demand
- Gathering Information and Scanning the Environment

Content:

- Define and analyse product market structures

- Create market profiles of customers
- Introduce financial tools for marketing performance analysis

Reading: Lecturers Notes and Handouts; Required Text.

Week 3: Creating Customer Value

Creating Customer Value

Specific Objectives:
Students should be able to:

- Creating Customer Value, Satisfaction and Loyalty

Content:

- Discuss customer lifetime value
- Explain the value creation process

Reading: Lecturers Notes and Handouts; Required Text.

Week 4: Analysing Business Markets

Analyzing Business Markets

Specific Objectives:
Students should be able to:

- Analyzing Business Markets

Content:

- Examine market targeting strategies
- Discuss strategic positioning
- Evaluate positioning effectiveness

Reading: Lecturers Notes and Handouts; Required Text..

Week 5: Market Segment

Market Segment

Specific Objectives:
Students should be able to:

- Identify Market segments and targets

Content:

- Create effective approaches to segmenting markets
- Discuss issues and guidelines to selecting target markets

Readings: Lecturers Notes and Handouts; Required Text.

Week 6: Branding

Branding

Specific Objectives:
Students should be able to:

- Create Brand Equity

Content:

- Examine the challenges of brand management
- Discuss brand identity strategies
- Analyze brand leverage initiatives

Readings: Lecturers Notes and Handouts; Required

Week 7- Understanding Entrepreneurship and the Small Business

Understanding Entrepreneurship and the Small Business

Specific Objectives:

Students should be able to:

6. Define small business.
7. Discuss the importance of small businesses to developed and developing economy, and explain popular areas of small business.
8. Explain entrepreneurship and describe some key characteristics of entrepreneurial personalities and activities.
9. Describe the business plan and the start-up decisions made by small businesses and identify sources of financial aid available to such enterprises.
10. Discuss and identify the trends in small business start-ups and the main reasons for success and failure among small businesses.

Content:

- What is small business?
- Entrepreneurship
- Characteristics of an entrepreneur
- Starting and operating a new business
- Trends in small business
- Reasons for failure and success

Readings: Lecturers Notes and Handouts; Required Text.

Week 8: Mid Term

Week 9- Brand Position

Brand Position

Specific Objectives:
Students should be able to:

- Creating Brand Position

Content:

- Examine market targeting strategies
- Discuss strategic positioning
- Evaluate positioning Effectiveness

Readings: Lecturers Notes and Handouts; Required Text.

Week 10: **Pricing**

Pricing

Specific Objectives:

Students should be able to:

- Setting of Product Strategy

Content:

- Discuss innovation as a customer-driven process
- Explain the various stages of new product planning

Readings: Lecturers Notes and Handouts; Required Text

Week 11 **Pricing Strategies**

Pricing Strategies

Specific Objectives:
Students should be able to:

Developing Pricing Strategies and Programs

Content:

- Examine the strategic role of price in marketing strategy
- Illustrate the steps to developing or modifying pricing strategy
- Discuss pricing policies

Readings: Lecturers Notes and Handouts; Required Text.

12: Marketing Channels

Marketing Channels

Specific Objectives:
Students should be able to:

- Designing and Managing Integrated Marketing Channel

Content:

- Discuss the role of the value chain in marketing strategy
- Examine the process of selecting the type of channel
- Analyze channel objectives and measurement criteria
- Readings: Lecturers Notes and Handouts; Required Text.

Week 13: Mass Communication

Mass Communication

Specific Objectives:
Students should be able to;

- Managing Mass Communications:
- Advertising, Sales Promotions, Events and Public Relations

Content:

- Examine promotion strategies
- Discuss the factors affecting advertising strategy

Week 14: Managing Personal Communications

Managing Personal Communications

Specific Objectives:
Students should be able to:

- Managing Personal Communications: Direct
- Marketing and Personal selling

Content:

- Discuss the development of sales force strategies
- Discuss the development of internet strategies and direct marketing

Readings: Lecturers Notes and Handouts; Required Text.

Week 14

Review

Week 15

Final Exam

Readings: Lecturers Notes and Handouts; Required Text**Final Exam:** based on the topics covered from week 11 through 15, handouts, readings, and class activities.

17. Pre-requisites: None

18. Co-requisites: None

19. Post-requisites	None
20. Forbidden combinations:	None

21. Academic staff member who may be contacted for more information:

Name:Ms. Phillon Hackshaw	Telephone: 784 457-5403
Title: Mr.	E-mail:
Faculty: Arts, Science and General Studies	Department:

NOTE

A maximum of 10 Lecturers from the St. Vincent and the Grenadines Community College will be chosen to peruse a program Application Development for Android, Blackberry platform and application development for the IOS platform via learning tree – LearningTree.com. This has become necessary due to the fact that we do not have the local resources or materials necessary to conduct the training locally. The resource material received from the training will be used to deliver the training outlined. The total for the courses from LearningTree.com costs US$20,280.00 (EC$55, 098.73) and these lecturers will in turn conduct the training to interested lecturers of the college and provide the training under the application development program under this project to students registered free of cost for a minimum of 3 years. The SMART project committee decided that these 10 selected lecturers from the St Vincent and the Grenadines Community College will be taking the training from learning tree and get certified and get the material which will be made available from learning tree and they will in turn deliver the program to the students and interested lecturers.

Project

The project which will be done for the Mobile Application Program will be in the form of the development of a mobile application by the student. The Application will also be complemented with a business plan which would outline the mythologies to be used to market and sell the app.