KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

ERODE – 638 107

PROGRAM NAME
B.C.A.

KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

ERODE – 638 107

2021-2022

KONGU ARTS AND SCIENCE COLLEGE

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SYLLABUS

Sem	Course Code	Core 1: Professional English -1	Total Marks:100		Hours Per Week	Credits
I	21UAJCT101		CIA : 50	ESE:50	4	4

Course Objectives:

1. To develop the language skills of students.
2. To enhance the lexical, grammatical, socio-linguistic and communicative competence.
3. To focus on developing students' knowledge in domain specific registers and the required language skills.

Course Outcomes (CO): On completion of the course, students should be able to

| CO 1	Identify the correct usage of vocabulary and grammar in speaking and writing	
CO 2	Apply the language for speaking efficiently and confidently	
CO 3	Build the reading skill by using unfamiliar texts with comprehension	K1 - K4
CO 4	Demonstrate the language skills through academic writing	
CO 5	Develop the leadership quality and team building through linguistic competence	

K1 :Remember; K2 :Understand; K3 :Apply; K4 :Analyze

Unit –I	COMMUNICATION

Listening: Listening to audio text and answering questions - Listening to Instructions.

Speaking: Pair work and small group work.

Reading: Comprehension passages - Differentiate between facts and opinion.

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit – II	DESCRIPTION

Listening: Listening to process description - Drawing a flow chart.

Speaking: Role play (formal context).0.

Reading: Skimming/Scanning - Reading passages on products, equipment and gadgets.

Writing: Process Description - Compare and Contrast Paragraph - Sentence Definition and extended definition - Free Writing.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

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Unit – III	NEGOTIATION STRATEGIES

Listening: Listening to interviews of specialists / Inventors in fields (Subject Specific).

Speaking: Brainstorming (Mind Mapping) - Small group discussions (Subject Specific).

Reading: Longer Reading text.

Writing: Essay Writing (250 words).

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit – IV	PRESENTATION SKILLS

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages.

Writing: Writing Recommendations - Interpreting Visuals inputs.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit – V	CRITICAL THINKING SKILLS

Listening: Listening comprehension - Listening for information.

Speaking: Making presentations (with PPT-practice).

Reading: Comprehension passages - Note making. (Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills).

Writing: Problem and Solution essay - Creative writing - Summary writing.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Skill Development Activities

1. Listening and Answering.
2. Speaking Activities through Role Play.
3. Reading and Answering.
4. Resume Preparation.
5. Vocabulary Enhancement Activities – Definitions, Synonyms, Antonyms, Keywords etc…

TEXT BOOK

1	Professional English for Physical Sciences-I - TANSCHE.

REFERENCE BOOKS

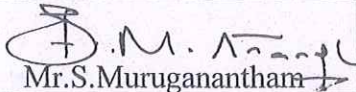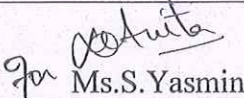| 1	Simon Sweeney, English for Business Communication, Student's Book, Second Edition, Cambridge University Press, 2003.

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| 2 | Michael McCarthy, Felicity O'Dell, English Vocabulary in Use: Advanced, First South Asian Edition, Cambridge University Press, 2003. |

Web Resources

| i | https://nptel.ac.in/courses/109/104/109104030/ |
| 2 | https://www.edubull.com/courses/online-english-speaking-courses-video-english/tofel-ilets/basic-courses/professional-english-part-2 |

Course Designed By	Verified By	Approved By HOD
Mr.S.Muruganantham	Ms.S.Yasmin	Dr.T.A.Sangeetha

QUESTION PAPER PATTERN

SECTION - A (10 X 1 = 10 Marks)	SECTION - B (4 X 10 = 40 Marks)
(Vocabulary) (MCQ, Info-gap questions - domain specific vocabulary)	(Reading: Two long domain-specific comprehension passages with questions pertaining to understanding and analysis - 20 Marks) (Writing: Descriptive/narrative/persuasive writing questions pertaining to domain-specific vocabulary - 20 Marks)

Mapping of COs with POs and PSOs

PO/PSO CO	PO							PSO				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	S	S	S	S	S	M	M	M	M	S	S	M
CO 2	S	S	S	S	S	M	M	M	S	S	S	M
CO 3	S	S	M	M	M	M	S	M	M	S	S	M
CO 4	S	S	M	M	M	M	M	M	M	S	S	M
CO 5	S	S	S	S	M	S	S	M	S	S	S	M

S-Strong, M-Medium, L-Low

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Sem	Course Code	Core II: Programming in C	Total Marks:100		Hours Per Week	Credits
I	21UAJCT102		CIA : 50	ESE :50	4	4

Course Objectives:

1. To provide exposure to problem-solving skill through C Programming.
2. To train the student to the basic concepts of the C Programming language.
3. To equip and indulge Learners in problem solving using C.

Course Outcomes (CO): On completion of the course, students should be able to

CO 1	Define data types and use them in simple data processing applications	
CO 2	Build simple C Programs using Looping and Control Structures	
CO 3	Apply the right data representation formats based on the requirements of the problem	K1 - K4
CO 4	Demonstrate the concept of User defined functions , Recursions , Scope and Lifetime of Variables, Structures and Unions	
CO 5	Develop C programs using pointers and files	

K1 :Remember; K2 :Understand; K3 :Apply; K4 :Analyze

Unit –I	Overview of C

Importance of C - sample C program - C program structure - executing C program - Character set - C tokens - keywords and identifiers - constants - variables - data types - declaration of variables - Assigning values to variables - Assignment statement - declaring a variable as constant as volatile.
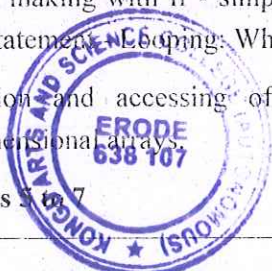
Arithmetic, Relational, logical, assignment, increment, decrement, conditional, bitwise and special operators - arithmetic expressions - operator precedence - type conversions - mathematical functions -   Reading and writing a character - formatted input/output.

Chapters 1 to 4

Unit – II	Decision Making and Looping and Arrays

Decision making with If - simple IF, IF ELSE, nested IF ELSE, ELSE IF ladder - switch - The:? Operator - GOTO statement. Looping: While, Do-While, For - Jumps in loops.

Declaration and accessing of one & two-dimensional arrays - initializing two-dimensional arrays - multidimensional arrays.
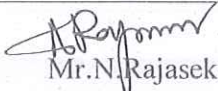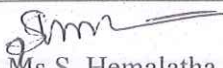
Chapters 5 to 7

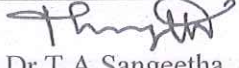| Unit – III	Functions

Declaring and initializing String Variables - Reading and Writing Strings - Arithmetic Operations and comparison of strings - String Handling Functions - The form of C functions - calling a function - categories of functions - Nested functions - Recursion - call by value - call by reference.

Chapters 8 and 9

Unit – IV	Structures and Unions

Defining - giving values to members - initialization and comparison of structure variables - arrays of structure - arrays within structures - unions.

Chapters 10

Unit – V	Pointers and Files

Definition - declaring and initializing pointers - access a variable through address and through pointer - pointer expressions - Opening, closing and I/O operations on files - Random access to files - command line arguments.

Chapters 11 and 12

Skill Development Activities

1. Develop a program to inscribe the given string on the screen using C concept.

2. Compare the scope of looping and branching tools to be used in the languages.

3. List out the real time applications can be done using C Programming languages

TEXT BOOK

1	E. Balagurusamy, "Programming in ANSI C", Fourth Edition, Tata McGraw-Hill.

REFERENCE BOOKS

1	Schaum's Outline Programming with C, Byron Gottfried, Second Edition, Tata McGraw-Hill
2	Let Us C, Yashavant Kanetkar, Eighth Edition, BPB Publications.
3	The C Programming Language, Kernighan and Ritchie, Second Edition, Prentice Hall, 1998.

Web Resources

1	www.cprogramming.com
2	www.programmiz.com/cprogramming
3	www.nptel.ac.in/courses/106/104/106104128/#

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Course Designed By	Verified By	Approved By HOD
Mr.N.Rajasekaran	Ms.S. Hemalatha	Dr.T.A.Sangeetha

QUESTION PAPER PATTERN

SECTION – A	SECTION – B	SECTION – C
10 x 1 = 10 Marks	5 x 3 = 15 Marks	5 x 5 = 25 Marks
(Multiple choice, Four options)	(Either or choice)	(Either or choice)
Two questions from each unit	Two questions from each unit	Two questions from each unit

Mapping of COs with POs and PSOs

PO/PSO CO	PO							PSO				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	S	M	S	S	M	M	S	S	S	S	S	M
CO 2	S	L	S	S	L	M	S	S	S	S	S	S
CO 3	S	M	S	S	M	M	S	S	S	S	S	S
CO 4	S	M	S	S	M	M	S	S	S	S	S	M
CO 5	S	M	S	S	M	M	S	S	S	S	S	S

S-Strong, M-Medium, L-Low

Sem	Course Code	Core III: Professional English - II	Total Marks:100		Hours Per Week	Credits
II	21UAJCT201		CIA : 50	ESE:50	4	4

Course Objectives:

1. To develop their competence in the use of English with particular reference to the workplace situation.
2. To enhance the creativity of the students which will enable them to think of innovative ways to solve issues in the workplace.
3. To develop their competence and competitiveness and thereby improve their employability skills.

Outcomes (CO): On completion of the course, students should be able to

CO 1	Identify the importance of linguistic competence in workplace situations	
CO 2	Develop LSRW skills for academic and career purposes	
CO 3	Build the employability skills through various speaking and writing tasks	K1 - K4
CO 4	Relate the communication skills suitable for employability	
CO 5	Illustrate the digital competence with innovation and imagination	

K1 :Remember; K2 :Understand; K3 :Apply; K4 :Analyze

Unit - I	Communicative Competence

Listening: Listening to two talks/lectures by specialists on selected subject specific topics - (TED Talks) and answering comprehension exercises (inferential questions).

Speaking: Small group discussions (the discussions could be based on the listening and reading passages - open ended questions).

Reading: Two subject-based reading texts followed by comprehension activities/exercises.

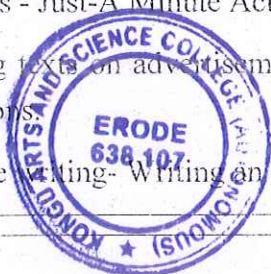Writing: Summary writing based on the reading passages.

Unit - II	Persuasive Communication

Listening: Listening to a product launch- sensitizing learners to the nuances of persuasive communication.

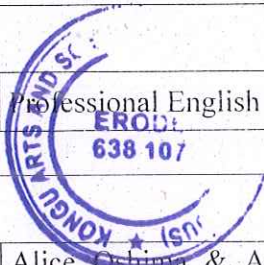Speaking: Debates - Just-A-Minute Activities

Reading: Reading texts on advertisements (on products relevant to the subject areas) and answering inferential questions.

Writing: Dialogue writing- Writing an argumentative / persuasive essay.

Unit - III	Digital Competence

Listening: Listening to interviews (subject related).

Speaking: Interviews with subject specialists (using video conferencing skills) - Creating Vlogs (How to become a vlogger and use vlogging to nurture interests – subject related).

Reading: Selected sample of Web Page (subject area).

Writing: Creating Web Pages.

Reading Comprehension: Essay on Digital Competence for Academic and Professional Life.

The essay will address all aspects of digital competence in relation to MS Office and how they can be utilized in relation to work in the subject area.

Unit - IV	Creativity and Imagination

Listening: Listening to short (2 to 5 minutes) academic videos (prepared by EMRC/ other MOOC videos on Indian academic sites - E.g. https://www.youtube.com/watch?v=tpvicScuDy0).

Speaking: Making oral presentations through short films - subject based.

Reading: Essay on Creativity and Imagination (subject based).

Writing - Basic Script Writing for short films (subject based) - Creating blogs, flyers and brochures (subject based) - Poster making - writing slogans/captions (subject based).

Unit - V	Workplace Communication and Basics of Academic Writing

Speaking: Short academic presentation using PowerPoint.

Reading & Writing: Product Profiles, Circulars, Minutes of Meeting.

Writing an introduction, Paraphrasing, Punctuation (period, question mark, exclamation point, comma, semicolon, colon, dash, hyphen, parentheses, brackets, braces, apostrophe, quotation marks, and ellipsis), Capitalization (use of upper case).

Skill Development Activities

1. Group Discussion
2. Persuasive Speaking – Conversation
3. Listening Activities – Watching Videos and answering questions and summarizing the content
4. Creative Writing – Flyers, Brochures, Slogans, Captions
5. PowerPoint Presentation

TEXT BOOK

1.	Professional English for Physical Sciences-II - TANSCHE.

REFERENCE BOOKS

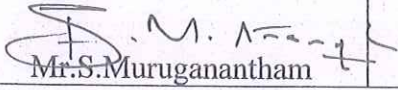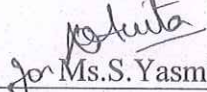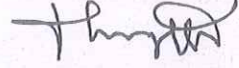| 1.	Alice Oshima & Ann Hogue, Writing Academic English, Second Edition, Addison Wesley Publishing Company, 1991.

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| 2. | Lyn R. Clark, Kenneth Zimmer, Joseph Tinervia, Business English and Communication, Seventh Edition, MacMillan / McGraw-Hill, Imprint 1991. |

Web Resources

| 1. | https://www.coursera.org/learn/speak-english-professionally |
| 2. | https://www.ted.com/talks/pranav_rajan_computer_science_education |

Course Designed By	Verified By	Approved By HOD
Mr.S.Muruganantham	Jo Ms.S.Yasmin	Dr.T.A.Sangeetha

QUESTION PAPER PATTERN

SECTION - A (10 X 1 = 10 Marks)	SECTION - B (4 X 10 = 40 Marks)
(Vocabulary) (MCQ, Info-gap questions - domain specific vocabulary)	(Reading: Two long domain-specific comprehension passages with questions pertaining to understanding and analysis - 20 Marks) (Writing: Descriptive/narrative/persuasive writing questions pertaining to domain-specific vocabulary - 20 Marks)

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CO 3	S	S	S	M	S	M	M	M	M	S	S	M
CO 4	S	S	M	S	S	M	S	M	S	S	S	M
CO 5	S	S	S	M	M	M	M	S	S	S	S	M

S-Strong, M-Medium, L-Low

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Sem	Course Code	Core IV: Programming in JAVA	Total Marks:100		Hours Per Week	Credits
II	21UAJCT202		CIA : 50	ESE :50	4	4

Course Objectives:

1. To expose the students skill with the concepts of OOPs and to make them represent the real world entities.

2. To introduce the concepts of converting the real time problems into objects and methods and their interaction with one another to attain a solution.

3. To make them design Applications using Applet and GUI.

Course Outcomes (CO): On completion of the course, students should be able to

CO 1	Build the java applications using OOP Concepts for stand-alone applications.	
CO 2	Develop the packages as reusable components.	
CO 3	Apply the concept of multi threading and Synchronization in java programs.	K1 - K4
CO 4	Detect the possible errors by applying the concepts of Exception Handling.	
CO 5	Design Applets and Graphical Programming.	

K1 :Remember; K2 :Understand; K3 :Apply; K4 :Analyze

Unit –I	**Fundamentals of Object-Oriented Programming**

Object Oriented Paradigm, Basic Concepts of OOP, Benefits of OOP, Application of OOP, Java Evolution: History – Features – How Java Differs from C and C++. Overview of Java Language: Simple Java Program – More on Java – An Application with Two Classes – Java Program Structure – Java Tokens – Java Statements – Java Virtual Machine - Constants, Variables and Data types.
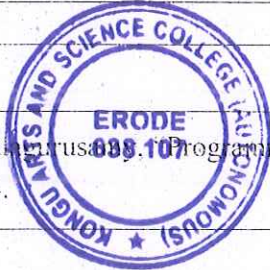
Self Study: Operators and Expressions – Decision Making and Branching – Decision Making and Looping.

Chapters 1 to 7

Unit – II	**Classes, Objects, Methods, Arrays and Interfaces**

Classes, Objects and Methods: Defining a Class – Field Declaration – Creating Objects – Accessing Class Members – Constructors – Method Overloading – Static Members – Nesting of Methods – Inheritance – Overriding Methods – Final Variables and Methods – Final Classes – Finalizer Classes – Abstract Methods and Classes. Arrays, Strings and Vectors: One-Dimensional Arrays – Creating an Array – Two-Dimensional Arrays – Strings – Vectors – Wrapper Classes – Enumerated Types. Interfaces: Defining – Extending – Implementing – Accessing Interfaces.
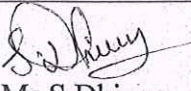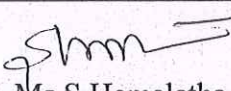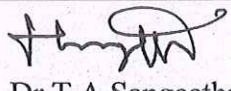
Chapters 8 to 10

Unit – III	Packages and Thread Programming

Java API Packages: Using System Packages – Naming Conventions – Creating Packages – Accessing Package – Using a Package – Adding Classes to a Package – Hiding Classes – Static Import. Multithreaded Programming: Creating Thread – Extending Thread – Stopping and Blocking a Thread – Life Cycle of a Thread – Using Thread Method – Thread Exception: Thread Priority – Synchronization – Implementing the Runnable Interface – Inter-Thread Communication.

Chapters 11 and 12

Unit – IV	Managing Errors & Exceptions and Handling Files

Managing Errors and Exceptions: Types of Errors – Exceptions – Syntax of Exception Handling Code – Multiple Catch Statements – Using Finally Statement – Throwing our own Exceptions – Using Exceptions for Debugging. Managing Input / Output Files in Java: Concept of Streams – Stream Classes – Byte Stream Classes – Character Stream Classes – Using Streams – Other Useful I/O Classes – Using File Class – Input / Output Exceptions – Creation of Files – Reading/Writing Characters – Reading/Writing Bytes – Handling Primitive Data Types – Concatenating and Buffering Files – Random Access Files – Interactive Input and Output – Other Stream Classes.

Chapters 13 and 16

Unit – V	Applet Programming

Applet Programming: How Applets Differ From Applications – Preparing to Write Applets – Building Applet Code – Applet Life Cycle – Creating an Executable Applet – Designing a Webpage – Applet Tag – Adding Applet to HTML File – Running the Applet – Passing Parameter to Applet – Aligning the Display – More about HTML Tags – Displaying Numerical Values – Getting Input from the User – Event Handling. Graphics Programming – The Graphic Class – Lines and Rectangles – Circles and Ellipse – Drawing Arcs – Drawing Polygons – Line Graphs – Using Control Loops in Applets – Drawing Bar Charts – Introduction to AWT Package - Introduction to Swings.

Chapters 14 and 15

Skill Development Activities

1. To develop a program to inscribe the given string on the screen using JAVA concepts.

2. Compare the scope of looping and branching tools to be used in the languages.

3. List out the real time applications can be done using OOPS Concepts.

TEXT BOOK

1	E.Balagurusamy, "Programming with JAVA", Fifth Edition, McGraw-Hill Publication Company Ltd., 2014.

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	REFERENCE BOOKS
1	"The Complete Reference JAVA 2", Herbert Schildt, Fifth Edition, Tata McGraw-Hill Publishing Company Ltd., 2005.
2	"Java: The Complete Reference", Herbert Schildt, McGraw Hill Education, Oracle Press 10th Edition, 2018
3	Programming with Java – John R. Hubbard, 2nd Edition, TMH.

Web Resources

1	https://nptel.ac.in/courses/106/105/106105191/
2	https://www.w3schools.in/java-tutorial/
3	https://www.programiz.com/java-programming/online-compiler/
4	https://www.tutorialspoint.com/compile_java_online.php

Course Designed By	Verified By	Approved By HOD
Ms.S.Dhivya	Ms.S.Hemalatha	Dr.T.A.Sangeetha

QUESTION PAPER PATTERN

SECTION – A	SECTION – B	SECTION – C
10 x 1= 10 Marks	5 x 3 = 15 Marks	5 x 5 = 25 Marks
(Multiple choice, Four options)	(Either or choice)	(Either or choice)
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Mapping of COs with POs and PSOs:

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CO 2	S	L	S	S	L	M	S	S	S	S	S	S
CO 3	S	M	S	S	M	M	S	S	S	S	S	S
CO 4	S	M	S	S	M	M	S	S	S	S	S	M
CO 5	S	M	S	S	M	M	S	S	S	S	S	S

S-Strong, M-Medium, L-Low

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ACTIVITIES

Personality Development Programme on 31.03.2022 & 04.04.2022

A Two day Personality Development Programme was organized by Department of Computer Applications on 31ˢᵗ March, 2022 & 04ᵗʰ April 2022 for I and II year B.C.A students. The session was handled by **Dr.S.Subramaniam, Associate Professor & Head, Department of Management Studies, Info Institute of Engineering, Coimbatore.** The aim of the programme is to develop a good personality and building confidence among the students. The resource person insisted about the moral values that should be followed in their academic activities. Further, he cleared the doubts of participants in the Query session. This PDP was attended by I and II BCA students (96 nos.) of our department.

KONGU ARTS AND SCIENCE COLLEGE
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Department of Computer Applications

Organize a

Personality Development Programme

Thiru.K.PALANISAMY
Correspondent, KASC
will preside over the function

Dr.N.RAMAN
Principal, KASC
will felicitate the gathering

Resource Person
Dr.S.SUBRAMANIAM
Associate Professor & Head,
Department of Management Studies,
Info Institute of Engineering, Coimbatore

Date : 31.03.2022 & 04.04.2022
Time : 09.30 a.m to 04.00 p.m
Venue : Ramanujam Hall
Target Audience : BCA - I & II Year Students

KONGU

8M43+JJH, Nanjanapuram, Tamil Nadu 638107, India
Nanjanapuram
Tamil Nadu
India
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33°C
91°F

HEAD OF THE DEPARTMENT
DEPARTMENT OF COMPUTER APPLICATIONS
KONGU ARTS AND SCIENCE COLLEGE
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Dr. N. RAMAN
PRINCIPAL,
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