KONGU ARTS AND SCIENCE COLLEGE

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

ERODE – 638 107

B.Sc (Computer Technology)

KONGU ARTS AND SCIENCE COLLEGE

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2021-2022

KONGU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)
ERODE - 638 107
DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

B.Sc. (COMPUTER TECHNOLOGY)

SCHEME OF EXAMINATION - CBCS PATTERN
(For the candidates admitted during the academic year 2021 - 2022 and onwards)

Part	Course Code	Course Title	Inst. Hrs /Week	T/P	Duration in Hours	CIA	ESE	Total Marks	Credits
SEMESTER I									
I	21T01/21H01/ 21M01/21F01/ 21S01	Language - I	6	T	3	50	50	100	4
II	21E01	English - I	6	T	3	50	50	100	4
III	21UALCT101	Core 1 : Professional English - I	4	T	3	50	50	100	4
III	21UALCT102	Core 2: Programming with C and C++	4	T	3	50	50	100	4
III	21UALCP103	Core Practical 1: C and C++ Programming Lab	3	P	3	50	50	100	3
III	21UALAT104	Allied 1: Numerical and Statistical Methods	5	T	3	50	50	100	4
IV	21ES01	Foundation Course I: Environmental Studies	2	T	100 mins	-	50@	50	2
		Total	30	-	-	-	-	650	25
SEMESTER II									
I	21T02/21H02/ 21M02/21F02/ 21S02	Language - II	6	T	3	50	50	100	4
II	21E02	English - II	6	T	3	50	50	100	4
III	21UALCT201	Core 3: Professional English - II	4	T	3	50	50	100	4
III	21UALCT202	Core 4: Database Management Systems	4	T	3	50	50	100	4
III	21UALCP203	Core Practical 2: Database Management Systems Lab	3	P	3	50	50	100	3
III	21UALAT204	Allied 2: Discrete Mathematics	5	T	3	50	50	100	4
IV	21VE01	Foundation Course II: Value Education	2	T	100 mins	-	50@	50	2
		Total	30	-	-	-	-	650	25

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Part	Course Code	Course Title	Inst. Hrs /Week	T/P	Duration in Hours	CIA	ESE	Total Marks	Credits
							Examination Details		
SEMESTER III									
III	21UALCT301	Core 5: Data Structures	4	T	3	50	50	100	4
III	21UALCT302	Core 6: Operating Systems	5	T	3	50	50	100	4
III	21UALCT303	Core 7: Java Programming	5	T	3	50	50	100	4
III	21UALCP304	Core Practical 3: Java Programming Lab	5	P	3	50	50	100	4
III	21UALAT305	Allied 3: Digital Electronics	5	T	3	50	50	100	4
IV	21UALSP306	Skill Based Practical 1: Linux Programming Lab	4	P	3	30	45	75	3
IV	21BT01/ 21AT01/ 21UALNT307	Basic Tamil - I * / Advanced Tamil - I # / Non Major Elective - I	2	T	3	75		75	2
IV	21SS01	Gender Studies	SS~	-	-	-	50	50	2
		Total	30	-	-	-	-	700	27
SEMESTER IV									
III	21UALCT401	Core 8: Web Technology	6	T	3	50	50	100	4
III	21UALCT402	Core 9: .NET Programming	6	T	3	50	50	100	4
III	21UALCP403	Core Practical 4: .NET Programming Lab	6	P	3	50	50	100	4
III	21UALAT404	Allied 4: Microprocessor and ALP	6	T	3	50	50	100	4
IV	21UALSP405	Skill Based Practical 2: Web Technology Lab	4	P	3	30	45	75	3
IV	21BT02/ 21AT02 / 21UALNT406	Basic Tamil - II * / Advanced Tamil - II # / Non Major Elective - II	2	T	3	75		75	2
IV	21SS02	Fundamentals of Yoga	SS~	-	-	-	50	50	2
		Total	30	-	-	-	-	600	23

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| Part	Course Code	Course Title	Inst. Hrs /Week	T/P	Duration in Hours	CIA	ESE	Total Marks	Credits
					Examination Details				
SEMESTER V									
III	21UALCT501	Core 10: Computer Networks	6	T	3	50	50	100	4
III	21UALCT502	Core 11: Android Programming	5	T	3	50	50	100	4
III	21UALCT503	Core 12: Software Engineering	6	T	3	50	50	100	4
III	21UALCP504	Core Practical 5: Software Engineering and CASE Tools Lab	5	P	3	50	50	100	4
III	21UALET505/ 21UALET506/ 21UALET507	Elective - I	5	T	3	50	50	100	4
IV	21UALSP508	Skill Based Practical 3 : Android Programming Lab	3	P	3	30	45	75	3
		Total	30	-	-	-	-	575	23
SEMESTER VI									
III	21UALCT601	Core 13: Internet of Things	6	T	3	50	50	100	5
III	21UALCP602	Core Practical 6: Python Programming Lab	5	P	3	50	50	100	4
III	21UALET603/ 21UALET604/ 21UALET605	Elective - II	6	T	3	50	50	100	4
III	21UALET606/ 21UALET607/ 21UALET608	Elective - III	6	T	3	50	50	100	4
III	21UALCV609	Project Work	4	P	3	50	50	100	4
IV	21UALSP610	Skill Based Practical 4 : R Programming Lab	3	P	3	30	45	75	3
V	21NS01/ 21NC01/ 21YR01/ 21RR01/ 21EC01/ 21ET01/ 21SC01/ 21PE01	Extension Activities (NSS/NCC/YRC/RRC/ ECO CLUB/ ETHICS CLUB/ SCIENCE FORUM/ PHYSICAL EDUCATION)	-	-	-	50	-	50	1
		Total	30	-	-	-	-	625	25
		TOTAL	-	-	-	-	-	3700	144

CIA - CONTINUOUS INTERNAL ASSESSMENT
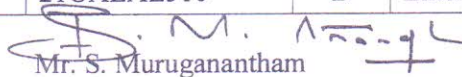ESE - END SEMESTER EXAMINATION
* CIA ONLY
# ESE ONLY
@ ONLINE EXAM
~ SELF STUDY COURSE
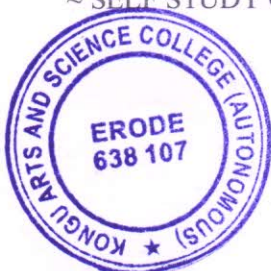
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LIST OF ALLIED COURSES			
Allied 1	21UALAT104	Numerical and Statistical Methods	
Allied 2	21UALAT204	Discrete Mathematics	
Allied 3	21UALAT305	Digital Electronics	
Allied 4	21UALAT404	Microprocessor and ALP	
LIST OF NON MAJOR ELECTIVE COURSES			
Non Major Elective - I	21UALNT307	Data Analysis using Spreadsheet	Offered to the Department of Bachelor of Business Administration
Non Major Elective - II	21UALNT406	Web Graphics	
LIST OF SKILL BASED COURSES			
Skill Based Practical 1	21UALSP306	Linux Programming Lab	
Skill Based Practical 2	21UALSP405	Web Technology Lab	
Skill Based Practical 3	21UALSP508	Android Programming Lab	
Skill Based Practical 4	21UALSP610	R Programming Lab	
LIST OF ELECTIVE COURSES			
Elective – I	21UALET505	A	System Software
	21UALET506	B	Artificial Intelligence
	21UALET507	C	Multimedia Systems
Elective – II	21UALET603	A	Ethical Hacking
	21UALET604	B	Machine Learning
	21UALET605	C	R Programming
Elective – III	21UALET606	A	Cloud Computing
	21UALET607	B	Big Data Analytics
	21UALET608	C	Information Security and Cyber Law
LIST OF EXTRA CREDIT COURSES			
NCC	21UNCC01	2 Credits for B – Certificate Cadets	
	21UNCC02	2 Additional Credits for C – Certificate Exam Appeared Cadets	
Advanced Learners Course 1	21UALAL407	A	Programming in C#
	21UALAL408	B	Computer Installation and Servicing
Advanced Learners Course 2	21UALAL509	A	Web Development with React JS and MongoDB
	21UALAL510	B	Enterprise Resource Planning

Mr. S. Muruganantham
Chairman
Board of Studies / Computer Technology and Information Technology
Kongu Arts and Science College (Autonomous), Erode

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Sem	Course Code	Core 1: Professional English - I	Total Marks: 100		Hours Per Week	Credits
			CIA: 50	ESE: 50	4	4
I	21UALCT101					

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).

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

Professional English for Physical Sciences-I - TANSCHE.

REFERENCE BOOKS

Simon Sweeney, English for Business Communication, Student's Book, Second Edition, Cambridge University Press, 2003.
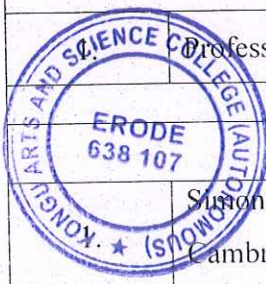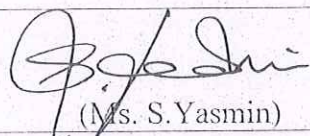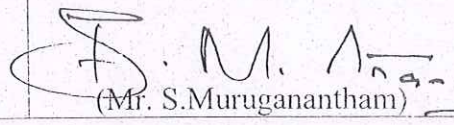
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2.	Michael McCarthy, Felicity O'Dell, English Vocabulary in Use: Advanced, First South Asian Edition, Cambridge University Press, 2003.

WEB RESOURCES

1.	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)	(Mr. S.Muruganantham)

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	S	M	M	S	S
CO 2	S	S	S	S	S	M	M	S	S	M	S	M
CO 3	S	S	M	M	M	M	S	S	S	M	S	M
CO 4		M	M	M	M	M	S	S	M	S	M	
CO 5	S	S		S	M	S	S	S	S	S	S	S
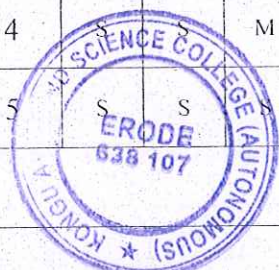
S-Strong, M-Medium, L-Low

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Sem	Course Code	Core 2: Programming with C and C++	Total Marks: 100		Hours Per Week	Credits
I	21UALCT102		CIA: 50	ESE: 50	4	4

Course Objectives:

1. To develop programming skills to design and implement C / C++ programs.
2. To impart the knowledge of functions for modular programming and pointers for memory handling.
3. To demonstrate the object oriented programming usage of class and objects, encapsulation and inheritance.

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

CO 1	Demonstrate simple applications in C using basic constructs.	
CO 2	Illustrate the concepts of arrays, string, functions, recursions, structures and unions.	
CO 3	Develop C program using pointers and file management.	K1 - K4
CO 4	Summarize the concept of classes, objects, constructors and destructors in C++.	
CO 5	Apply the operator overloading, inheritance and exception handling concepts to solve the real-world problems.	

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

Unit - I	**Basics of C Programming**

Overview of C: History of C - Importance of C - Basic Structure of C Programs - C Tokens - Keywords and Identifiers - Constants - Variables - Data Types - Declaration of Variables - Assigning Values to Variables - Operators and Expressions - Formatted I/O (scanf(), printf()) - **Decision Making and Branching :** Simple If Statement - The If...Else Statement - Nesting of If..Else Statements - The Switch Statement - The ?: Operator - The goto Statement -**Decision Making and Looping :** The While Statement - The do Statement - The for Statement.
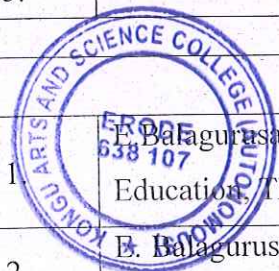
Unit - II	**Arrays, Strings and Structures**

Arrays: One-Dimensional Arrays - Declaration and Initialization of One-Dimensional Arrays - Two-Dimensional Arrays - Initializing Two-Dimensional Arrays - Multi-Dimensional Arrays - **Character Arrays and Strings:** Declaring and Initializing String Variables - String-Handling Functions - **User Defined Functions:** Definition of Functions - Return Values and Their Types -
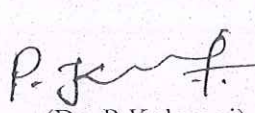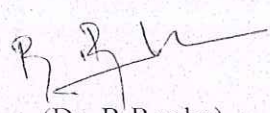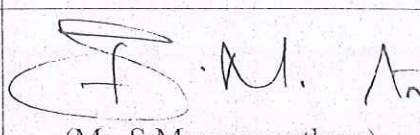
Function Calls - Function Declaration - Category of Functions - Recursion - **Structures and Unions:** Defining a Structure - Declaring Structure Variables - Accessing Structure Members - Structure Initialization - Arrays of Structures - Structures within Structures - Structures and Functions - Unions.

Unit - III	Pointers and File Processing

Pointers: Introduction - Declaring Pointer Variables - Initialization of Pointer Variables - Chain of Pointers - Pointer Expressions - Pointers and Arrays - Pointer as Function Arguments - Pointers to Functions - Pointers and Structures - **File Management in C:** Defining and Opening a File - Closing a File - Input/Output Operations on Files - Command Line Arguments.

Unit - IV	Object Oriented Programming Concepts

Introduction: Basic Concepts of Object Oriented Programming - **Classes and Objects:** Specifying a Class - Defining a Member Functions - Function Overloading - Friendly Functions - **Constructors and Destructors:** Constructors - Parameterized Constructors - Constructors with Default Arguments - Copy Constructor - Destructors.

Unit - V	Operator Overloading, Inheritance and Exception Handling

Operator Overloading and Type Conversions: Defining Operator Overloading - Overloading Unary Operators - Overloading Binary Operators - Rules for Overloading Operators - Type Conversions - **Inheritance:** Single Inheritance - Multilevel Inheritance - Multiple Inheritance - Hierarchical Inheritance - Hybrid Inheritance - Virtual Base Classes - Abstract Classes - **Exception Handling:** Exception Handling Mechanism - Throwing and Catching Mechanism.

Skill Development Activities	
1.	Implement Gauss Seidel Iterative method.
2.	Design simple text editor.
3.	Develop an application for car animation.
4.	Create header file.
5.	Create payroll processing system application.

| **TEXT BOOKS**	
1.	E.Balagurusamy, Programming in ANSI C, Sixth Edition Tata McGraw Hill Education, Third Reprint 2012 [UNIT I, II & III].
2.	E. Balagurusamy, Object Oriented Programming with C++, 6th Edition, McGraw Hill Education, 2013 [UNIT IV & V].

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REFERENCE BOOKS	
1.	Ashok N. Kamthane, Programming with ANSI and Turbo C, 1st Edition, Pearson Education, New Delhi, 2004.
2.	Herbert Schildt, The Complete Reference C++, 4th Edition, Paperback, 2003.

WEB RESOURCES	
1.	https://spoken-tutorial.org/watch/C+and+Cpp/First+C+Program/English/
2.	https://www.tutorialspoint.com/cplusplus/index.html

Course Designed By	Verified By	Approved By HOD
(Dr. P.Kalarani)	(Dr. R.Rooba)	(Mr. S.Muruganantham)

QUESTION PAPER PATTERN

SECTION - A	SECTION - B	SECTION - C
10 x 1 = 10 Marks	5 x 3 = 15 Marks	5 x 5 = 25 Marks
Answer ALL questions	Answer ALL questions	Answer ALL questions
Choose the correct answer	Either or type	Either or type
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	M	M	M	S	S	S	M	S	M
CO 2	S	M	S	M	M	M	S	S	S	M	M	S
CO 3	S	M	S	M	M	M	S	S	S	M	M	S
CO 4	S	M	S	S	S	S	M	S	S	M	M	S
CO 5	S	M	S	S	S	S	M	S	S	S	M	S

S-Strong, M-Medium, L-Low
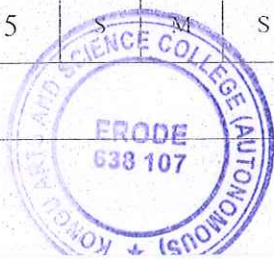
Sem	Course Code	Core Practical 1: C and C++ Programming Lab	Total Marks: 100		Hours Per Week	Credits
I	21UALCP103		CIA : 50	ESE : 50	3	3

Course Objectives:

1. To enable the students to enhance their analyzing and problem solving skills for writing programs in C.
2. To practice the basic concepts, branching and looping statements and strings in C.
3. To impart the knowledge of object oriented programming paradigm.

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

CO 1	Apply the concepts of operators and expressions.	
CO 2	Implement the branching and looping statements, arrays, strings and structures.	
CO 3	Demonstrate the concepts of pointers and file management.	K1 - K4
CO 4	Develop programs with class and objects, constructors and destructors.	
CO 5	Apply the process of inheritance and exception handling mechanism.	

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

Programs

1. Write a C program to find the sum, average and standard deviation for a given set of numbers.

2. Write a C program to print a diamond pattern of stars as follows (take number of rows from user)

```
                *
             *  *  *
          *  *  *  *  *
       *  *  *  *  *  *  *
          *  *  *  *  *
             *  *  *
                *
```
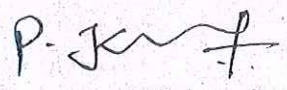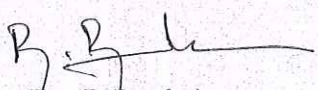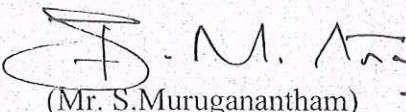
3. Write a C Program to perform matrix addition using two dimensional array.

4. Write a C Program to create a structure Student containing fields for Roll No, Name and Marks in five subjects. Create an array of structures and print the marksheet.
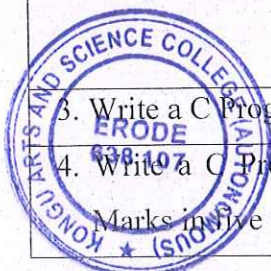
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5. Write a C program that swaps two numbers using pointers.

6. Write a C program to merge two files into third file.

7. Write a C++ Program to create a class ARITHMETIC which consists of a FLOAT and an INTEGER variable. Write a member function ADD(), SUB(), MUL() and DIV() to perform addition, subtraction, multiplication and division respectively. Write a member function to get and display values.

8. Write a C++ Program to create two classes each class consists of two private variables, an integer and a float variable. Write member functions to get and display them. Write a FRIEND function common to both the classes, which takes the object of the above two classes as arguments and the integer and float values of both objects separately and display the result.

9. Write a C++ Program to create a class FLOAT that contains one float data member. Overload all the four arithmetic operators so that they operate on the object FLOAT.

10. Write a C++ Program to create class, which consists of EMPLOYEE detail like E_Number, E_Name, Department, Basic_Salary and Grade. Write a member function to get and display them. Derive a class PAY from the above class and write a member function to calculate DA, HRA and PF depending on the grade.

Course Designed By	Verified By	Approved By HOD
P. [signature]	*[signature]*	*[signature]*
(Dr. P.Kalarani)	(Dr. R.Rooba)	(Mr. S.Muruganantham)

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

S-Strong, M-Medium, L-Low

Sem	Course Code	Professional English - II	Total Marks: 100		Hours Per Week	Credits
II	21UALCT201		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.

Course 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	

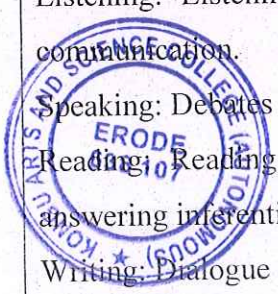**K1: Remember; K2: Understand; K3: Apply; K4: Analyze**

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 essays

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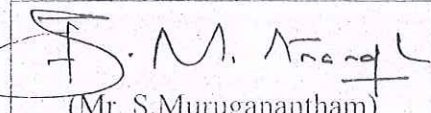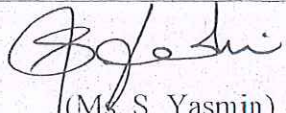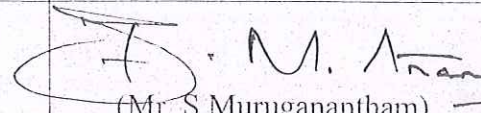NANJANAPURAM, ERODE - 638 107.

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

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REFERENCE BOOKS

1.	Alice Oshima & Ann Hogue. Writing Academic English. Second Edition. Addison Wesley Publishing Company, 1991.
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)	(Ms. S. Yasmin)	(Mr. S.Muruganantham)

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

S-Strong, M-Medium, L-Low