THE AMERICAN COLLEGE

B VOC IN MEDIA TECHNOLOGY

SYLLABUS – GRID – 2019-2020

- ~	SEMESTER			
S NO	COURSE CODE	COURSE NAME	HOURS	CREDITS
1	END 1401	Conversational Skills	4	4
2	CSD 1403	Fundamentals of Computers	4	4
3	LSD 1203	Fundamentals of Life Coping Skills	4	4
4	DMT 1401	Print Media Design - I	4	4
5	DMT 1403	Image Design – I	4	4
6	DMT 1115	Lab: Laboratory In Print And Image Design	120/SEM	10
7	DMT 1407	Internship – I	4	4
		TOTAL		30+4
II S	SEMESTER			
1	END 1402	Reading and Writing Skills	4	4
2	CSA 1404	Office Automation Tools	4	4
3	LSD 1404	Performance and Life Coping Skills	4	4
5	DMT 1402	Print Media Design - II	4	4
6	DMT 1404	Image Design – II	4	4
7	DMT 1116	Lab II: Designing Techniques	120/SEM	10
8	DMT 1408	Internship – II	4	4
		TOTAL		30+4
III	SEMESTER			
1	ENA 2401	Study Skills	4	4
2	CSA 2403	Operating System	4	4
3	LSA 2203	Coping with Psychological and Physical Issues	4	4
4	AMT 2401	Computer Aided Design (2D/3D)	4	4
5	AMT 2403	Photography	4	4
6	AMT 2115	Lab III: Photography (Practical)	120/SEM	10
7	AMT 2407	Internship III	4	4
		TOTAL		30+4

IV	SEMESTER			
1	ENA 2402	Career Skills	4	4
			-	
2	CSA 2404	Programming Techniques Using C	4	4
3	LSA 2404	Coping with Social and Environmental Issues	4	4
4	AMT 2402	Audio Production	4	4
5	AMT 2404	Introduction to Flash	4	4
6	AMT 2116	Lab IV: Sound Techniques – Practical	120/SEM	10
7	AMT 2408	Internship IV	4	
V	SEMESTER	TOTAL		30+4
1	EVS 3401	Environmental Studies	4	4
2	VMT 3401	Information Communication Technology	4	4
3	LSV 3401	Entrepreneurship	4	4
3	VMT 3403	Introduction to Video Production	4	4
4	VMT 3405	Video Editing Techniques	4	4
5	VMT 3117	Lab V: Video Editing (Practical)	120/SEM	10
6	VMT 3409	Internship V	4	4
		TOTAL		30+4
VI	 SEMESTER			
· ·	SEMESTER			
1	VAL 3402	Value Education	4	4
2	CSV 3402	DBMS	4	4
3	LSV 3402	Soft Skills VI	4	4
1	VMT 3402	Animation Techniques (Maya)	4	4
2	VMT 3404	Media Management	4	4
3	VMT 3116	Lab VI: Animation Techniques	120/SEM	10
4	VMT 3408	Research Project	4	4
5	VMT 3410	Internship VI	4	4
		TOTAL		34+4

PROGRAM SPECIFIC OUTCOME FOR B.VOC IN MEDIA TECHNOLOGY

At the end of the programme, the students will be able to:

- 1. Recognize the concepts, meaning and principles related to Media like Print, Electronic and New Media.
- 2. Reproduce and gather information through communication technologies for societal betterment.
- 3. Develop multitasking abilities and skills to create and design innovative printing products for an agency.
- 4. Produce sound tracks and video for Media Industry using Recording and Editing softwares.
- 5. Apprehend analytical thinking to criticize the existing production and compose new production.
- 6. Create a working environment inculcating the media management approach and provide work opportunities to the interns.
- 7. Develop an aesthetic sense to create an innovative output in media industry.
- 8. Applying the convention way of approaches with the new media methods like media convergence.
- 9. Act as a Global responsible to create animation series to sensitize the social issues using 2D and 3D animation to it.
- 10. Adhere and work with media laws, ethics and issues of concern to recognize the human values and exhibit social inclusiveness through media technological approach.

Mapping of Courses with programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
DMT 1401	✓	√	✓			√	√	√		✓
DMT 1403	√		✓		✓	✓	✓	✓	✓	✓
DMT 1405	✓	√	✓	√	√	√	√			
DMT 1407	✓	✓	✓		✓	✓	✓			
DMT 1402	✓	✓	✓			✓	✓	✓		✓
DMT 1404	✓		✓		✓	✓	✓	✓	✓	✓
DMT 1406	✓		✓		✓	✓	✓	✓	✓	✓
DMT 1408	✓	√	✓		✓	✓	✓			
AMT 2401	✓		✓		✓	✓	✓		✓	
AMT 2403	√	√	✓		✓	✓	√	✓		✓
AMT 2405	√	√	✓	√	✓	√	√			
AMT 2407	✓	√	✓		✓	✓	✓			
AMT 2402	✓	√	✓	✓	✓	✓	✓			✓
AMT 2404	√	√	✓		✓	√	√		√	✓
AMT2406	✓		✓		√	√	√	√	√	✓
AMT 2408	✓	√	✓		✓	✓	✓			
VMT 3401	✓	√			✓	✓		✓		✓
VMT 3403	✓			√	✓	√	√	✓		✓
VMT 3405	√			√	✓	√	√	√	√	✓
VMT 3407	✓	√	✓	√	✓	√	√			
VMT 3409	✓	✓	✓		✓	✓	✓			
VMT 3402	✓	✓	√		✓	✓	✓		✓	✓
VMT 3404	✓	✓				✓		✓	✓	✓
VMT 3406	✓	✓	✓	✓	✓	✓	✓			
VMT 3408	✓		✓	✓	✓		✓	✓	✓	✓
VMT 3410	✓	✓	✓		✓	✓	✓			

Mapping of Programme Specific Outcomes (PSOs) with Programme Outcomes (POs)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
PSO1	✓		✓		✓	✓		✓	✓	
PSO2	✓	✓	✓		✓	✓			✓	
PSO3	√	√		√	√		✓		√	
PSO4	√	√	√	√	✓		✓			
PSO5	✓	√	√	√	√		✓			
PSO6			√	✓	√		✓		√	√
PSO7	√	✓	✓		✓	✓	✓			
PSO8	√	√	√	√	✓		✓			
PSO9		✓		✓	✓		✓		✓	✓
PSO10		√		✓	✓		✓		√	√

[ConSkills]

The Course aims at helping students converse in English on the matters that matter to them in daily life. It provides the learners with ample opportunities and social contexts through conversations so that they can freely and fluently use informal English. It also exposes them to the apt vocabulary of such informal conversations.

At the end of the course, student will be able to

- i. articulate spoken utterances clearly and fluently,
- ii. speak simple sentences in English with one another in unpredictable situations,
- iii. participate in dyadic communication,
- iv. use phatic communion, and
- v. employ word-stress and intonation in spoken utterances.

Unit 1 : Conversational skills

Unit 2: Day-to-day matters like eating, emotions, fashion, health, friendship, money, romance, housing, job, faith & hope, busy life, memory, shopping, time, Traffic, travelling, vacation, weather

Unit 3 : Social expressions

Unit 4 : English sounds

Unit 5 : English accent and intonation

Textbook

Sekar, J. J. 2014. Conversational Skills. Madurai. Department of English, the American College.

Mapping of Course Outcomes with Bloom's Taxonomy

	K1	K2	K3	K4	K5	K6
CO 1				✓		
CO 2						✓
CO 3						✓
CO 4						✓
CO 5			✓			

Mean: 4.8

Objective:

This course aims at exploring the history and applications of Computers in various fields. This course also make the student understand the components of Computer System and the representation of Data.

Specific Learning Outcome:

At the end of the course the student will be able to:

- i. Classify the Generations of a Computer and its applications.
- ii. Recall the components of a Computer.
- iii. Analyze Primary and Secondary storage devices.
- iv. Use Data representation methods.
- v. Develop Data Conversion examples.

Unit I: Introduction to computers Generations of computers –components of computer – hardware – software -classification of computers – advantages and limitations – applications of computer

Unit II: Components of the Computer CPU - I/O devices – Types and Features.

Unit III: Computer Memory Primary memory – secondary memory-auxiliary storage devices – cache memory CD – DVD –Pen drive – backup.

Unit IV: Data representation Data – Meaning - Information – Representation - files - Computer words.

Unit V: Number Systems in computer Decimal, Binary, Octal and HexaDecimal - Representation—Conversions.

Textbook:

Alphonse X, ICRDCE publication, December 2011.

Reference:

Curtin, D. P. Foley, K.Kunalsen, Morin.C "Information Technology- The Breaking Wave", TataMcGraw Hill, 2002.

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Bloom's Taxonomy	CO1	CO2	CO3	CO4	CO5
K1: Remembering		✓			
K2: Understanding	√				
K3: Applying				✓	\
K4: Analyzing			✓		
K5: Evaluating					
K6: Creating					

FUNDAMENTALS OF LIFE COPING SKILLS

LSA 1403 4hrs/Wk – 4 Credits

Objectives: To prepare the students through the fundamentals of life coping skills for better citizens. To make them sociable and help them develop their personality. Understanding the need for self transformation which will guide them throughout their life in handling relationships and life challenges. To enlighten them with the necessity of learning communication and negotiation skills for achieving greater heights in their personal life and their career.

Specific Learning Outcome: At the end of this course the student will be able,

- To demonstrate how to be sociable in all demanding situations
- To prepare themselves a better personality through self transformation
- To identify need and importance of an effective and efficient communicator
- To apply the assertive skill techniques in the appropriate life situations
- To formulate personal principles based on the fundamentals of life coping skills

Unit 1: Introduction to Skills

Introduction to skills – Definition of Coping - Social Skills – Four levels: Foundation, Interactive, Affective, Cognitive – Understanding Body Language

Unit II: Personality Development

Definition of Personality – Characteristics of Personality – Ways to develop personality – Personality types – Four basic temperament

Unit III: Self Transformation

Self Identity – Self Concept – Self acceptance – Self discovery – Self Esteem: High & Low Self esteem – Johari Window

Unit IV: Communication Skills

Understanding communication – Types of communication – Patterns of communication – Importance of communication – Effective & Efficient communication

Unit IV: Assertive Skills

Assertive Behaviour – Benefits of being Assertive – Types of Assertion – Assertion rights – Developing assertive skill

Books for Reference:

- 1. Alphonse, X. 2011, "We shall overcome" A Text book on Life coping skills", ICRDCE Publication, Chennai
- 2. AIACHE Publication 2014, New Delhi, "Human Values Development"

This course aims in training the students about fundamental concepts in Corel Draw and its tools and techniques for designing the brouchers and magazines.

Course Outcome

At the end of the Course, the students will able to:

- i. Apply the basic tools and menus in Corel draw for designing purposes
- ii. Analyze the colour sense and basic concepts of drawing like lines, shapes and curves in CorelDraw software
- iii. Compose own designing of brouchers and magazines in the CorelDraw software
- iv. Apply the methods of Page Layout and modification of Background by using the software
- v. Plan a Design for various medium with the help of Software

UNIT I:

Introduction to Corel Draw: Toolbox – Status Bar – Drawing Figures – Lines – Ellipse – Circles – Rectangle – Square – Polygon – Types of Views: Normal – Preview – Frame – Draft – View – View Manager – Creating a view – Raster Images Vs Vector Graphics

UNIT II:

Colour modes: RGB - CMYK - Gray Scale - Designing: Drawing the lines - shapes - Curves - Inserting - Picture - Object - Using Grid lines - Working with Power Clips - Using Templates

UNIT III:

Page Layout: Changing the Page Size – Changing the Layout – Applying Style – Applying Bitmaps to the Background – Changing the Background – Adding a Page Frame – Moving between Frames

UNIT IV:

Mastering with the Text – Text tool artistic and Paragraph Text – Formatting Text – Embedding Object into text – Text to Curves

UNIT V:

Bitmaps: Working with Bitmaps – Converting Vector Graphics to Bitmaps – Designing for various medium: Publication – Digital Publication – Advertisement – Exporting for various media

REFERENCE:

- 1. Corel Draw X8: The Official Guide by Gary David Bouton.
- 2. Deke McClelland, 1993, Coreldraw! For Dummies, John Wiley & Sons Inc
- 3. CorelDraw, User Guide, 2018.

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1			3			
CO2				4		
CO3					5	
CO4			3			
CO5					5	

Mean: 4

This course aims to train the students about the fundamental concepts, Tools & Workspace in Photoshop software. It also teaches about Images/Photos manipulation in Photoshop software.

Course Outcome:

At the end of the course, the Students will be able to:

- i. Understand the basics and purpose of using the software for Designing purpose
- ii. Compose and blending the images and applying background for the images by using the software
- iii. Create an innovative cartoon character and applying 3D effects with aid of software
- iv. Classify the special effects and know about advanced technical aspects in the software
- v. Apply the various types of effects and creating Caricature by using the software

UNIT I:

Adobe Photoshop CS6: Introduction – Tool bar – Menu bar – Resolution – Resizing the image – Composition

UNIT II:

Compositing the images: Blending two and multiple images – Removing Background – changing the background – Blurring the image

UNIT III:

Digitization: Photo Retouching – Colour Correction – Image compression – Digital Painting – Creating a cartoon effect – Creating a 3D character

UNIT IV:

Special Effects: Creating special effects – Dispersion effect – Masking Technique – Image Manipulation – Caricature – Caricature Manipulation

UNIT V:

Image Manipulation: Visual Effect Photo Editing – Photo Manipulation effects – Creating a Poster – Banner – Flyer – Double Exposure Effect

REFERENCE:

- 1. Adobe Photoshop CC classroom in a book by Andrew Faulkner, 2017 Release First Edition.
- 2. Photoshop CC 2019 Upto speed by R.M. Hyttinen.

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1		2				
CO2					5	
CO3					5	
CO4		2				
CO5			3		5	

This course aims to bring the practical skills and competency in handling the tools and techniques in Print and Image Design through Lab Activities.

Course Outcome:

At the end of the course, the students will be able to:

- i. Create basic documentation in various sizes by using the designing software
- ii. Utilize the tools in the software to design the creative fonts and text using the software
- iii. Develop special effects, titling effects and creating tables with the aid of software
- iv. Remember about the formatting the document.
- v. Evaluate he advantages and benefits of convention and digital printing techniques

Print Media Familiarization Techniques

- Creating Documents in different sizes
- Word Processing and Short Cuts
- Borders and Text shading
- Inserting Images and Text Wrapping
- Text Design and Font sizes
- Titles and Effects
- Using Graphs and Charts
- Working with Tables
- Document Formatting
- Printing Techniques

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1					5	
CO2			3			
CO3			3		5	
CO4	1					
CO5						6

This course aims to bridge theoretical orientation of CorelDraw and photoshop application into practical exposure. It also gives high work experience in field of designing in a professional way.

Course Outcome:

At the end of the course, the students will be able to:

- i. Apply the basic usage of tools and techniques in CorelDraw
- ii. Compose new designs using CorelDraw independently
- iii. Modify the existing images and Designs independently
- iv. Design an innovative cartoon character in a creative method
- v. Apply the techniques of digitization professionally in the existing image with the aid of the software

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes a strong foundation in the practical and acts as a platform to create a job opportunity in the particular field.

As the students focuses in the field of Designing during the 1st semester, they have to undergo the training/ Internship in Designing companies. The students should undergo minimum of 120 hours internship in a company

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1			3			
CO2					5	
CO3			3			
CO4					5	
CO5			3			

[RWS]

The Course aims at improving the learners' productive skills of English. It offers professional guidance on meaningful and aggressive reading experiences by familiarizing them with techniques and micro-skills of reading, comprehension abilities through literary and non-literary reading materials. It also strengthens their writing skills through the forms of writing that are useful to them academically and vocationally.

At the end of the course, students will be able to

- i. practise the reading of simple prose texts silently and fast,
- ii. produce their comprehension abilities,
- iii. write letter of requests, permission and apology,
- iv. write paragraphs with topic sentence and supportive sentences, and
- v. write five-paragraph essays on simple, contemporary themes.
- **Unit 1**: Reading and comprehension skills
- Unit 2: Reading at various speeds, skimming & scanning, inferring & interpreting, predicting, reorganizing material, comprehension skills
- Unit 3: Writing leave letters and apology letters
- **Unit 4**: Paragraph writing, five-paragraph essay writing,
- **Unit 5**: Types of essay and paragraph writing: descriptive, argumentation, narrative, and expository

Textbook

Sekar, John, J. 2014. Reading and Writing Skills. Madurai. Department of English, the American College.

Mapping of Course Outcomes with Bloom's Taxonomy

	K 1	K 2	K 3	K 4	K 5	K 6
CO 1				✓		
CO 2				✓		
CO 3						✓
CO 4						✓
CO 5						✓

Mean: 4.8

Objective:

This course helps the student to create, format text and to merge mail using MS-Word. It also enables them to be familiar with Worksheet, Graphics and Charts. On completion of this course the student will be able to create documents, work with Worksheets and PowerPoint.

Specific Learning Outcome:

After completing this course students will be able to

- Demonstrate text data and tables to make a Document.
- Build Graphics and format text.
- Develop worksheet and format cells using formulae.
- Examine Sorting and Filtering techniques for text and numbers.
- Design a Slide show presentation and show in Multimedia form.

Unit I: Microsoft Word: Working with text - Formatting paragraph - Numbered and Bulleted lists-Working with Tables

Unit II: Mail Merging and Graphics - Spelling and Grammar Checking **-** Page format – Working with graphics

Unit III: Microsoft Excel: Modifying a Worksheet -Formatting cells -Formula cells

Unit IV: Functions and Charts: Formulae and Functions - Sorting and Filtering - GraphicsCharts.

Unit V: Power-Point Working with slides -Color Schemes - Graphics - Slide Effects - Master Slides - Presentations-Slide Shows-Animations.

Textbook:

MS-Office 2003 Manual by Microsoft

Reference

Curtin D.P, Kim Foley K, Kunalsen, Morin. C, "Information Technology- The Breaking Wave", TataMcGraw Hill 2002.

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Bloom's Taxonomy	CO1	CO2	CO3	CO4	CO5
K1: Remembering					
K2: Understanding	X				
K3: Applying		X	X		
K4: Analyzing				X	
K5: Evaluating					
K6: Creating					X

PERFORMANCE AND LIFE COPING SKILLS

LSA 1404 4hrs/Wk – 4 Credits

Objectives: To prepare the students better individuals in the society through life coping skills. To make them understand the need for learning life skills which will guide them to face the challenges. Training them to learn stress management and time management skills in order to achieve their life goals.

Specific Learning Outcome: At the end of this course the student will be able,

- To plan and set goals for their life
- To assess the need for motivation for successful completion of tasks
- To reflect the problem solving skill in day today life
- To predict stressful situations and causes of stress in order to overcome them
- To identify need for dealing with emotions for positive mental health

Unit: 1 GOAL SETTING

Definition – Importance of Goals – SMART Goal & Time management – Types of Goals - Obstacles – Successful and Meaningful life

Unit: II MOTIVATION SKILL

Introduction to Motivation & Inspiration – Internal and External motivation – Methods of Motivation – Effects of de motivation

Unit: III PROBLEM SOLVING SKILL

Definition of problem – Reasons for problems – Stages of solving problems: Evaluation, Managing, Decision making, Resolving, Results

Unit IV: STRESS MANAGEMENT

Definition of Stress: Positive (Eustress), Negative (Destress) – Stressors: Internal, External – Causes of Stress – Types of Stress – Ways to manage stress

Unit V: TIME MANAGEMENT

Need for time management – Poor Time management – Saboteur Time styles – Techniques for managing time

Books for Reference:

1. Alphonse, X. 2011, "We shall overcome" A Text book on Life coping skills", ICRDCE Publication, Chennai

This Course aspire the students to acquire knowledge about the advanced techniques of Designing Graphics, Advertisement and Broucher with the aid of In Design Software.

Course Outcome:

At the end of the course, the Students will be able to:

- i. Understand the advance level of designing methods by using the In Design Software
- ii. Discuss the basic techniques and manipulating the documents using the Software
- iii. Create an innovative Characters, Graphics, Images and Text using In Design Software
- iv. Plan for a professional approach for Newspaper Design and Magazine Design for a company/Institution using software
- v. Assess a Broucher project using the In Design Software

UNIT I:

Identifying tools and components of the In Design Interface – Creating a new document – Adding Text and Graphics to a Document

UNIT II:

Master Pages – Rulers and Guides – Adding and Deleting Pages – Working with Master Pages – Tracking Kerning and Leading – Placing Text and Graphics on the Document Pages – Developing Paragraph – Character and Object Styles – Paragraph Styles and Character Styles – Adjusting the viewing quality of the Document

UNIT III:

Workflow for placing Graphics into In Design –Placing Graphics in Table – Wrapping text around a Graphic Colour and transparency – Critique and Hierarchy – Developing paragraph, Character and Object Styles – Editing Text Placing

UNIT IV:

Working with Column – Designing for various medium: Advertisement – Publication – Magazine Design – Newspaper Design – Publication Design

UNIT V:

Broucher Project – Output and Exporting – Packaging Files – Introduction to Interactive – Setting up an Online document – Animation Panel – Bookmark panel – Buttons Panel – Page transition Panel

REFERENCE:

- 1. Adobe In design CC Classroom in a book, Kelly kordes Anton, Tina Dejarld.
- 2. Indesign CC, Creative Classroom by Bone Peter.

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1		2				
CO2		2				
CO3					5	
CO4					5	
CO5						6

Mean: 4

The Course aims to describe the advance designing methods to create objects, drawings and 3D effects with the aid of Image Design Software.

Course Outcome:

At the end of the course, the Students will be able to

- i. Label out the basic techniques, menus and tools of Illustrator software.
- ii. Relate the techniques of drawing tools and creating creative logo for a company with the aid of Software
- iii. Create a character by using various types of drawing techniques in the tool bar
- iv. Generate an innovative animations, Graphics and painting effects by using the Illustrator Software
- v. Summarize the Shading and Coloring methods available in the Illustrator Software

UNIT I:

Introduction: Adobe Illustrator CC – Working with Documents – Drawings and Transforming and Transforming Objects – Blending Technique – Using the effect and Blend Tool

UNIT II:

Line Art Designing – Icon Design – Design a logo using Golden Ratio – Art Brush Lettering UNIT III:

Line Cut Effect – Alternative Drawing Technique – Masking – Inking and Colouring Comics

UNIT IV:

Drawing and Painting – Neon Effect – 3D Gradient Liquid – Technique for shape vector – Isometric

UNIT V:

Image Cropping – Shading and Colouring Vector – Logo Design – Orange 3D Logo Design – Using the Mesh Tool (Creating an apple) – Stroke Techniques

REFERENCE:

- 1. Adobe Illustrator CC Keyboard Shortcuts: Volume 39 by U.C Abel books.
- 2. Adobe Illustrator CC Classroom in a book (2018 release) by Brian Wood.

BLOOM'S TAXONOMY	K1	К2	К3	K4	K5	K6
CO1	1					
CO2			3		5	
CO3				4		
CO4					5	
CO5		2				

The course aims to obtain practical knowledge with the application of advancement in Print and Media technique through Lab work

Course Outcome:

At the end of the course, the Students will be able to:

- i. Elucidate the basic concept of drawing like lines, curves and designing shapes using software
- ii. Create images using colouring tools with the support of software
- iii. Demonstrate special effects using various images and text by using the software
- iv. Apply the techniques to create various image sizes and formatting images using the software
- v. Remember about preparing various image sizes suitable for print media using software

Image Processing Techniques

- Lines, Shapes and Charts
- Working with Vector images and Bitmap Images
- Image (Graphic) resolution pixel sizes
- Image shading and Colour Correction
- Image Effects
- Superimposing Images
- Adding text to images
- Working with ClipArt
- Image Resizing
- Image Formatting
- Preparing Images for Print

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1						6
CO2			3			
CO3					5	
CO4			3			
CO5	1					

This course aims to bridge theoretical orientation of advanced designing software into practical exposure. It also gives high work experience in field of designing in a professional way.

Course Outcome:

At the end of the course, the students will be able to:

- i. Recall the basic tools and menus in InDesign and Illustrator software
- ii. Plan and compose designing patterns for various medium like print and electronic media
- iii. Design a new broucher and innovative handouts for a company/institution in a professional way
- iv. Create a Special Visual Effects (3D) by using illustrator software professionally.
- v. Construct an innovative images independently with existing images, creating logo for a company/ institution in a professional way

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes a strong foundation in the practical and acts as a platform to create a job opportunity in the particular field.

As the students focuses in the field of designing during 2nd semester, they have to undergo internship/training in Designing companies. The students should undergo minimum of 120 hours internship in a company

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S	K1	K2	К3	K4	K5	K6
TAXONOMY						
CO1	1					
CO2					5	
CO3					5	
CO4					5	
CO5					5	

Mean: 4.2

The third sequential General English Course aims at empowering second year undergraduate students with study skills necessary to continue their chosen major disciplines. The course assumes importance in the context of students lacking study skills and strategies for academic success.

At the end of the course, students will be able to

- i. practise healthy study habits and homework habits,
- ii. organise their academic skills,
- iii. apply time management skills,
- iv. explain psychological traits, and
- v. use ICT skills

Unit 1 General

Definition & scope of study skills, their needs, learning styles, study habits, homework habits, and strategies to improve study skills

Unit 2 Academic Skills

Effective, active listening, effective reading strategies & essay writing, note taking & making, summarizing, paraphrasing, information transfer, library skills, and dictionary skills

Unit 3 Time Management

Motivation & success, choosing study partners, creation of study space, barrier to time management, strategies to overcome barriers, punctuality & time management, time management during exam

Unit 4 Psychological Traits

Concentration skills, memory, remembering, stress management, coping with test anxiety, critical thinking

Unit 5 ICT

ICT skills, computer literacy skills at basic, intermediate and advanced levels

Textbook: Sekar, J.J. 2015. Study Skills. Madurai: Department of English, The American College

Mapping of Course Outcomes with Bloom's Taxonomy

	K 1	K 2	K 3	K 4	K 5	K 6	
CO 1			3				
CO 2				4			
CO 3			3				
CO 4				4			
CO 5						6	

Mean: 4

ENA 2402 Career Skills 4 Hrs. / 4 Cr

(CaSkills)

The fourth sequential General English Course aims at empowering second year undergraduate students with communication & cognitive skills and personality traits necessary to empower their career skills. The course assumes importance in the context of students lacking career skills and strategies for successful profession.

At the end of the course, students will be able to

i. speak and write in English,

ii. practise interview skills,

iii. explain cognitive skills,

iv. produce thinking skills, and

v. understand personal traits

Unit 1: Communication Skills

Active Listening & speaking, written & oral communication

Unit 2: Interview Skills

Interview questions, job application, CV preparation, self-introduction, presentation skills, negotiation skills, conducting a meeting, agenda setting and recording minutes

Unit 3 :Cognitive Skills

Self- motivation, setting personal goals, problem solving, decision making and delegation skills

Unit 4: Thinking Skills

Strategic thinking, organization, innovation, leadership skills

Unit 5 :Personal Traits Skills

Personal development & empowerment, confidence & rapport building, tact & diplomacy, emotional intelligence, self-esteem, humour and persuasion skills

Textbook

Sekar, J.J. 2015. Career Skills. Madurai: Department of English, The American College.

Mapping of Course Outcomes with Bloom's Taxonomy

	K 1	K 2	K 3	K 4	K 5	K 6
CO 1						6
CO 2			3			
CO 3		2				
CO 3 CO 4						6
CO 5		2				

Objectives:

This course will enable the student to have an overview on the components of the Operating systems. It will also provide knowledge on the different types of Operating System, Multiprogramming and Multitasking. They can understand the features and applications of Android.

Specific Learning Outcome:

After completing this course students will able to

- Recall the role of Operating system as an interface between user and computer.
- Summarize the basic functionality of Network Operating system.
- Illustrate the features of Windows Operating System.
- Categorize the functions of Multitasking and Time Sharing.
- Assess the operation of Voice based features and Video calling using Android.

Unit I: Introduction to Operating System BIOS – DOS – Windows - types of operating system – operating system services - desktop operating system

Unit II: Network Operating System - Server operating system – mainframe operating system – embedded operating system.

Unit III: Windows - Features of Windows Operating system – Multiprogramming

Unit IV: Process / Memory Scheduling - Multitasking – Buffering – Spooling – Time sharing – Browser support.

Unit V: Introduction to Android Application of Android – Features of Android – Messaging -Voice based features- Multitasking-Screen Capture-Video Calling-Multiple Language support.

Text books:

- 1. Alphonse X, 2011 ICRDCE publication, December
- 2. Silberchatz, Galvin and Gagne, 1999. Operating system concepts, John Wiley and sons.

References:

- 1. Curtin D.P, Foley K, Kunalsen, Morin, C. 2002. Information Technology- The Breaking Wave, TataMcGraw Hill.
- 2.http://en.wikipedia.org/wiki/List_of_features_in_Android

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Bloom's Taxonomy	CO1	CO2	CO3	CO4	CO5
K1: Remembering	X				
K2: Understanding		X	X		
K3: Applying					
K4: Analyzing				X	
K5: Evaluating					X
K6: Creating					

COPING WITH PSYCHOLOGICAL AND PHYSICAL ISSUES

LSA 2403 4hrs/Wk – 4 Credits

Objectives: To enlighten the students about psychological and physical issues everyone goes through in their life and how to manage them for successful living. To acquaint them about the consequences of fear, shyness, emotions and stress in order to overcome them for maintaining better relationship with others and in their personal and professional life.

Specific Learning Outcome: At the end of this course the student will be able,

- To understand the types of fear and shyness and the ways of overcoming them
- To manage emotions and stress for better living
- To assess the types and apply the styles of communications in their daily walk of life
- To identify the ways of coping with social media and substance addictions
- To evaluate the distinction between Gender and Sexuality and their significance

Unit 1: Coping with Fear and Shyness

Understanding Fear - Types of Fear - Overcoming Fear - Shyness - Types - Managing Shyness

Unit II: Coping with Emotions & Stress

Types of Emotions – Managing Emotions – Stress – Types & Need for understanding stress – Ways to manage stress

Unit III: Communication & Failure

Communication – Types & Styles – Ways to improve communication – Failure – Managing Failures

Unit IV: Coping with Addictions

Drug addictions – Causes of addiction – Physical & Societal implications – Internet Addiction – Cyber crime - Types and causes – Managing addictions

Unit V: Coping with Sexuality

Sex and Gender – Understanding Gender discrimination – Coping with gender discrimination – Understanding Sexuality – Consequences of Premarital & Extra martial sexual issues – Managing sexuality

References:

- 1. "We shall overcome A Text book on Life coping skills", Indian Centre for Research and Development of Community Education (ICRDCE) Publication, Alphonse, X. 2011, Chennai
- 2. "Living with Honour", Macmillan Publishers India Ltd., Shiv Khera 2003
- 3. "Smart Guide to Relieving Stress", Wiley, Carole Bodger, 1999
- 4. "Managing Stress", National Press Publications, Kristine C. Brewer 1995

This course aims to introduce the students to designing for various purposes using the computer based application both 2D and 3D Animation.

Course Outcome

At the end of the course, the Students will be able to:

CO1: Infer AutoCAD Software basic working Patterns.

CO2: Sketch a 2D and 3D modeling with the aid of Software

CO3: Compose various models of 3D model kitchen, adding text methods using the 2D and 3D Animation Software

CO4: Instruct to draw various types of models by using the Auto CAD Software

CO5: Plan a modeling house and writing a command for the animation with the aid of AutoCAD software

UNIT I:

Getting started with Auto CAD (2D/3D) – Working with Commands – Hatch Command – Sweep Commad – Line Command – Circle Command - Making a Door Dynamic Block in Auto CAD

UNIT II:

Making a simple floor in Auto CAD – 3D House – Modeling – Mechanical Modeling – 3D Pipe Parting – 2D/3D modeling basic shapes

UNIT III:

Raster Design – Vector & Text Recognition – Concentric Circle Method – Dimension lines – Multiline text techniques – Desk Table – 3D Modeling – Kitchen sink – shock absorber

UNIT IV:

Making a 2D Gear – Reduce AutoCAD Drawing – File Size – Creating 3D Gear – Rotate Motion – Helix (Spring) design in AutoCAD

UNIT V:

AutoCAD – 3D House Modeling – Converting 2D to 3D Building drawing – AutoCAD 3D modeling – Command – Type 3D modeling

REFERENCE:

- 1. Autocad 2018 Training Guide by LinkanSagar
- 2. Autocad 2019 for beginners by cadfolks.
- 3. 3D Architectural ModellingwithAutoCAD: 3D Modelling Essentials By Scott Onstott.

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1						6
CO2			3			
CO3					5	
CO4			3			
CO5	1					

This course aims at imparting the students about the fundamental knowledge on still photography and helps them to obtain acquaintance in Creative photograph

Course Outcomes

At the end of the course, the Students will be able to:

- i. Identify the basics and functions of SLR and DSLR Cameras.
- ii. Analyze the basic types of shots and Angles and apply the techniques for composition by using Rule of Third
- iii. Design a lighting techniques for indoor and outdoor production and usage of various lens in DSLR Camera
- iv. Understand the various types of photography in contemporary era
- v. Analyze the techniques of Digital photography and image manipulation by using Photoshop software.

UNIT I:

Camera – Introduction –Parts and Functions of a camera – Box Camera - TLR – Parallax Error –SLR – DSLR- Basics of camera: Aperture – Shutter speed – ISO – Depth of Field

UNIT II:

Composition: Rule of Third – Camera Shots: Extreme Long Shot (ELS) – Long Shot (LS) – Mid shot – Close up shot (CU) – Extreme Close up Shot (ECU) — Camera angles: High Angle – Mid Angle – Low Angle

UNIT III:

Lighting techniques: One point lighting – Two point lighting – Three point lighting – Types of lights in photography, Types of Lenses: Prime/Focus lens – Wide Angle lens – Normal lens – Tele lens – Special lenses and its usage – Filters – Types of Filters

UNIT IV:

Types of Photography: Portrait – Landscape – Wildlife – Fashion – Street Photography – Table Top/Product Photography - Photo Journalism.

UNIT V:

Digital photography and image Manipulation – Types of Memory Storage Devices - Memory – File Extension in Photoshop Software - Using Adobe Photoshop for editing and creating

REFERENCE:

- 1. Basic Techniques of photography book 1& 2 by: Shaefer, John P 1990 ISBN: 9780821225752, Little, Brown, 1992
- 2. Photography by Barbara London John Upton Jim Stone Ken Kobre Betsy, Prentice Hall 2010

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1		2				
CO2				4		
CO3			3		5	
CO4	1					
CO5				4		

Mean: 3.8

AMT 2405 Lab III- Photography (Practical) 10Hrs/Wk-10 Credits

Course Objective:

The Students learn to acquire practical knowledge of photography and apply the techniques gained in theory paper.

Course Outcome

At the end of the course, the Students will be able to:

- i. Describe about Camera Shots and Angles by Using DSLR Camera
- ii. Develop the knowledge for composition in the frame and lighting techniques in indoor and outdoor production.
- iii. Plan to take a photograph in Landscape and Portrait by using different types of Lens in DSLR Camera
- iv. Categorize various types of photography and capturing the nuances of Madurai as Street Photography using DSLR Camera
- v. Apply the methods of Digitization in photograph using the Photoshop Software.

Photography Techniques – Lab

- Basic Camera Shots
- Camera Angle
- High Exposure and Under Exposure
- Composition: Rule of Third, Head Room, Nose Room and Lead Room
- Three Point Lighting
- Landscape, Portrait and Wildlife Photography
- Madurai Street Photography
- Product Photography
- Photo Journalism
- Image Manipulation using Photographs

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1	1					
CO2					5	
CO3					5	
CO4				4		
CO5			3			

This course gives practical knowledge to the students towards the application of photography techniques incorporating theoretical approach. It gives wide knowledge about various usages of lens, filters and types of photography.

Course Outcome:

At the end of the course, the students will be able to:

- i. Able to operate DSLR Camera individually.
- ii. Compose images professionally with photographic grammar in DSLR cameras.
- iii. Capture various types of images using lighting techniques in DSLR Camera.
- iv. Capture the nuances real life of people, emotions and their culture in the DSLR Camera.
- v. Apply the techniques of image manipulation in the existing photograph.

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes a strong foundation in practical and acts as a platform to create a job opportunity in particular field.

As the students focuses in the field of Photography during 3rd semester, they need to work as an internee in any Photo Studio. The students should undergo minimum of 120 hours internship in a Studio. They can gain experience in taking product photography, Wedding Photography etc.

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1		2				
CO2					5	
CO3					5	
CO4					5	
CO5			3			

Mean: 4

(CaSkills)

The fourth sequential General English Course aims at empowering second year undergraduate students with communication & cognitive skills and personality traits necessary to empower their career skills. The course assumes importance in the context of students lacking career skills and strategies for successful profession.

At the end of the course, students will be able to

- i. speak and write in English,
- ii. practise interview skills,
- iii. explain cognitive skills,
- iv. produce thinking skills, and
- v. understand personal traits

Unit 1: Communication Skills

Active Listening & speaking, written & oral communication

Unit 2: Interview Skills

Interview questions, job application, CV preparation, self-introduction, presentation skills, negotiation skills, conducting a meeting, agenda setting and recording minutes

Unit 3: Cognitive Skills

Self- motivation, setting personal goals, problem solving, decision making and delegation skills

Unit 4: Thinking Skills

Strategic thinking, organization, innovation, leadership skills

Unit 5: Personal Traits Skills

Personal development & empowerment, confidence & rapport building, tact & diplomacy, emotional intelligence, self-esteem, humour and persuasion skills

Textbook

Sekar, J.J. 2015. Career Skills. Madurai: Department of English, The American College.

Mapping of Course Outcomes with Bloom's Taxonomy

	K 1	K 2	K 3	K 4	K 5	K 6
CO 1						6
CO 2			3			
CO 3		2				
CO 4 CO 5						6
CO 5		2				

Objective

This subject will enable the student to understand the concepts of C programming language and gain knowledge on algorithms, flowcharts and logical thinking. On successful completion of this course the student will have the programming ability in C Language, and develop software application using C.

Specific Learning Outcome:

At the end of the course the student will be able to:

- i. Recognize the Structure and Compilation of C Program.
- ii. Summarize the basic data types and Operators.
- iii. Demonstrate the concept of Control Statements in C.
- iv. Develop program using Array and functions to implement reusability.
- v. Create application software using Structure and Union.

Unit I

Overview of C: Middle level language – compilers versus interpreter – the form of a C program – compiling a C program

Unit II

Primitive Date types Operators: Data types – type conversions – operators – formatted input/output functions.

Unit III

Control statements: If, if-else, switch, for, while, do...while, break and continue.

Unit IV

Aggregate Data Types: Arrays – strings – functions – call by values – call by reference – passing arrays as arguments – local, global static and external variables.

Unit IV

Structure and Union: User defined data types – Structures - Union

Textbook:

Balagurusamy.E, Programming in ANSI 'C', 4th edition, Tata McGrawHill, 2007.

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Bloom's Taxonomy	CO1	CO2	CO3	CO4	CO5
K1: Remembering	X				
K2: Understanding		X	X		
K3: Applying				X	
K4: Analyzing					
K5: Evaluating					
K6: Creating					

COPING WITH SOCIAL AND ENVIRONMENTAL ISSUES

LSA 2404 4 hrs/Wk –4 Credits

Objectives: To make the students comprehend the social and environmental issues they face in the society. To teach them the necessity for understanding the issues and how to manage them for a better society. To kindle their mind about their responsibility to become a useful citizen to protect the society and the environment where they live.

Specific Learning Outcome: At the end of this course the student will be able,

- To relate the significance of relationships and need for coping with them
- To demonstrate the skills of managing their time, money and health
- To apply their knowledge in protecting their environment and preserve the resources
- To assess the impact of globalization in our society and adjust their living conditions
- To identify healthy ways to cope up with emerging technologies which affect the life

Unit: 1 Coping with Society

Family and Issues related to Marriage – Building relationships – Conflict management – Cultural alienation

Unit: II Coping with Human Resources

Time management – Money management – Skill management: Problem Solving Skills - Social skills - Health management

Unit: III Environmental Issues

Environment Vs Ecology – Pollution: Air, Water, Soil, Sound – De forestation – Exploitation of natural resources – Environmental protection

Unit IV: Coping with Globalization

Globalization – Trends in Education, Employment, Consumerism – Merits and Demerits of Globalization

Unit V: Coping with Technology

Types of Technology – Technology in day today life - Social Media – Impacts of technology in modern society – Managing life with technology

Reference:

1. Alphonse, X. 2011, "We shall overcome" A Text book on Life coping skills", ICRDCE Publication, Chennai

This Course aims to acquaint the students about Professional Sound Recording, Dubbing, Working principles of Microphone and creating a Special Sound Effects by using the Audio Editing software.

Course Outcome:

At the end of the course, The Students will be able to

- i. Identify the basic concepts and methods of sound
- ii. Correlate music production particularly single and multi-track recording by using the sound editing software
- iii. Plan for recording a sound and edit accordingly by using the software
- iv. Analyze about the various types of microphone and its usage in various sound recording in the Audio Suite
- v. Compute various Audio formats and apply Background score and SFX according to the Dialogues by using Audio Editing Software.

UNIT-I

Introduction to Sound Design: The Origin – Nature of Sound – Properties of Sound Waves – Amplitude – Frequency and Phase – Noise – Music Basics – Perception of Loudness, Pitch and Direction – Sound Wave Theory

UNIT II

Introduction to Sound and Music Production: Single Track and Multi Track Recording – Editing – Mixing and Mastering – Studio Design and Equipments – Acoustics

UNIT III

Introduction to DAW – Computer Configuration and Specification – Recording, Editing and Mixing – Working in various Operating Systems

UNIT IV

Introduction to Microphone – Effects and Signal Processors: Dynamic Processors: Compressors – Reverberation – Delay – Phases and Flanges – Analog to Digital convertors – Types and kinds of Microphone

UNIT V

Audio Formats – Basic Music Theory – MIDI – Virtual Instruments VST – Editing and Mastering – Dubbing – Background Score – SFX – Final Mastering and Audio Balance

REFERENCE:

- 1. AutoCAD: A Progressive Course for New Users (Software Guide)by John Lockley and LamineMahdjoubi
- 2. AutoCAD 2002: 3D Modeling a Visual Approach by S. Wilson

BLOOM'S	K1		K2	K3	K4	K5	K6
TAXONOMY							
CO1		1					
CO2						5	
CO3						5	
CO4					4		
CO5				3			

Mean:3.6

The Course aims to highlights the students to create Logo, Story board creation, Character creation and cartooning using the software Flash.

Course Outcome

AT the end of the course, the Students will be able to:

- i. Determine the basic tools and menus in the Animation Software
- ii. Infer the methods of basic Animation methods to create a basic Animation process with the help of Software
- iii. Create an innovative animation short films, games, Advertisement and Story Board creation by using the tools and menus in the software
- iv. Design text and applying various types of effects by using the software
- v. Evaluate the script for creating a Webpage using the Software Flash and HTML Language

UNIT- I

Introduction to Animation – 12 Principles of Animation – Flash Tool Box – Tools for 2D Animation

UNIT II

Introduction to Adobe Animate CC – Frame by Frame Animation – Motion Tweening – Motion Tweening – Masking – Creating a Button – Motion Guide

UNIT III

2D Short Film - Creating 2D Games - 2D Product Advertisement - Story Board Creation - Smiley Creation - Logo Creation

UNIT IV

Camera Movement in Flash – Text Animation and its effects: Glowing Text – Simple Text – Text Logo Graving – Creating a rotating Earth Animation – Compose a sequence in Flash

UNIT V

Basics of HTML – Colourful Background – Creating website using HTML – HTML Editors – Web designing using Flash and HTML

REFERENCE:

- 1. Adobe Animate CC Classroom in a book 2018, release by pearson, Russel Chun.
- 2. Adobe Flash Professional CC, Classroom in a book. The official training workbook from Adobe Systems.
- 3. Macromedia Flash 8 Advanced for Windows and Macintosh: Visual Quick Pro, Russell Chun.

4.

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1	1					
CO2	1			4		
CO3					5	
CO4					5	
CO5						6

Mean: 4.4

AMT 2406 Lab IV: SOUND TECHNIQUES – PRACTICAL 10 Hrs/Wk – 10 Credits Course Objective:

This Course aims to acquire skills about Sound methods and application in various branches of media like Radio, Film Dubbing and Television dubbing. It also gives the wide knowledge about the Studio Equipment and Studio acoustics

Course Outcome:

At the end of the course, the Students will be able to

- i. Infer the basic concepts of Sound
- ii. Remember the technical concepts of Studio Equipment in the Audio Suite
- iii. Identify the nuances of Microphone basics and its application in various production
- iv. Plan the Sound techniques like dubbing, Recording and Rerecording
- v. Analyze various techniques of Sound and producing final output by using the Audio Editing Software
- Analog and Digital Formats in Sound
- Decibels, metering, Amplitude, Frequency
- Introduction to Digital Workstation
- Studio equipment and Studio Acoustics
- Microphone: Working Principles of Microphone
- Recording, Editing and Mixing
- Audio Recording for various media
- Working with VST MIDI
- Mastering Standards
- Mastering and Audio balance, Final Output

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1				4		
CO2	1					
CO3	1		3			
CO4					5	
CO5	1					

Mean: 3

The students acquire practical knowledge in sound recording, dubbing, adding background special effects with the support of audio editing software.

INTERNSHIP – IV

Course Outcome

At the end of the course, the students will be able to:

- i. Comprehend a sound track
- ii. Produce Sound and music using studio Design and equipment
- iii. Create a new sound track using the methods of recording, editing and mixing in the DAW
- iv. Apply the techniques of microphone to record sound and music instrument.
- v. Produce a Master audio output professionally using audio editing software.

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes a strong foundation in practical and acts as a platform to create a job opportunity in particular field.

As the students focuses in the field of Audio during 4th Semester, they have to undergo internship/training in any Sound Recording Centre. The students should undergo minimum of 120 hours internship. They can gain experience in taking Dubbing, Recording and adding Special sound effects in the Audio Editing Software.

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1	1					
CO2	1				5	
CO3					5	
CO4			3			
CO5					5	

Mean: 3.8

EVS 3401 4hrs/Wk-4 Credits

This course is designed to develop environmental awareness to the students. It deals with the natural resources, ecosystems and the impact of human activity on them. This course also imparts the biodiversity and its conservation. It also sensitizes the students on the environmental issues and abatement of pollution and gives suggestion for sustenance.

UNIT – I Introduction to environmental studies

Concept and Scope – importance of sustainability and sustainable development. The Atmosphere, the Hydrosphere, the Lithosphere and the Biosphere . Concept of Renewable and Non-renewable resources

Unit -II Ecology and Ecosystems

Concept of ecology and ecosystem, Structure and function of ecosystem; Energy flow in an ecosystem; food chains, food webs; Basic concept of population and community ecology; ecological succession. Characteristic features of the following- Forest ecosystem - Grassland ecosystem - Desert ecosystem - Aquatic ecosystems (ponds, lakes, rivers, oceans)

Unit 3 Environmental Pollution

Pollution -Definition -• Causes, effects and control measures of - Air pollution -. Water pollution -. Soil pollution -. Marine pollution -. Noise pollution - Thermal pollution - Nuclear hazards . Solid waste Management : Causes, effects and control measures . Role of an individual in prevention of pollution. Natural Disasters and their Management : floods, earthquake, cyclone and landslides.

Unit 4: Biodiversity and its conservation

Definition: genetic, species and ecosystem diversity. Biogeographical classification of Indiavalues Biodiversity at global, National and local levels. India as a mega-diversity nation -Hot-spots of biodiversity. Endangered and endemic species of India. Threats to biodiversity: habitat loss, poaching of wildlife, manwildlife conflicts.. Conservation of biodiversity: Insitu and Ex-situ method of conservation.

Unit 5 : Social Issues and the Environment

Water conservation- rain water harvesting, watershed management. Wasteland reclamation. Afforestation. Management and Wildlife conservation. Climate change - Greenhouse effect - global warming - acid rain, ozone layer depletion. Environmental Laws: Environment Protection Act, 1986; The Water Act, 1974, The Air Act, 1981 and The Wildlife (Protection) Act, 1972, Forest Conservation Act. Issues involved in enforcement of environmental legislation. Public awareness.

OBE for EVS B. Voc .Programme

Unit	Upon completion of this course students will be able to	PSO
Unit 1	Discuss the terminology commonly used in environmental science and to identify renewable and non renewable resources and its proper usage and conservation	PSO2
Unit 2	Explain the concept , structure, function of ecosystem and to analyze the interaction of organism at different ecosystem	PSO1
Unit 3	Evaluate the adverse human impact on abiotic and biotic community and sustainable strategies to mitigate the impact	PSO7&8
Unit 4	Create a knowledge on biodiversity and its conservation	PSO 4&8
Unit 5	Utilize advances in environmental science to resolve issues and anticipate implications. Assess the consequences of environmental disasters and its remedy	PSO 7&2

Blooms Taxonomy for EVS B. Voc .Programme

Bloom's Taxonomy	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	CO1	CO2	CO3	CO4	CO5
K1: Remembering	X			X	
K2: Understanding	X	X			
K3: Applying			X		
K4: Analyzing					
K5: Evaluating					X
K6: Creating				X	

The Students have given the input knowledge about the Information and Communication technology and its application in contemporary trends and it also aspire the ICT system with the support of Media.

Course Outcome:

At the end of the course, the students will be able to:

- i. Examine the basic concepts of ICT and its Policies towards the Development of the society
- ii. Apply the advance technology of media and its understand role in developing the
- iii. Analyze the task of ICT and catalyst agent (ICT) with special reference to Rural Development
- iv. Apply the meaning and concepts of Development of development and train about the methods of development communication
- v. Remember about the evolution of new media and its component in ICT.

UNIT I:

Introduction to ICT – Meaning – Scope – Significance – ICT System: History of ICT – Growth of ICT in India – Program and its Policies

UNIT II:

Technology in ICT: Radio – Television – Print – Function, Usage and Development in ICT **UNIT III:**

Role of ICT in Rural Development: Education – Agriculture – Telecommunication – Its Application and Barriers – A catalyst intervention for empowering Rural India **UNIT IV:**

Development Communication and ICT: Definition and Meaning – Methods of Development Communication: Community Radio - Participatory Video – Documentary – Folk Media – Usage and its Barriers in Development communication

Unit V:

New Media: Types – Internet: Digital Revolution – Digital Divide - Wireless – Cell phone – History and its Development – Media Convergence

Reference:

- 1. Brilliant Ideas for Using ICT in the Inclusive Classroom 2nd Edition By Sally McKeown, Angela McGlashon
- 2. Introducing Computing: A guide for teachers Edited by Lawrence Williams

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1				4		
CO2	1		3			
CO3				4		
CO4			3			
CO5	1					

Mean: 2.6

To give an overview about the real concepts of entrepreneurship and to impart knowledge about the various sources for a small business and hence motivate the students to become a job providers.

Course Outcomes

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

- i. Cite the meaning of entrepreneurship and identify the role of entrepreneurs.
- ii. Identify different types of entrepreneurs and the problems faced by them
- iii. Identify the various sources of small business and capable of starting a business by creating own business plan.
- iv. Identify the various institutes and their functions that support entrepreneurs
- v. Identify and utilize the various incentives available for small scale business.
- **1. Entrepreneur:** Definition Characteristics Functions Competencies Entrepreneur vs Entrepreneurship Role of Entrepreneur in Economic Development.
- **2. Types of Entrepreneurs:** Innovative Adaptive Fabian Drone; Entrepreneur vsIntrpreneur, Copreneur; Women entrepreneur Types Problems.
- 3. Strating a small Business: Steps; Project Report: Contents Importance.
- **4. Institutional Support to Entrepreneurs:** SIDCO TCOs DIC TIIC SIDBI Commercial Banks.
- **5. Incentives for Small Scale Business:** Subsidy Tax Concessions Assistance Export Assistance Technical Assistance.

Text Book

E. Gordan& K. Natarajan, Entrepreneurship Development, Himalaya Publishing House, 2017.

References

- 1. Holt, Entrepreneurship: New Venture Creation, Prentice-Hall, 2018.
- 2. R. V Badi& A. V Badi, Entrepreneurship, Vrinda Publication (p) Ltd, New Delhi 2010
- 3. K. Ramachandran, Entrepreneurship Development, Tata McGraw Hill, New Delhi, 2017.
- 4. Dr. Radha, Entrepreneurial Development, Prasanna and Co, Chennai. 2019

Bloom's Taxonomy	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	CO1	CO2	CO3	CO4	CO5
K1: Remembering					
K2: Understanding	X				
K3: Applying					X
K4: Analyzing		X		X	
K5: Evaluating					
K6: Creating			X		

This course aims at training students for capturing and editing moving images with digital videos camera for various purposes. It also proposes to serve as a preparatory course for cinematography.

Course Outcome:

At the end of the course, the Students will be able to:

- i. Infer the basic Parts and functions of a Video Camera
- ii. Apply the formula of Five C's in Cinematography and identify about Camera Shots and Movements
- iii. Summarize the lighting techniques in Indoor, Outdoor Production and lighting techniques for various programs in television
- iv. Identify the skills of Filmic Time, Space and different types of Montages
- v. Create a Video by applying the procedure of Video Editing in the Software.

UNIT I:

Introduction to Video Camera: Parts of Video Camera – Functions of Video Camera –Basics of Video Camera: Lens - Aperture – Shutter speed – ISO – IRIS – Types of Video Camera.

UNIT II:

Five C's of Cinematography: Camera Angle – Continuity – Cutting – Close – ups – Composition: Rule of Third – 180 Degree Rule – 360 Degree – Eye Match–Types of Shots – Camera Movements

UNIT III:

Introduction to Lighting: Natural Lighting – Artificial Lighting – Equipments used to control light - Lighting Equipments for indoor and Outdoor Production – Lighting for various production: Interview – Talk Show – Game Show

UNIT IV:

Shot – Scene – Sequence –Filmic Time and Space in Film –Rhythm – Tempo – Contrast – Montages – Types of montage

UNIT V:

Editing Basics – Cut - Dissolve – Fade – Wipe – Editing Process: Capturing – Transferring – Rough Cut – Applying Basic Transition and arranging the Sequence – Types of editing: Jump Cut – Match Cut – Parallel Editing

Reference:

- 1. Malkiewicz.k, Film Lighing, 1992, Simong& Schuster, New York
- 2. Mascelli. J.V, The Five C's of Cinemotography, 1965. Silman-James press, Bevely Hills.

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1		2				
CO2			3			
CO3					5	
CO4				4		
CO5			3		5	

Mean: 3.6

This course aims at enabling the students to understand the basics of Video editing components and makes the students familiar with video editing tools.

Course Outcome:

At the end of the course, the Students will be able to:

- i. Relate the basic knowledge of editing methods
- ii. Create an innovative video with the application of transition, Video and sound effects with the support of raw footage
- iii. Apply the knowledge of Audio and adding tracks in the Video Editing Software
- iv. Summarize the skills and sense of Colour theory in the software
- v. Plan a final output with the source video files by sweetening Video and Audio

UNIT I:

Setting Up a Project- **Importing** Media - Organizing Media-understanding various codec-Important tools in editing application.

UNIT II:

Essentials of Video Editing –Timeline settings-Insert, Over write, extract, lift- Working with Clips and –Markers -Adding Transitions –Video effects - Trimming – Key frame animation - Multi camera Editing

UNIT III:

Audio tracks Mono, stereo-Managing audio tracks- Sweetening Sound - Adding sound Effects and Mixing Audio.

UNIT IV

Color Correction- Color balancing and Grading - Exploring Compositing Techniques - Croma keying and matte removal techniques, Creating Titles.

UNIT V:

Managing Your Projects - Exporting Frames, Clips, and Sequences - An overview of colororiented effects Project Menu overview - Photoshop tips for DV productions -Export Options

REFERENCE:

- 1. Mollison.M, Producing videos a complete guide, 2007, Allen & Unwin, Austialia
- 2. Malkiewicz. K & Mullen M.D., Cinemotography, 2005. Simon & Schuster, New York

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1					5	
CO2					5	
CO3			3			
CO4					5	
CO5					5	

Mean: 4.6

The Course aims to obtain practical skills on Video Editing by using the Video Editing Software. The course also highlights basic perceptions to final output by using various Video Effects in the Video Editing Software.

Course Outcome

At the end of the course.the Students will be able to:

- i. Infer the knowledge of importing and organizing the footage in the Video Editing software
- ii. Apply the basic transitions and various Cuts in the Editing
- iii. Compare the production shots with Post production process like NG Removal and ordering the scene in the timeline
- iv. Analyze the techniques of colour sense and its application in the Video Editing Software
- v. Organize the raw footage with special effects and giving the output by using the Video Editing Software
- Importing and Organizing the Footage
- Understanding the three main Windows in Editing Application: Project Window –
 Source Monitor Timeline and Display Monitor
- Insert, Overwrite, Extract and Lift
- Various Cuts: Jump Cut Parallel Cut Match Cut Advance Cut
- NG Removal and Ordering in Timeline
- Adding Transitions
- Video Effects and KeyFrame Animation
- Colour Correction and Colour Balancing
- Audio Settings Audio Tracks Mixing
- Output Settings Various types of Output

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1		2				
CO2			3			
CO3				4		
CO4			3	4		
CO5					5	

Mean: 3.5

The course aims to obtain hands on practical knowledge in capturing, editing and applying visual effects with the aid of Video Editing Software

Course Outcome:

At the end of the course, the students will be able to:

- i. Able to operate Video Camera individually.
- ii. Compose images professionally with Visual Grammar in Video Cameras.
- iii. Capture various types of Videos using lighting techniques in Video Camera.
- iv. Analyse the techniques filmic time, space and various types of shots in the films.
- v. Create a video by using Video Editing Software professionally.

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes a strong foundation in practical and acts as a platform to create a job opportunity in particular field.

As the students focuses during Video Editing in the 5th Semester, they need to work as Video Editor in any Project. The students should undergo minimum of 120 hours internship.

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1			3			
CO2					5	
CO3					5	
CO4				4		
CO5					5	

Mean: 4.4

VAL 3402 4hrs /4 credits

Objective: To make the students understand the meaning and implications of globalization. To acquaint them about new challenges world is facing due to globalization. The good side and the sad size of globalization – To enlighten them about the need to learn family values and practice them to cope up with the newly arising challenges.

Course outcomes: At the end of this course, the students will be able,

- 1. To explain what is globalization and their important aspects
- 2. To assess the conditions of education in their society
- 3. To predict the new challenges arise in the society due to globalization
- 4. To analyze the emerging trends in employment and cope up with them
- 5. To apply the values in their lives amidst the changing scenario

I - UNDERSTANDING KEY CONCEPTS OF GLOBALISATION

Free market Economy and Global Market Network - Communication and transport - Technology and Global Production System - Global Capital and investments - Culture of over consumption - Human needs - Over exploitation of resources

II - EDUCATION IN GLOBALISED CONTEXT

Differential access to Education at the Primary, Secondary and Tertiary level- Problem of Quality Addressing deficiencies – need for communication and other Social skills - need for equitable and quality universal education

III - GLOBALISATION AND EMPLOYMENT

New aspirations and the demands placed on youth - Changing structure of Employment and working norms related to time and remuneration - New Forms of insecurities - Cultural alienation - Youth and Consumerism - Distinguishing successful and meaningful life

IV - YOUTH AND FAMILY VALUES

Mobility of Youth - Fragmentation of family structure - Issues relating to Marriage and Marital harmony; Addressing the growing rate of divorce and separation - Family related values

V - GLOBALISATION AND OTHER SOCIO POLITICAL ISSUES

Poverty and Marginalization under Globalization – Terrorism - Rise of religious fundamentalism and Cultural Chauvinism – Corruption – Democracy - civil society issues

VI GLOBALISATION AND VALUES

Relevance of Personal Honesty, Hard work, Trustworthiness; Social values - Social justice, Non discrimination, Economic austerity - Non violence and Peace in the Global Context

Books for reference:

Study Materials will be provided.

This course is intended to familiarize the students with the concept and significance ofdatabase maintenance and management. Moreover, the course would orient the studentsabout the various aspects involved need for systematic retention of database involved intheir respective vocations.

Course outcomes

At the end of the course the student will be able to:

- i. Identify the database approach and the database applications
- ii. Apply relational expressions for queries.
- iii. Examine the database design by normalization.
- iv. Build a table and manipulate the data using SQL Commands.
- v. Summarize the transactions, its properties and the concurrency controls.
- Unit I: Databases and database users: Introduction Characteristics of the database approach Advantages of using the DBMS approach A brief history of Database Applications.
- Unit II: Database System Concepts and Architechture Data Models, Schemas and Instances.
- Unit III: Database Languages and Interfaces: The Database System Environment Centralized and Client / Server Architecture for DBMSs – Classification of Database Management System.
- **Unit IV:** Relational Model Concepts: Relational model Constraints and Relational Database Schemas, Update Operation, Transaction and dealing with Constraints violations.
- Unit V: Database Recovery Concepts Caching(Buffering) of Disk blocks Write-ahead Logging, Steal / No-Steal and Force / No-Force - Checkpoints in the System Log and Fuzzy Check pointing - Transaction rollback

References

- 1. "Database Management System" Raghu Ramakrishnan and Johannes Gehrke 3rd edition, McGraw-Hill, 2003.
- 2. "DBMS a Practical Approach", E.R. Ragiv Chopra, S Chand Publications.

Bloom's Taxonomy	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	CO1	CO2	CO3	CO4	CO5
K 1: Remembering	X				
K 2: Understanding					X
K 3: Applying		X		X	
K 4: Analysing			X		
K 5: Evaluating					
K 6: Creating					

The learner will gain the skills required for the corporate world that would enhance one's employability and to provide an exposure to the students regarding the soft skills required for the job market.

Course outcomes:

At the end of this course, the students will be able to:

- i. Cite the meaning and define soft skill and also to identify the different types of soft skills.
- ii. Identify different types of communication and overcome the barriers for effective communication.
- iii. Develop and exhibit a good body language and enhance their personality.
- iv. Exhibit a polite behaviour in society or among members of a particular profession or group and enrich their public speaking skill.
- v. Enhance their writing skill and face interviews without fear.
- Unit I Soft Skill: Definition Importance of soft skills Types of soft skills.
- **Unit II Communication:** Definition Process Types Verbal, non-verbal Uses Barriers of effective communication.
- Unit III Inter Personal Relation Skills: Body Language and personality.
- **Unit IV- Etiquettes or Manners:** Art of Public Speaking Chracteristics of a good speech Planning to speak.
- Unit V- Writing Skills: Importance Types Interview: Types Selection Appraisal Exit.

Text Book

Rajendra Pal & J. S. Korlahalli, Essentials of Business Communication, Sultan Chand & Sons, New Delhi, 2016.

References

N.S.Raghunathan&B.Santhanam, Business Communication, Margham Publications, Chennai, 3rd Edition 2018.

Reddy, Appannnaih& Raja Rao, Essentials of Business Communication, Himalaya Publishing House, Mumbai, 2017.

Rizvi, M. Ashraf - Effective Technical Communication, Tata McGraw Hill, 2011

Blundell J. A & Middle N. M. G.: Career – English for the Business and Commercial World, Oxford University Press, 2009

Bloom's Taxonomy	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	CO1	CO2	CO3	CO4	CO5
K 1: Remembering					
K 2: Understanding	X				
K 3: Applying		X	X		
K 4: Analysing				X	
K 5: Evaluating					X
K 6: Creating					

The objective of this course is to train the students the necessary tools for 3D animation and makes them to design and edit animated applications

Course Outcome

At the end of the course, the students will be able to:

- i. Reproduce the techniques of introduction and basic models of Animation with the support of software
- ii. Apply the tools and techniques in the software and creating various types of modeling
- iii. Analyze the methods of various modeling with the support of 3D animation software
- iv. Design various types of 3D models by using the Animation software
- v. Plan for the advanced techniques of menus and tools and create visual effects in the software

UNIT I:

Introduction to 3D Animation – Types of Modelling: Basic Models – Pillow Modelling – Ice-cream Modelling – 3D Shark Modelling – Creation of Odd Object in the software

UNIT II:

Soda can Modelling – Alternative modelling Techniques – Creating a Marble Floor in 3D – Creating a Milk Simulation – Hammer Modelling – Hard Surface Modelling – Science Fiction Panels

UNIT III:

Mash and Mesh: Introduction – Cartoon House Modelling – Modelling Complex – Objects – Stylized Fried Chicken Leg model – Lights and Shadows

UNIT IV:

Creating a Thread Model – How to use mash Dynamics – Circularize Components – Creating Ambient Occlusion – 3D Air filter Model – Twisted Candle 3D Model

UNIT V:

Creating n particles – Fluids – Dynamics – Visual Effects – Introduction to Rigging

Reference:

- 1. Autodesk Maya 2018: A comprehensive Guide, Sham Tickoo
- 2. Autodesk Maya 2018 Basics Guide, Murdock Kelly.

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	K6
CO1	1					
CO2			3		5	
CO3				4		
CO4					5	
CO5					5	

Mean: 3.8

This Course aims to facilitate the understanding about the functioning and operations of media enterprises. Alongside, the students will be oriented towards the different legislations and legal frame work implemented to monitor the functioning of the media.

Course Outcome:

At the end of the course, the students will be able to:

- i. Recall the definition and scope of various media
- ii. Infer the operation and structure of various Departments in media like Print, Electronic and New media
- iii. Apply the techniques of conventional media to the New Media
- iv. Summarize the Laws and Ethics of Cyber laws in various types of media
- v. Review the concepts of PR and its application in various sectors in the society

UNIT I:

Definition & Scope (a) Print Media, (b) Electronic Media-development of radio and T.V. in India- Satellite TV and emerging media landscape.

UNIT II:

Organizational structure - Newspapers/Magazines Management : circulations, advertising, editorial, library, production, storekeeping.- Business Media Ethics - Press Laws, State Control Vs Freedom of Media - Broadcasting Bill PrasarBharati, Press Council of India - debates in responsibility and accountability of journalists and publishers and consequences of misreporting, Press Legislature of India.

UNIT III:

Net convergence and journalism: Concepts, components and functions - Cyber Journalism - Web Magazine and Web Newspaper - Challenges and opportunities for a journalist - Readers as publishers

UNIT IV:

Cyber laws: Introduction and its functions - Ethics and Laws related to Cyber Laws in India - Cyber Journalism: Introduction and its Significance – Future of Cyber journalism

UNIT V:

Theory and practice of PR, definition, role and functions - PR in changing social and political environment - Types of Public and Tools of PR - Art of persuasion, feedback, campaign planning and strategies - Financial PR - Media Tracking - Cross Country issue propaganda.

Reference:

- 1. Public Relations : Cases and Problems B.Canfield and Moore Homewood III, Irwin Publications
- 2. Corporate Communication : Principles, Techniques and Strategies Kogan Page 1997
- 3. Planning and Managing a Public Relations Campaign a step by step guide –Anne Gregory

BLOOM'S	K1		K2		K3		K4	K5	K6
TAXONOMY									
CO1		1							
CO2				2					
CO3						3			
CO4								5	
CO5				2					

Mean: 2.6

This course aims to acquire knowledge practically to create layers, Design character and creating motion to the character by using the animation software.

Course Outcome:

At the end of the course, the students will be able to:

- i. Apply the methods of creating methods, colour and text by using the animation software
- ii. Create an animation to the cartoon character by using the tools and menus in the software
- iii. List the various types of tweening animation with the aid of Animation software
- iv. Produce a script for the animation character by using the animation software
- v. Enumerate the various tools and giving an output by using the Animation software
- Creating Objects, colors and text
- Frame-by Frame animation
- Usage of layers
- Symbols
- Tweened animation
- Motion tween
- Shape tween
- Animation using Guide layer
- Masking
- Buttons
- Sounds
- Action script

BLOOM'S	K1	K2	К3	K4	K5	K6
TAXONOMY						
CO1			3		5	
CO2					5	
CO3	1					
CO4			3			
CO5	1					

Mean: 3.6

This course aims in applying the professional skills and knowledge related to Videography, Photography, Sound and Designing. The course develops the students' ability to work independently consolidating their production in field of Photography, Videography, sound and Designing.

Course Outcome:

At the end of the course, the students will be able to:

- i. Identify the area of specialization to produce an independent work
- ii. Mobilize the resources that are needed for his/her independent work
- iii. Utilizethe available resource to produce the project work
- iv. Design the final output creatively by using specific software
- v. Gains hands on experience in a professional way.

The Project enhances the knowledge and experience by choosing their branch as their specialization in the last semester. They can make their interest as profession by opting any branches in media. The following courses can be the students' choice during the VI Semester. The courses are as follows:

- Photography
- Video Editing
- Sound Design
- Designing Techniques

The students can choose any one of the courses and can specialize the same. They should submit their project at the End of Semester. Both Internal and External will be evaluated for 100 Marks.

BLOOM'S TAXONOMY	K1	K2	К3	K4	K5	К6
CO1		2				
CO2		2				
CO3	1					
CO4					5	
CO5					5	

Mean: 3

This course aims to bridge theoretical orientation of CorelDraw and photoshop application into practical exposure. It also gives high work experience in field of designing in a professional way.

Course Outcome:

At the end of the course, the students will be able to:

- i. Able to apply the basic usage of tools in 3D Animation software.
- ii. Compose various modelling techniques in 3D using Maya software
- iii. Creating a character and animation with the aid of Animation Software
- iv. Able to design various types of 3D models professionally
- v. Apply the techniques of visual effects in the existing images independently

The internship training moulds the students to higher level and grabs an opportunity to work in a professional environment. This environment hones the students' skill and makes strong foundation in practical and acts as a platform to create a job opportunity in particular field.

As the students focuses in the field of Designing during VIth Semester, they have to undergo training/ internship in Designing companies with specialization of 3D. The students should undergo minimum of 120 hours internship in a Studio.

At the end of the Semester, the students should submit the project regarding their experience in the company and attend a Viva Voce. The project will be evaluated by Internal and External Examiner for 100 Marks (75Marks (Internal) and 25 Marks (External))

BLOOM'S	K1	K2	K3	K4	K5	K6
TAXONOMY						
CO1			3			
CO2					5	
CO3					5	
CO4					5	
CO5			3			

Mean: 4.2