

DEPARTMENT OF TAMIL

PREAMBLE

கல்லூரியில் 2013 ஆம் ஆண்டில் அனைத்து இளங்கலை மாணவியருக்கும் புதிய முறையில் (Integrated Curriculum Model) பாடத்திட்டம் அமைக்கப்பட்டது. இளங்கலை முதலிரண்டு பருவங்களுக்குரிய பாடங்கள் 2014 ஆம் ஆண்டிலும், இளங்கலை மூன்று, நான்கு பருவங்களுக்குரிய பாடங்கள் 2015 ஆம் ஆண்டிலும் பாடத்திட்டக்குழுக் கூட்டத்தில் மாற்றியமைக்கப்பட்டன. 2015-2016 ஆம் ஆண்டில் ஐந்து மற்றும் ஆறாம் பருவங்களுக்குரிய பாடங்கள் கல்லூரியின் மணிநேரத்திற்கேற்ப மாற்றியமைக்கப்படுகின்றன.

நிறைநிலை மாணவியருக்குப் பல்கலைக்கழக மானியக்குழுவின் பரிந்துரையின்படி ஆழ்நிலைக்கல்வி பாடம் (In-depth study), MPT1605 என்ற பாடஎண்ணுடன் முதற்பருவத்தில் வழங்கப்படுகிறது.

B. A. TAMIL (Aided)

COURSE PROFILE

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./wk. | Credits | Passed in |
|--|-------------------------|--|-----------|-----------|---------------------------------------|
| V | TAM5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | TAM5502CM | YAAPPUM ANIYUM * | 5 | 5 | AW 2015 as TAM5401CM |
| | TAM5402CM | EPICS – II | 4 | 4 | AW 2015 |
| | TAM5403CM | FOLKLORE | 4 | 4 | AW 2015 |
| | TAM5501CM | TAMIL LITERATURE AND POLITICAL MOVEMENTS | 5 | 5 | AW 2015 |
| | TAM0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | TOTAL | 30 | 26 | | |
| *hours have been increased, content remains the same | | | | | |
| VI | TAM6401CM | MINOR LITERATURE | 4 | 4 | AW 2015 |
| | TAM6501CM | SANGAM LITERATURE | 6 | 5 | AW 2015 |
| | TAM6502CM | ILAKKANAM – PORUL * | 6 | 5 | AW 2015 |
| | TAM6503CM | VIRTUES IN TAMIL LITERATURE | 5 | 5 | AW 2015 |
| | TAM0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | TOTAL | 30 | 29 | |

*hours have been increased, course code and content remain the same

Total number of credits for 2014 batch (semesters I – VI) = 149

M.PHIL. TAMIL COURSE PROFILE

| Sem. | Course Code | Course Title | Hrs. / wk. | Passed in |
|------|-------------|----------------------|------------|-----------|
| I | MPT1601 | RESEARCH METHODOLOGY | 5 | AR 2010 |
| | MPT1604 | MINOR JOURNALS | 5 | AT 2012 |
| | MPT1605 | IN-DEPTH STUDY | - | |
| II | MPT2801 | DISSERTATION | - | AR 2010 |

MPT1605 ஆழ்நிலைக்கல்வி IN-DEPTH STUDY

பாடத்தை மாணவியர் கற்பதனால் ஏற்படும் பயன்கள்:

LEARNING OUTCOME:

- மக்கள் வாழ்க்கை முறைகள், மரபுகள், பண்புகளை உணர்தல்.
- தமிழரின் பல்புற அறிவின் மாட்சியை அறிவதுடன் இதுபோன்ற புதியவற்றை மேலும் ஆய்வு செய்ய முற்படல்.
- பழமைக்கும் புதுமைக்குமான தொடர்பினை வெளிப்படுத்தல்.

பாடத்திட்டம்: (COURSE OUTLINE)

- மாணவியர் இலக்கியங்களையும் இலக்கியம் கற்றுத்தரும் வாழ்வியல் முறைகளையும் பல்வேறு திறனாய்வு நூல்களைக் கற்று அறிதல் வேண்டும். களஆய்வும் மேற்கொள்ள வேண்டும்.
- மாணவியர் இலக்கியம் கூறும் வாழ்வியல் பதிவுகள் தொடர்பாகத் தாம் ஆய்ந்து கண்டறிந்த செய்திகளை இரண்டு ஆய்வுத்தாள்களாக எழுதி அகத்தேர்வு மதிப்பீட்டிற்காகச் சமர்ப்பிக்க வேண்டும்.

சான்றாகச் சில தலைப்புகள்:

- 1) மலைவாழ் மக்களின் வாழ்க்கைமுறை
- 2) நூலகத்திலுள்ள நூல் பற்றிய தரவுகள்
- 3) பழங்குடிமக்களின் இனவரைவியல்
- 4) இலக்கியங்களில் நீர் மேலாண்மை பற்றி ஆய்வு
- 5) வைகை பற்றிய ஆய்வுகள்
- 6) நாட்டுப்புறக்கதைகள், பாடல்கள், பழமொழிகளை ஆவணப்படுத்துதல்.
- 7) காவிரி நதிக்கரையில் சுதந்திரப் போராட்டப்பதிவுகள்
- 8) சங்க இலக்கியத்தில் நீர்நிலைகள்
- 9) தமிழரிடம் காணப்பட்ட நகரமைப்புத்திட்டங்கள்
- 10) நீர்நிலைகள் பற்றிய ஊர்ப்பெயராய்வு, சொல்லாய்வுகள்
- 11) கிராமியக் கலைகள், கலைஞர்களின் வாழ்க்கை
- 12) வாழ்வியல் விழுமியங்கள்
- 13) இலக்கியங்களில் சூழலியல் விழிப்புணர்வு
- 14) தற்கால இலக்கியங்களில் சூழலியல் பதிவு
- 15) எஞ்சி நிற்கும் மானுடவியல் கூறுகள் - இலக்கியங்களில், இனங்களில்

DEPARTMENT OF ENGLISH

PREAMBLE

The Department of English revised the Undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and content for semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch. A few changes made in the M.Phil. courses are also being presented.

In view of the visually challenged student(s), the following course is offered by the Department: (i) a lab course **PEQ 3321P DESIGNING SPECIAL AIDS FOR TEACHING** from 2016 onwards for the odd semester in the place of PGE3321P Designing Multimedia Aids for Teaching.

B.A. ENGLISH – AIDED AND SELF-FINANCED

COURSE PROFILE

2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./wk. | Credits | Passed in |
|------|-------------------------|--|-----------|-----------|--|
| V | ENG5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | ENG5502CM | LITERARY CRITICISM | 6 | 5 | AW 2015 |
| | ENG5503CM | INTRODUCTION TO LINGUISTICS | 6 | 5 | AW 2015 |
| | ENG5504CM | INDIAN LITERATURE IN ENGLISH | 6 | 5 | |
| | ENG0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | | TOTAL | 30 | 23 | |
| VI | ENG6301CT | NEW MEDIA FOR SOCIAL CHANGE | 2T+2L | 3 | AW 2015 |
| | ENG6503CM | CONTEMPORARY LITERATURE | 5 | 5 | AW 2015 |
| | ENG6504CM | TWENTIETH CENTURY LITERATURE | 6 | 5 | |
| | ENG6505CM | AMERICAN LITERATURE | 6 | 5 | |
| | ENG0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | TOTAL | 30 | 28 | |

Total number of credits for 2014 batch (semesters I to VI) = 142

PEQ 3321P DESIGNING SPECIAL AIDS FOR TEACHING

LEARNING OUTCOME:

3 hrs./wk.

On successful completion of the course the student will be able to:

- design special teaching modules using relevant software
- use special aids for teaching
- develop required presentation skills

COURSE CONTENT:

UNIT I

9 hrs.

Designing Special Aids

Creating a Matching Board and Light Setting to teach English grammar

UNIT II

9 hrs.

2D/3D Models

Making 2D /3D Models to teach Idioms and Phrases, Homonyms and Foreign words

UNIT III

9 hrs.

e- Module Preparation

Guidelines for e-content preparation, structure of e-content preparation, organization of content (for a novel).

UNIT IV

9 hrs.

Creating a word document using Jaws software

UNIT V

9 hrs.

Microsoft PowerPoint

Preparing a PPT on a piece of literature (a poem or a prose piece) using Jaws software

REFERENCES:

TALKING BOOKS

<http://www.audiobooktreasury.com/tess-of-the-durbevilles/>

http://archie.org/details/audio_bookspoetry/

<http://www.openculture.com/audiobooks-fiction/>

[http://www.aeldata.com./](http://www.aeldata.com/)

<http://audiomol.com/>

<http://www.daisy.org/amis/>

<http://naxosaudiobooks.com/poetry/>

ENG5504CM INDIAN LITERATURE IN ENGLISH

LEARNING OUTCOME

6 hrs. / wk.

On successful completion of the course, the student will be able to

- recognise Indian Literature in English as a unique entity
- discuss the perspectives in Indian English literature
- interpret Indian Literature in English against the multifaceted national backdrop

COURSE OUTLINE

UNIT I: POETRY

15 hrs.

| | | |
|-----------------------|---|------------------------------|
| Henry Vivian Derozio | - | "To India, My Native Land" |
| Toru Dutt | - | "Our Casuarina Tree" |
| Rabindranath Tagore | - | "Gitanjali" (31-32) |
| Manmohan Ghose | - | "London" |
| Kamala Surayya (Das) | - | "Punishment in Kindergarten" |
| Gieve Patel | - | "On Killing a Tree" |
| Arundhati Subramaniam | - | "Heirloom" |

UNIT II: PROSE

20 hrs.

| | | |
|---------------------|---|-------------------------------|
| Romesh Chunder Dutt | - | Bengal's Travails |
| Jawaharlal Nehru | - | India's Strength and Weakness |
| Mino0 Masani | - | No Man is an Island |

UNIT III: SHORT STORY

15 hrs.

| | | |
|------------------|---|-------------------------------|
| Raja Rao | - | "Javni" |
| Mulk Raj Anand | - | "The Cobbler and the Machine" |
| Khushwant Singh | - | "The Mark of Vishnu" |
| Shashi Deshpande | - | "The Liberated Woman" |
| Mahasweta Devi | - | "Little Men" |
| Ruskin Bond | - | "Woman on Platform 8" |

UNIT IV: NOVEL

15 hrs.

| | | |
|---------------|---|------------------------|
| R.K. Narayan | - | <i>The Guide</i> |
| Aravind Adiga | - | <i>The White Tiger</i> |

UNIT V: DRAMA

25 hrs.

| | | |
|---------------------|---|-------------|
| Girish Karnad | - | Nagamandala |
| Manjula Padmanabhan | - | Harvest |

REFERENCE BOOK(S):

King, Bruce. *The New English Literatures: Cultural Nationalism in a Changing World*. London: Macmillan, 1980. Print.

Naik, M. K. *A History of Indian Literature in English*. New Delhi: Sahitya Akademi, 1982. Print.

Mehrotra, Arvind Krishna. Ed. *A History of Indian Literature in English*. New York: Columbia UP, 2003. Print.

Iyengar, Srinivasa, K. R. *Indian Writing in English*. New Delhi: Sterling Publishers, 1983. Print.

ENG6504CM TWENTIETH CENTURY LITERATURE

LEARNING OUTCOME

6 hrs. /wk.

On successful completion of the course, the student will be able to

- identify predominant themes of twentieth century literature
- recognise trends in literature of the twentieth century
- analyse literary pieces of twentieth century literature

COURSE OUTLINE

UNIT-I: PROSE

20 hrs.

- Bertrand Russell - "In Praise of Idleness"
George Orwell - "Reflections on Gandhi"
Hilaire Belloc - "The Good Woman" (from Hills and the Sea)

UNIT-II: POETRY

20 hrs.

- T.S. Eliot - "Preludes"
W.B. Yeats - "A Prayer for My Daughter"
William Carlos William - "Asphodel, That Greeny Flower"
D.H. Lawrence - "Snake"
Sylvia Plath - "Lady Lazarus"

UNIT-III: NOVEL

15 hrs.

- Margaret Laurence - *The Stone Angel*
Virginia Woolf - *Mrs. Dalloway*

UNIT-IV: SHORT STORIES

15 hrs.

- H.G. Wells - "The Country of the Blind"
Gabriel Garcia Marquez - "The Saint"
Isaac Asimov - "Nightfall"
Roald Dahl - "The Umbrella Man"
Ernest Hemingway - "The Snows of Kilimanjaro"

UNIT-V: DRAMA

20 hrs.

- J. M. Barrie - *The Admirable Crichton*
Edward Albee - *The Zoo Story*

REFERENCE BOOK(S)

Blades, Andrew. *York Notes Companions Twentieth Century American Literature and Beyond*. London: Pearson Longman York Not, 2011. Print.

Cox, C.B. and A. E. Dyson. Ed. *The Twentieth Century Mind: History, Ideas and Literature*. London: OUP, 1972. Print.

Esslin, Martin. *The Theatre of the Absurd*. London: Eyre Methuen, 1974. Print.

ENG6505CM AMERICAN LITERATURE

LEARNING OUTCOME

6 hrs. / wk.

On successful completion of the course, the student will be able to

- know the background of American Literature
- develop a perspective of the relative value of American Literature
- analyse the works of great American writers

COURSE OUTLINE:

UNIT-I: PROSE

15 hrs.

- Martin Luther King - "I Have a Dream"
Henry David Thoreau - "Where I Lived and What I Lived for"

UNIT-II: POETRY

20 hrs.

- Walt Whitman - "When Lilacs Last in the Dooryard Bloom'd"
Robert Frost - "After Apple Picking"
Emily Dickinson - "Because I Could Not Stop for Death"
Adrienne Rich - "Women"
Edgar Allan Poe - "To Helen"
Maya Angelou - "Caged Bird"

UNIT-III: DRAMA

25 hrs.

- Tennessee Williams - *The Glass Menagerie*
Arthur Miller - *Death of a Salesman*

UNIT-IV: SHORT STORY

15 hrs.

- John Steinbeck - "Breakfast"
Mark Twain - "Luck"
Edgar Allan Poe - "The Black Cat"
Willa Cather - "Her Boss"
Alice Walker - "Elithea"

UNIT-V: NOVEL

15 hrs.

- Nathaniel Hawthorne - *The Scarlet Letter*
Toni Morrison - *The Bluest Eye*

REFERENCE BOOK(S)

Abbotson, Susan C.W. *Student Companion to Arthur Miller*. New York: Greenwood Publishers, 2000. Print.

Bercovitch, Sacvan. Ed. *The Cambridge History of American Literature*. New York: Cambridge University Press, 1994. Print.

Duvall, John. *The Identifying Fictions of Toni Morrison: Modernist Authenticity and Postmodern Blackness*. London: Palgrave Macmillan, 2010. Print.

Hamilton, S. Cynthia. *Western and Hard Boiled Reflective Fiction in America*. London: Macmillan, 1987. Print.

Matthiessen, F.O. *American Renaissance*. London: OUP, 1996. Print.

White, Barbara Anne. *American Women Writers: an Annotated Bibliography of Criticism*. New York: Garland Pub. Co., 1977. Print.

M. PHIL. ENGLISH COURSE PROFILE

| Sem. | Course Code | Course Title | Hrs. / wk. | Passed in |
|------|-------------|----------------------------|------------|-----------|
| I | MEN1603 | RESEARCH METHODOLOGY | 6 | - |
| | MEN1604 | MODERN LITERARY THEORY | 6 | - |
| | MEN1605 | IN-DEPTH STUDY | - | - |
| II | MEN2602 | DISSERTATION AND VIVA-VOCE | - | AO - 2007 |

MEN1603 RESEARCH METHODOLOGY

LEARNING OUTCOME:

6 hrs. / wk.

On successful completion of the course, the student will be able to

- acquire a comprehensive picture of how research papers are written
- apply the mechanics of thesis writing
- organize and carry out research independently

UNIT I: INTRODUCTION TO RESEARCH

18 hrs.

1. What is Research?
2. Objectives of Research
3. Why is Research Methodology essential?
4. Difference in Methodology between the Languages and Social Sciences; and Humanities and Pure Sciences
5. Types of research
 - Diagnostic Research
 - Qualitative and Quantitative
 - Empirical and non-empirical
 - Intervention Research
 - Pure and Applied Research
 - Web-based research

UNIT II: RESEARCH AND WRITING

18 hrs.

1. Selecting a Topic
2. Sources of Materials
3. Survey of Literature
4. Identifying the Research gap
5. Compiling a Working Bibliography
6. Taking Notes
7. Outlining
8. Writing Drafts
9. Plagiarism
10. Computers in Research

UNIT III: MECHANICS OF WRITING

18 hrs.

1. Spelling
2. Punctuation
3. Italics / Underlining (titles of works)

4. Names of Persons and Use of Numbers
5. Quotations
6. Capitalization
7. Abbreviation
8. Tables and Figures

UNIT IV: FORMAT **10 hrs.**

The Format of the Research Paper

UNIT V: DOCUMENTATION: PREPARING THE LIST OF WORKS CITED **26 hrs.**

1. Format of the List of Works Cited
2. Arrangement of Entries
3. Citing Books and Other Non Periodical Publications
4. Citing Articles and Other Publications in Periods
5. Citing Miscellaneous Print and Non Print: Sources
6. Citing Electronic Publications
7. Citing Sources in the Text

TEXT BOOK:

Gibaldi, Joseph. *MLA Handbook for Writers of Research Papers*. VII ed. New York: The Modern Language Association of America, 2009. Print.

REFERENCE BOOKS

Baxter, Lorraine, Christina Hughes and Malcom Tight. *How to Research*. New Delhi: Viva Books Pvt. Ltd., 1999. Print.

Berry, Ralph. *The Research Project: How to Write it*. London: Routledge, 1995. Print.

Paul, Oliver. *Writing Your Thesis*. New Delhi: Vistas publication, 2004. Print.

Phillips, Estelle M. and D.S. Pugh. *How to Get a Ph.D.* New Delhi: UBS Publishers 1998. Print.

Sripathi, Muthu Krishna. *A Concise Handbook on Research Methodology*. Madurai: Malar Printers, 1987. Print.

MEN1604 MODERN LITERARY THEORY

LEARNING OUTCOME: **6 hrs. / wk.**

On successful completion of the course, the student will be able to

- acquire an insight into the major literary theories of the Twentieth Century
- develop her critical horizon
- demonstrate critical and interpretative skills

COURSE CONTENT

UNIT I:

STRUCTURALISM **15 hrs.**

Ferdinand de Saussure - "Nature of the Linguistic Sign."

DECONSTRUCTION

Jacques Derrida - "Structure, Sign and Play in the Discourse of the Human Sciences"

UNIT II:

FEMINISM

15 hrs.

Elaine Showalter - "Feminist Criticism in the Wilderness"

MARXISM

Terry Eagleton - "Criticism and Ideology"

UNIT III:

PSYCHOANALYTIC CRITICISM

15 hrs.

Jacques Lacan - Mirror Stage as Formative of the function of the 'I' as revealed in Psychoanalytic Expressions.

POST MODERNISM

Jean Lyotard - The Post Modern Condition: A Report on Knowledge. (Chapter I)

UNIT IV:

HERMENEUTICS

15 hrs.

E.D. Hirsch - "Three Dimensions of Hermeneutics"

READER – RESPONSE THEORY

Wolfgang Iser - "The Reading Process: A Phenomenological Approach."

UNIT V:

NEW HISTORICISM

15 hrs.

Stephen Greenblatt - "Marlowe and the Will to Absolute Play"

POST COLONIALISM

Homi Bhabha - "Of Mimicry and Man: The Ambivalence of Colonial Discourse"

UNIT VI:

ECO CRITICISM

15 hrs.

Robert Kern - "Eco Criticism: What is it Good for?"

MULTI CULTURALISM

bell hooks - "Revolution of Values: The Promise of Multicultural Change"

Required reading (Self Study) from:

Keith Green and Jill LeBehan - *Critical Theory and Practice: A Course Book*,

- Literature and History
- Psychoanalysis and Criticism
- Feminism, Literature and Criticism
- Reading, Writing and Reception
- Cultural Identity, Literature & Criticism

TEXT BOOK(S):

Goldberg, David Theo. Ed. *Multiculturalism – A Critical Readers*. London: Blackwell, 1994. Print.

Lodge, David. *Modern Criticism and Theory*. London: Longman, 1988. Print.

Michale, P.T. Branch and Scott Slovia. Eds. *The ISLE Reader: Eco Criticism 1993 – 2003*. Atlanta: University of Georgia Press, 2003. Print.

Rice, Philip and Patricia Waugh. *Modern Literary Theory: A Reader*. London: Edward Arnold, 1989. Print.

REFERENCE BOOK(S):

- Atkins, G. Douglas and Laura Morrow. *Contemporary Literary Theory*. Amherst: The University of Massachusetts Press, 1989. Print.
- Barry, Peter. *Beginning Theory: An Introduction to Literary and Cultural Theory*. Manchester: Manchester University Press, 1995. Print.
- Culler, Jonathan. *Literary Theory: A Very Short Introduction*. Oxford: Oxford University Press, 1997. Print.
- Davis, Colin. *After Post Structuralism: Reading, Stories and Theory*. London: Routledge, 2004. Print.
- Green, Keith and Jill Le Behan. *Critical Theory and Practice: A Course Book*. London: Routledge, 1996. Print.
- Habib, MAR. *The History of Literary Criticism: From Plato to the Present*. Oxford: Blackwell Publications, 2005. Print.
- Kauffman, Linda. Ed. *Gender and Theory: Dialogues on Feminist Criticism*. Oxford: Basil Blackwell, 1989. Print.
- Loomba, Aniah. *Colonialism / Post Colonialism*. London: Routledge: 1998. Print.
- Vincent, B. Leitch et al. Eds. *The Norton Anthology of Theory and Criticism*. New York: W. W. Norton & Company, 2010. Print.

MEN1605 IN-DEPTH STUDY

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- comprehend the latest literary theories relevant to her dissertation
- critically analyse and interpret the literary reviews
- apply the critical theories in her dissertation

COURSE OUTLINE:

Each student will undertake a critical review of literature related to the topic of her dissertation.

Students are expected to submit two research papers relevant to the topic which will be evaluated for formative requirement.

DEPARTMENT OF HISTORY

PREAMBLE

The Department of History has revised the Undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and content for semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 & 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch. A few changes made in the M.Phil. courses are also being presented.

In view of the visually challenged student(s), the following are the courses offered by the Department: (i) a lab course **PHQ3222P COMPUTER LITERACY FOR THE VISUALLY CHALLENGED** from 2016 onwards for the odd semester in the place of PGH3221P MS Office Word Excel and Powerpoint and (ii) a theory course **PHQ4221M KNOW YOUR MADURAI** in the place of PGH4221P Multimedia for the even semester from 2016 onwards.

B.A. HISTORY SPECIALIZATION IN TOURISM – Aided COURSE PROFILE

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|--------------------------|--|-----------|---------|--|
| V | HIS5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | HIS5401CM | WORLD HISTORY – IV (SINCE 1945 A.D.) | 4 | 4 | AW 2015 |
| | HIS5403CM | HISTORY OF AFRICA | 4 | 4 | AW 2015 |
| | HIS5501CM | HISTORY OF INDIA – IV (1757 – 1947 A.D.) | 5 | 5 | AV 2014 as HIS4401CM |
| | HIS5502CM | HISTORY OF MODERN TAMILNADU (1800 A.D. TO THE PRESENT) | 5 | 5 | AW 2015 as HIS5402CM |
| | HIS0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | Total | 30 | 26 | | |
| VI | HIS6404CM | ENVIRONMENTAL MOVEMENTS | 4 | 4 | AW 2015 |
| | HIS6503CM | HISTORY OF THE UNITED STATES OF AMERICA | 5 | 5 | AW 2015 as HIS6403CM |
| | HIS6501CM | HISTORY OF INDIA – V (SINCE 1947 A.D.) | 6 | 5 | AW 2015 as HIS6401CM |
| | HIS6502CM | A SURVEY OF ASIAN STUDIES | 6 | 5 | AW 2015 as HIS6402CM |
| | HIS0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | Total | 30 | 29 | | |

TOTAL NUMBER OF CREDITS FOR 2014 BATCH (SEMESTERS I-VI) = 146

PHQ3222P COMPUTER LITERACY FOR THE VISUALLY CHALLENGED

LEARNING OUTCOME

3 hrs. / wk.

On successful completion of the course, the student will be able to

- know the basics of a computer
- acquire computer skills with assistive technology
- use computers for presentations
- handle computer on her own

COURSE CONTENT

UNIT I: FUNDAMENTALS OF COMPUTERS

9 hrs.

Basic components of a Computer and their uses/ functions – Operation: Start, Shut Down, Restart, Log off

UNIT II: COMPUTING SKILLS

9 hrs.

Type and prepare simple documents using JAWS, Calculator, and Notepad

UNIT III: DESK TOP APPLICATIONS

9 hrs.

MS Office (Word, Excel, Power Point), Creating Folders and Sub Folders

UNIT IV: ACCESS TO INFORMATION AND COMMUNICATION

9 hrs.

Work on the Internet – Search Engines, Reading/ Listening text books and audio books

UNIT V: PRESENTATION SKILLS

9 hrs.

Power point presentations on a Historical event/ personality/ tourist, cultural or religious sites

REFERENCE BOOK(S):

Mansfield, Richard. *Working in MicroSoft Office*, Tata Mc Graw Hill Publishing Company, 1994.

Mehta, Subhash. *Desk Top Publishing*, Academic Publishers, 1991.

Kumar, Bittu. *MicroSoft Office 2010*, V&S Publishers; First edition, 22 July 2015

Goel, Anita. *Computer Fundamentals*, Pearson Education; First edition, 2010.

WEBSITE:

JAWS

nanopac.com/JAWS.htm

PGH4221M KNOW YOUR MADURAI

(For the visually challenged)

LEARNING OUTCOME

3hrs. / wk.

On successful completion of the course, the student will be able to

- know the historical and cultural significance of Madurai
- understand the role of Madurai in Freedom Movement
- appreciate the importance of Madurai as a tourist centre

UNIT I: MADURAI THROUGH THE AGES

9 hrs.

Geography of Madurai – Sangam Age - Medieval Period – British Period

UNIT II: MADURAI IN THE FREEDOM MOVEMENT

9 hrs.

Gandhiji's visit to Madurai, Temple Entry Movement - Eminent freedom fighters: A.Vaidyanatha Aiyar, George Joseph, Varadarajulu Naidu, NMR Subbaraman

UNIT III: MADURAI AS A CULTURAL CENTRE**9 hrs.**

Important religious and Secular Monuments – Meenakshi Amman Temple, Thousand Pillar Hall, Pudumandapam, Koodal Alagar Temple, St. Mary's Cathedral, Mosques and Goripalayam Dharga, Jain temples

UNIT IV: MADURAI AS A TOURIST DESTINATION**9 hrs.**

Places of tourist interest in and around Madurai- Jain Caves, Tirupparankunram, Alagarkoil, Tirumalai Naickar Mahal, Gandhi Museum, Vaigai Dam, Kodaikanal, Kuttaladdampatti Falls, Sirumalai – Accommodation and transport facilities

UNIT V: UNIQUE FEATURES OF MADURAI**9 hrs.**

Handloom industry, Jasmine flower, Chithirai Festival, Jallikkattu, Active even during night ('Thunganagaram')

TEXT BOOK(S):

Devakunjari D. *Madurai through the ages*, Society for Archaeological, Historical and Epigraphical Research, Madras, 1979.

Kandassamy V, *Madurai Varalarum Panpadum* (Tamil),

REFERENCE BOOKS:

Baliga, B.S., *Madras District Gazetteer*, Part III, Govt. of Madras, Madras, 1960.

Francis, W., *Madura Gazetteer*, Cosmo Publications, New Delhi, 2000.

Jeyachandran, A.V. *The Madurai Temple Complex*, Madurai Kamaraj University, Madurai, 1985.

Kandasamy, V. Ed. *Madurai District (A General Knowledge Hand book)*, MNUJAMHSS, Madurai, 2008

Devadoss, Manohar. *Multiple Facets of My Madurai*, East West Books Pvt Ltd, Chennai, 2007

Nelson, J.H. *The Madura Country – A Manual*, Asian Educational Services, Madras, 1989.

Rajayyan, K. *History of Madurai*, Madurai Kamaraj University, Madurai, 1974.

M. PHIL. HISTORY COURSE PROFILE

| Sem. | Course Code | Course Title | Hrs. / wk. | Passed in |
|------|-------------|----------------------------|------------|-----------|
| I | MHS1701 | RESEARCH METHODOLOGY | 6 | AQ 2009 |
| | MHS1702 | SUBALTERN STUDIES | 6 | AQ 2009 |
| | MHS1703 | IN-DEPTH STUDY | - | - |
| II | MHS2801 | DISSERTATION AND VIVA-VOCE | - | AQ 2009 |

MHS1703 IN-DEPTH STUDY

On successful completion of the course, the student will be able to

- comprehend the latest research in the field of her dissertation
- critically analyse and interpret the published data related to her dissertation
- apply the interpreted data in her dissertation

COURSE OUTLINE:

Each student will undertake an in-depth study of published literature related to the topic of dissertation. Students are expected to submit a review of 15 articles relevant to the topic which will be evaluated for formative requirement.

DEPARTMENT OF SOCIAL SCIENCES

PREAMBLE

The Department of Social Sciences has revised the Undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and content for semesters I, II & III, IV for 2014 batch were passed in the Academic Council Meetings held during 2014 & 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch. The course profile for MSW and PGDCP are also presented here.

B. A. PSYCHOLOGY AND SOCIOLOGY – Aided

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|---|---------------------------|--|-----------|---------|---------------------------------------|
| V | SOC5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | PSY5501CM | SOCIAL PSYCHOLOGY | 6 | 5 | AW 2015 |
| | PSY5502CM | PHYSIOLOGICAL PSYCHOLOGY * | 6 | 5 | AW 2015 |
| | SOC5501CM | SOCIOLOGICAL THEORIES * | 6 | 5 | AW 2015 |
| | SOC0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | Total | 30 | 23 | | |
| * only hours have been changed, content remains the same | | | | | |
| VI | PSYQ6201CP/ PSYQ6101CP | PSYCHOLOGICAL TESTING (level B) / PSYCHOLOGICAL TESTING (level A) | 3 | 2 / 1 | AW 2015 |
| | SOC6401CM | SOCIOLOGY OF DEVELOPMENT | 4 | 4 | AW 2015 |
| | SOC6402CM | SOCIAL DEMOGRAPHY * | 4 | 4 | AW 2015 as SOC6301CM |
| | PSY6502CM | ABNORMAL PSYCHOLOGY | 5 | 5 | AW 2015 |
| | PSY6501CM | PERSPECTIVES ON PERSONALITY | 5 | 5 | AW 2015 |
| | SOC0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | Total | 30 | 29 | | |
| * hours and credits have been changed, content remains the same | | | | | |

Total number of credits for 2014 batch (semesters I – VI) = 140

MASTERS IN SOCIAL WORK – SELF-FINANCED

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|-------------|--|-----------|---------|-----------|
| I | PSW1421M | AN INTRODUCTION TO PROFESSIONAL SOCIAL WORK | 4 | 4 | AU 2013 |
| | PSW1422M | SOCIAL WORK PRACTICE WITH INDIVIDUALS | 4 | 4 | AU 2013 |
| | PSW1423M | SOCIAL WORK PRACTICE WITH GROUPS | 4 | 4 | AU 2013 |
| | PSW1424M | SOCIAL WORK PRACTICE WITH COMMUNITIES | 4 | 4 | AU 2013 |

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|--|---------------------|---|-----------|-----------|-----------|
| | PSW1425M | FUNDAMENTALS OF SOCIOLOGY | 4 | 4 | AU 2013 |
| | PSW1426M | PSYCHOLOGY FOR SOCIAL WORKERS | 4 | 4 | AU 2013 |
| | PSW1421F | FIELD WORK * | 4 | 4 | AU 2013 |
| | PSW 1121V | ETHICS AND PERSPECTIVES IN SOCIAL WORK | 2 | 1 | AU 2013 |
| | | Total | 30 | 29 | |
| *This course involves 2 hours per week over and above the hours mentioned | | | | | |
| II | PSW2421M | SOCIAL WORK RESEARCH AND STATISTICS | 4 | 4 | AU 2013 |
| | PSW2422M | SOCIAL WELFARE ADMINISTRATION AND SOCIAL LEGISLATION | 4 | 4 | AU 2013 |
| | PSW2423M | INDIAN POLITY AND GOVERNANCE | 4 | 4 | AU 2013 |
| | PSW2424M | FUNDAMENTALS OF MANAGEMENT FOR SOCIAL WORKERS | 4 | 4 | AU 2013 |
| | PSW2425M | COUNSELLING SKILLS FOR SOCIAL WORKERS | 4 | 4 | AU 2013 |
| | PSW2421F | FIELD PRACTICUM – I * (In addition to the 6 hours per week, this course involves 21 working days of field work in December – January) | 6 | 4 | AU 2013 |
| | | ELECTIVE | 4 | 4 | |
| | | Total | 30 | 28 | |
| *hours have been changed, content remains the same | | | | | |
| III | PSW3421M | HEALTH CARE SOCIAL WORK | 5 | 4 | AV 2014 |
| | PSW3422M | PSYCHIATRIC SOCIALWORK | 5 | 4 | AV 2014 |
| | PSW3423M | HUMAN RESOURCE MANAGEMENT | 5 | 4 | AV 2014 |
| | PSW3424M | ORGANIZATIONAL BEHAVIOUR | 5 | 4 | AV 2014 |
| | PSW3321O | RURAL COMMUNITY DEVELOPMENT | 4 | 3 | AV 2014 |
| | PSW0422F / PSW0423F | FIELD PRACTICUM IN MEDICAL AND PSYCHIATRIC SOCIAL WORK / FIELD PRACTICUM IN HUMAN RESOURCE MANAGEMENT (21 working days of field work to be completed in August Total hours required 150 = 90 hours mentioned and 60 hours outside timetable) | 6 | 4 | AV 2014 |
| | PSW0421F | FIELD PRACTICUM IN COMMUNITY DEVELOPMENT ** | - | 4 | AV 2014 |
| | | Total | 30 | 27 | |
| ** To be completed in 21 days during summer vacation after semester II, and evaluation done in semester III | | | | | |

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|----------------------|---|-----------|-----------|---------------------|
| IV | PSW4421M | THERAPEUTIC INTERVENTIONS AND REHABILITATION | 4 | 4 | AV 2014 |
| | PSW4422M | HUMAN RESOURCE DEVELOPMENT | 4 | 4 | AV 2014 |
| | PSW4423M | EMPLOYEE WELFARE LEGISLATIONS | 4 | 4 | AV 2014 |
| | PSW4421P | BEHAVIOURAL ASSESSMENT TOOLS FOR SOCIAL WORKERS | 4 | 4 | AV 2014 |
| | PSW4321O | URBAN COMMUNITY DEVELOPMENT | 4 | 3 | AV 2014 |
| | PSW0621M | PROJECT | 5 | 6 | AV 2014 as PSW4621M |
| | PSW0422F / PSW0423F/ | FIELD PRACTICUM IN MEDICAL AND PSYCHIATRIC SOCIAL WORK / FIELD PRACTICUM IN HUMAN RESOURCE MANAGEMENT (21 working days of field work to be completed in December / January. Total hours required 150 = 75 hours mentioned and 75 hours outside timetable) | 5 | 4 | AV 2014 |
| | | Total | | 30 | 29 |

Total number of credits= 113

OTHER COURSES OFFERED BY THE DEPARTMENT

| Sem. | Course Code | Course Title | Offered to | Hrs./wk. | Credits | Passed in |
|------|--|--|------------------------------|----------|---------|-----------|
| II | PSW2321E | GENDER STUDIES AND HUMAN RIGHTS | Masters of Social Work (MSW) | 4 | 4 | AU 2013 |
| II | PSW2322E | MANAGEMENT OF NON PROFIT ORGANISATIONS | MSW | 4 | 4 | AU 2013 |
| ALL | PSW0421D | DISASTER MANAGEMENT | ALLM | - | 4 | AV 2014 |
| ALL | PSW0422D | DRUG ABUSE AND SOCIAL WORK | ALLM | - | 4 | AV 2014 |
| ALL | PSW0423D | CORPORATE WELLNESS MANAGEMENT | ALLM | - | 4 | AV 2014 |
| II | PSW2321MT/ PSW2321MP | TERM PAPER / MINI PROJECT | MSW | - | 3 | |
| III | PSW3321MT/ PSW3321MP | TERM PAPER / MINI PROJECT | MSW | - | 3 | |
| IV | PSW4321MT/ PSW4321MP / PSW4321MV | TERM PAPER / MINI PROJECT / COMPREHENSIVE VIVA | MSW | - | 3 | |

POSTGRADUATE DIPLOMA IN COUNSELLING AND PSYCHOTHERAPY

COURSE PROFILE

From 2016 batch onwards

| Sem. | Course code | Course title | Hrs./wk. | Passed in |
|--|-------------|--|-----------|-----------------------|
| I | PDC1121 | INTRODUCTION TO COUNSELLING | 6 | AS 2011 as PDC2121 |
| | PDC1124 | COUNSELLING AND PSYCHOTHERAPY – I | 6 | AV 2014 as PDC2124 |
| | PDC1125 | COUNSELLING IN VARIOUS SETTINGS | 6 | AS 2011 as PDC2123 |
| | PDC1126 | INTERNSHIP # | 8 | |
| | | LIBRARY | 4 | |
| | | TOTAL | 30 | |
| #Internship for a period of 2 weeks to be done in any Health Care or Educational Organisation | | | | |
| II | PDC2225 | COUNSELLING AND PSYCHOTHERAPY – II | 6 | AV 2014 |
| | PDC2226 | TOOLS AND TECHNIQUES FOR PSYCHOLOGICAL ASSESSMENT | 8 | AV 2014 |
| | PDC2227 | PSYCHOPATHOLOGY | 6 | AS 2011 |
| | PDC2228 | COUNSELLING SKILL TRAINING PROGRAMME (15 days – 8 hrs. /day)* | 6 | AS 2011 |
| | | LIBRARY | 4 | |
| | | TOTAL | 30 | |

*Training in Counselling Skills is provided by an organisation (ANUGRAHA, Dindigul)

EVALUATION PATTERN

| Sem. | Course code | Course title | Formative | Summative |
|------|-------------|--------------|-----------|-----------|
| I | PDC1126 | INTERNSHIP # | 60 | 40 |

DEPARTMENT OF ECONOMICS

PREAMBLE

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B.A. ECONOMICS – Aided

COURSE PROFILE

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./wk. | Credits | Passed in |
|------|-------------------------|---|-----------|-----------|------------------------------------|
| V | ECO5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | ECO5502CM | PUBLIC FINANCE | 6 | 5 | AW 2015 |
| | ECO5504CM | DEVELOPMENT ECONOMICS | 6 | 5 | AV 2014 as ECO4501CM |
| | ECO5503CM | INDIAN ECONOMY – I | 6 | 5 | |
| | ECO0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | Total | | 30 | 23 | |
| VI | ECO6401CM | ENVIRONMENTAL ECONOMICS | 4 | 4 | AV 2014 as ECO4401CM |
| | ECO6504CM | INDIAN ECONOMY – II | 5 | 5 | |
| | ECO6502CM | DEVELOPMENT OF ECONOMIC IDEAS | 6 | 5 | AW 2015 |
| | ECO6503CM | INTERNATIONAL ECONOMICS | 6 | 5 | AW 2015 |
| | ECO0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | Total | | 30 | 29 |

TOTAL NUMBER OF CREDITS FOR 2014 BATCH (SEMESTERS I-VI) = 141

UG SELF-LEARNING COURSES

| Course Code | Course Title | Credits |
|-------------|---------------------------------|---------|
| ECO0404CD | ADVERTISING AND SALES PROMOTION | 4 |
| ECO0405CD | HOUSEHOLD ECONOMICS | |
| ECO0406CD | DEMOGRAPHY | |
| ECO0407CD | ECONOMICS OF INSURANCE | |
| ECO0408CD | HEALTH ECONOMICS | |
| ECO0409CD | CIVIC ECONOMICS | |

ECO5503CM INDIAN ECONOMY – I

LEARNING OUTCOME:

6 hrs./wk.

On successful completion of the course, the student will be able to

- appreciate the process of growth of the economy
- know the issue related to Human Resource Development
- explain the working of the economic policies

COURSE CONTENT:

UNIT I: ECONOMIC DEVELOPMENT SINCE INDEPENDENCE

20 hrs.

State Dominated Development model – Nationalization of industries and financial Institutions – Import Substitution and Protection – Planning In India – Growth of the economy during 1950-1990 – New Economic Policy Reforms of 1991 – Liberalization, Privatization and Globalization – Structural changes in Indian economy – Sectoral Composition of NI

UNIT II: POVERTY, ILLITERACY AND HUMAN DEVELOPMENT

15 hrs.

Introduction of Concept and Measurement of Poverty – Estimates of inequality and poverty measures for India – Education – Problem of illiteracy – Government measures for eradicating poverty and illiteracy and their Appraisal – Concept and Measurement of Human Development – India's human development record in global perspective.

UNIT III: AGRICULTURE AND RURAL DEVELOPMENT

20 hrs.

Role of Agriculture in Indian Economy – issues relating to fertilizer subsidy – capital formation in agricultural sector – role of public and private sectors – the trend in Minimum Support Price system – food production and food security. Rural development – Rural development programmes including poverty alleviation, development of economic and social infrastructure – Rural Employment Guarantee Scheme.

UNIT IV: URBANISATION AND INDUSTRIALISATION

20 hrs.

Urbanisation in India – Problems of urbanisation – providing urban amenities – housing – drinking water – sanitation – Government schemes for urban development. Role of Industry in Indian Economy – Industrialization in India – Economic reforms and industrial licensing – Industrial Policy Reforms – Competition policy – Sources of industrial finances – role of globalization – FDI – its impact – trends in industrial production – Micro, Small and Medium Industry – Make in India

UNIT V: LABOUR

15 hrs.

Employment – unemployment and under-employment – industrial relations and labour welfare – strategies for employment generation – Urban labour market and informal sector employment – Report of National Commission on Labour – Social issues relating to labour – Child Labour – Bonded Labour – International Labour Standard and its impact.

TEXT BOOK:

Dutt, R. and K. Sundharam. *Indian Economy*. New Delhi: S. Chand and Company Ltd., 2013. Print.

REFERENCE BOOK(S):

Ahluwalia, Isher Judge and I.M.D. Little. Ed. *India's Economic Reforms and Development*. New Delhi: Oxford UP, 1998. Print.

Goyal, Ashima. Ed. *The Oxford Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism*. India: Oxford UP, 2014. Print.

Articles from *Economic and Political weekly*.

Byres, T. J. *The State, Development Planning and Liberalization in India*. New Delhi: Oxford UP, 1997. Print.

Byres, T. J. *The Indian Economy: Major Debates Since Independence*. New Delhi: Oxford UP, 1998. Print.

Economic Survey (Annual issues). Ministry of Finance, New Delhi. Government of India.

Kausik Basu, *Oxford Companion to Indian Economy*, New Delhi: OUP, 2012. Print.

Kapila, Uma. *Indian Economy Since Independence*. New Delhi: Academic Foundation, 2013. Print.

ECO6504CM INDIAN ECONOMY – II

LEARNING OUTCOME:

5 hrs. /wk.

On successful completion of the course, the student will be able to

- analyse the diverse economic issues facing the economy
- know about the reforms in various sectors
- evaluate the effects of various policies

COURSE OUTLINE

UNIT I: SERVICE AND SOCIAL SECTOR

10 hrs.

Education – health – transport and communication: roadways, railways, waterways, airways – power – ITCS – trends and direction.

UNIT II: FOREIGN TRADE

15 hrs.

Role of trade in Indian Economy – Salient features of India's foreign trade, composition, direction and organization of trade, recent changes in trade policy, balance of payments, tariff policy, exchange rate, India and WTO requirements.

UNIT III: MONEY AND BANKING

20 hrs.

Financial sector reforms – Organisation of India's money market – commercial banks, development finance institutions, foreign banks and non-banking financial institutions, Indian capital market and SEBI – RBI and Banking Sector Reforms – NPA and capital adequacy – BASEL norms for banks – Financial inclusion – rural banking and micro finance.

UNIT IV: INFLATION AND MONETARY POLICY

15 hrs.

Inflation Definition, trends, estimates, consequences and remedies (control): Wholesale Price Index, Consumer Price Index: components and trends – Monetary Policy – Objectives, Policy Instruments and Effectiveness.

UNIT V: BUDGETING AND FISCAL POLICY

15 hrs.

Objectives and Instruments of Fiscal policy – Concept of Budgetary Deficits Revenue, Primary and Fiscal Deficits – Fiscal policy for Economic stability and growth – Effectiveness of fiscal policy – Tax Reforms – VAT and GST – Fiscal Responsibility and Budget Management (FRBM) Act

TEXT BOOK

Dutt, R. and K. Sundharam. *Indian Economy*. New Delhi: S. Chand and Company Ltd., 2013. Print.

REFERENCE BOOK(S):

Ahluwalia, Isher Judge and I.M.D. Little. Eds. *India's Economic Reforms and Development*. New Delhi: Oxford UP, 1998. Print.

Goyal, Ashima. Ed. *The Oxford Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism*. India: Oxford UP, 2014. Print.

Articles from *Economic and Political weekly*.

Byres, T. J. *The State, Development Planning and Liberalization in India*. New Delhi: Oxford UP, 1997. Print.

Byres, T. J. *The Indian Economy: Major Debates Since Independence*. New Delhi: Oxford UP, 1998. Print.

Economic Survey (Annual issues). Ministry of Finance, New Delhi. Government of India.

Kausik Basu, *Oxford Companion to Indian Economy*, New Delhi: OUP, 2012. Print.

Kapila, Uma. *Indian Economy Since Independence*. New Delhi: Academic Foundation, 2013. Print.

ECO0404CD ADVERTISING AND SALES PROMOTION

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- know about the importance of marketing in various sectors
- acquire knowledge of concepts used in Advertising and Sales promotion
- identify the principles used in Advertising and Sales promotion

COURSE CONTENT

UNIT I: INTRODUCTION

The exchange process – needs and wants – economic utility

UNIT II: MARKETING

Marketing myopia – the people in marketing – evolution of marketing – the production era – sales era – management era – marketing era – social era – basic marketing functions – buying, selling, pricing, distribution and promotion – social marketing

UNIT III: ADVERTISING

Objectives – types – advertising campaign – advertising and salesmanship – planning for advertising – advertisement copy – appeals in advertisement copy – kinds of advertisement copy – selection of media – advertising mix – advertisement budget – co-ordination of advertising with other marketing functions – corporate advertising – benefits of advertising and ethics of advertisement.

UNIT IV: SALES PROMOTION

Importance of sales promotion – forms of sales promotion – consumer oriented – trade oriented and sales oriented sales promotion – public relations and sales promotion.

UNIT V: PERSONAL SELLING

Meaning – need for salesmanship – varieties of sales jobs selling and salesmanship – qualities of a salesman.

TEXT BOOK:

Agarwal, R. C. *Salesmanship and Advertising*. Agra: Lakshmi Naian Agarwal, 2004. Print.

REFERENCE BOOK(S):

Chunawalia, S. A. Sethia, K. C. *Foundations of Advertising Theory and Practice*. Mumbai: Himalaya Publishing House, 1997. Print.

Manendra, Mohan. *Advertising Management - Concepts & Cases*. New Delhi: Tata McGraw Hill Publication Company Ltd., 1989. Print.

Riso, Ovid. *Sales Promotion Handbook*. Delhi: UBS Publishers and Distributors Ltd., 1993. Print.

Kotler, Philip. *Marketing Management*. Delhi: Prentice Hall of India Pvt. Ltd., 1980. Print.

Stanfield, Richard H. *Advertising Managers Handbook*. New Delhi: UBS Publishers Distributors Ltd., 1993. Print.

ECO0405CD HOUSEHOLD ECONOMICS

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- create an awareness among the students for the need to plan their household expenses systematically
- plan their daily requirements
- help them view advertisements objectively and to make the right choice
- expose them to the institutions which deal with consumer rights

COURSE OUTLINE

UNIT I: CONSUMER

Human wants – Human needs – utility – satisfaction – consumer equilibrium.

UNIT II: BUDGET

Meaning – need for budgeting – types – budget preparation – methods – learning through practice – balanced diet – economic usage of goods and services – nutritious food at low costs

UNIT III: THEORIES OF CONSUMER BEHAVIOUR

Psychological theories – Psychoanalytical theories – Social psychological theories

UNIT IV: CONSUMER CHOICE

Advertisement – effects of advertisement in consumption – gathering information about the sources of prices – availability of goods and services in the market.

UNIT V: CONSUMERISM AND CONSUMER PROTECTION

Concepts – Consumer rights – Awareness – Advertising Legislation – Women and media – Present state of affairs – Types of appeals used to lure womenfolk – Specific consumer defenses against advertising – Consumer Protection Act – Unfair Trade Act – Consumer protection councils – Framework – Functions – Role of the public – Participation – Effectiveness.

REFERENCE BOOKS:

Hardford, Tim. *The Undercover Economist*. London: Little Brown Book Group, 2013. Print.

Ormerod, Paul. *Butterfly Economics: A New General Theory of Social and Economic Behaviour*. New York: Basic Books, 2001. Print.

Friedman, Thomas L. *The World Is Flat: A Brief History of the Twenty-first Century*. New York: Farrar Straus and Giroux, 2005. Print.

Pillai, R.S.N. and Bagavathi. *Modern Marketing*. New Delhi: S.Chand and Company Ltd., 2001. Print.

Ramaswamy, M. S. *Marketing Salesmanship and Advertising*. New Delhi: Sterling Publishing Private Ltd., 1991. Print.

Kaptan, Sanjay and Akhilest Acharya. *Advertisement in Print Media*. Jaipur Book Enclave, 2001. Print.

ECO0406CD DEMOGRAPHY

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- know the basic principles, concepts and theories of population studies
- recognize the problems related to population growth
- relate the policy framework and its performance in India

COURSE CONTENT

UNIT I: INTRODUCTION

Definition – nature and scope – historical background – significance of population studies

UNIT II: CONCEPTS

Fertility and fecundity – factors affecting fertility – birth rate – crude and standard birth rates – vital statistics – Death Rate – Mortality and Morbidity – Crude and standard death rates – infant mortality – maternal mortality – age specific death rates – factors affecting mortality rate – Migration: Kinds of migration – factors affecting migration – effects of migration – Life Expectancy: Meaning – life table – life expectancy in developed and developing countries

UNIT III: COMPOSITION OF POPULATION

Age and sex composition – population pyramids – dependency – Urban and rural composition – Sectoral composition

UNIT IV: THEORIES OF POPULATION

Malthusian theory – Dalton's Optimum theory – Demographic transition

UNIT V: POPULATION SCENARIO IN INDIA

World population trends – population explosion – population of India – causes – population policy – family planning and family welfare programmes – achievements and fallouts – HDI, UNDP and CPI.

TEXT BOOK:

Bhende, Asha and Tara Kanitkar. *Principles of Population Studies*. Mumbai: Himalaya Publishing House, 2000. Print.

REFERENCE BOOKS:

Chaubey, P.K. *Population Policy for India*. New Delhi: Kanishka Publishers, 2001. Print.
Hansraj. *Fundamentals of Demography*. New Delhi: Surjit Publications, 1988. Print.
Prasad, B. K. *Population and Family Life Education*. New Delhi: Anmol Publications Pvt. Ltd., 2004. Print.

ECO0407CD ECONOMICS OF INSURANCE

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- know the concepts and principles of insurance
- identify the various types of insurance and insurance business in India
- list the insurance legislation in India

COURSE CONTENT

UNIT I: NATURE AND IMPORTANCE OF INSURANCE

Definition – Evolution – Primary and Secondary Functions – Characteristics – Importance to Individuals – Business and Society – Economic Principles of Insurance

UNIT II: RISK MANAGEMENT AND INSURANCE CONTRACT

Risk Management – Definition – Types – Management of Risk – Contract of Insurance
Classification of Insurance – Double Insurance – Reinsurance – Insurance and Gambling

UNIT III: LIFE, FIRE AND MARINE INSURANCE

Life insurance – Meaning – Nature of Contract – Benefits – Assignment and Nomination –
Surrender Value – Fire Insurance – Types and Documents – Claim and Settlement – Marine
Insurance – Types – Clauses – Claim and Settlement

UNIT IV: AGRICULTURAL, INDUSTRIAL AND HEALTH INSURANCE

Types of Agricultural Insurance – Industrial Life Insurance – Meaning – Health Insurance for
Industrial Workers – Students – Self-employed – Small Business

UNIT V: INSURANCE BUSINESS IN INDIA

Major Insurance Legislation – Insurance Regulatory and Development Authority (IRDA) –
Constitution – Objectives – Duties and Power of IRDA – Role of LIC and GIC of India –
Privatization of Insurance Business in India

TEXT BOOK:

Periasamy, P. *Principles and Practice of Insurance*. New Delhi: Himalaya Publishing house, 2009.
Print.

REFERENCE BOOKS:

Holyoake, Julia and William Weipers. *Insurance*. Delhi: AITBS Publications, 2002. Print.
Mishra, M.N. *Modern Concepts of Insurance*. New Delhi: S. Chand and Co. Ltd., 2009. Print.
Premavathy, N. *Principles and Practices of Insurance*. Chennai: Sri Vishnu Publications, 2006.
Print.
Singh, Inderjit, Rakesh Katyal and Sanjay Arora. *Insurance Principles and Practices*. Delhi: Kalyani
Publishers, 2005. Print.

ECO0408CD HEALTH ECONOMICS

LEARNING OUTCOME:

On successful completion of the course the students will be able to

- apply theories of consumer behavior to the demand for health and medical care services
- explain the availability and accessibility of public and private health care services
- analyse health policy and health insurance schemes in India

COURSE CONTENT

UNIT I: INTRODUCTION

Health Economics – Meaning, Definition-Concepts – Determinants of Health – Measures of
Health status (BMI, IMR, CMR, MMR) – Morbidity – Nutrition – PQLI and HDI Relevance of
Economics in Health Care.

UNIT II: DEMAND FOR HEALTH CARE

Demand for Health Services – Demand for Medical Care Services – Cost of Health Services –
Classification of Cost by inputs – Medical Care Markets – Markets for Hospital Services.

UNIT III: HEALTH CARE SERVICES

Preventive, Curative, Promotional and Rehabilitative Health Care – Health as a commodity –
Government interventions in Health care – Pricing of Health Care services – Private, Public and

Public – Private Partnership Health Care in India – The role of NGO's in Health Care – Health Care Policy and Programmes in India

UNIT IV: ECONOMIC EVALUATION OF HEALTH CARE SERVICES

Meaning – Importance and Types of evaluation – Cost-Risk Benefit Analysis – Alternative Health Care services – Measuring Benefits – Discounting Costs and Benefits – Cost Effectiveness Analysis – Measuring Health Outcomes.

UNIT V: HEALTH INSURANCE

Meaning – Types of Insurance – Individual Insurance Plan – Group Insurance plan – Floater Insurance Plan – Theory of Risk Insurance – Health Insurance and Market Failure – Provision of Health Insurance in India

TEXT BOOKS:

James, W. Henderson. *Health Economics and Policy*. Place? South-Western Cengage Learning, 2005. Print.

Sundar, I. *Principles of Health Economics*. New Delhi: Sarup book publishers Pvt., Ltd., 2009. Print.

REFERENCE BOOKS:

Misra, Rajiv. *India Health Report*. New Delhi: Oxford UP, 2003. Print.

Vora, Rajshree. *Challenges in Health Management*. New Delhi: Akhand Publishing, 2010. Print.

ECO0409CD CIVIC ECONOMICS

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- relate political, economic and social developments that have taken place in India since Independence
- develop a perspective on the functioning of democracy and institutions in India
- describe the emerging trends in the economy in the context of globalization and the dynamics of the Indian society

COURSE OUTLINE:

UNIT I: FUNDAMENTAL RIGHTS AND DUTIES

New Institutional Economics – Law and Economics – Fundamental Rights – Right to Equality – Freedom – Right Against Exploitation – Freedom of Religion – Cultural and Educational Rights – Right to Constitutional Remedies – Directive Principles of State Policy – Fundamental Duties – Human Rights perspective – Right to Information, Right to Education.

UNIT II: ADMINISTRATIVE SYSTEM IN INDIA

Existing administrative system in India – Administrative structure of the Government of India – Administrative structure of the State Governments – District Administration – Local self governments (Urban) – Local self governments (Rural) The Panchayats – State vs. Local bodies

UNIT III: DEMOCRACY AND ECONOMIC RESPONSIBILITY IN INDIA

Directive Principles of Comparative Democratic Practices in World – Contemporary Democracies in the world (America & Australia) – Democracy in India – nature and functioning – Parliamentary System its achievements and problems – Socio-economic dimensions of democracy

UNIT IV: GOVERNANCE AND SOCIAL ACCOUNTABILITY

Meaning of Governance – Role of governance – Need for governance – Changing character of Public Administration – corporate governance in India – Social Audit with case study – Business ethics – Corporate Social Responsibility

UNIT V: INDIA AND THE WORLD

Contemporary Dimensions – Liberalisation and Globalisation – Major concepts: Geo-politics, national interest, National power and ideology – Conflicts – Evolving Inter-State System: Nation – State and Non-State Actors – Non-Alignment: Crisis of relevance – Conflict resolution: Institutions (World Trade Organisation, Free Trade Agreement)

TEXT BOOK:

Vora, R. S. Palsikar. *Indian Democracy: Meanings and Practices*. Delhi: Sage, 2004. Print.

REFERENCES BOOK(S)

Bardhan, Pranab. *The Political Economy of Development in India*. New Delhi: Oxford UP, 1999. Print.

Chatterjee, Partha. *Possible India*. New Delhi: Oxford UP, 1998. Print.

Frankel, Francine. *Transforming India, Social and Political Dynamics of Democracy*. New Delhi: Oxford UP. 2002. Print.

Jalan, Bimal. *India's Economy in the Millennium Selected Essays*. Delhi: UBS Publisher, 2002. Print.

Kaviraj, Sudipta. *Politics in India*. New Delhi: Oxford UP, 1998. Print.

Khilnani, Sunil. *The Idea of India*. London: Farrar Straus and Giroux, 1999. Print.

M. PHIL. ECONOMICS – Self-Financed

COURSE PROFILE

From 2016 batch onwards

| SEM. | COURSE CODE | COURSE TITLE | HOURS | PASSED IN |
|------|-------------|----------------------|-------|-----------|
| I | MEC1604 | RESEARCH METHODOLOGY | 4T+2L | – |
| | MEC1605 | IN-DEPTH STUDY | – | – |
| II | MEC2801 | DISSERTATION | | AP 2008 |

MEC1604 RESEARCH METHODOLOGY

LEARNING OUTCOME

4T+2L hrs./wk.

On successful completion of the course, the student will be able to

- understand the basic principles of research
- develop creative thinking and analytical skills
- present the report in the prescribed format

COURSE OUTLINE

UNIT I: MEANING AND TYPES OF RESEARCH

15T hrs.

Definition – Objectives and motives of Research – Social Research – Meaning – Characteristics – Types – Pure vs. Applied Research – Descriptive vs. Analytical Research – Quantitative vs.

Qualitative Research – Case study and survey method – Importance and limitations of Social Research.

UNIT II: FORMULATION OF RESEARCH PROBLEM **15T hrs.**

Research Problem – Meaning – Sources – Theory and Facts – Criteria of a good Research problem – Definition and statement of the problem – Delimitation of the problem.

UNIT III: RESEARCH DESIGN **10T hrs.**

Meaning – Components – Types of Research Design – Descriptive, Diagnostic, Exploratory and Experimental Designs.

UNIT IV: COLLECTION AND DATA ANALYSIS **5T + 30L hrs.**

Sampling Designs – Estimation and Hypothesis testing – t-test, ANOVA and Chi-square test correlation and regression – SLRM and MLRM and Logit – Factor Analysis – Forecasting – time series – trend analysis – Stationarity test – scaling technique

UNIT V: REPORT WRITING **15T hrs.**

Steps in Report writing – Format of the Research report – Mechanics of Report writing – Referencing – use of quotations – Bibliography – Appendix – Precautions for writing the report – Editing and Evaluating the final draft.

TEXT BOOK:

Kothari, C.R. *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers, 1990. Print.

REFERENCE BOOKS:

Anderson, Durston and Poole. *Thesis and Assignment Writing*. New Delhi: Wiley Eastern Ltd, 1970. Print.

Ghosh, B.N. *Scientific Methods & Social Research*. New Delhi: Sterling Publishers Private Ltd., 1992. Print.

Kurien, C.T. *A Guide to Research in Economics*. Coimbatore: Rainbow Publication, 1985. Print.

Saravanel, P. *Research Methodology*. New Delhi: Kitab Mahal, 2004. Print.

Tripathi, P.C. *A Text Book of Research Methodology in Social Sciences*. New Delhi: Sultan Chand and Sons, 2002. Print.

Wilkinson, and Bhanadarkar, *Methodology and Techniques of Social Research*. New Delhi. Himalaya Publishing House, 2000. Print.

Young, P.V. *Scientific Surveys and Research*. New York: Asia Publishing House, 1962. Print.

MEC1605 IN-DEPTH STUDY

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- comprehend the latest reviews and theories relevant to her dissertation
- critically analyse and interpret the reviews
- apply the theories in her dissertation

COURSE OUTLINE:

Each student will undertake a critical review of literature related to the topic of her dissertation.

Students are expected to present and submit a term paper relevant to the topic which will be evaluated for formative requirement.

DEPARTMENT OF COMMERCE

PREAMBLE

The Department of Commerce revised the Undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The Department is now presenting the course profile and content for semesters V and VI for 2014 batch and the course content for the courses where changes are made. The department is also presenting the course profile of semesters III and IV for 2015 batch and semesters I to VI for 2016 batch.

The department proposes the matter mentioned above, for the following programmes:

- B.Com. – Aided
- B.Com. – Banking and Insurance
- B.Com. – Computer Applications
- B.Com. – Corporate Secretaryship
- B.Com. – Professional Accounting
- B.Com. – Honours

In order to equip the B.Com.(Hons.) students to face the current challenges in employment / higher studies in the field of Commerce and Management, the department has framed advanced level courses and included mandatory requirements such as Certificate courses, Skill Training, Industrial Training Programmes, Self-Learning and Vocational courses. B.Com. (Hons.) degree would be awarded only after the completion of the specified requirements mentioned above.

For B. Com. (Aided), a unit on “Accounting Standards” is included in the course **COM4505CM ADVANCED ACCOUNTANCY – III** and this course replaces COM4501CM ADVANCED ACCOUNTANCY – III.

For B.Com. (CS), the course COS5401CM INVESTMENT MANAGEMENT has been replaced with **COS5404CM INVESTMENT MANAGEMENT** in accordance with the changes made by SEBI (Securities Exchange Board of India) and (NISM) National Institute for Securities Market.

For B.Com. Professional Accounting, taking into account the changes made by The Institute of Chartered Accountants of India (ICAI) for the Common Proficiency Test (CPT) / Intermediate (Integrated Professional Competence) Course, modification has been done for the following courses:

- COA3501CM ADVANCED ACCOUNTANCY – I is replaced with **COA3505CM ADVANCED ACCOUNTANCY– I**
- COA4501CM ADVANCED ACCOUNTANCY – II is replaced with **COA4505CM ADVANCED ACCOUNTANCY– II**
- COA5502CM INFORMATION TECHNOLOGY is replaced with **COA5503CM INFORMATION TECHNOLOGY**

The changes mentioned below are now ratified for 2014 batch, with retrospective effect:

- summer training mandatory for B.Com. (Aided), B.Com. (CS) and B.Com. (B & I) programmes
- mandatory ‘software skill development to meet industrial needs’ for B.Com. (CA) programme in semester V

For M.Com., the department is presenting the course profile and the course content for semesters III and IV for 2015 batch.

The UG and PG Self-Learning courses are also presented.

**B.COM. AIDED
COURSE PROFILE**

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|--------------------------|--|------------|---------|--|
| V | COM5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | COM5101CP | COMMERCE LAB | 2 | 1 | AW 2015 |
| | COM5501CM | TAXATION – I | 5 | 5 | AW 2015 |
| | COM5502CM | INVESTMENT MANAGEMENT | 5 | 5 | AW 2015 |
| | COM5503CM | COMPANY ACCOUNTS * | 6 | 5 | AW 2015 |
| | COM0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | | INDUSTRIAL TRAINING ** | - | - | |
| | Total | 30 | 24 | | |

*only hours have been changed, course code and content remain the same

** evaluation based on one month training during the summer of Semester IV

| | | | | | |
|----|-----------|---------------------------|-----------|-----------|-------------------------|
| VI | COM6501CM | TAXATION – II * | 6 | 5 | AW 2015 |
| | COM6401CM | AUDITING ** | 5 | 4 | AW 2015 as COM6502CM |
| | COM6503CM | GLOBAL BUSINESS | 5 | 5 | AW 2015 |
| | COM6504CM | MANAGEMENT ACCOUNTING | 5 | 5 | AW 2015 |
| | COM0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | Total | 30 | 29 | |

* only hours have been changed, course code and content remain the same

** only credits have been changed, hours and content remain the same

Total number of credits for 2014 batch (semesters I to VI) = 155

UG SELF-LEARNING COURSES

| Sem. | Course Code | Course Title | Offered To | Credit | Passed in |
|------|-------------|-------------------------------------|------------|--------|-----------------------|
| ALL | COM0411CD | CORPORATE GOVERNANCE * | ALLM | 4 | AS2011 as COM0432D |
| ALL | COM0412CD | INSURANCE AND RISK MANAGEMENT | ALLM | 4 | |
| ALL | COM0413CD | CUSTOMER RELATIONSHIP MANAGEMENT | ALLM | 4 | |

* The course code has been changed from COM0421D to COM0411CD

COM4505CM ADVANCED ACCOUNTANCY – III

(From 2015 batch onwards this course replaces COM4501CM ADVANCED ACCOUNTANCY – III found in page no. 145 of Academic Council booklet AV 2014)

LEARNING OUTCOME : **5 hrs./wk.**

On successful completion of the course, the student will be able to

- relate principles of partnership to preparation of accounting statements
- solve problems relating to admission, retirement and death of partner
- prepare accounts relating to dissolution of partnership
- develop skills in preparing accounts for conversion of partnership into company

COURSE OUTLINE :

UNIT-I : INTRODUCTION AND ADMISSION OF A PARTNER **20 hrs.**

General Principles of Partnership Accounts – Capital Accounts – Fixed and Fluctuating – Past Adjustments – Admission of a Partner – Revaluation of Assets and Liabilities – Treatment of Goodwill.

UNIT-II : RETIREMENT AND DEATH OF A PARTNER **15 hrs.**

Retirement and Death – Accounting Treatment – Payment of Retiring Partners' Loan – Payment of the Deceased Partners' Share.

UNIT-III: DISSOLUTION OF PARTNERSHIP **17 hrs.**

Realisation Account – Accounting Treatment – Insolvency – Rule in Garner vs. Murray Rule – Insolvency of All Partners – Piecemeal Distribution – Proportionate Capital Method – Maximum Loss Method.

UNIT-IV : AMALGAMATION OF FIRMS AND SALE TO A COMPANY **15 hrs.**

Amalgamation of Firms – Accounting Treatment – Conversion or Sale of a Partnership Firm to a Company – Accounting Treatment.

UNIT –V: ACCOUNTING STANDARDS **8 hrs.**

Working knowledge of AS1 Disclosure of Accounting policies – AS2 Valuation of inventories – AS3 Cash flow statements – AS6 Depreciation Accounting – AS10 Accounting for fixed Assets AS13 – Accounting for investments AS14 – Accounting for Amalgamations

TEXT BOOK(S)

Jain S.P. & Narang K.L., **Advanced Accountancy**, New Delhi, Kalyani Publishers, 2012.

REFERENCE BOOK(S)

Arulanandam and Raman K.S. **Advanced Accountancy**, Mumbai, Himalaya Publishing House, 2012.

Gupta R.L. & Radhaswamy M. **Advanced Accountancy**, New Delhi, Sultan Chand & Sons, 2012.

Mukherjee A. & Hanif M. **Modern Accountancy**, New Delhi, Tata McGraw-Hill Education, 2012.

Shukla M.C., Grewal T.S. and Gupta S.C. **Advanced Accountancy**, New Delhi, Sultan Chand & Sons, 2012.

COM0412CD INSURANCE AND RISK MANAGEMENT

LEARNING OUTCOME:

On successful completion of the course the student will be able to

- explain the principles of insurance and risk management
- relate with the recent trends in the insurance sector
- explore the practice of ethics in insurance Industry
- describe the process of risk management
- evaluate the application of ERM in Insurance Industry

COURSE OUTLINE

UNIT I: INTRODUCTION TO INSURANCE AND RISK MANAGEMENT

Insurance – Meaning – Definition – Principles of insurance – Classification of insurance in Life and Non-Life Insurance sector – Risk – Meaning – Types of risk – Principles and objectives of risk management – Methods of risk management – Responsibilities of a risk management officer – Ethics in Insurance sector.

UNIT II: INDIAN INSURANCE INDUSTRY

Origin and development of insurance – Basic concepts and Definitions – Principles of insurance – Reforms in the insurance sector – Impact of privatization – Regulations – IRDAI – Role and functions

UNIT III: RISK MANAGEMENT APPLICATIONS

Commercial risk management applications – property – liability – commercial property insurance – different policies and contracts – business liability and risk management insurance – Personal risk management applications – risk management for auto owners – risk management for home owners

UNIT IV: RISK MANAGEMENT AND CONTROL

Meaning – Process of risk management – Risk identification – Evaluation – Control – Risk management information system – selecting and implementing risk management techniques.

UNIT V: ENTERPRISE RISK MANAGEMENT

ERM – Meaning – Need for ERM – Identification of risk exposure – Benefits of ERM – ERM process – Issues and challenges in implementation of enterprise risk management.

REFERENCE BOOK(S):

Mark S. Dorfman, Cather A. David . *Introduction to risk management and insurance*. New Delhi: 10th Edition, Prentice Hall

George E. Rejda. *Principles of insurance and risk management*. New Delhi: Pearson publications, 2012

Gupta P.K. *Insurance and risk management*. New Delhi: Himalaya publishing house, 2008

Mishra S.B, MishraM.N., *Insurance :Principles and Practice*. New Delhi: S. Chand and Co., 18th Edition

Periasamy. A. *Principles and practice of insurance*. New Delhi: Himalaya publishing house, 2nd Edition

www.irda.gov.in

Palande.P.S, Shah R.S, Lunawat M.L. *Insurance in India*. New Delhi: Sage publications, 2003.

COM0413CD CUSTOMER RELATIONSHIP MANAGEMENT

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- understand the concepts of customer, customer relationship management
- develop skills in building customer relationships
- understand the importance of e-CRM

COURSE OUTLINE:**UNIT-I: INTRODUCTION**

Customer – types of customer – customer relationship management – objectives – strategies to build customer relationship – difference between traditional and relationship marketing

UNIT-II: CUSTOMER ACQUISITION AND INTERACTION

Customer acquisition – inputs for acquisition – process of acquisition – customer interaction management – factors influencing customer interaction

UNIT-III: CUSTOMER RETENTION

Customer retention – benefits of retention – customer retention ladder – sequence in retention process

UNIT-IV: PARTNERSHIP RELATIONSHIP MANAGEMENT

Customer partnership – internal partnership – supplier partnership – external partnership – steps to partnership relationship management – Measurement Criteria

UNIT-V: e-CRM

e-CRM – definition – features of e-CRM – Benefits of e-CRM – Basic requirements of e-CRM – difference between CRM and e-CRM – Mobile apps for CRM

TEXT BOOK:

Peeru Mohammed & A.Sagadevan. *Customer Relationship Management*. New Delhi: Vikas Publishing House Pvt Ltd, 2015. Print.

REFERENCE BOOK(S)

Shainesh G., Jagdish N Sheth. *Customer Relationship Management A Strategic Perspective*. New Delhi: Macmillan India Ltd, 2010. Print.

Kristin Anderson & Carol Kerr. *Customer Relationship Management*. McGraw-Hill, 2014. Print.

B.COM. BANKING AND INSURANCE – Self-Financed**COURSE PROFILE**

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|--------------------------|---|-----------|-----------|--|
| V | COB5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | COB5401CM | BANK MANAGEMENT | 4 | 4 | AW 2015 |
| | COB5402CM | INTERNATIONAL TRADE | 4 | 4 | AW 2015 |
| | COB5403CM | TAXATION – I * | 5 | 4 | AW 2015 |
| | COB5501CM | MANAGEMENT ACCOUNTING | 5 | 5 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | COB0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | TRAINING IN BANKS / INSURANCE COMPANIES ** | - | - | |
| | | Total | 30 | 25 | |

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|--|-------------|---|-----------|-----------|-----------|
| * only hours have been changed, code and content remain the same | | | | | |
| ** evaluation based on one month training during the summer of Semester IV | | | | | |
| VI | COB6401CM | INTERNATIONAL BANKING | 4 | 4 | AW 2015 |
| | COB6402CM | MARKETING OF BANKING AND INSURANCE SERVICES | 4 | 4 | AW 2015 |
| | COB6403CM | PORTFOLIO MANAGEMENT | 4 | 4 | AW 2015 |
| | COB6404CM | COST ACCOUNTING | 4 | 4 | AW 2015 |
| | COB6405CM | TAXATION – II * | 5 | 4 | AW 2015 |
| | COB0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | Total | 30 | 30 | |
| *only hours have been changed, code and content remain the same | | | | | |

Total number of credits for 2014 batch (semesters I to VI) = 155

B.COM. COMMERCE WITH COMPUTER APPLICATIONS – Self-Financed

COURSE PROFILE

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./ Wk. | Credits | Passed in |
|--|--------------------------|--|-----------|-----------|--|
| V | COE5201CP | WEB PROGRAMMING (. NET) | 4 | 2 | AW 2015 |
| | COE5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | COE5502CM | TAXATION – I * | 5 | 5 | AW 2015 as COE5401CM |
| | COE5402CM | WEB PROGRAMMING (.NET) | 4 | 4 | AW 2015 |
| | COE5501CM | MANAGEMENT ACCOUNTING | 5 | 5 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | COE0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | TRAINING IN EMERGING CONCEPTS OF INFORMATION TECHNOLOGY ** | - | - | |
| | | Total | 30 | 24 | |
| *hours and credits have been changed, content remains the same | | | | | |
| ** evaluation is based on 40 hours of training given during semester V (outside class hours) | | | | | |
| VI | COE6401CT | OPEN SOURCE OPERATING SYSTEM | 2T + 3L | 4 | AW 2015 |
| | COE6501CT | OPEN SOURCE WEB PROGRAMMING | 3T + 4L | 5 | AW 2015 |
| | COE6501CM | TAXATION – II * | 5 | 5 | AW 2015 as COE6401CM |

| | | | | | |
|--|-----------|---------------------------|-----------|-----------|---------|
| | COE6402CM | BUSINESS ENVIRONMENT | 4 | 4 | AW 2015 |
| | COE0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | Total | 30 | 28 | |

*hours and credits have been changed, content remains the same

Total number of credits for 2014 batch (semesters I to VI) = 146

B.COM. COMMERCE WITH CORPORATE SECRETARYSHIP – Self-Financed

Course Profile

| From 2014 batch onwards | | | | | |
|--|--------------------------|--|-----------|-----------|--|
| Sem. | Course Code | Course Title | Hrs./ Wk. | Credits | Passed in |
| V | COS5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | COS5404CM | INVESTMENT MANAGEMENT | 5 | 4 | |
| | COS5402CM | CORPORATE FINANCE | 4 | 4 | AW 2015 |
| | COS5403CM | INTERNATIONAL TRADE | 4 | 4 | AW 2015 |
| | COS5501CM | DIRECT TAXES – I | 5 | 5 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | COS0601LM | LIFE FRONTIER ENGAGEMENT | 4 | – | AW 2015 |
| | | INTERDISCIPLINARY COURSES * | 4 | 4 | AW 2015 |
| | | INDUSTRIAL TRAINING ** | - | - | |
| | | Total | 30 | 25 | |
| * The course titled CBCR5401DM STOCK MARKET OPERATIONS is replaced with BACR5401DM CUSTOMER RELATIONSHIP MANAGEMENT | | | | | |
| ** evaluation based on one month training during summer of Semester IV | | | | | |
| VI | COS6404CM | INDIRECT TAXES * | 5 | 4 | AW 2015 as COS6501CM |
| | COS6502CM | ECONOMIC LEGISLATIONS ** | 6 | 5 | AW 2015 |
| | COS6403CM | LABOUR AND INDUSTRIAL LAW * | 5 | 4 | AW 2015 as COS6503CM |
| | COS6504CM | DIRECT TAXES – II | 5 | 5 | AW 2015 |
| | COS0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY | 4 | 4 | AW 2015 |
| | | Total | 30 | 28 | |
| *Only hours have been changed, content remains the same | | | | | |
| ** only hours have been changed, course code and content remain the same | | | | | |

Total number of credits for 2014 batch (semesters I to VI) = 155

COS5404CM INVESTMENT MANAGEMENT

(Theory)

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course, the student will be able to

- recall SEBI guidelines
- describe various investment opportunities
- analyze securities and investment using fundamental and technical analysis
- evaluate risk and return of each investment

COURSE OUTLINE:

UNIT-I: INTRODUCTION

15 hrs.

Nature and scope – Meaning – Investment and gambling – Objectives and risks of investment – Factors favorable for investment – Features of an investment programme- Investment process – Investment opportunities – Bank deposits – Non-banking financial institutions – Public deposits – Shares, Bonds, Government securities – Non-security form of Investment

UNIT-II: INVESTMENT AVENUES

13 hrs.

Securities – Meaning – structure of securities market in India – New issue market – functions – Mechanics of floating new issues – Underwriting activity – Problems of the new issue market – Role of SEBI in securities market – SEBI guidelines for New issue.

UNIT-III: MANAGED PORTFOLIOS

17 hrs.

Introduction – Structure of Mutual Fund – Features of Mutual Funds – Classification of Mutual Funds – Net Asset Value-Cost in Mutual Fund – Return from Mutual Fund – SEBI and Mutual Fund Regulations – Recent Trends

UNIT IV: RISK AND RETURN ON INVESTMENTS

15 hrs.

Risk and Return – Risk and uncertainty – meaning of risk – causes of risk – Factors responsible for causing Internal risks in Investments – Classification of risks – Systematic risk – Unsystematic risk – Internal Business risks – External Business Risk – Financial risks – Default or Insolvency risk – other risks – Minimizing risks.

UNIT V: SECURITY AND INVESTMENT ANALYSIS

15 hrs.

Security and investment analysis – Fundamental analysis – Industrial analysis – Company analysis – Economy analysis – Technical analysis – Timing in investment – Tools of technical analysis – Dow Theory – Recent Trends

TEXT BOOK

National Institute of Securities Market (NISM) – SEBI

REFERENCE BOOK(S)

Natarajan, L. *Investment Management*. Chennai: Margham Publications, 2014. Print.

Avadhani, V. A. *Securities Analysis & Portfolio Management*. Bombay: Himalaya Publishing House, 2013. Print.

Bhalla, V. K. *Investment Management*. New Delhi: Sultan Chand & Co, 2013. Print.

B.COM. PROFESSIONAL ACCOUNTING

COURSE PROFILE

| From 2014 batch onwards | | | | | |
|-------------------------|--------------------------|--|-----------|-----------|-------------------------------------|
| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
| V | COA5401CM | BANKING LAW AND PRACTICE | 4 | 4 | AW 2015 |
| | COA5402CM | MARKETING MANAGEMENT | 4 | 4 | AW 2015 as COA5401AA |
| | COA5501CM | AUDITING AND ASSURANCE – I | 5 | 5 | AW 2015 |
| | COA5503CM | INFORMATION TECHNOLOGY | 5 | 5 | - |
| | COA5401TC | TRAINING IN AUDIT OFFICE | 10 | 4 | AW2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | | Total | | 30 | 24 |
| VI | COA6501CM | AUDITING AND ASSURANCE – II | 5 | 5 | AW 2015 |
| | COA6502CM | STRATEGIC MANAGEMENT | 5 | 5 | AW 2015 |
| | COA6503CM | GLOBAL BUSINESS | 5 | 5 | AW 2015 |
| | COA6401CM | BUSINESS LAW | 5 | 4 | AW 2015 as COA6401AA |
| | COA6401TC | TRAINING IN AUDIT OFFICE | 10 | 4 | AW2015 |
| | | Total | | 30 | 23 |

Total number of credits for 2014 batch (semesters I to VI) = 149

COA3505CM ADVANCED ACCOUNTANCY – I

(Theory)

(From 2015 batch onwards, this course replaces COA3501CM ADVANCED ACCOUNTANCY – I found in page no. 211 of Academic Council booklet AV 2014)

LEARNING OUTCOME

5 hrs./Wk.

On successful completion of the course, the student will be able to

- describe specified accounting standards
- prepare final statement of accounts of companies
- solve problems relating to acquisition, amalgamation and reconstruction of company
- develop skill in preparing hire purchase account and investment accounts.

COURSE OUTLINE :

UNIT-I : ACCOUNTING STANDARDS

13 hrs.

Working knowledge of AS1 Disclosure of Accounting policies – AS2 Valuation of inventories – AS3 Cash flow statements – AS6 Depreciation Accounting – AS7 Construction Contracts (revised 2002) – AS9 Revenue Recognition – AS10 Accounting for fixed Assets AS13 – Accounting for investments AS14 – Accounting for Amalgamations – AS22 Accounting for Taxes on income – Overview of Adoption of international financial reporting.

UNIT-II : COMPANY ACCOUNTS

18 hrs.

Preparation of financial statements – Profit and loss Account, Balance Sheet and cash flow statement – Profit prior to incorporation.

UNIT-III : AMALGAMATION AND RECONSTRUCTIONS

17 hrs.

Accounting for business acquisition, Amalgamations and Reconstructions – Reduction of capital.

UNIT-IV : HIRE PURCHASE AND SELF BALANCING LEDGERS

12 hrs.

Accounting for Hire purchase and Default and repossession – Installment sale transactions – Self-

balancing ledgers

UNIT-V : INVESTMENT ACCOUNTS AND INSURANCE CLAIMS

15 hrs.

Investment accounts – Ex interest – Cum interest – Equity shares – Insurance claims for loss of stock and loss of profit.

TEXT BOOK

Jain S.P. & Narang K.L. *Advanced Accountancy*. New Delhi: Kalyani Publishers, 2012.

REFERENCE BOOK(S)

Arulanandam and Raman K.S. *Advanced Accountancy*. Mumbai: Himalaya Publishing House, 2012.

Gupta R.L. & Radhaswamy M. *Advanced Accountancy*. New Delhi: Sultan Chand & Sons, 2012.

Mukherjee A. & Hanif M. *Modern Accountancy*. New Delhi: Tata McGraw-Hill Publishing Co. Ltd, 2012.

Saxena V.K. *Advanced Accounting*. New Delhi: Sultan Chand and Sons, 2011.

Shukla M.C., Grewal T.S. & Gupta S.C. *Advanced Accountancy*. New Delhi: Sultan Chand & Sons, 2012.

COA4505CM ADVANCED ACCOUNTANCY – II

(Theory)

(From 2015 batch onwards, this course replaces COA4501CM ADVANCED ACCOUNTANCY – II found in page no. 215 of Academic Council booklet AV 2014)

LEARNING OUTCOME

5 hrs./wk.

On successful completion of the course, the student will be able to

- describe the accounting procedure for buy back of shares and underwriting of shares & debentures
- prepare accounts on liquidation of company
- prepare final accounts of banking, insurance & electricity companies
- solve problems relating to Departmental and Branch Accounts.

COURSE OUTLINE :

UNIT-I: COMPANY ACCOUNTS

13 hrs.

Accounting for employee stock option plan – Buyback of securities, Equity shares with differential rights – underwriting of shares and debentures – Redemption of debentures.

UNIT-II: LIQUIDATION OF COMPANIES

10 hrs.

Statements of Affairs – Deficiency / Surplus Accounts – Liquidator's statement of account.

UNIT-III: BANKING AND INSURANCE COMPANIES ACCOUNTS

20 hrs.

Financial statements of Banking and Insurance companies – Legal requirements in the preparations of profit & loss a/c – Balance Sheet.

UNIT-IV: ISSUES IN PARTNERSHIP ACCOUNTS

12 hrs.

Dissolution of partnership firms including piecemeal distribution of assets; Amalgamation of partnership firms; Conversion into a company and Sale to a company.

UNIT-V: DEPARTMENTAL AND BRANCH ACCOUNTS

20 hrs.

Departmental accounts – Allocation of expenses – Inter departmental transfers – Branch accounts – Dependent branch – Stock and Debtor system – Invoice price – Independent Branch – Foreign Branch.

TEXT BOOK

Jain S.P. & Narang K.L. *Advanced Accountancy*. New Delhi: Kalyani Publishers, 2012.

REFERENCE BOOK(S)

Arulanandam and Raman K.S. *Advanced Accountancy*. Mumbai: Himalaya Publishing House, 2012.

Gupta R.L. & Radhaswamy M. *Advanced Accountancy*. New Delhi: Sultan Chand & Sons, 2012.

Mukherjee A. & Hanif M. *Modern Accountancy*. New Delhi: Tata McGraw-Hill Publishing Company Ltd., 2012.

Saxena V.K. *Advanced Accounting*. New Delhi: Sultan Chand and Sons, 2012.

Shukla M.C., Grewal T.S. and Gupta S.C. *Advanced Accountancy*. New Delhi: Sultan Chand & Sons, 2012.

COA5503CM INFORMATION TECHNOLOGY

(Theory)

LEARNING OUTCOME:

5 hrs./wk.

On successful completion of the course, the student will be able to

- explain and apply the core aspects of information technology principles and tools, and manage their implementation in a business context
- apply formal frameworks, methods and management systems to the organization, storage and retrieval of data .
- develop and defend solutions to networking and security problems
- implement Information Systems in enterprises and their impact on business processes and controls.
- Access and critically evaluate relevant technical and business information and emerging industry trends from multiple sources.

COURSE OUTLINE:

UNIT-I: BUSINESS PROCESS MANAGEMENT

15 hrs.

Information as a business asset, Impact of IT on business processes. Business Risks of failure of IT, Business Process Re-engineering – Entity Diagrams, Data Flow Diagrams, Systems Flow diagrams, Decision Trees/tables.

UNIT-II: PRODUCT PLANNING AND DEVELOPMENT

15 hrs.

DBMS – Purpose – types of databases – systems software – hardware – Overview of Information Systems life cycle and key phases. Computing Technologies & Hardware – Servers, end points – emerging computing architectures – Cloud Computing, Mobile computing – Bluetooth, Wi-Fi, an Overview

UNIT-III: NETWORK AND SECURITY

15 hrs.

Fundamentals of telecommunication, Components and functions of Telecommunication Systems. Data networks – LAN, WAN, Wireless, private and public networks – client-server, thin-thick client – Network risks & controls – VPN, Encryption, Secure protocols.

UNIT - IV: BUSINESS INFORMATION SYSTEM

15 hrs.

Information Systems and their role in businesses, IT as a business enabler – ERP, Core Banking System, CRM, SCM, HRMS, Payment Mechanisms. The relationship between organizations, information systems and business processes, Accounting Information Systems and linkages to Operational systems.

UNIT – V: MANAGEMENT INFORMATION SYSTEM**15 hrs.**

Business Reporting, MIS & IT. Organization Roles and responsibilities and table of authorities, importance of access controls, privilege controls. Specialized systems - MIS, DSS, Business Intelligence, Expert Systems, Artificial Intelligence, Knowledge Management systems.

TEXT BOOK(S)

Kalakota and Whinston, *Frontiers of Electronic Commerce*, Pearson Education, 2007.

Avi, Silberschatz Henry F. Korth S. Sudarshan, *Database System Concepts*, McGraw-Hill Higher Education, *Fifth Edition*, 2011.

REFERENCE BOOK(S)

Rayudu C.S. *E-Commerce - E-Business*, Himalaya Publishing House, Mumbai 2011. Print.

Raju G.K. *Information Technology & Strategic Management (PCC)*, Second Edition, 2008. Print.

Alexis, Leon and Mathews Leon, *Fundamentals of Information Technology*, Vikas Publishing House Pvt. Ltd, Second Edition, 2009. Print.

IPCC Study Materials

B.COM. HONOURS – SELF-FINANCED

From 2014 batch onwards

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|---|-------------------------|--|-----------|-----------|---------------------------------------|
| V | COH5401CM | CORPORATE GOVERNANCE | 4 | 4 | |
| | COH5402CM | ENTREPRENEURSHIP DEVELOPMENT | 4 | 4 | |
| | COH5501CM | DIRECT TAXES | 5 | 5 | |
| | COH5502CM | ACCOUNTING FOR DECISION MAKING | 5 | 5 | |
| | COH5503CM | SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT | 5 | 5 | |
| | COH5504CM | INTERNATIONAL BUSINESS | 5 | 5 | |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | COH0402TC | INDUSTRIAL TRAINING – II * | - | 4 | |
| | COH5401MP | MINI PROJECT | - | 4 | |
| | | TOTAL | 30 | 38 | |
| * Evaluation for COH0402TC INDUSTRIAL TRAINING – II is based on one month training attended during Sem. IV (Summer) | | | | | |
| VI | COH6401CM | INFORMATION SYSTEMS FOR MANAGEMENT | 4 | 4 | |
| | COH6402CM | INDIRECT TAXES | 4 | 4 | |
| | COH6601TC | INTERNSHIP ** | - | 6 | |
| | | TOTAL | | 14 | |
| ** Evaluation based on the performance of the students during her 3 month Intensive Internship in Industries from Jan. – March. | | | | | |

Total number of credits for 2014 batch (semesters I to VI) = 151

MANDATORY COURSES

| Sem. | Course | Period | Applicable |
|--|-----------------------------------|--------|------------|
| V | Certificate Course in TALLY ERP 9 | Sem. V | 2014 batch |
| It is mandatory that a B.Com. (Hons.) student completes 2 self-learning courses and 1 online course / foreign language / Indian language (Hindi) / certificate course in IFRS / NISM, from semesters II to V | | | |

COH5401CM CORPORATE GOVERNANCE

(Theory)

LEARNING OUTCOME

4 hrs./wk.

On successful completion of the course, the student will be able to

- describe Corporate Governance and its evolution
- analyze the role of Corporate Governance in India
- evaluate the merits of Corporate Social Responsibility
- adapt ethics in Corporate sector

COURSE OUTLINE :

UNIT-I: BASICS OF CORPORATE GOVERNANCE

10 hrs.

Introduction – Definition – Principles – Objectives – Elements of Good Corporate Governance – Evolution of Corporate Governance as a Global movement – e governance – Organisation for Economic Co-operation & Development Principles-Consequences of bad governance – Sarbanes Oxley Act, 2002 – Corporate Citizenship.

UNIT-II: CORPORATE MANAGEMENT

13 hrs.

Role of Board of Directors in Corporate Management, Types of Boards, Types of Directors – Independent Directors – Women Directors – Responsibilities of Board – various committees of board – Audit Committee – Requirements under listing agreement – Corporate Best Practices.

UNIT-III: BUSINESS ETHICS

12 hrs.

Concept of Business Ethics – Meaning – Organisation structure & Ethics – Ethics Committee – Functions of Ethics Committee – Features of Good Ethics Programme – Ethical and Unethical Standards – Corporate Scandals – Whistle Blower – Social and Ethical Accounting – Ethics Audit – Ethical Dilemma – Case studies.

UNIT-IV: ETHICAL MANAGEMENT

12 hrs.

Ethical theory and its applications to business/morality and ethical theory – Ethical management – Advertising and information disclosures – environmental responsibility – ethics and ecology – employee rights – conflict of interests – work ethics – professional ethics and responsibility

UNIT-V: CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABILITY

13 hrs.

Introduction – Definition – Factors, Distinction between CSR and Philanthropy – Sustainability terminologies and Meanings-Corporate social responsibility and Corporate sustainability- Advantages of CSR – Triple Bottom line approach of CSR – CSR reporting – Sustainability case studies – Section 35 of Companies Act, 2013.

TEXT BOOK(S)

Roy C.K. *Corporate Governance – Values and Ethics*. New Delhi: Vayu Education of India, 2010.

REFERENCE BOOK(S)

A M A, *Corporate Governance And Business Ethics*, Excel Books

Cannon Tom. *Corporate responsibility. A textbook on business ethics, governance, environment: role and responsibilities*. London: Pitman

Hoffman, W. Michael, et. *Corporate Governance and Institutionalizing Ethics*. Lexington Books

Institute of Company Secretaries of India (2015) - Study Material.

COH5402CM ENTREPRENEURSHIP DEVELOPMENT

(Theory)

LEARNING OUTCOME

4 hrs./wk.

On successful completion of the course, the student will be able to

- know the theory and practice of entrepreneurship
- comprehend business idea generation, sources of ideas, project planning, formulation, appraisal, and implementation strategies.
- describe the need for training and development
- prepare a project proposal, Cost, Sheet and Budget

COURSE OUTLINE:

UNIT I: INTRODUCTION TO ENTREPRENEURSHIP

12 hrs.

Entrepreneurship and Entrepreneur – Definition, Functions, Characteristics, Types, traits, Obstacles faced – Intrapreneur v/s Entrepreneur, Social Entrepreneur – Importance of entrepreneurship in the economic development

Women Entrepreneurs: Definition, Factors influencing Women Entrepreneurs, Problems, rural and urban Entrepreneurship, Development measures for Women Entrepreneurs –networking – Growth of Women Entrepreneurship in India

UNIT II: ENTREPRENEURSHIP DEVELOPMENT PROGRAMME

12 hrs.

Need for EDP, Objectives – Short term & Long term, Phases of EDP, Contents of EDP, Institutions promoting EDP in India, Problems in the conduct of EDP, Evaluation of EDPs

UNIT III: PROJECT REPORT PREPARATION AND APPRAISAL

12 hrs.

Idea generation, Opportunity / Product Identification, Selection of opportunity, Steps in setting up a small business enterprise. Business Plan – Meaning, Contents, Significance, Formulation of Business Plan, Network Analysis, Project Appraisal – Meaning and Methods

UNIT IV: FORMS OF OWNERSHIP & FINANCE

12 hrs.

Sole Proprietorship, Partnership, Company, Selection of appropriate ownership structure, Finance – need for financial planning, Sources of finance (Internal & External), term loans, Venture capital, Export finance

UNIT V: INSTITUTIONS PROMOTING ENTREPRENEURIAL DEVELOPMENT

12 hrs.

Institutional Support – DIC, MSME DI, Commercial banks, NSIC, SIDCO, SFC, SIDBI, DIC, SIDO, EDI, NISIET, NIESBUD, Start Ups – Angel Investors – Technical Consultancy Organizations, Infrastructural support schemes – Government Assistance – skill development – NSDC and Skill India

TEXTBOOK

Khanka S.S. *Entrepreneurial Development*, S. Chand & Co, New Delhi, 2008

REFERENCES BOOK(S):

Vasant, Desai *Entrepreneurship Development*, 1sted., Mumbai, Himalaya Publishing House. (2011)

Dailey, C.A. *Entrepreneurial Management*, S. Chand & Co., New Delhi, 2005.

Renu, Arora and Sood S.K. *Fundamentals of Entrepreneurship and Small Business*, Kalyani Publishers, New Delhi, 2004.

Gupta, S.B. Srinivasan N.P., *Entrepreneurship Development*, Sultan Chand and Sons, New Delhi, 2002.

COH5501CM DIRECT TAXES

(Theory)

5 hrs./wk.

LEARNING OUTCOME

On successful completion of the course the student will be able to

- examine the framework of taxation system in India
- validate various concepts and their application relating to direct tax laws with a view to integrating the relevance of these laws with financial planning and management decisions
- synthesize skill in computation of total income and tax liability from different heads of income

COURSE OUTLINE:

UNIT I: INTRODUCTION TO TAXATION

15 hrs.

Objectives of Taxation – Canons of Taxation – Tax System in India – Direct and Indirect Taxes
Meaning and Types – Income Tax Act 1961 – Heads of Income – Salaries.

UNIT II: HOUSE PROPERTY AND BUSINESS INCOME

20 hrs.

Income from house property – Profits and Gains of Business and profession.

UNIT III: CAPITAL GAINS AND OTHER SOURCES:

15 hrs.

Capital gains – Income from other sources.

UNIT IV: CLUBBING, SET OFF AND DEDUCTIONS:

15hrs.

Clubbing of income and losses – Deductions – Set-off of losses – Income Tax Authorities – Types of assessments – E-filing of returns – ITR 1 to ITR 7.

UNIT V: ASSESSMENT AND TDS, TCS:

10 hrs.

Assessment of Individuals, Companies, Firm – Tax collection at source – Tax deduction at source – Advance payment of tax.

TEXT BOOK

Vinod, K.Singhania and Monica Singhania. *Students' Guide to Income Tax*. New Delhi: Taxmann Publications (P) Ltd., Current Edition

REFERENCE BOOKS

Grish, Ahuja & Ravi Gupta. *Systematic Approach to Income Tax & Central Sales Tax*. New Delhi: Bharat Publications, Current Edition

Dinker, Pagare. *Direct taxes with Tax Planning*. New Delhi: S. Chand & Co., Current Edition.

Vinod, K.Singhania and Monica Singhania. *Tax Laws*. New Delhi: Taxmann Publications (P) Ltd., Current Edition

Institute of Company Secretaries of India, *Direct Tax Laws*, Study Material.

COH5502CM ACCOUNTING FOR DECISION MAKING

(Theory)

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course the student will be able to

- acquire skills in analysing and interpreting financial statements
- acquire knowledge in the application of accounting ratios
- apply marginal costing & standard costing techniques in business
- prepare different types of budget

COURSE OUTLINE

UNIT I: INTRODUCTION

15 hrs.

Introduction – Meaning and Definition of Management Accounting – Scope and Objectives of management Accounting – Management accounting process – Differences between Management Accounting and Financial Accounting – Management Accounting and Cost Accounting – Limitations of Management Accounting.

UNIT II: FINANCIAL STATEMENT ANALYSIS

15 hrs.

Analysis of Financial Statements – Ratio Analysis: Meaning and Objectives -Types of Ratios – Financial Ratios Current Ratio/ Liquidity Ratio/ Debt Equity Ratio/ Proprietary Ratio/Capital Gearing Ratio – Advantages and Limitations of Financial Ratios Profitability Ratios – Gross Profit Ratio/ Net Profit Ratio/ Operating Ratio/Operating Profit Ratio/Return on Capital Employed Ratio/ Earning Per Share – Turnover Ratios – Working Capital Turnover Ratio/Stock Turnover Ratio/Fixed Assets Turnover Ratio/Debtors Turnover Ratio/ Creditors Turnover Ratio – Inter firm & Intra firm comparison .

UNIT–III: PREPARATION OF FUND FLOW AND WORKING CAPITAL ASSESSMENT

15 hrs.

Fund flow: Meaning & Concept – Importance and uses of fund flow statement; various sources & application of funds, Preparation of fund flow statement – Limitation of fund flow statement. Cash flow statement: Meaning – AS-3 (Revised) cash flow statement – Cash flow from operating, investing & financing activities – Comparison between fund flow and cash flow statement – Preparation of cash flow statement.

UNIT IV: MARGINAL COSTING

15 hrs.

Marginal Costing – Definition – Basic Concepts – Assumptions – Marginal Cost Statement – cost volume profit analysis – Contribution – Break Even Analysis – P/V Ratio – Margin of Safety – Decision Areas – Make or Buy decision and Pricing

UNIT V: BUDGETARY CONTROL

15 hrs.

Budget and Budgetary Control – Definition – Basic Concepts – Budget Manual – Key Factor – Classification of Budgets – Problems on Sales Budget and Flexible Budget – Zero Base Budget (Theory Only) – performance budgeting – Standard Costing – Definition –Difference between Standard Costing and Budgetary Control – Variance Analysis –Problems on Material and Labour Variances (Excluding Mix and Yield Variances)

TEXT BOOK(S)

Shashi, K.Gupta and R.K.Sharma. *Financial Management*. New Delhi: Kalyani Publishers, 2013. Print.

REFERENCE BOOK(S)

Anthony, Robert. *Management Accounting*. Mumbai: Taraporewala, 2011. Print.
Maheswari S.N. *Principles of Management Accounting*. New Delhi: Sultan Chand Publication, 2014 Print.

Pillai, R.S.N. & Bagavathi. *Management Accounting*. New Delhi: Sultan Chand Publication, 2014 Print.

COH5503CM SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

(Theory)

LEARNING OUTCOME**5 hrs. / wk.**

On successful completion of the course, the student will able to

- describe various investment opportunities
- develop knowledge about different portfolios
- examine the right decisions regarding their investment
- evaluate Risk and Return of each investment
- analyze securities and investment using fundamental and technical analysis

COURSE OUTLINE:**UNIT-I: INTRODUCTION****15 hrs.**

Nature and scope – Meaning – Objectives of investment – Factors favorable for investment – Features of an investment programme – Investment process – Investment opportunities – Investment media – Investment Alternatives – Bonds, Preference Shares and Equity shares – Risk and Returns – Systematic Risk, Unsystematic Risk –Measurement of returns – Traditional Technique, Modern Technique

UNIT-II: SECURITY VALUATION**15 hrs.**

Security Valuation – Basic Valuation Models – Bonds – Preference Shares – Common Stock. – Dividend concept, Earnings concept – Efficient Market Theory – Efficient Market Hypothesis – Empirical Analysis – Random Walk Model – Recent Trends

UNIT-III: FUNDAMENTAL AND TECHNICAL ANALYSIS**15 hrs.**

Fundamental analysis – Industrial analysis – Company analysis – Economy analysis –Technical analysis – Timing in investment – Tools of technical analysis – Market movements – Moving average analysis – Dow Theory – Recent Trends

UNIT IV: PORTFOLIO MANAGEMENT**17 hrs.**

Introduction – Time value of money application to portfolio management – MPT and Dominance concept – SEBI guidelines for portfolio managers and portfolio management service – Importance of Beta – Capital Market Theory – Capital Asset Pricing Model –Security Market Line – Arbitrage Pricing Theory – Recent Trends

UNIT V: PERFORMANCE MEASUREMENTS OF MANAGED PORTFOLIOS**13 hrs.**

Introduction – Structure of Mutual Fund – Features of Mutual Funds – Classification of Mutual funds – Net Asset Value – Costs in Mutual Fund Investments – SEBI and Mutual fund Regulations – Recent Trends

TEXT BOOK(S)

Preethi Singh. *Investment Management*. Mumbai: Himalaya Publishing House, 2014. Print.

REFERENCE BOOK(S)

Avadhani V.A. *Securities Analysis & Portfolio Management*. Bombay: Himalaya Publishing House, 2013, Print.

Pandian Punithavathy - *Security Analysis And Portfolio Management* – Vikas Publishing House, Print.

Lee, Cheng F. *Advances in Investment Analysis and Portfolio Management*. Publisher: Science & Technology Books.

Bhalla V.K. *Investment Management*. New Delhi: Sultan Chand & Co., 2013. Print.

COH5504CM INTERNATIONAL BUSINESS**(Theory)****LEARNING OUTCOME****5 hrs./wk.**

On the successful completion of the course, the student will be able to

- review the role of International Businesses in India
- develop knowledge about the various concepts in International Businesses
- evaluate the merits and demerits of International Businesses

COURSE OUTLINE:**UNIT I: INTRODUCTION TO INTERNATIONAL BUSINESS****15 hrs.**

Importance, nature and scope; Modes of entry into International Business; Internationalization process and managerial implications; Multinational Corporations and their involvement in International Business: Technology transfer, pricing and regulations; International collaborative arrangements and strategic alliances, Code of conduct for MNCs

UNIT II: INTERNATIONAL BUSINESS ENVIRONMENT**15 hrs.**

Economic, Political, Cultural and Legal environments in International Business. Framework for analyzing international business environment,

UNIT III: BALANCE OF PAYMENT ACCOUNT**15 hrs.**

Concept and significance of balance of payments account; Current and capital account components and accounting system; Balance of payment deficits and correction policies, Export and Import procedure-Trade barriers – Tariffs, Trade blocs , Transfer pricing, Hedging and forward trading, IPR, E-code, Trade Portals.

UNIT IV: INTERNATIONAL ECONOMIC INSTITUTIONS AND AGREEMENTS**15 hrs.**

Institutions promoting international trade – STC – DGFT– EPC – EPZ – SEZ – ECGC – GATT– WTO –TRIPS – TRIMS, IMF, World Bank, UNCTAD,FERA and FEMA , International commodity trading and agreements.

UNIT V: FDI AND GLOBAL SOURCING IN INDIA**15 hrs.**

Foreign Direct Investments – Types and Motives, Issues in foreign investments, Ethics in International Business: Introduction, Business Ethics Factors, National Differences in Ethics. Global Sourcing and Indian Industries structure – Introduction to global sourcing, Reasons for global sourcing, advantages and disadvantages, recent trends in international businesses.

TEXT BOOK

Francis Cherunillam. *International Trade and Export Management*. Bombay: Himalaya Publishing House, 6th edition, 2013.

REFERENCE BOOKS

Chaudhary B.K. *Finance of Foreign Trade and Foreign Exchange*. Bombay: Himalaya Publishing House, 2002.

Mithani D.M. *Money, Banking, International Trade and Public Finance*. Bombay: Himalaya Publishing House, 2000

Rathor, J.S .& Rathor B.S. *Export Marketing*. Bombay: Himalaya Publishing House, 2001.

Varshney R.L. & Bhattachary B. *International Marketing Management*. New Delhi: Sultan Chand and Sons, 2015. Print.

COH6401CM INFORMATION SYSTEMS FOR MANAGEMENT**(Theory)****LEARNING OUTCOME:****4 hrs./wk.**

On successful completion of the course the student will be able to

- apply the fundamental concepts and theories of information systems for management.
- identify and analyze requirements for information systems
- state the technologies for information and network security
- effectively evaluate technology alternatives to solve problems in an MIS context
- analyze the challenges facing global information systems for management.

COURSE OUTLINE:**UNIT I: INTRODUCTION TO MANAGEMENT INFORMATION SYSTEM****12 hrs.**

Concept of Information: Information needs of an organization – Management Information System – Definition of MIS – Framework for MIS Organisation and Management Triangle – Objectives – MIS and Use of Computer – Limitations of MIS – Categories – Levels of Management – IS Structure based on management activity

UNIT II : COMMUNICATION AND NETWORK SECURITY**12 hrs.**

Introduction to communication networks – LAN , MAN, WAN – Network Topology – Information Security: Definition – Secrecy and Confidentiality – Accuracy, Integrity and Authenticity – Challenge response system – Security Threats – Vulnerabilities and Counter measures – System Audit – an overview

UNIT III: INFORMATION SYSTEMS IN BUSINESS**12 hrs.**

Introduction to Functional areas of business – Manufacturing Information Systems – Quality Information Systems – Financial and Accounting Information systems – Research and Development Information systems – Transaction Processing Systems – Office Automation Systems .

UNIT IV: E-COMMERCE APPLICATIONS**12 hrs.**

SDLC- Steps in SDLC- Limitations – Business Application in Information Systems – E-commerce – meaning – types – B2B, B2C, C2C, B2G – Electronic Payment System – EDI – Emerging trends – an overview – ERP – BPR – CRM – SCM.

UNIT V: DECISION SUPPORT SYSTEM**12 hrs.**

Introduction – Definitions – Objectives of DSS-Classifications of DSS – Characteristics of DSS – Components of DSS – Functions of a DSS – Development of DSS – Group Decision Support system – Executive Information System – Success Criteria for DSS/ EIS – Relationship between MIS and DSS – Applications of DSS.

TEXT BOOK:

Gupta A.K. *Management Information Systems*. S.Chand& Company Ltd., 2013. Print.

REFERENCE BOOKS:

Vilas. S. Bagad *Management Information Systems*. Pune:Technical Publications, 2008. Print.

Gordon B. Davis & Margerethe H.Olson. *Management Information Systems*. New Delhi: Tata McGraw- Hill Publishers, 2006. Print.

Waman. S. Jawadekar. *Management Information Systems, Texts and Cases*. New Delhi: Tata McGraw-Hill Publishers, 2011. Print.

Azam M. *Management Information Systems*. New Delhi: Tata McGraw-Hill Publishers, 2012. Print.

COH6402CM INDIRECT TAXES**(Theory)****LEARNING OUTCOME:****4 hrs./wk.**

On successful completion of the course, the student will be able to

- define the types of indirect (excise) taxes and types of indirect taxes flat/specific tax and ad valorem tax.
- distinguish between types of indirect tax: specific/flat and ad valorem tax
- learn to evaluate the impact of indirect tax on stakeholders' consumers, producers, government

COURSE OUTLINE:**UNIT I: CANONS OF TAXATION – INDIRECT TAXES****12 hrs.**

Introduction – Special features of indirect tax levies – contribution to Government revenues – Constitutional provisions authorizing the levy and collection of duties of central excise, customs and central sales tax.

UNIT II: CENTRAL EXCISE ACT 1944**12 hrs.**

Basis of chargeability of duties of central excise – goods, manufacture, classification and valuation of excisable goods – Procedures – Demands and Penalties, Appeals, Rules of Classification – Cenvat Scheme and cenvat credit rules 2004 – Procedural aspects of Cenvat – Cenvat for service provider and manufacturer – Highlights of Cenvat Scheme.

UNIT III: VALUE ADDED TAX (VAT)**12 hrs.**

Introduction, definitions, salient features of Sate VAT Act – Treatment of stock & branch transfer under State VAT Act – Filing of return under State VAT Act – Accounting & Auditing VAT.

UNIT IV: SERVICE TAX**12 hrs.**

Introduction – Nature of Service Tax – Registration procedure – Valuation of Taxable Services – Important Issues under Service Tax Provisions – E-payment of Service Tax, Payment of service Tax>Returns of Service Tax – Self Adjustment of Excess Tax Paid – Special Audit, Return, Penalties – Adjudication & Appeals – Other aspects of Service Tax.

UNIT V: CUSTOMS LAWS**12 hrs.**

Basic concepts of Customs Law –Types of customs duties – Anti-Dumping Duty, Safeguard Duty – Valuation – Customs Procedures – Import and Export Procedures – Baggage – Exemptions – Warehousing – Demurrage – Project Import and Re-imports –Drawback , Other provisions in Customs, Project Imports, Offences, Power and Penalties under Custom.

TEXT BOOK:

Arvind Dubey., *Indirect tax laws (a student's guide) Excise lexisnexis: Customs,Service tax and VAT*, November 2014 print

REFERENCE BOOK(S):

Datey V.S. *Indirect Taxation*. New Delhi: Taxmann Publications (P) Ltd.

Reddy N. *Indirect Taxation*. Chennai: Margham Publishers

Institute of Company Secretaries of India, *Indirect Tax Laws*, Study Material.

B.COM. HONOURS – SELF-FINANCED**COURSE PROFILE 2015 Batch**

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|--------------|--|-----------|-----------|-----------|
| III | COH3401CM | MARKETING MANAGEMENT | 5 | 4 | AW 2015 |
| | COH3402CM | BANKING LAW AND PRACTICE | 4 | 4 | AW 2015 |
| | COH3403CM | FINANCIAL MANAGEMENT | 4 | 4 | AW 2015 |
| | COH3404CM | COMPANY LAW | 5 | 4 | AW 2015 |
| | COH3405CM | SPECIAL ACCOUNTS AND INDIAN ACCOUNTING STANDARDS | 5 | 4 | |
| | COH3401AA | BUSINESS STATISTICS | 4 | 4 | AW 2015 |
| | ELECTIVE | NON-MAJOR ELECTIVE | 2 | 2 | |
| | VBC0102FV / | CIVIC EDUCATION / | 1 | 1 | AV 2014 |
| | VBC0103FV | FAMILY LIFE EDUCATION | | | |
| | COH0201TC | INDUSTRIAL TRAINING – I * | - | 2 | |
| | | SELF-LEARNING COURSE | - | 4 | |
| | | VOCATIONAL COURSE | - | 2 | |
| | | CERTIFICATE COURSE IN TALLY ERP 9 | - | - | |
| | TOTAL | | 30 | 35 | |

* Evaluation is based on one week's observation on "Shadowing the CEO" during Sem. I (November) and 15 days MSME training on "Company Profiling" during Sem. II (Summer – May)

| | | | | | |
|-----------|-------------------------|---|-----------|---|---------------------------------------|
| IV | COH4401CM | HUMAN RESOURCE MANAGEMENT | 4 | 4 | AW2015 |
| | COH4402CM | RESEARCH METHODOLOGY | 4 | 4 | AW2015 |
| | COH4403CM | AUDITING AND ASSURANCE | 4 | 4 | AW2015 |
| | COH4404CM | COMMERCIAL LAW | 5 | 4 | AW2015 |
| | COH4406CM | ADVANCED COST ACCOUNTING # | 5 | 4 | AW2015 as COH4501CM |
| | COH4405CM | COMPANY ACCOUNTS | 4 | 4 | AW2015 as COH3501CM |
| | ELECTIVE | NON-MAJOR ELECTIVE | 2 | 2 | |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | ONLINE COURSE / FOREIGN LANGUAGE / INDIAN LANGUAGE (HINDI) /CERTIFICATE COURSE IN IFRS / NISM | - | - | |
| | | CERTIFICATE COURSE IN EMPLOYABILITY SKILLS | - | - | |
| | TOTAL | 30 | 32 | | |

Only credits are changed, content remains the same

COH3405CM SPECIAL ACCOUNTS AND INDIAN ACCOUNTING STANDARDS

(Theory)

LEARNING OUTCOME:

5 hrs./ wk.

On successful completion of the course, the student will be able to

- know the different Accounting standards and their application
- prepare accounts for banks and insurance company
- solve problems relating to partnership firm

COURSE OUTLINE:

UNIT I: PARTNERSHIP ACCOUNTS

15 hrs.

Introduction – Fixed and Fluctuating capitals – Valuation of goodwill – Sacrificing and gaining ratio – Admission, Retirement and death of a partner

UNIT II: BANK ACCOUNTS

15 hrs.

Introduction – Legal requirements – Guidelines of RBI for Profit and Loss a/c and Balance Sheet – Preparation of Profit and Loss a/c and Balance Sheet – Classification of Bank advances

UNIT III: INSURANCE COMPANY ACCOUNTS

15 hrs.

Introduction – IRDA Regulations – Accounts of Life Insurance – Statutory Books – Computation of liability and profit – Treatment of profit – Preparation of Final accounts – Accounts of General Insurance – Preparation of final accounts

UNIT IV: INDIAN ACCOUNTING STANDARDS (IND AS) - I

15 hrs.

Introduction to International Accounting Standards & IFRS-Framework for the preparation and presentation of financial Introduction statements in accordance with Indian Accounting Standards –

First time adoption of Indian Accounting Standards (Ind As 101) Business Combinations (Ind As 103) – Presentation of financial statement (Ind As 1) – statement of cash flows (Ind As 7)

UNIT V: INDIAN ACCOUNTING STANDARDS (IND AS) - II

15 hrs.

Accounting policies, changes in accounting estimates and errors (Ind As 8) – Events after the reporting period (Ind As 10) – property, plant and equipment (Ind As 16) – Borrowing costs (Ind As 23)

TEXT BOOK

Jain.S.P and Narang, K.L. *Advanced Accountancy*, Kalyani Publishers, Volume I, 2015. Print.

REFERENCE BOOKS

Gupta, R.L and Radhasamy M. *Advanced Accountancy*, Sultan Chand & Sons, Volume I, 2015. Print.

Maheswari, S.N. *Advanced Accountancy*, Vikas Publishing, Volume I, 10th Edition. Print.

B.COM. HONOURS – SELF-FINANCED

COURSE PROFILE

From 2016 batch onwards

| Sem. | Course Code | Course Title | Hrs./ Wk. | Credits | Passed in |
|--|--------------------------|---|-----------|-----------|-------------------------|
| I | PART I | TAMIL/HINDI/FRENCH | 6 | 3/4 | AV 2014 |
| | PART II | ENGLISH | 6 | 3/4 | AV 2014 |
| | COH1401CM | BUSINESS COMMUNICATION * | 5 | 4 | AV 2014 as COH1501CM |
| | COH1402CM | FINANCIAL ACCOUNTING – I * | 6 | 4 | AV 2014 as COH1502CM |
| | COH1401AA | BUSINESS ECONOMICS | 5 | 4 | AW 2015 |
| | VBC1001FV | HEALTHY TRANSITION FROM ADOLESCENCE TO ADULTHOOD | 2 | - | AU 2013 |
| | | TOTAL | 30 | 18 | |
| *only credits are changed, content remains the same | | | | | |
| II | PART I | TAMIL/HINDI/FRENCH | 6 | 3/4 | AV 2014 |
| | PART II | ENGLISH | 6 | 3/4 | AV 2014 |
| | COH2401CM | PRINCIPLES OF MANAGEMENT | 5 | 4 | AV 2014 |
| | COH2402CM | FINANCIAL ACCOUNTING – II ** | 5 | 4 | AV 2014 as COH2502CM |
| | COH2402AA | BUSINESS MATHEMATICS | 5 | 4 | AW 2015 |
| | | ENVIRONMENT ELECTIVES | 2 | 2 | AU 2013 |
| | VBC0102FV / VBC0103FV | CIVIC EDUCATION / FAMILY LIFE EDUCATION | 1 | 1 | AV 2014 |
| | | SELF-LEARNING COURSE | - | 4 | |
| | Total | 30 | 25 | | |
| **only credits are changed, content remains the same | | | | | |

| Sem. | Course Code | Course Title | Hrs./ Wk. | Credits | Passed in |
|---|--------------------------------------|--|-------------------------------|--------------------|--|
| III | COH3401CM | MARKETING MANAGEMENT | 5 | 4 | AW 2015 |
| | COH3402CM | BANKING LAW AND PRACTICE | 4 | 4 | AW 2015 |
| | COH3403CM | FINANCIAL MANAGEMENT | 4 | 4 | AW 2015 |
| | COH3404CM | COMPANY LAW | 5 | 4 | AW 2015 |
| | COH3405CM | SPECIAL ACCOUNTS AND INDIAN ACCOUNTING STANDARDS | 5 | 4 | |
| | COH3401AA | BUSINESS STATISTICS | 4 | 4 | AW 2015 |
| | ELECTIVE | NON-MAJOR ELECTIVE | 2 | 2 | |
| | VBC0102FV / VBC0103FV | CIVIC EDUCATION / FAMILY LIFE EDUCATION | 1 | 1 | AV 2013 |
| | COH0201TC | INDUSTRIAL TRAINING – I # | - | 2 | |
| | | SELF-LEARNING COURSE | | 4 | |
| | | VOCATIONAL COURSE | - | 2 | |
| | | Total | | 30 | 35 |
| #COH0201TC INDUSTRIAL TRAINING – I | | | | | |
| | “Shadowing the CEO” | One week in November | Based on a week’s observation | 2016 batch onwards | Evaluation done in Sem. I (Nov.) is recorded in COH0201TC Industrial Training – I in Semester III |
| | MSME training on “Company Profiling” | 15 days in May | Based on 15 days’ observation | 2016 batch onwards | Evaluation done in Sem. II (May) is recorded in COH0201TC Industrial Training – I in Semester III |

| Sem. | Course Code | Course Title | Hrs./ Wk. | Credits | Passed in |
|---|--------------------------|---|-----------|-----------|--|
| IV | COH4401CM | HUMAN RESOURCE MANAGEMENT | 4 | 4 | AW 2015 |
| | COH4402CM | RESEARCH METHODOLOGY | 4 | 4 | AW 2015 |
| | COH4403CM | AUDITING AND ASSURANCE | 4 | 4 | AW 2015 |
| | COH4404CM | COMMERCIAL LAW | 5 | 4 | AW 2015 |
| | COH4406CM | ADVANCED COST ACCOUNTING ## | 5 | 4 | AW 2015 as COH4501CM |
| | COH4405CM | COMPANY ACCOUNTS | 4 | 4 | AW 2015 as COH3501CM |
| | ELECTIVE | NON-MAJOR ELECTIVE | 2 | 2 | |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | | Total | 30 | 28 | |
| ##only credits are changed, content remains the same | | | | | |
| V | COH5401CM | CORPORATE GOVERNANCE | 4 | 4 | |
| | COH5402CM | ENTREPRENEURSHIP DEVELOPMENT | 4 | 4 | |
| | COH5401CM | DIRECT TAXES | 5 | 4 | |
| | COH5502CM | ACCOUNTING FOR DECISION MAKING | 5 | 5 | |
| | COH5503CM | SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT | 5 | 5 | |
| | COH5504CM | INTERNATIONAL BUSINESS | 5 | 5 | |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | COH0402TC | INDUSTRIAL TRAINING – II \$ | - | 4 | |
| | COH5401MP | MINI PROJECT | - | 4 | |
| | Total | 30 | 37 | | |
| \$ Evaluation for COH0402TC INDUSTRIAL TRAINING – II is based on one month training attended during Summer which follows Sem. IV | | | | | |
| VI | COH6401CM | INFORMATION SYSTEMS FOR MANAGEMENT | 4 | 4 | |
| | COH6402CM | INDIRECT TAXES | 4 | 4 | |
| | COH6601TC | INTERNSHIP \$\$ | - | 6 | |
| | Total | | 14 | | |
| \$\$ Evaluation based on the performance of the students during her 3 month Intensive Internship in Industries from Jan. – March. | | | | | |

Total number of credits for 2016 batch (semesters I to VI) = 165

MANDATORY COURSES

| Sem. | Course | Period (Outside class hours) | Evaluation | Applicable | Course code / Title / Sem. |
|------|--|---------------------------------------|--|--------------------|-------------------------------------|
| II | • Certificate Course in Fundamentals of Information Technology | 60 Hrs. | Based on the norms prescribed by the agency offering the programme | 2016 batch onwards | - |
| | • Certificate Course in Soft Skills | 30 Hrs. | | | |
| III | Certificate Course in TALLY ERP 9 | 40 Hrs. | | | |
| IV | • Online Course / Foreign Language / Indian Language (Hindi) / Certificate Course In IFRS / NISM | 30 Hrs. | | | |
| | • Certificate Course In Employability Skills | 30 Hrs. | | | |

CERTIFICATE COURSE IN FUNDAMENTALS OF INFORMATION TECHNOLOGY

(Theory)

LEARNING OUTCOME :

4 Hrs./Wk.

On successful completion of the course, the student will be able to

- identify the parts of computer
- understand the Operating System concepts
- appraise how database is manipulated and transactional management

UNIT-I : COMPUTER FUNDAMENTALS

12 hrs

Introduction to Computers – Generations of Computer, Physical Components of Computer – Computer software – Flow Charts and Decision Tables. Peripheral Devices - Input devices – keyboard, mouse, scanner – Output devices – monitor – VDU, LCD, CRT –Printers – Commonly used printers.

UNIT -II:OPERATING SYSTEM

12hrs

Introduction to Operating system – Functions of O/S, Batch operating system, time-sharing Operating System – Distributed OS – Network Operating System – Real-time O/S – Open source Operating System. Program Language -Translators – Assembler, Compiler, Interpreter – Computer Languages– Machine language, Assembly language, High level language.

UNIT-III: DATABASE MANAGEMENT SYSTEMS

12 hrs

Introduction and purpose of Database Systems, Database language, Transaction Management, Storage Management, Database Administrator, Database Users.

UNIT IV: E-COMMERCE

12 hrs

Nature, types (B2B, B2C, C2C), merits and demerits, Electronic Data Interchange (EDI), Electronic Fund Transfers (EFT), payment portal.

UNIT V: COMPUTER NETWORKS

12hrs

Introduction to computer networks – Classification of Computer – LAN – MAN – WAN –Topology – Bus – Star – Ring – Transmission media – OSI Layer – Protocol concept

NETWORK SECURITY-Information security and Integrity – Cryptography-Private Key – Public Key
 – Bio-metric – Digital signature

TEXT BOOK(S)

Leon, Alexis and Mathews Leon, *Fundamentals of Information Technology*, New Delhi: Vikas Publishing House Pvt. Ltd., Second Edition, 2009. Print..

REFERENCE BOOK(S)

AviSilberschatz, Henry F. Korth Sudarshan S., *Database System Concepts*, New Delhi: Fifth Edition, Tata McGraw-Hill Higher Education, 2011. Print.

Leon, Alexis, Mathews Leon and Michael Miller *Introduction to Computers*, Chennai: Leon Press, 2010. Print.

Introduction to Computer Fundamentals, 2nd Edition, Victoria, Bc Canada, Trafford Publishing, 2006.Print.

Rayudu, C.S., *e-Commerce and e-Business*, Mumbai: Himalaya Publishing House, 2011. Print.

M.Com. – SELF-FINANCED Course Profile

From 2015 onwards

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|---|-------------|--|--------------|------------|------------------------|
| III | PGC3522M | SPECIAL ACCOUNTS | 6 | 5 | AW 2015 |
| | PGC3523M | INTERNATIONAL MARKETING | 6 | 5 | AW 2015 |
| | PGC3524M | INVESTMENT MANAGEMENT AND SECURITY ANALYSIS | 6 | 5 | AW 2015 |
| | PGC3524O | MARKETING RESEARCH | 5 | 5 | AW 2015 as PGC4523O |
| | | ELECTIVE | 4 | 4 | |
| | | PROJECT | 1 | - | |
| | | LIBRARY | 2 | | |
| | | | Total | 30 | 24 |
| IV | PGC4522M | STRATEGIC MANAGEMENT | 6 | 5 | AW 2015 |
| | PGC4523M | ACCOUNTING FOR DECISION MAKING | 6 | 5 | AW 2015 |
| | PGC4524M | INTERNATIONAL BUSINESS | 6 | 5 | AW 2015 |
| | PGC 4524O | COST ACCOUNTING | 5 | 5 | AW 2015 as PGC3523O |
| | PGC4323P | SOFTWARE PACKAGES IN ACCOUNTING | 5 | 3 | AW 2015 |
| | PGC4622M | PROJECT | - | 6 | |
| | | LIBRARY | 2 | | |
| | | | Total | 30 | 29 |
| TOTAL NUMBER OF CREDITS FOR 2015 BATCH | | | | 105 | |

PG ELECTIVE COURSES

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|-------------|-------------------------------|-----------|---------|-----------|
| II | PGC2423E | INTRODUCTION TO TAXATION | 4 | 4 | |
| II | PGC2424E | MARKETING FOR HEALTH SERVICES | 4 | 4 | |
| III | PGC3425E | MODERN MARKETING PRACTICES | 4 | 4 | |
| III | PGC3426E | ENVIRONMENTAL ACCOUNTING | 4 | 4 | |

PG SELF-LEARNING COURSES

| Course Code | Course Title | Credits | Passed in |
|-------------|-----------------------------------|---------|-----------|
| PGC0425D | VENTURE PLANNING | 4 | |
| PGC0426D | PERSONAL SELLING AND SALESMANSHIP | 4 | |

PGC2423E INTRODUCTION TO TAXATION

(Theory)

LEARNING OUTCOME

4 hrs./wk.

On successful completion of the course the student will be able to

- describe the basic principles and concepts of taxes
- be familiar with the direct taxes and indirect taxes
- acquire skill in preparation of tax statements

COURSE OUTLINE:

UNIT I: INTRODUCTION TO TAXATION

15 hrs.

Classification of taxes direct taxes – indirect taxes- Introduction to excise duty – Customs duty – Central sales tax & VAT – Constitutional aspects – Basic concepts relating to levy – Taxable event & related provisions.

UNIT II: BASIC CONCEPTS OF INCOME TAX

12 hrs.

Assessee - previous year Assessment year - income - Different Types of Expenditure - Revenue, Capital - Receipts - capital, Revenues - Exempted incomes U/S 16.

UNIT III: DIFFERENT HEADS OF INCOME

14 hrs.

Salary - House property - Profits & gains of business or profession - capital Gains - Other sources.

UNIT IV: SET OFF AND CARRY FORWARD OF LOSSES

5 hrs.

Set off and carry forward-Advance payment of taxes-Income tax authorities and Tax collected at source.

UNIT V: COMPUTATION OF TAX LIABILITY

14 hrs.

Deductions from Gross Total income under sections 80C to 80 U – Computation of Total income – Tax and Liability

TEXT BOOK:

Singhania, Vinod K. and Monica Singhania. *Students' Guide to Income Tax*. New Delhi: Taxmann Publications (P) Ltd., 2013. Print.

REFERENCE BOOK(S):

Reddy & Murthy's. *Income Tax-Law and Practice, Assessment year 2015-16*"

Bhagavathi Prasad. *Outline of Income Tax*. New Delhi: Sultan Chand and Sons, 2004 Print.

Dinker Pagare. *Direct Taxes with Tax Planning*. New Delhi: S. Chand & Co., Current edition. Print.

Hc Mehrotra and Sp Goyal. *Problems and solutions in Income Tax, 2015-16*, SBPD Publications, Utta Pradesh, India

PGC2424E MARKETING FOR HEALTH SERVICES

(Theory)

LEARNING OUTCOME**4 hrs. / wk.**

On successful completion of the course the student will be able to

- describe the functions and the importance of Hospital Marketing
- analyse the sales promotion techniques used in Hospital Marketing
- illustrate the needs for health insurance

COURSE OUTLINE**UNIT I: HOSPITAL MARKETING****12 hrs.**

Introduction – Definition of a hospital – Nature – Scope – Functions – Classifications – Types of hospital – Distinction between a hospital and an industrial organization – Job opportunities in hospital marketing – Medical transcription service – Infrastructure requirements – Process of medical transcription – Indian scenario.

UNIT II: HOSPITAL SEGMENTATION**12 hrs.**

Introduction – Concept – Need for hospital marketing – Market segmentation for hospital – Market information system for hospitals – Product planning and development – Health camps.

UNIT III: MARKETING MIX**12 hrs.**

Introduction – Marketing mix – Promotion mix – Public relation health services – Techniques of public relation – Tools of sale promotion – Role of media in promotion of health services.

UNIT IV: HEALTH INSURANCE**12 hrs.**

Definition – Need – Type – Settlement of claims – Health tourism – Future of hospital marketing in India.

UNIT V: HOSPITAL ETHICS**12 hrs.**

Introduction – Legal tips for hospital administration – Role of natural justice in hospital administration and the patient and the consumer protection act relating to health services.

TEST BOOK:

Nalini V. Dave. *Hospital Management*. New Delhi: Deep & Deep Publications, 1999. Print.

Sha S.M. *Service Marketing*. New Delhi: Himalaya Publishing House, 2006. Print.

REFERENCE BOOK(S):

Shajahan S. *Service Marketing*. New Delhi: Himalaya Publishing House, 2006. Print.

Gupta S.C and Ratha V.V. *Marketing of Services*. New Delhi: Wisdom Publications, 2005. Print.

PGC3425E MODERN MARKETING PRACTICES
(Theory)

LEARNING OUTCOME

4 hrs. / wk.

On successful completion of the course the student will be able to

- identify the recent trends in marketing
- describe the process of planning and development of a product
- demonstrate the art of successful selling
- design a sample advertising copy
- analyse the recent trends in marketing

COURSE OUTLINE

UNIT I: BASIC MARKETING CONCEPTS

12 hrs.

Marketing Concepts – Approaches to Marketing – Marketing Process – Functions of Marketing – Marketing Planning – Nature, Process and Contents of Marketing Plan – The changing marketing environment – Trends in Micro and Macro Environment – Market segmentation – Market Targeting and positioning strategies – Market Evaluation and Controls – Marketing Audit – Marketing Ethics.

UNIT II: RETAIL MARKETING

12 hrs.

Introduction – Meaning – Definition – Nature – Importance and Scope of Retailing – Growth – Size and Emerging Trends in Retailing Retail Scenario in India – Special characteristics – Retailing as a Career – Retailer's Classification on the basis of form of Ownership – Retail Formats – Use of Technology in Retailing – e-retailing – major benefits of e-Retailing to Consumers and Retailers – Challenges of e-retailing and Future of e-retailing in India – Multi channel Retailing.

UNIT III: DIRECT & WEB BASED MARKETING

12 hrs.

Direct marketing vis-à-vis on-line marketing – major channels of direct marketing – marketing in 21st century – direct marketing – web based marketing – on-line marketing –advantages and disadvantages – Emerging Issues in Marketing: Green Marketing – Sports marketing and Social Marketing

UNIT IV: SERVICES MARKETING

12 hrs.

Nature & Scope – Concept of services – importance – Goods & Services marketing –Emergence & Reasons for growth of service sector in India – Characteristics of services – Classifications of services – Environment of Service Marketing (Micro as well as Macro).

UNIT V: RURAL MARKETING

12 hrs.

Concept & scope of rural market – rural development as a core area – Characteristics of Rural markets – Environmental factors – Rural Consumer Behaviour – Rural Consumer vs Urban Consumers – a comparison – Relevance of Marketing mix for Rural market / Consumers – Problems in rural market.

TEXT BOOK

Ramasamy, V. S. and Namakkumari. *Marketing Management*. Bangalore: Mac Millan India Ltd., 2011. Print.

REFERENCE BOOK(S)

Philip, Kotler. *Marketing Management*. 10th Edition. New Delhi: Prentice Hall, 2011. Print.

Sherlekar, S. A. *Marketing Management*. 14th Edition. Mumbai: Himalaya Publishing House, 2010. Print.

Memoria, C.B. and Joshi. *Marketing Management*. New Delhi: Kitab Mahal, 2010. Print.

PGC3426E ENVIRONMENTAL ACCOUNTING

(Theory)

LEARNING OUTCOME:

4 hrs./wk.

On successful completion of the course the student will be able to

- describe the concepts of Environmental accounting and its advantages.
- identify the economic values and social responsibilities
- develop the skills in application of environmental accounting.

COURSE OUTLINE:

UNIT I: ENVIRONMENTAL ACCOUNTING

8 hrs.

Introduction – Definition of Environmental accounting – Need for environment accounting in Corporate level – Scope – Forms of Environment accounting – Advantages – Elements of Environment accounting.

UNIT II: ECONOMIC INCOME CONCEPT

12 hrs.

Meaning of Business Income – Difference between the accounting concept and Economic income concept – Need for EVA – Calculation of Eva – Advantages and Drawbacks.

UNIT III: VALUE ADDED CONCEPT

15 hrs.

Introduction – Meaning and concept of VAS – Advantages – Distinction between value added and EVA – Uses of Value added – Classification of value added – Calculation of the amount of value added in Business – Preparation of value added statement.

UNIT IV: GREEN ACCOUNTING

10 hrs.

Introduction – Need for adoption of green accounting – Benefits of green accounting and its Limitations – Laws related to Green Accounting – Green Accounting in India.

UNIT V: SOCIAL ACCOUNTING

15 hrs.

Social responsibilities of Business – Meaning of social accounting – Approaches to Social accounting – Measurement of Social Cost Benefit – Social Balance sheet – Practical problems.

TEXT BOOK

Jain S.P.and K.L. Narang. *Advanced Accountancy - Corporate Accounting*, Vol-II, New Delhi: Kalyani Publishers, 12th Edition, 2014. Print.

REFERENCE BOOK(S)

Gupta R.L. *Advanced Accountancy Vol-II*. New Delhi: Sultan Chand & Sons, 13th Edition, 2013. Print.

Reddy, T.S. and A. Murthy. *Corporate Accounting –II*. Chennai: Margham Publications, 1999. Print.

PGC0425D VENTURE PLANNING

(Theory)

LEARNING OUTCOME:

On successful completion of the course the student will be able to

- design New Venture
- explain the methods to initiate venture
- locate the legal challenges in setting up Business
- describe Business Plan preparation.

COURSE OUTLINE:

UNIT I: STARTING NEW VENTURES

Opportunity Identification – Source of Innovative Ideas – Techniques of generating ideas – Entrepreneurial imagination and Creativity – The Role of Creative thinking

UNIT II: METHODS TO INITIATE VENTURES

The Pathways to New ventures for Entrepreneurs – Creating New Ventures – Acquiring an Established Venture: Advantages of acquiring on Ongoing venture – Examination of Key issues – Franchising Law – Evaluating Franchising Opportunities.

UNIT III: BASICS ON INTELLECTUAL PROPERTY RIGHTS (IPR)

Intellectual Property Protection – Patents – Trademarks and Copyrights – Requirements.

UNIT IV: SEARCH FOR ENTREPRENEURIAL CAPITAL

The Venture Capital Market – Criteria for Evaluating New Venture Proposals – Financing stages – Alternate Sources of Financing for Indian Entrepreneurs – Bank Funding – Government Policy Packages – State Financial Corporations (SFCs) – Business Incubators – Informal Risk Capital – Angel Investors – MSME and its role in testing.

UNIT V: BUSINESS PLAN PREPARATION FOR NEW VENTURES

Business Plan – Concept – Pitfalls to Avoid in Business Plan – Benefits for a Business Plan – Developing a Well-conceived Business Plan – Elements of a Business Plan –Executive – Business Description – Marketing – Market share – Research Design and Development – Operations – Management – Finances – Critical – Risk – Harvest Strategy – Milestone Strategy.

REFERENCE BOOKS:

- Rao T.V. and Kuratko. *Entrepreneurship: A South -Asian Perspective*. Cengage Learning.
- Robert, H. M., Manimala, M. Peters, and D. Shepherd. *Entrepreneurship*. India: Tata McGraw Hill.
- Ramachandran, K. *Entrepreneurship Development*. India: Tata McGraw Hill.
- Kumar, Arya. *Entrepreneurship: Creating and Leading an Entrepreneurial Organization*, India: Pearson.
- Holt, David H. *Entrepreneurship: New Venture Creation*, PHI Learning.
- Nickels, William G; McHugh, James M, and Susan M McHugh. *Understanding Business*, Tata McGraw Hill.

PGC0426D PERSONAL SELLING AND SALESMANSHIP

(Theory)

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- describe nature and objectives of Business
- demonstrate the theories of Selling
- appraise the procedure of Buying Motives
- illustrate selling Process and Sales Planning

COURSE OUTLINE:

UNIT I: INTRODUCTION TO PERSONAL SELLING

Nature and importance of personal selling – Difference between Personal Selling – Salesmanship and Sales – Management – Myths of selling – Relationship Marketing and Role of Personal Selling

- Characteristics of a good salesman – Types of selling situations – Types of salespersons – Career opportunities in selling – Measures for making selling an attractive career.

UNIT II: THEORIES OF SELLING

Traditional and Modern: AIDAS Model of Selling – Problem Solving Approach – Right Set of Circumstances Theory and Modern Sales Approaches.

UNIT III: BUYING MOTIVES

Concept of motivation – Maslow’s theory of need hierarchy – Dynamic nature of motivation – Buying motives and their uses in personal selling

UNIT IV: SELLING PROCESS

Prospecting and qualifying – Pre-approach; Approach – Presentation and demonstration – handling of objections and complaints – Closing the sale – techniques for closing the sale – Customer Relations – Follow up and Dealing customer concerns and complaints.

UNIT V: SALES PLANNING AND CONTROL

Sales Forecasting – Sales Budget – Sales Territories – Sales quota – Ethical aspects of Selling.

REFERENCE BOOKS:

- Spiro, Stanton, Rich. *Management of the Sales force*. McGraw Hill., Noida,1999, Uttar Pradesh, India
 Richard R. Still; Edward W. Cundiff; Norman A. P. Govoni. *Sales Management: Decision Strategies and Cases*. New Delhi: Prentice Hall of India Ltd.,1988. Print.
 Johnson, Kurtz and Schueing. *Sales Management*. India: McGraw Hill, 2005, Print.
 Barton A. Weitz., *Selling: Principles and Methods*. New Delhi: Prentice Hall of India Ltd., 1999. Print.

DEPARTMENT OF BUSINESS ADMINISTRATION

PREAMBLE

The Department of Business Administration has revised the Undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and content for semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 & 2015 respectively. The department is now presenting the same for semesters V and VI.

COURSE PROFILE

| Sem. | Course Code | Course Title | Hrs./wk. | Credit | Passed in |
|------|-----------------------|---|-----------|-----------|----------------------------------|
| V | BAE5205CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | BAE5401CM | FINANCIAL MANAGEMENT | 4 | 4 | AW 2015 |
| | BAE5404CM | MANAGEMENT INFORMATION SYSTEM | 4 | 4 | AW 2015 |
| | BAE5502CM | OPERATIONS MANAGEMENT | 5 | 5 | AW 2015 |
| | BAE5405CM | ENTREPRENEURSHIP DEVELOPMENT AND SMALL SCALE BUSINESS | 5 | 4 | |
| | BAE0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | | TOTAL | 30 | 25 | |

| Sem. | Course Code | Course Title | Hrs./wk. | Credit | Passed in |
|------|-------------|------------------------------|-----------|-----------|----------------------|
| VI | BAE6401CM | BANKING AND INSURANCE | 5 | 4 | AW 2015 as BAE6502CM |
| | BAE6402CM | ADVERTISING AND SALESMANSHIP | 5 | 4 | AW 2015 as BAE6503CM |
| | BAE6504CM | RETAIL MANAGEMENT | 5 | 5 | AW 2015 |
| | BAE6505CM | HOSPITALITY MANAGEMENT | 6 | 5 | |
| | | INTERDISCIPLINARY COURSE | 4 | 4 | AW 2015 |
| | BAE0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | TOTAL | 30 | 28 | AW 2015 |

Total credits for 2014 batch from semester I to VI = 155

Mandatory requirement for completion of BBA Degree

Outside Class Hours

| Sem. | Course Title | Total Hours | Applicable for | Period | Audited |
|------|---|-------------|--------------------|--------|---------|
| II | INDUSTRIAL TRAINING – General Administration | 30 | 2015 batch onwards | Summer | |
| IV | INDUSTRIAL TRAINING – Specialized Functional Area | 60 | 2014 batch onwards | Summer | |

RULES

- Students must produce certificate authorized by the training partners and attendance sheet to be maintained as evidence for completion
- Students cannot undergo training in a firm owned by their family or relatives

BAE5405CM ENTREPRENEURSHIP DEVELOPMENT AND SMALL SCALE BUSINESS (Theory)

LEARNING OUTCOME:

5 hrs. / wk.

On completion of the course, the student will be able to

- classify entrepreneurs on various basis
- develop business plans and prepare project reports
- criticize the problem areas of small business management in India
- analyse the areas of opportunities for women in small business

COURSE CONTENT

UNIT-I: SMALL BUSINESS AND ENTREPRENEURSHIP

12 hrs.

A. Small Business – conceptual definition – significance – growth and development – problems in small enterprise

B. Entrepreneurship – role of entrepreneurship in economic development – factors affecting entrepreneurial growth – economic, non-economic and government – entrepreneur – definition – qualities – types – difference between an entrepreneur and a manager

UNIT-II: PLANNING FOR SMALL BUSINESS**18 hrs.**

Project planning – market survey – appraisal and feasibility study – business models –value propositions – customer channel – revenue stream – key partner – key resource – preparation of project report – legal formalities in starting a new venture – location and site factors

UNIT-III: FINANCE AND GOVERNMENT ASSISTANCE**15hrs.**

Credit delivery and Government assistance – finance – sources of finance – private bank and other institutional finance – angel funding – venture capital – start up eco system – government policies – micro, small and medium enterprises development Act 2006 (MS MED–2006), DIC, SISI, SIDCO, SIPCOT, TIIC – monetary and non monetary incentives – industrial policy initiative industrial estates – training programmes

UNIT-IV: CONSIDERATIONS INVOLVED IN MANAGEMENT OF SMALL BUSINESS**15 hrs.**

Considerations involved in management of small business – business plan – profit planning – growth strategy and diversification, advertising and promotions – working capital – management– personnel management – marketing of small scale industrial products – crisis areas for small business – success and failure factors – Industrial sickness – signals and symptoms – causes and consequences – corrective measure

UNIT V: EMERGING SECTORS IN ENTREPRENEURSHIP**15 hrs.**

A. Emerging sectors – information technology, services industry, hospitality industry (hotel and tourism), food processing, biotechnology

B. Women entrepreneurs – areas of opportunities for women – women entrepreneur – functions – growth – problems – women entrepreneur cum skill development programme (wesdp) – case histories of successful women entrepreneurs

TEXT BOOK(S):

Desai, Vasant. *Fundamentals of Entrepreneurship and Small Business Management*. New Delhi: Himalaya Publishing, 2011. Print.

Khanka, S. S. *Entrepreneurial Development*. New Delhi: S. Chand, 2007. Print.

REFERENCE BOOK(S):

Gupta, C. B. and N. P. Srinivasan. *Entrepreneurial development*, Sultan Chand and Sons, New Delhi. 2013. Print.

Paul, Jose. N. Ajit Kumar and Paul T. Mampilly. *Entrepreneurial Development*. Mumbai: Himalaya Publishing House. 2011. Print.

Desai, Vasant. *Dynamics of Entrepreneurial development and management*. Mumbai: Himalaya Publishing House. 2003. Print.

Banga, T. R. *Project Planning and Entrepreneurial Development*. Mumbai: Himalaya Publishing House. 2004. Print.

Memon, K. K. *Hand book for Small Industries Management*. New Delhi: Sultan Chand & Co. 2000. Print.

e – REFERENCES

<http://www.freebookcentre.net/Business/Entrepreneurship-Books.html>

http://thetechpanda.com/2013/01/04/10-free-books-on-entrepreneurship-and-business/?utm_source=rss&utm_medium=rss&utm_campaign=10-free-books-on-entrepreneurship-and-business

<http://despreneur.com/top-15-free-ebooks-for-entrepreneurs/>

<https://www.salesforce.com/blog/2013/05/small-business-advice-from-3-successful-entrepreneurs.html>

<http://www.niesbud.nic.in/>

http://niesbud.nic.in/inhouse_Entrepreneurship_Development_Programme.htm

<http://www.nyda.gov.za/Entrepreneurship-Development-Programme/Pages/default.aspx>

<http://msme.gov.in/WriteReadData/DocumentFile/EDP.pdf>

<http://www.ediindia.org/>

BAE6505CM HOSPITALITY MANAGEMENT

LEARNING OUTCOME:

6 hrs. / wk.

On completion of the course, the student will be able to

- describe the importance of customer service
- explain the role of tourism
- comprehend the functions of various hotel departments
- demonstrate skills for event management

COURSE CONTENT

UNIT I: HOSPITALITY PRODUCTS AND SERVICES

15 hrs.

Definition – differences between services & physical products – characteristics of services – importance of customer service – before, during and after sales services – customer service and organization – customer service and technology

UNIT II: MANAGEMENT OF TOURISM SERVICES

20 hrs.

Definition– categories of tourist statistics – evolution – role of tourism – travel planning – travel motivators – basic components – elements of tourism – tourism infrastructure – role of state in tourism – marketing of tourism – special features – tourism marketing mix – role of tour operators & travel agents – international tourism organization – World Tourism Organization

UNIT III: MANAGEMENT OF HOTEL SERVICES

25 hrs.

Origin of hotel industry – types of hotels – accommodations – room service – departments – front office – functions – role of front office personnel – qualities of front office personnel – lobby – housekeeping: definition – functions – duties of an executive housekeeper – food & beverage – restaurant – basic etiquette for restaurant staff– food service – beverage service – back office – cashier – sales and marketing team – night auditor

UNIT IV: MANAGEMENT OF EVENTS

15 hrs.

Definition and importance of event management – various type of events – role and responsibilities of an event manager – public relations in organizing event – public relations tools and techniques

UNIT V: FUTURE TRENDS IN HOSPITALITY INDUSTRY

15 hrs.

Introduction – future tourism and travel trends – profile of future generation – web marketing – elements – modern techniques – networking – tracking – GPS – medical tourism – travel blog rating – eco tourism – space tourism – sports tourism – sports travel – virtual tourism – home states – tourism circuits – space hotels – hydropholis – pod hotels – OYO services – Global Distribution System – importance of computer technology today

TEXT BOOK(S):

Andrews, Sudhir. *Introduction to Tourism and Hospitality Industry*. Tata McGraw Hill New Delhi: Publishing Co. Ltd., 2007. Print.

REFERENCE BOOK(S):

Andrews, Sudhir. *Front Office Management*. New Delhi: Tata McGraw Hill Publishing Co: Ltd. 2004. Print.

Bhatia, A.K. *International Tourism Management*. 2nd ed., New Delhi: Sterling Publishers Pvt. Ltd. 2007. Print.

Jha, S.M. *Hospital Management*. New Delhi: Himalaya Publishing House. 2005. Print.

Banike, G.C. *PR & Media Relation*. New Delhi: Jaico Publishing House. 2005. Print.

Cutlip. *Effective Public Relation*. New Delhi: Pearson Education. 2004. Print.

CENTRE FOR ENTREPRENEURSHIP DEVELOPMENT

PREAMBLE

To develop vocational skills of the students and instil the seed of entrepreneurship, the college has offered a few vocational courses in semester III. A few more courses are proposed wherein some of them will be semester long programmes.

VOCATIONAL COURSES (SEMESTER LONG PROGRAMME)

From 2015 batch onwards

| S. No. | Course Code | Course Title |
|---------------|--------------------|--|
| 1. | CHE3201VI | TEXTILE – DYEING AND PRINTING |
| 2. | BOT3202VI | KITCHEN GARDEN AND ORGANIC FOOD PRODUCTS |
| 3. | BOT3203VI | PAPER RECYCLING |
| 4. | CED3232VI | AARI AND ZARDHOSI WORK |
| 5. | CED3233VI | BAKERY AND FOOD PRESERVATION |

VOCATIONAL COURSES (CRASH COURSES)

From 2015 batch onwards

| S. No. | Course Code | Course Title |
|---------------|--------------------|--|
| 1. | CED3220VI | SILK THREAD JEWELLERY DESIGNING |
| 2. | CED3221VI | CANVAS PAINTING |
| 3. | CED3222VI | CERAMIC ART WORK |
| 4. | CED3223VI | TERRACOTTA JEWELLERY MAKING |
| 5. | CED3224VI | KNITTING |
| 6. | CED3225VI | STAINED GLASS PAINTING |
| 7. | CED3226VI | TANJORE PAINTING |
| 8. | CED3227VI | DISH WASH, HAND WASH AND TOILET WASHES |
| 9. | CED3228VI | RIBBON WORK EMBROIDERY |
| 10. | CED3229VI | SILK PAINTING |
| 11. | CED3230VI | PAPER ART AND PAPER QUILLING |
| 12. | CED3231VI | ARTIFICIAL FLOWER MAKING AND ARRANGEMENT |
| 13. | CWS 3201VI | WOMEN – LIGHTS CAMERA ACTION |

CHE3201VI TEXTILE – DYEING AND PRINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- know the pre-treatment methods
- develop the skills in dyeing
- develop skills in printing

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

8 hrs.

Introduction, Pre-treatment – scouring, bleaching – Dyeing: Direct dyes (cotton, jute and synthetic fibers), Natural dyes, Tie and dye – Printing: Batik, Screen (Demonstration)

REFERENCE BOOK(S)

Study material: *Textile Wet Processing*. The Directorate of Technical Education, Tamilnadu.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

BOT3202VI KITCHEN GARDEN AND ORGANIC FOOD PRODUCTS

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- prepare a layout of kitchen garden and set a garden
- produce organic products
- start their own venture

COURSE OUTLINE:

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Kitchen garden – Site selection, site analysis, crop selection, Layout – preparation and maintenance (planting, irrigation, manuring (organic manure / vermi compost / biofertilizer), plant protection) harvesting and marketing – Methods of green manufacture, products of green manufacture – organic farming, eco-friendly green products – Organic products – Food – Fruit and vegetables, Nuts and seeds, Flour and Grains, Herbs – Processed foods – Organic juice, canned goods, frozen vegetables, Organic coffee, and Organic baby food – Terrace Gardening

REFERENCE BOOK(S)

William, D. Adams and Tom LeRoy. *The Southern Kitchen Garden: Vegetables, Fruits, Herbs and Flowers Essential for the Southern Cook*. United States: Taylor Trade Publishing, 2007. Print.

Bird, Richard. *Growing Fruit and Vegetables: the complete practical guide to kitchen gardening, from planning and planting to care and maintenance*. United Kingdom: Hermes House, 2003. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

BOT3203VI PAPER RECYCLING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- adopt the technology of paper recycling
- make stationery and gift articles for various occasions
- create paper jewellery
- start their own ventures

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Rationale for recycling – Role of an individual in prevention of pollution – Paper making as small scale industry – Collection of waste paper – Segregation of waste paper – Quantum assessment of paper waste – Pulping and moulding of paper into value added products – Packaging and marketing of finished paper products – Eco-awareness programme on waste paper management

REFERENCE BOOK(S)

McKinney, R. *Technology of Paper Recycling*. Germany: Springer Netherlands, 2012. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3232VI AARI AND ZARDHOSI WORK

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire basic skill of aari and zardhosi work
- make different types of zardhosi in blouses
- start their own venture

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Padagam (Basic Stitch) – Closed V – *Katta*, V- *Katta* and *Katta* – *Giju/Ambea* – *Salli* and Load – *Jamki* and Sugar Beads – Running Zardhosi – Leaf Zardhosi – *Murruku* Zardhosi – Checked Zardhosi – Tracing and Practical Design

REFERENCE BOOK(S)

Gupta, Charu Smita. *Zardhosi: Glittering Gold Embroidery*. USA: Abhinav Publications, 2009. Print.
Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3233VI BAKERY AND FOOD PRESERVATION

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- understand the basics of baking and sweetmeat making
- bake cakes, cookies and make sweets
- develop techniques for food preservation
- maintain quality control in production, as well as storage

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: PREPARATION OF BAKERY PRODUCTS AND FOOD PRESERVATION

24 hrs.

Tea Cake, Chocolate Cake, Cookies, Sweets and Chocolates, Chocolate Bouquets – Food Preservation – Juices and Syrups – Jam – Pickle and Ready-mix – Safety issues with Do's and Don'ts

REFERENCE BOOK(S)

Kumar, Ashok Yogambal. *Textbook of Bakery and Confectionary*. New Delhi: PHI Learning Publications, 2010. Print.

Kapoor, Sanjeev. *Chocolate*. Mumbai: Popular Prakashan Publications, 2011. Print.

Reejhsinghani, Aroona. *Best of Indian Sweets and Desserts*. Mumbai: Jaico Publishing House, 2001. Print.

Chadwick, Janet. *The Beginner's Guide to Preserving Food at Home*. United States: Storey Publications, 2009. Print.

Rahman, Shafiur. *Handbook of Food Preservation*. 2nd ed. United States: CRC Press, 2007. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3220VI SILK THREAD JEWELLERY DESIGNING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- learn and develop creative and technical skills for jewellery design
- do comprehensive training in silk thread jewellery designing
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government

Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Introduction – thread tying – *jimki* making and finishing – hook drop making – necklace set making and finishing – bangle tying and finishing – mini set

REFERENCE BOOK(S)

Banes, Helen and Sally Banes. *Fiber and Bead Jewelry*. New York: Sterling Publishing. Print.
Ciotti, Bonatella. *Simply Stunning Beaded Jewelry*. New York: Sterling Publishing, 2007. Print.
Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3221VI CANVAS PAINTING

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course, the student will be able to

- learn and develop new ways of thinking , seeing and creating
- build confidence through exercises that help to explore different types of painting techniques.
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Introduction, sketching, 1st coat painting, 2nd coat painting, shading, and finishing, stone fixing, high lightning, outline sketching and finishing

REFERENCE BOOK(S)

Washor, Joyce. *Big Art Small Canvas: Paint Easier, Faster and Better with small oils*. United States: North light books, 2006. Print.
Marine, Carol. *Daily Painting*. United States: Guptill Publishing, 2014. Print.
Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3222VI CERAMIC ART WORK

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course the student will be able to

- prepare board and art on board
- do comprehensive training in ceramic art work.
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government

Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Introduction, board preparation no:1, ceramic dough mixing, art on board no:1, finishing and painting, figure designing trial on clay, figure designing on ceramic, painting and finishing and final touch

REFERENCE BOOK(S)

Peterson, Susan. *Working With Clay*. New York: Laurence King Publishing, 2002. Print.

Dahn, Jo. *New Directions in Ceramics*. New York: Bloomsbury publishing, 2015. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3223VI TERRACOTTA JEWELLERY MAKING

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course the student will be able to

- understand the basic shape designing
- make different kinds of jewellery
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Introduction, basic shape designing, pendent designing, pendent carving, necklace tying, *jimki* designing, necklace painting, *jimki* painting – choice of colour combination in terracotta jewellery designing

REFERENCE BOOK(S)

McGrath, Jinks. *A Complete Course for Beginners*. United Kingdom: Apple Press, 2007. Print.

McGrath, Jinks. *The Complete Jewellery-Maker*. United Kingdom: A & C Black, 2012. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3224VI KNITTING

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course the student will be able to

- acquire the skill of Knit different stitches and patterns
- carry out and run experimental design work in knitting technology
- communicate a design idea to knitwear engineers for implementation
- apply adequate technologies and materials in relation to their own design concept

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Basic Knot Tying – Table Mat Tying – Spoon and Fork Holder Tying – Border Tying – Fixing the Holder – Macaroni Bag Designing

REFERENCE BOOK(S)

Patel, Aneeta. *Knitty Gritty: Knitting for the Absolute Beginner*. New York: Bloomsbury Publishing PLC, 2011.

Spencer, David J. *Knitting Technology*. United Kingdom: Pergamon Press, 1983. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3225VI STAINED GLASS PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire basic skill of French Window Painting
- gain knowledge to implement French Window Painting in contemporary environments.
- become good entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Cone Preparation – Sketching on OHP Sheet – Tracing on Transparent Glass – Painting on Transparent Glass – Cone Application on Designed Glass – Painting – Interior ideas and Professional Application

REFERENCE BOOK(S)

Ganz, James A. and R. Richard Brettell. *Great French Paintings from the Clark: Barbizon through Impressionism*. United Kingdom: Sterling and Francine Clark Art Institute, 2011. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3226VI TANJORE PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- prepare designs for Tanjore painting
- use brush, mix colours and paint
- become an entrepreneur

COURSE OUTLINE:

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: PAINTING

24 hrs.

Board Preparation – Sketching – Stone Fixing – 2D Effect Application – Foil Fixing – Painting – Finishing

REFERENCE BOOK(S)

Westlake, Nat Hubert John. *A History of Design in Painted Glass*. New York: J. Parker and Company Publications, 1981. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3227VI DISH WASH, HAND WASH AND TOILET WASHES

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- know techniques for preparing Dish Wash, Hand Wash, Toilet washes.
- maintain quality control in production, as well as storage
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: WASHES

24 hrs.

Dish wash Formula, Dish wash making, Scented Dish wash, Hand wash mixing, Perfumed Hand wash mixing, Phenoyl Mixture Formula, Phenoyl making, Dish wash presentation, Hand wash presentation, Scented phenoyl making and tips – Safety issues with Do's and Don'ts

REFERENCE BOOK(S)

Lai, Kuo-Yann. *Liquid Detergents*. United States: CRC Press, 1996. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3228VI RIBBON WORK EMBROIDERY

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire the skill of Embroidery ribbon basic stitches
- design ribbon work embroidered cell phone pouch
- become an Ribbon embroidery designer

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Embroidery Ribbon Basic Stitches – Designing on cell phone pouch – Designing on Bag Material – Other dress materials – Sarees and Jewellery

REFERENCE BOOK(S)

Montano, [Judith Baker](#). *Elegant Stitches: An Illustrated Stitch Guide & Source Book of Inspiration*. United States: C&T Publishing Inc., 1995. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3229VI SILK PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire basic skill of tracing and painting in silk
- create a complete silk painting
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Tracing and painting basic – Tracing – First and second coat painting – Shadowing

REFERENCE BOOK(S)

Kennedy, Jill and Jane Varrall. *Silk Painting – New ideas and textures*. New York: Dover Publications, Inc., 1994. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3230VI PAPER ART AND PAPER QUILLING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- make stationery and gift articles for various occasions
- create paper jewellery
- identify different type of paper and handle tools that are used for making paper products
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Paper Art – Stationery – Paper Jewellery – Gift Articles – Paper Jewellery – Greeting Cards – Pen Holders – Quilled Jewel Boxes – Wall Hanging (two types)

REFERENCE BOOK(S)

Gary, Lord. *Mural Painting Secrets for Success: Expert Advice For Hobbyists And Pros*, United States: North Light Books, 2008. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3231VI ARTIFICIAL FLOWER MAKING AND ARRANGEMENT

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- make flowers using different materials
- design creative flower arrangements
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Flower Making and Flower Arrangement: Organdie – Stockings – Imported Ribbon Flower – Satin Ribbon – Paper Bouquet making

REFERENCE BOOK(S)

Brinley, Rosemary. *Artificial Flower Making*. United Kingdom: Dickens Press, 2015. Print.

Packer, Jane. *The Complete Guide to Flower Arranging*. London: DK Publishing, 1998. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CWS3201VI WOMEN – LIGHTS CAMERA ACTION

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, students will be able to

- critique gender based discrimination
- learn techniques of visual media
- produce effective short films

COURSE OUTLINE:**UNIT I: ENTREPRENEURSHIP****6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:**PART A: LEVEL OF UNDERSTANDING CONCEPTS****4 hrs.**

Understanding gender and its societal construction, forms of gender discrimination, Challenging Stereotypes

PART B: LEVEL OF ATTAINING SKILLS**4 hrs.**

a. Deconstructing a film: Basic understanding of a visual media, types of films, Current scenario of Indian films and their depiction of Women

16 hrs.

b. Constructing a film: Elements of Script Writing-Concept, One-line story, Plot, Scene, Screenplay. Basics of Video camera, Editing techniques, Non-Linear Editing (preferably Adobe Premier Pro or CC versions), Importance of Sound-Ambience, BGM, Sound effects

REFERENCES BOOK(S)

Jha, Uma Shankar and Pujari Premlata. ed. *Indian Women Today – Tradition, Modernity and Challenge*. Vol. I, II & III. New Delhi: Kanishka Publishers, 1996. Print.

Sushma, Srivastava. *Encyclopedia of Women and Development*. New Delhi: Commonwealth Publishers, 2007. Print.

Evaluation Pattern

| Course Type | Total Hours per week | | Formative | | | | | | |
|--------------------------------|----------------------|----|-----------|----|------------|-------|------|----|-------|
| | TH | LA | Test | | Assignment | | Quiz | | Total |
| | | | No. | RM | No. | RM | No. | RM | |
| Semester Long Programme | 1 | 1 | 1 | 40 | 2 | 40 | 1 | 20 | 100 |
| Crash Course | 1 | 1 | - | - | 2 | 40+40 | 1 | 20 | 100 |

CENTRE FOR WOMEN'S STUDIES

(UGC Supported)

PREAMBLE

The Centre for Women Studies, Lady Doak College offers evaluation based courses on women studies for students from all disciplines in the college. The Centre facilitates learning processes that allow students to interact with diverse fields such as law, media and health etc. Programmes/workshops on Legal aid for women evoked an impetus in the centre to develop and offer a PG Elective Course **PWS2401E Women Dignity and Legal Protection.**

The Centre for Women Studies in its engagement with students discovered that the Media as a powerful platform for highlighting unequal gender hierarchies had not yet been sufficiently utilized. Hence, in an attempt to help them articulate meaningful expressions on gender equity, it also plans to offer a Vocational Course on visual media for the II year students, **CWS3201VI Women – Lights Camera Action.**

The Course code for the Foundation Course on Women's Studies which is currently being offered will be changed **from VBC0201FV to VBC0203FV** for students of the 2015 batch onwards.

PWS2401E WOMEN DIGNITY AND LEGAL PROTECTION

LEARNING OUTCOMES

4hrs. /wk.

On successful completion of the course, students will be able to

- understand their constitutional rights and responsibilities
- recognize structures of inequality leading to power relations that discriminate and subordinate women
- have an understanding of the various laws that govern the security, safety and wellbeing of women

COURSE OUTLINE:

UNIT I: CONSTITUTIONAL PROVISIONS AND WOMEN

12 hrs.

Constitution as the supreme law – Preamble – Fundamental rights – Article 14-16, 19, 21, 21A, 23, 24 – Constitutional Remedies – Article 32 – Writs, Habeas Corpus etc. – Directive Principles of State policy – Article 37, 38, 39, 39A(d), 41 & 42 – Fundamental Duties – Article 51A(e) – Landmark Judgements based on the Constitutional Remedies – Air India vs. Nargesh Meerza case(1981). Re-opening dance bars (2013)

UNIT II: THE GIRL CHILD

12 hrs.

PART A – DISCRIMINATORY PRACTICES

Social Practices – Son Preference – Its history and consequences – Female infanticide & Female Foeticide – Technological growth and development – Sex Selective Forcible Abortions – Skewed Sex Ratio

Discrimination in nurture and care: Culturally forced responsibilities – Sibling care – Household work – Malnourished and stunted growth – Access to education: Insufficient infrastructures – Absence of safety mechanisms for girls – Child Labour – Child Abuse – Child Trafficking – Child Marriage

Existing Government schemes for the Girl Child and the need for Affirmative Action

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS**12 hrs.**

Sex determination and termination of pregnancy [Voluntary Health Association of Punjab vs. Union of India, 2006] – Child labour [M.C. Mehta vs. State of Tamilnadu 1996], [Peoples Union for Democratic Rights vs. Union of India 1982], (Asiad Workers case) – Child Marriage [Association for Human Rights vs. Union of India 2010] – Compulsory education [National Coalition for Education vs. Union of India 2014] – Child abuse and child trafficking [State of Punjab vs. Gurmit Singh, 1996], [Sakshi vs. Union of India 2004], [Court on its own motion vs. State of Delhi 2007]

UNIT III: WOMEN IN THE FAMILY**PART A - DISCRIMINATORY PRACTICES****12 hrs.**

Power relations and decision making – Family/Community Honour – Honour killings – Property ownership – Dowry system – Domestic Violence – Women's reproductive health – Single Women – Adoption and Guardianship – Women Senior Citizens

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS

Property, succession, guardianship, deed and will – [Mrs. Mary Roy etc., vs. State of Kerala 1986], [Mohamad Ahmed Khan vs. Shah Bano Begum 1985] – Marriage, family and maintenance [Seema vs. Ashwini Kumar 2006] – Dowry and domestic violence [A. Jayachandra vs. Aneel Kaur 2004, [Shobha Rani vs. Madhukar Reddy 1988] – Reproductive health [Devika Biswas vs. Union of India 2012], [Bilkis & Aravind vs. Government of Delhi 2015] – Divorce, maintenance, child support, unwed mothers [Roxann Sharma vs. Arun Sharma 2015] – Adoption and guardianship [Shabnam Hashmi vs. Union of India 2005]

UNIT IV: WOMEN IN PUBLIC SPACES**12 hrs.****PART A – DISCRIMINATORY PRACTICES**

Sexual Abuse – Eve Teasing – Rape – Acid Attacks – Sexual Harassments at Workplaces – Indecent Representations of Women – Media – Cyber Crime – Human Trafficking – Working conditions – Protection and Safety Mechanisms for Women – Women's political participation – Reservations for Women in Governance

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS

Complaints Committee – [Vishaka vs. State of Rajasthan case AIR 1997 SC 3011], [M/s. The Statesman Limited, and their workman Smt. Rina Mukherjee @ Rina Jamshedji vs. The State of West Bengal 2013] – Rape [Om Prakash vs. Dil Bahar (2006)], [Nirbhaya Case 2012], [Subramanian Swamy vs. Raju] – Acid Attacks [Laxmi vs. Union of India 2014], [Aarti Thakur vs. State of Maharashtra 2014], [Shaheen vs. State of Haryana], [Parivartan Kendra vs. Union of India 2013 (Curbing the Sale of Acid)] – Eve Teasing [Murugan Vs. State 2001, (Sarikha Shah case)], Victim Compensation Schemes – Indecent Representation of Women in Media, [Ranjit D. Udeshi vs. State of Maharashtra (Milind Soman and Madhu Sapre)] – Cyber Crimes on Women [Tamil Nadu vs. Suhas Katti 2004] – Working conditions, Remuneration, Maternity Benefits, [J. Jebaselvi vs. The Principal District Judge 2007] – Retirement Benefits, Nomination, Compensation for death, Nomination – Compensation for Death or Injury at Work [Justice Hariparantha's Judgement 2016] – Compassionate Appointments for Women

UNIT V: PROCEDURE FOR LEGAL ACTION**12 hrs.**

Offence – What is an offence? – Filing an FIR – Arrest, grounds of arrest – Kinds of offences (Bailable and non-Bailable) – Arrest warrant – Powers of Police – Rights of arrested persons

including the right to bail – Procedure to be followed during enquiry and investigation – Rights of Victim – Litigation and Litigate Procedures – Right to Information – Public Interest Litigations – Case studies on various modes of dispute settlement mechanisms i.e. Lok Adalats, Family Courts, Mahila Courts, Crimes against Women Cells [All Women Police Stations], NCW, NHRC, State Commissions

REFERENCES BOOK(S)

Roy, Kalpana. ed. *Encyclopedia of Violence Against Women and Dowry Death in India*. Vol.1, 2, 3. New Delhi: Amol Publications, 1999. Print.

Sharma, Reshmi. *Women, Law and Judicial System*. New Delhi: Regal Publications, 2009. Print.

WEBSITE(S)

http://persmin.gov.in/DOPT_ActRules_AIS_Rules_Index.asp Revised All India Service Rules (Constitutional Provisions and provisions common to All India Services) - Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions, Government of India

www.lawmin.nic.in– Ministry of Law and Justice, Government of India – The Constitution of India

www.data.gov Open Government Data [OGD], Government of India

www.india.gov.inThe Registrar General and Census Commissioner, India, Ministry of Home Affairs, Government of India

www.rchiips.org/nfhs/ - National Family Health Survey India, International Institute for Population Sciences, Mumbai.

www.hrln.org- Human Rights Law Network (HRLN)

RELEVANT ACTS:

Preconception and Prenatal Diagnostic Techniques (Prohibition of Sex Selection) Act 1994, The Medical Termination of Pregnancy Act 1971 & The Medical Termination of Pregnancy (Amendment) Bill 2014, Child Labour (Prohibition and Regulation) ACT 1986, The Prohibition of Child marriage ACT 2006, The Right of Children to Free and Compulsory Education Act 2009, Protection of Children from Sexual Offences ACT 2012 [POSCO], Compulsory Marriage Registration ACT 2005, Domestic Violence and Protection of Women from Domestic Violence Act 2005, Maintenance and Welfare of Parents & Senior Citizens ACT 2007, The Indecent Representation of Women (Prohibition) ACT 1986, Tamil Nadu Prohibition of Harassment of Woman ACT, 1998, Information Technology ACT 2000, Supreme Court Judgments on Acid Attacks, The Scheduled Castes and Scheduled Tribes [Prevention of Atrocities] ACT 1989, Sexual Harassment of Women at Workplace [Prevention, Prohibition and Redressal] ACT 2013 – Vishakha Guidelines, The Maternity Benefits ACT 1961, Equal remuneration ACT 1976, Minimum wages ACT 1948, Factories ACT 1948, The Mines ACT 1952.

CURRICULUM PLANNING AND EVALUATION CELL

- A. Introduction of two Non-Major Elective courses
- B. Provision for Sports and NCC Students
- C. Pass percentage for B. Com.(Hons.)
- D. Project For III UG as Extra Credit Course
- E. Evaluation pattern for NCC
- F. Summative Question Paper Pattern
- G. M.Phil. Evaluation Pattern

A. NON-MAJOR ELECTIVE COURSE

(from 2015 batch onwards)

COURSE PROFILE

| Sem. | Course Code | Course Title | Offered to | Hrs. / wk. | Credits |
|------|-------------|--|------------|------------|---------|
| III | COPH3201EI | CONSUMER AWARENESS ON EVERYDAY APPLIANCES | ALLM | 2 | 2 |
| IV | CSPH4201EP | INTRODUCTION TO SATELLITE IMAGE PROCESSING AND GIS | ALLM | 2 | 2 |

COPH3201EI CONSUMER AWARENESS ON EVERYDAY APPLIANCES (Theory)

LEARNING OUTCOME

2 hrs./wk.

On successful completion of the course, the student will be able to

- improve her quality of buying by acquiring a working knowledge of the multiple gadgets and devices used in daily life
- understand differences between products from multiple brands and make intelligent purchase decisions
- learn the basics of marketing of gadgets used in daily life as a career option

COURSE OUTLINE

UNIT I: POWER GADGETS AT HOME AND WORK

6 hrs.

The electric power grid – single and three phase connection – UPS – Voltage stabilizers – lighting – energy saving devices and techniques (fluorescent, CFL, LED, solar panels) – paying for electricity – household equipment: – simple maintenance – safety precautions – understanding power ratings and power consumption of devices (electric fan, air cooler, air conditioner, refrigerator, microwave oven, washing machine, rice cooker, gas stove, induction stove)

UNIT II: COMMUNICATION AND ENTERTAINMENT ELECTRONICS

9 hrs.

Telephone – Facsimile – Cell phone – Photocopier – Scanner – Printer

High fidelity sound reproduction – microphones – CD/DVD/Blu-ray players – portable media players – compressed audio – amplifiers – loud speakers – crossover circuits (active and passive) others – graphic equalizers – surround sound formats (matrix surround, Dolby 5.1, DTS) – use of headphones – home theatre systems

Satellite TV/Radio and DTH/WiFi and networking – display monitors (CRT, Plasma, LCD, LED, OLED) – display resolution (SD, HD, UHD).

Understanding specifications of equipment on information/data sheets

UNIT III: PRODUCT INFORMATION**10 hrs.**

Brand name and brand mark – selection of good brand – Corporate brand and product brand – Packing, packaging and package – essentials of good package – labeling – types of labels – contents of good label – product guarantee and warranty – standardization – product servicing – after sales services – legal issues and laws on product information – Issues in advertising, pricing and promotions

UNIT IV: ONLINE RESOURCES**5 hrs.**

Apps, cloud based resources – e-commerce and productivity tools – access patterns – Comparing products online – choosing websites and online stores – awareness on terms and conditions – privacy policy – Disclaimer – billing, guarantee and delivery – significance of social networking sites, browsers and cookies – email scams – knowledge on complaint procedure and disputes settlement – security issues on payment portals

REFERENCE BOOK(S)

Pillai, R.S.N. and Bahavathi. *Modern Marketing Principles & Practice*. New Delhi: S.Chand and Company Ltd., 2010.

Memoria, C.B. and Joshi. *Principles and Practices of Marketing*. New Delhi: Kitab Mahal, 2012.

Kleinert, Eric. *Troubleshooting and Repairing Major*. 3rd ed. Tab Electronics, 2012.

Zmetana, Katherine. *Time-Life Books Complete Fix-It-Yourself Manual*. 1st ed. Prentice Hall Trade, 1989.

The Editors of Time-Life Books, *How Things Work in Your Home: And What to Do when They Don't*, Holt Paperbacks, 1987.

CSPH4201EP INTRODUCTION TO SATELLITE IMAGE PROCESSING AND GIS (Lab)

LEARNING OUTCOME**2 hrs./wk.**

On successful completion of the course, the student will be able to

- acquire knowledge on open source for downloading data
- apply the techniques of DIP ranging from preprocessing to image classification
- inquire the available methods for integrating image processing and GIS

COURSE OUTLINE**30 hrs.****DATA DOWNLOAD**

Google Earth: Pinning a particular place – specifying postal address – layer on/off – marking measurements – onscreen digitization – navigation – finding latitude/longitude for a particular position – Security – GLCF – DivaGIS – ILWIS – QGIS

- Downloading and Installation of software
- Finding a latitude / longitude value for a location

GPS / SMARTPHONE

Navigation – shortest path – best path – Location Based Services

- Finding best route between two location

IMAGE PROCESSING

Histogram construction, rationing, colour display techniques – Smoothing – Simplification – detection – Area aggregation

- Enhancing image quality
- Extracting information from an image

CAPABILITIES OF GIS AND DIP

Querying – buffer analysis – surface interpolation – classification – map composition.

- Exercise on classification
- Applying the principles of Image processing and GIS in different discipline

WEBSITE(S)

<http://www.qgistutorials.com/en/>

http://www.ilwis.org/user_friendly_gis_teach_yourself.htm

<https://earth.google.com/>

<http://glcf.umd.edu>

<http://www.diva-gis.org>

B. PROVISION FOR SPORTS AND NCC STUDENTS will come into effect from the academic year 2016-17

- All sports students and NCC students attending long camps are given an option of writing **one formative test** only, but have to complete all other components of continuous assessments.
- The aggregate of formative and summative marks **OR** the marks obtained only in the summative examinations, whichever is higher, will be considered for declaration of the result.

C. B.COM. (HONS.)

Pass percentage for B.Com. (Hons.) is raised from 40% to 50%. The summative minimum is increased from 30% to 40%. It is applicable from 2016 batch onwards.

D. PROJECT FOR III UG AS EXTRA CREDIT COURSE

III UG students are given a provision to do an academic project and earn 5 extra credits. A separate course code will be given, as example, ENG0501PR.

E. EVALUATION FOR NCC

| Course Code | Course Title | Formative | | | | |
|-------------|----------------------|-----------|-----|-----|-----|-------|
| | | CA1 | CA2 | CA3 | CA4 | Total |
| NCC0207C | FIELD TRAINING – I | 25 | 25 | 25 | 25 | 100 |
| NCC0208C | FIELD TRAINING – II | | | | | |
| NCC0209C | FIELD TRAINING – III | | | | | |

F. SUMMATIVE QUESTION PAPER PATTERN

| UNDERGRADUATE (2014 BATCH) | | |
|--|-------------------------------------|--|
| Maximum Marks: 100 (MCQ – 25; Descriptive – 75) | | For Core and Support courses |
| | | Duration: 3 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 25 x 1 = 25 | Nil |
| B | 5 x 3 = 15 | 5 out of 6 |
| C | 5 x 6 = 30 | Internal Choice |
| D | 3 x 10 = 30 | 3 out of 4 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 15 = 15 | Optional |
| Maximum Marks: 80 (MCQ – 20; Descriptive – 60) | | For Foundation and Lab cum Theory courses |
| | | Duration: 2½ hrs. |
| A | 20 x 1 = 20 | Nil |
| B | 5 x 3 = 15 | 5 out of 6 |
| C | 5 x 5 = 25 | Internal Choice |
| D | 2 x 10 = 20 | 2 out of 3 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 12 = 12 | Optional |
| Maximum Marks: 60 (MCQ – 15; Descriptive – 40) | | For Lab cum Theory with < 3T hrs., Research Methodology & Self-Learning |
| | | Duration: 2 hrs. |
| A | 15 x 1 = 15 | Nil |
| B | 5 x 2 = 10 | 5 out of 6 |

| | | |
|---|--|--------------------------|
| C | 3 x 5 = 15 | 3 out of 4 |
| D | 2 x 10 = 20 | 2 out of 3 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 10 = 10 | Optional |
| POSTGRADUATE (2015 BATCH) | | |
| Maximum Marks: 100 | All Major and Major Optional courses | Duration: 3 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 8 = 40 | Internal Choice |
| C | 3 x 15 = 45 | 3 out of 4 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 15 = 15 | Optional |
| Maximum Marks: 80 | Lab cum Theory and Electives | Duration: 2½ hrs. |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 7 = 35 | Internal Choice |
| C | 2 x 15 = 30 | 2 out of 3 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 12 = 12 | Optional |
| Maximum Marks: 60 | For Lab cum Theory with <3T hrs. & Self-Learning | Duration: 2 hrs. |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 5 = 25 | Internal Choice |
| C | 2 x 10 = 20 | 2 out of 3 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 10 = 10 | Optional |

G. M.PHIL. EVALUATION PATTERN

This evaluation pattern will come into effect from the academic year 2016-17

| COURSE TITLE | FORMATIVE | | | | | | | | SUMMATIVE | |
|---------------------------------------|-----------|-----------|------------|-----------|---------|-----------|-----|-----------|-----------|--------|
| | Test | | Assignment | | Seminar | | Lab | | Lab | Theory |
| | No. | Req. Max. | No. | Req. Max. | No. | Req. Max. | No. | Req. Max. | | |
| Research Methodology (Theory) | 2 | 80 | 1 | 20 | 1 | 20 | - | - | - | 80 |
| Research Methodology (Lab cum Theory) | 2 | 80 | - | - | 1 | 20 | 1 | 20 | 30 | 50 |
| Other papers if any | 2 | 80 | 1 | 20 | 1 | 20 | - | - | - | 80 |

IN-DEPTH STUDY

| | | |
|----------------|-----------------|-------|
| Presentation I | Presentation II | Total |
| 50 | 50 | 100 |

DISSERTATION AND VIVA VOCE

| COURSE TITLE | Formative | | | | Summative | | | Total |
|----------------------------|---|--|--------|-------|-----------|------|-------|-------|
| | Presentation - I / Assignment - I / Lab - I | Presentation - II / Assignment - II / Lab - II | Report | Total | Report | Viva | Total | |
| DISSERTATION AND VIVA VOCE | 30 | 30 | 120 | 180 | 80 | 40 | 120 | 300 |

DEPARTMENT OF MATHEMATICS

PREAMBLE

The Department of Mathematics revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

- For the course MAE5501CT - RDBMS WITH VISUAL BASIC, a new reference book “Evangelos Petroustosos, Mastering Microsoft Visual Basic 2010, Syber Mastering series” is included.
- In PG curriculum, a new course PGM4524M STOCHASTIC PROCESSES will replace PGM1525M – VISUAL PROGRAMMING (6 contact hours) and it will be offered in semester IV. The course PGM4523M - MATHEMATICAL STATISTICS (which has been offered so far in semester IV with 6 contact hours) will be offered in semester I as PGM 1526M- MATHEMATICAL STATISTICS.

The following corrections in the sections in text books are proposed based on the course content

| Course Code | Course Title | Sections to be removed | Sections to be included |
|----------------------------|--|--|---|
| MAT5503CM | OPERATIONS RESEARCH – I | 10.16,11.6 | 10.17,11.7 |
| MAT4504CM | ADVANCED STATISTICS | 8.1, 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.2.1 | 14.2.2, 17(problems only),18.7(Problems only) |
| ITMA6401DT/ CSMA 6401DT | APPLICATION OF FUZZY SETS USING MATLAB | 8.4 – 8.8, 15.4 – 15.7 | 4.1 – 4.3, 5.1, 5.3, 5.5 |
| MAT2421AA | CALCULUS | 2.13 | 2.14 |
| PGM 3521O | FLUID DYNAMICS | 3.8, 8.11.4 | - |
| PGM4521O | COMBINATORIAL THEORY | - | Chapter 1 |
| PGM4621M | MODULE THEORY | 2.10,3.5,3.6,3,7 | - |
| PGM2521M | FIELD THEORY AND LINEAR TRANSFORMATIONS | 5.7, 5.8 | - |

B.Sc. (SPL.) MATHEMATICS – AIDED

(From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|-------------|---|---------------|---------|-----------|
| V | MAT5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | MAT5501CM | ADVANCED CALCULUS -II | 6 | 5 | AW-2015 |
| | MAT5503CM | OPERATIONS RESEARCH - I | 6 | 5 | AW-2015 |

| | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|----|-------------------------|---|------------|-----------|---|
| V | MAT5504CM | GRAPH THEORY | 6 | 5 | AV-2014 |
| | MAT0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW-2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | VBC0203FV / VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | TOTAL | 30 | 23 | |
| VI | MAT6501CM | COMPLEX ANALYSIS | 5 | 5 | AW-2015 |
| | MAT6502CM | OPERATIONS RESEARCH - II | 6 | 5 | AW-2015 |
| | MAT6503CM | MECHANICS | 6 | 5 | AW-2015 |
| | MATQ6401CM / MATQ6402CM | FUZZY SETS / COMBINATORICS | 4 | 4 | AW-2015 as MAT6401CM / AV-2014 as MAT3402CM |
| | MAT0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW-2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | | TOTAL | 30 | 29 | |

Total number of credits for 2014 batch (semesters I – VI) 149

B.Sc. MATHEMATICS WITH COMPUTER APPLICATIONS – SELF-FINANCED
(From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|----------------------|---|-----------|---------|---------------------------------|
| V | MAT5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | MAT5501CM | ADVANCED CALCULUS -II | 6 | 5 | AW-2015 |
| | MAT5504CM | GRAPH THEORY | 6 | 5 | AV-2014 |
| | MAE5501CT | RDBMS WITH VISUAL BASIC | (3T+3L) | 5 | AW-2015 |
| | MAT0601LM | LIFE FRONTIER ENGAGEMENT | 4 | | AW-2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | TOTAL | 30 | 23 | | |
| VI | MAT6501CM | COMPLEX ANALYSIS | 5 | 5 | AW-2015 |
| | MAE6501CM | OPERATIONS RESEARCH | 6 | 5 | AW-2015 |
| | MAE6502CM | MECHANICS | 5 | 5 | AW-2015 |
| | MAE6401CT | OBJECT ORIENTED PROGRAMMING - II | (3T+2L) | 4 | AW-2015 |
| | MAT0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW-2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | TOTAL | 30 | 29 | | |

Total number of credits for 2014 batch (semesters I – VI) 149

PGM4524M STOCHASTIC PROCESSES

(Theory)

LEARNING OUTCOME

6 hrs. / wk.

On the successful completion of the course, the students will be able to,

- interpret the concept of Stochastic and Markov Processes
- draw digraphs and form transition probability matrices
- apply Stochastic process in queuing theory

COURSE OUTLINE:

UNIT I :

15 hrs.

Definition, examples and classification of stochastic processes, definition and examples of Markov Chains, transition matrix, Markov chain as graphs, classification of states and chains

UNIT II:

20 hrs.

Theorems of Markov chains, determination of higher transition probabilities, stability of a Markov system, limiting behaviour: finite irreducible chains

UNIT III:

20 hrs.

Markov processes with discrete state space: Poisson process, postulates for Poisson process, derivation and properties of Poisson process, pure birth process: Yule-Furry process, birth immigration process, birth and death process.

UNIT IV:

15 hrs.

Renewal processes: renewal interval, renewal function and renewal density, renewal equation, renewal theorems, branching process, properties of generating functions, examples.

UNIT V:

20 hrs.

Queueing processes, steady state distribution, little's birth and death processes in queueing theory, the model M/M/S, Erlang loss model, Non-Markovian queueing models, queues with Poisson Input – model M/G/1.

TEXT BOOK

Medhi, J. *Stochastic Processes*. 3rd ed. New Delhi: New Age international publishers, 2013, (Sections 1.5, 2.1, 2.2, 2.4 – 2.6, 3.1 – 3.2.1, 3.3.3 – 3.4.1, 6.1.1 – 5.5.1, 9.1 – 9.3, 10.1 – 10.3.1) Print.

REFERENCE BOOK(S)

Karlin, S. and Taylor, H.W. *A First Course in Stochastic Processes*. 2nd ed. United Kingdom: Academic Press, Gulf Professional Publishing, 1975. Print.

Karlin, S. and Taylor, H.W. *A Second Course in Stochastic Processes*. 2nd ed. United Kingdom: Academic Press, Gulf Professional Publishing, 1975. Print.

Basu, A.K. *Introduction to Stochastic Processes*. New Delhi: Narosa Publishing House, 2003. Print.

DEPARTMENT OF PHYSICS

PREAMBLE

The Department of Physics revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

For the PG programme, the course profile and course content of few modified courses like the Solid State Physics, Computational and Microcontroller Lab, Computational and GIS Lab, Modern Optics, Atomic and Molecular Spectroscopy and Thin Film Physics are presented. The course content of Nuclear Physics which has a change of contact hours is also presented.

The department is also presenting the course profile, the course content and the evaluation pattern for the PG diploma in Remote Sensing & GIS programme which is to be offered from the academic year 2016 onwards.

B.Sc. (Special) Physics - Aided

(From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|----------------------------|---|------------|-----------|---------------------------------------|
| V | PHY5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | PHY5501CM | DIGITAL ELECTRONICS | 5 | 5 | AW 2015 |
| | PHY5502CM | INTRODUCTION TO MICROCONTROLLERS | 5 | 5 | AW 2015 as PHY5401CM |
| | PHYQ5501CM / PHYQ5502CM | MOLECULAR SPECTROSCOPY / MOLECULAR BIOPHYSICS | 5 | 5 | AW 2015 |
| | PHY 5201CP | LAB PHYSICS – VI | 3 | 2 | AW 2015 |
| | PHY0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | Total | 30 | 24 | |
| VI | PHY6501CM | THERMODYNAMICS, STATISTICAL MECHANICS & RELATIVITY | 6 | 5 | AW 2015 |
| | PHY6502CM | ELECTROMAGNETISM | 5 | 5 | AW 2015 |
| | PHY6503CM | SOLID STATE PHYSICS | 5 | 5 | AW 2015 |
| | PHY6504CM | NUCLEAR PHYSICS | 5 | 5 | AW 2015 as PHY6401CM |
| | PHY0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | | Total | 30 | 30 | |

Total number of credits for 2014 batch (semesters I – VI) 150

B.Sc. (Special) Physics with Computer Applications - Self-Financed

(From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs./wk. | Credits | Passed in |
|------|-------------------------|--|-----------|---------|---------------------------------------|
| V | PHY5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | PHY5501CM | DIGITAL ELECTRONICS | 5 | 5 | AW 2015 |
| | PHY5502CM | INTRODUCTION TO MICROCONTROLLERS | 5 | 5 | AW 2015 as PHY5401CM |
| | PHE5501CM | DATA COMMUNICATION & NETWORKING | 5 | 5 | AW 2015 |
| | PHY5201CP | LAB PHYSICS VI | 3 | 2 | AW 2015 |
| | PHY0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | Total | 30 | 24 | | |
| VI | PHY6501CM | THERMODYNAMICS, STATISTICAL MECHANICS & RELATIVITY | 6 | 5 | AW 2015 |
| | PHY6502CM | ELECTROMAGNETISM | 5 | 5 | AW 2015 |
| | PHE6401CT | LINUX ADMINISTRATION (L&T) | 3T+2L | 4 | AW 2015 |
| | PHE6501CM | ATOMIC, QUANTUM & NUCLEAR PHYSICS | 5 | 5 | AW 2015 |
| | PHY0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | Total | 30 | 29 | | |

Total number of credits for 2014 batch (semesters I – VI) 147

NON MAJOR ELECTIVE COURSE

| Sem. | Course Code | Course Title | Offered to | Hrs. / wk. | Credits |
|------|-------------|--|------------|------------|---------|
| IV | CSPH4201EP | INTRODUCTION TO SATELLITE IMAGE PROCESSING AND GIS | ALLM | 2 | 2 |

M.Sc. PHYSICS (Self-Financed)

(2015 BATCH ONWARDS)

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|-----------------------|--|------------|-----------|---------------------|
| III | PGP3523M | QUANTUM MECHANICS II | 5 | 5 | AT 2012 |
| | PGP3621M | ELECTROMAGNETIC THEORY | 6 | 6 | AT 2012 |
| | PGP3622M | SOLID STATE PHYSICS | 6 | 6 | - |
| | PGP3327P/ PGP3328P | COMPUTATIONAL & MICROCONTROLLER LAB / COMPUTATIONAL & GIS LAB | 3 | 3 | - |
| III | PGP3523O/ PGP3525O | MICRO CONTROLLERS / GIS AND ITS APPLICATIONS | 5 | 5 | AR 2010/ AP 2008 |
| | | ELECTIVE | 4 | 4 | - |
| | | CLUB | 1 | - | - |
| | | Total | 30 | 29 | |

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|-----------------------|----------------------------------|------------|-----------|-----------------------|
| IV | PGP4524M | MODERN OPTICS | 5 | 5 | - |
| | PGP4523M | NUCLEAR PHYSICS | 5 | 5 | AT2012 as PGP4427M |
| | PGP4621M | ATOMIC & MOLECULAR SPECTROSCOPY | 6 | 6 | - |
| | PGP4521O/ PGP4524O | NANOSCIENCE THIN FILM PHYSICS | 5 | 5 | AQ2009 |
| | PGP0621M | PROJECT | 6 | 6 | - |
| | | LIBRARY /SEMINAR | 2 | - | - |
| | | CLUB | 1 | - | - |
| | | Total | 30 | 27 | - |

ELECTIVE COURSES

| | | | | | |
|-----|----------|-----------------------------------|---|---|---------|
| II | PGP2422E | HISTORY AND PHILOSOPHY OF SCIENCE | 4 | 4 | AW 2015 |
| III | PGP3421E | DIGITAL IMAGE PROCESSING | 4 | 4 | AP 2008 |

SELF-LEARNING COURSE

| | | | | |
|-----------|----------------------------------|---|---|---------|
| PGP 0423D | PHYSICS APPLICATIONS WITH MATLAB | - | 4 | AT 2012 |
|-----------|----------------------------------|---|---|---------|

COMPREHENSIVE VIVA / MINIPROJECT

| | | | |
|------------|--------------------|---|---|
| PGP 0321MV | COMPREHENSIVE VIVA | - | 3 |
| PGP 0321MP | MINI PROJECT | - | 3 |

PGP3622M SOLID STATE PHYSICS

THEORY

LEARNING OUTCOME

6 hrs. / wk.

On successful completion of the course, the student will be able to

- interpret the elastic vibrations of crystals and the thermal properties of phonons
- explain the occurrence of superconductivity
- examine the consequences of dislocation and point defects
- develop problem solving skills

COURSE OUTLINE:

UNIT I: CRYSTAL STRUCTURE, BINDING AND ELASTIC CONSTANTS

15 hrs.

Periodic array of atoms – fundamental types of lattices – Index system for crystal planes – diffraction of waves by crystals – Brillouin zones – analysis of elastic strain – elastic compliance and stiffness constants – elastic waves in cubic crystals, quasi crystals and liquid crystals.

UNIT II: PHONONS : VIBRATIONS AND THERMAL PROPERTIES

15 hrs.

Vibrations of crystal with monoatomic basis – two atoms per primitive basis – quantization of elastic waves – phonon momentum – inelastic scattering by phonons-Phonon heat capacity – anharmonic crystal interactions – thermal conductivity

UNIT III: FREE ELECTRON FERMI GAS, ENERGY BANDS**15 hrs.**

Energy levels in one dimension – effect of temperature on the Fermi – Dirac distribution – free electron gas in three dimensions – heat capacity of electron gas – electrical conductivity and Ohm's law – motion in magnetic fields– thermal conductivity of metals – Nearly free electron model – Bloch functions – Bloch theorem-Kronig – Penney model – wave equation of electron in a periodic potential

UNIT IV: SEMICONDUCTOR CRYSTALS AND SUPERCONDUCTIVITY**25 hrs.**

Band gap - equations of motion – intrinsic carrier concentration – impurity conductivity- Calculation of energy bands – Experimental survey of superconductivity – Theoretical survey of superconductivity – BCS theory of superconductivity- type II superconductors- London equation – London penetration depth-Dc Josephson effect-Meissner effect – Ac Josephson effect- – high temperature superconductors and its applications.

UNIT V: DIA, PARA, FERRO MAGNETISM; FERROELECTRICS; CRYSTAL DEFECTS & DISLOCATIONS, ALLOYS**20 hrs.**

Langevin diamagnetism equation-quantum theory of diamagnetism of mononuclear systems – paramagnetism–super paramagnetism – quantum theory of paramagnetism – Ferromagnetic order – Curie-Weiss law – magnons – ferrimagnetic order – Curie temperature and susceptibility of ferrimagnets – antiferromagnetic order – ferromagnetic domains – Single domain particles – structural phase transitions-ferroelectric crystals – displacive transitions – Lattice vacancies – diffusion- shear strength of single crystals – slip – dislocations- Burgers vectors – stress fields of dislocations – strength of alloys – dislocations and crystal growth – alloys: general considerations – substitutional solid solutions – Hume-Rothery rules – order-disorder transformation

TEXT BOOK(S)

Kittel, Charles. *Introduction to solid state physics*. 8th ed. New Delhi: John Wiley, 2013. Chapters: 1,2,3,4,5,6,7,8,9,10,11,12,16,20,21,22. Print.

REFERENCE BOOK(S)

Ashcroft, N.W. and Mermin, N.D. *Solid State Physics*. Singapore: A Harcourt publishers international company, 2001. Print.

Kittel, Charles. *Introduction to solid state physics*. 7th ed. New Delhi: John Wiley, 2010. Print.

Dekkar, A.J. *Solid State Physics*. New Delhi: Macmillan India, 2006. Print.

Burns, Gerald. *Solid state Physics*. 1st ed. New York: Academic Press, 1985.

Giuseppe, G. and Giuseppe, P. *Solid State Physics*. Elsevier, 2012. Print.

Kakani, S.L. and Hemarajni, C. *Solid State Physics*. New Delhi: Sultan Chand, 2005. Print.

Pillai, S.O. *Solid State Physics*. 6th ed. New Delhi: New Age International Pvt. Ltd, 2011. Print.

Pillai, S.O. *Problems in Solid State Physics*. 3rd ed. New Delhi: New Age International Pvt. Limited, 2006. Print.

Feynman, R. P., Leighton, R. B. and Sands, M. *The Feynman Lectures on Physics. Vol 1*. New Delhi: Narosa publishing house, 2003. Print.

Wahab, M.A. *Solid State Physics Structure and Properties of Materials*. 2nd ed. New Delhi: Narosa Publishing House, 2006. Print.

<http://iopscience.iop.org/article/10.1088/0953-2048/20/3/R01/meta>

High-temperature superconductor fault current limiters: concepts, applications, and development status Mathias Noe1 and Michael Steurer, IOP Publishing Ltd, Superconductor Science and Technology, Volume 20, Number 3, 2007.

PGP3327P COMPUTATIONAL & MICROCONTROLLER LAB

(LAB)

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- acquire the basic operations in Gaussian 03
- apply Gaussian 03 to understand simple molecular systems
- use the software ORIGIN as a tool for analysis
- develop the programming skills of μ c 8051
- infer the concept of assemblers and compilers
- detect the applications of microcontroller programming

EXPERIMENTS:

COMPUTATIONAL LAB EXPERIMENTS

1. Determination of the geometrical parameter of the optimized geometry of small molecules using Gaussian03 software through Gauss View.
2. Study of the energy of a molecule with varying bond angle and compare with that of the optimized structure.
3. Study of IR and Raman spectra using Z matrix and Gauss View.
4. Study of H- bonding between two molecules using Gaussian03 software through Gauss View.
5. Study of frontier molecular orbital using Gaussian03 software through Gauss View.
6. De convolution of a given IR spectra using ORIGIN

MICROCONTROLLER LAB EXPERIMENTS (Using KEIL assembler)

1. Load & exchange operations
2. Arithmetic & Logical operations
3. Bit Addressable Operations
4. Branch instructions
5. Code conversion
6. Array Operations

REFERENCE BOOKS

Frisch, Eelen, Michael, J. Frisch, and Gary, W. Trucks. *Gaussian 03 User's Reference*. 2nd ed. United States: Gaussian Inc., 2005. Print.

Frisch, Eelen, Roy, D. Dennington II, Todd, A. Keith, Alice, B. Nielsen and Andrew, J. Holder. *Gauss View Reference*. United States: Gaussian Inc., 2003. Print.

Ayala, Kenneth. *The 8051 Microcontroller*. 3rd ed. New Delhi: Cengage Learning Pvt. Ltd., 2010. Print.

Ali Mazid, Muhammad, Janice, G. Mazidi and Rolin, D. McKinlay. *The 8051 Microcontroller*

and Embedded Systems. 2nd ed. New Delhi: Pearson Education Inc., Prentice-Hall, 2005.
Print.

Getting Started with μ Vision2 and the C51 Microcontroller Development Tools User's

Guide 02.2001. Elektronik GmbH and Keil Software, Inc., Germany, 2001.

Macro Assembler and Utilities. Germany: Elektronik GmbH and Keil Software Inc., 2001.

PGP3528P COMPUTATIONAL & GIS LAB

LAB

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- acquire the basic operations in Gaussian 03
- apply Gaussian 03 to understand simple molecular systems
- use the software ORIGIN as a tool for analysis
- analyse Toposheets
- create Geo database and work with spatial data
- produce thematic maps and analyze

EXPERIMENTS:

COMPUTATIONAL LAB EXPERIMENTS

1. Determination of the geometrical parameter of the optimized geometry of small molecules using Gaussian03 software through Gauss View.
2. Study of the energy of a molecule with varying bond angle and compare with that of the optimized structure.
3. Study of IR and Raman spectra using Z matrix and Gauss View.
4. Study of Hydrogen bonding between two molecules using Gaussian03 software through Gauss View.
5. Study of frontier molecular orbital using Gaussian03 software through Gauss View.
6. De convolution of a given IR spectra using ORIGIN

GIS LAB EXPERIMENTS

1. Geo correction
Map Reading – Geo correction of scanned Toposheets
2. Creating database & layers
Creating Personal Geodatabase - Feature Dataset & Feature Data class -
Creating Domains and Sub-types
3. Digitization
Digitization of Point, Line and Polygon data - Entering labels, domains and subtypes
4. Spatial Analysis
Buffer – Reclass – Overlay - Interpolation
5. Creating a map with GPS
Data collection with GPS - Mapping the collected data

6. Map generation & Data analysis

Map composition - Map generation - Data analysis – ground water analysis

REFERENCE BOOKS

Frisch, Eleen, Michael, J. Frisch and Gary, W. Trucks. *Gaussian 03 User's Reference*. 2nd ed. United States: Gaussian Inc., 2005. Print.

Frisch, Eleen, Roy, D. Dennington II, Todd, A. Keith, Alice, B. Nielsen and Andrew, J. Holder. *Gauss View Reference*. United States: Gaussian Inc., 2003. Print.

Lab Manual

Introduction to Arc GIS I for Arc View, Arc Editor, Arc Info. United States: ESRI educational services, 2003. Print.

Introduction to Arc GIS II for Arc View, Arc Editor, Arc Info. United States: ESRI educational services, 2003. Print.

ERDAS Field guide, 7th ed. Leica Geosystems, 2003. Print.

PGP4524M MODERN OPTICS

THEORY

LEARNING OUTCOMES

5 hrs. / wk.

On successful completion of this course the students will be able to

- define the concepts of the Fourier optics
- describe the concept of Polarization and Diffraction
- explain the theory of lasers and
- acquire an introductory knowledge of Non-linear optics

COURSE OUTLINE:

UNIT I: RAY AND WAVE OPTICS

15 hrs.

Ray Optics: Postulates of Ray Optics – Graded-index optics – Matrix Optics – Wave Optics: Postulates of Wave Optics – Complex Representation and Helmholtz Equation – Beam Optics: The Gaussian Beam – Complex amplitude – Properties – Beam Quality.

UNIT II: FOURIER OPTICS

15 hrs.

Propagation of Light in Free Space: Spatial Harmonic Functions and Plane Waves – Transfer Function of Free Space - Impulse Response Function of Free Space – Huygens – Fresnel Principle – Optical Fourier Transform: Fourier Transform in the Far Field – Fourier Transform Using a Lens – Image Formation: Ray-Optics of a Single – Lens Imaging System – Wave Optics of a 4f imaging System

UNIT III: POLARIZATION OPTICS

15 hrs.

Polarization of Light: Polarization – Matrix representation – Reflection and refraction – Optics and Anisotropic Media: Refractive indexes – Propagation along a Principal Axis – Propagation in an Arbitrary Direction – Dispersion Relation, Rays, Wavefront and Energy Transport – Double Refraction – Optical Activity – Magneto-Optics

UNIT IV: LASERS

15 hrs.

Theory of Laser Amplification: Gain and Bandwidth – Phase Shift – Amplifier Pumping: Rate Equation – Pumping Schemes – Theory of Laser Oscillation: Optical amplification and Feedback – Condition for Laser Oscillation – Characteristics Of The Laser Output:

Power – Spectral Distribution – Common Lasers: Solid state Laser: Crystalline and glass hosts – Dopant ions – Laser-diode Pumping – Neodymium-doped Yttrium Aluminum Garnet (Nd:YAG) – Semiconductor laser – Fiber lasers – Raman Fiber Lasers – Gas Lasers – Dye Lasers – Pulsed Laser: Methods of Pulsing Lasers – Q-switching - Mode Locking: Properties of a Mode-Locked Pulse Train

UNIT V: NONLINEAR OPTICS

15 hrs.

Nonlinear Optical Media – Second-Order Nonlinear Optics: Second-Harmonic Generation and Rectification – The Electro-Optic Effect – Three-Wave Mixing – Phase Matching and Tuning Curves – Phase Matching Methods: angle tuning and temperature tuning of the crystals – Third-Order Nonlinear Optics: Third-Harmonic Generation and Optical Kerr Effect – Self-Phase Modulation, Self-Focusing and Spatial Solitons – Raman Gain – Four-Wave Mixing – Optical Phase Conjugation

TEXT BOOKS

Saleh B.E.A. and Teich, M.C. *Fundamentals of Photonics*. 2nd ed. New Jersey: A John Wiley & Sons Inc., Publication, 2007, Chapters: 1.1, 1.3, 1.4 2.1, 2.2A, 2.3, 3.1A, B,C, 4.1A,B,C,D, 4.2A, B, 4.4A, B, 6.1A, B,6.2, 6.3A, B,C,D, E, 6.4A, B, 14.1A,B, 14.2A,B,15.1A,B, 15.2A, B, 15.3A,B,C ,15.4A,C,D, 21.1, 21.2A,B,C,D, 21.3A,B,D,E. Print.

Silfvast, William, T. *Laser Fundamentals*. 2nd ed. Cambridge: Cambridge University Press, 2003, Chapter 16.6, 15.3. Print.

REFERENCE BOOKS

Lipson, S.G., Lipson, H. and Tannhauser, D.S. *Optical Physics*. 3rd ed. Cambridge University Press, 1995. Print.

Jenkins, Francis A. and Harvey, E. White. *Fundamental of Optics*. 4th ed. New Delhi: Tata Mc Graw –Hill Pvt. Ltd., 2011. Print.

Meyer, Jurgen. R. *Introduction to Classical and Modern Optics*. 2nd ed. Prentice–Hall of India,1988. Print.

Sirohi , Raj pal. S. *WaveOptics and its Application*. Orient Longman Limited, 2003.Print.

Moloney, Jerome V. and Alan, C. Newell, *Nonlinear Optics*. New Delhi: Overseas Press, 2008. Print.

Goodman, Joseph W. *Introduction to Fourier Optics*. 2nd ed. Singapore, The Mc Graw-Hill Companies,1996. Print.

Ghatak, Ajoy. *Optics*. 3rd ed. New Delhi: The Mc Graw-Hill Companies, 2007.Print.

PGP4621M ATOMIC AND MOLECULAR SPECTROSCOPY THEORY

LEARNING OUTCOMES

6 hrs. / wk.

On successful completion of the course, the student will be able to

- know the principles of spectroscopy in the different regions of the electromagnetic spectrum
- apply the concepts of group theory to molecular vibrations
- relate the theory of spectroscopy to the study of molecular structure

COURSE OUTLINE :**UNIT I : ELECTRONIC SPECTROSCOPY OF ATOMS****18 hrs.**

The Structure of Atoms – Electronic Angular Momentum – Many Electron Atoms – The Building-Up (Aufbau) principle – Spectrum of Lithium and other Hydrogen like species – The Angular Momentum of Many-Electron Atoms- Term symbols – The spectrum of Helium and the Alkaline Earths – Equivalent and non Equivalent electrons – Photoelectron spectroscopy – The Zeeman Effect – Stark Effect – The influence of Nuclear spin .

UNIT II : MOLECULAR SYMMETRY & MICROWAVE SPECTROSCOPY**18 hrs.**

Introduction - Symmetry operations and point groups - Products of symmetry operations – Conjugate operations and classes – The molecular point group – Matrix representation – Irreducible representations – The symmetry species of molecular vibrations – the nomenclature of the irreducible representations – Character table – some examples – The Rotation of Molecules – Rotational Spectra – Diatomic Molecule – Polyatomic Molecules – Chemical Analysis by Microwave Spectroscopy.

UNIT III : INFRARED SPECTROSCOPY**18 hrs.**

The Vibrating Diatomic Molecule – The Diatomic Vibrating Rotator – The Vibration-Rotation Spectrum of Carbon Monoxide – Breakdown of the Born-Oppenheimer Approximation: The Interaction of Rotations and Vibrations – The Vibrations of Polyatomic Molecules – The Influence of Rotation on the Spectra of Polyatomic Molecules – Analysis by Infra-red Techniques – Applications.

UNIT IV : RAMAN SPECTROSCOPY**18 hrs.**

Classical theory of Raman effect - Pure Rotational Raman Spectra – Linear molecules – Symmetric top molecules – Asymmetric top molecules - Vibrational Raman Spectra – Raman activity of vibrations – Rule of mutual exclusion – Vibrational Raman Spectra – Rotational fine structure – Structure determination from Raman and IR spectroscopy – Effect of nuclear spin on Raman spectroscopy – Resonance Raman Scattering – Stimulated Raman Scattering – Surface Enhanced Raman Scattering: Surfaces for SERS study – Enhancement Mechanisms – Surface Selection Rules – Representative Spectra – SERS Microprobe – Applications of SERS.

UNIT V : ELECTRONIC AND SPIN RESONANCE SPECTROSCOPY**18 hrs.**

Electronic spectra of Diatomic molecules: The Born-Oppenheimer Approximation – Vibrational Coarse Structure – The Franck-Condon Principle – Jablonski diagram – Dissociation Energy and Dissociation Products – Rotational Fine Structure of Electronic – Vibration Transitions – The Fortrat Diagram - Nuclear Magnetic Resonance: Magnetic properties of Nuclei – Resonance condition – NMR instrumentation – Dipolar interaction – Chemical shift – Indirect Spin-Spin interaction .

TEXT BOOK(S)

Aruldas, G. *Molecular Structure and Spectroscopy*. 2nd ed. New Delhi: Prentice Hall of India Pvt. Ltd., 2009, Chapters: 5.9-5.11, 10.1–10.3, 10.7-10.9, 14.1-14.7. Print.

Banwell, C.N., *Fundamentals of Molecular Spectroscopy*. 4th ed. New Delhi: Tata McGraw Hill reprint, 2007, Chapters: 2.1- 2.4, 2.6, 3.1-3.7, 4.1 – 4.3, 4.5, 5.1-5.8, 6.1.1-6.1.6. Print.

Straughan, B.P. and Walker, S. *Spectroscopy*. Vol.2, New York: John Wiley & Sons, 1976, Chapters: 2.1, 2.2.1 – 2.2.5, 2.3.5, 2.4.1 – 2.4.4. Print .

WEBSITE(S):

http://www.astro.uwo.ca/~jlandstr/p467/lec5-mol_spect/index.html

<http://crab.rutgers.edu/~alroche/Rads-Ch4.pdf>

http://www.shsu.edu/chm_tgc/primers/pdf/JAB.pdf

REFERENCE BOOK(S)

Pauling, L. *The Nature of Chemical Bond and the Structure of Molecules and Crystals*. Singapore: World Scientific publishing company Pvt. Ltd., 2001. Print.

Straughan, B.P and Walker, S. *Spectroscopy. Vol.I*, New York: John Wiley & Sons, 1976. Print.

White. *Introduction to Atomic Spectra*. New Delhi: McGraw Hill Kogakusha Ltd., 1974. Print.

Richmyer, F.K., Kennard, E.H. and John, N. Cooper. *Introduction to Modern Physics*. 6th ed. New Delhi: Tata McGraw Hill Publishing Company Ltd., 1981. Print.

PGP45240 THIN FILM PHYSICS**THEORY****LEARNING OUTCOMES****5 hrs. / wk.**

On successful completion of the course, the students will be able to

- know the nucleation and growth of thin film at the atomic scale
- explain ion plating and chemical vapor deposition
- compare non-elemental and elemental characterization of thin film and coatings.
- practice the thin film deposition techniques of evaporation and sputtering

COURSE OUTLINE:**UNIT I : PHYSICS OF THIN FILMS****10 hrs.**

Thermodynamics of nucleation-nucleation theories-effects of super saturation, temperature, lattice strain, impurity, surface imperfection-comparison of the two models of nucleation-film growth-incorporation of defects,vacancies and dislocations,lattice matching and mismatching and impurities in thin films-deposition parameters and grain size-epitaxy

UNIT II : DEPOSITION TECHNIQUES – I**20 hrs.**

PVD process – theory and mechanism – evaporation process and apparatus – evaporation sources-deposition rate monitors and process control-ion plating – Bombardment: surface and near surface effects- effects on adhesion, film growth and properties of the deposited material – sources of depositing material – sources of bombarding particles – substrate potential – applications.

UNIT III : DEPOSITIONTECHNIQUES – II**20 hrs.**

Sputtering – energetic particles generation – efficient trapping of electrons leads to magnetron sputter deposition – post magnetrons – planar magnetrons – rotating cylindrical magnetrons – chemical vapour deposition – important reaction zones in CVD – Design of CVD experiments – classification of CVD reactions – wetting process – spraying process – electro deposition techniques – applications

UNIT IV : PHYSICAL CHARACTERIZATION OF THIN FILMS AND COATING **10 hrs.**

Characterization – Film formation-elemental and structural analysis – some property measurements-adhesion – filmthickness-film stress-co efficient of thermal expansion – mechanical property – electrical resistivity – temperature co efficient of resistivity – electro migration – density – porosity – chemical etch rate

UNIT V : CHARACTERIZATION TECHNIQUES OF THIN FILM & COATINGS **15 hrs.**

structural characterization:X-ray diffraction and reflection and X – ray photoelectron spectroscopy optical characterization: UV, Raman and infrared and Photoluminescence spectroscopies.

surfacecharacterization: Scanning electron microscopy and atomic force microscopy.

electricalcharacterization:CV and EIS

TEXT BOOK(S)

Goswamy. A. *Thin Film Fundamentals*, 1st ed. New Delhi: New age International Publication, 2008, Relavant topics from Chapter 5. Print.

Martin, Peter M. *Deposition technologies for films and coatings*. 3rd ed. United states: Elsevier, 2010, Chapters - 4.3-4.7, 5.2, 5.3, 5.4.1, 5.4.2, 5.4.3, 6.1-6.7, 7.1, 7.3, 7.8, 7.10, 15, 16.3.1-16.3.3, 16.3.5, 16.5.1, 16.5.2, 16.6.1, 16.6.2. Print.

Useful tutotrials

Helmut Glinzler and Alex, Williams. *Handbook of Analytical techniques*. Wiley-VCH Verlag GmbH, 2001(Relevant topics).Print.

Gamryinstruments, *Electrochemical Impedance spectroscopy Theory*. Print.

REFERENCE BOOKS

Guthrie, Andrews. *Vacuum Technology*. 1st ed. New York: John Wiley and Sons, 1963. Print.

Chopra K. L. *Thin Film Phenomena*. New York: McGraw-Hill, 1969.Print.

Ohring, Milton. *Materials Science of Thin Films*. 2nd ed. New Delhi: Elsevier, 2006. Print.

Hornyak, Gabor L., Tibbals, et.al. *Introduction to NanoScience & Nano Technology*. New York : CRC Press Taylor & friends Group, 2009. Print.

PG DIPLOMA IN REMOTE SENSING AND GIS

(NON CBCS)

(2016 onwards)

(Offered to all disciplines except languages)

| Sem. | Course Code | Course Title | Hrs./ wk. |
|--------------|-------------|---|-----------|
| I | PRG 1101 | REMOTE SENSING AND DIGITAL IMAGE PROCESSING | 6 |
| | PRG 1102 | REMOTE SENSING LAB | 3 |
| | PRG 1103 | DIP LAB | 3 |
| | PRG 0104 | PROJECT | 18 |
| TOTAL | | | 30 |
| II | PRG 2101 | GEOGRAPHICAL INFORMATION SYSTEM | 6 |
| | PRG 2102 | GIS LAB | 3 |
| | PRG 2103 | ADVANCED GIS LAB | 3 |
| | PRG 0104 | PROJECT | 18 |
| TOTAL | | | 30 |

SEMESTER I

PRG1101 REMOTE SENSING AND DIGITAL IMAGE PROCESSING

THEORY

LEARNING OUTCOMES

6 hrs. / wk.

On successful completion of the course, the student will be able to

- know the basic principles of remote sensing and image processing
- acquire skills in image processing techniques of remote sensing imageries
- interpret the various concepts of image enhancement and classification
- apply remote sensing in different fields

COURSE OUTLINE:

UNIT I: CONCEPTS OF REMOTE SENSING

18 hrs.

Introduction – Components and process of Remote sensing – Energy source – Energy interaction with the earth surface features – Characteristics of remote sensing systems – Data acquisition and interpretation – Use of open source data

UNIT II: IMAGE RESTORATION

18 hrs.

Introduction – Basic Character of Digital Image – Preprocessing – Geometric Correction– Radiometric Correction – Atmospheric Correction

UNIT III: IMAGE ENHANCEMENT

18 hrs.

Image Enhancement: Spatial Filtering Techniques (Low Pass Filters – High Pass Filters – Filtering for Edge Enhancement) – False color Composite – Image Transformations.

UNIT IV: IMAGE CLASSIFICATION

18 hrs.

Image Classification: Supervised classification (Minimum distance to mean, Parallelepiped, Maximum likelihood) - Unsupervised Classification – NDVI – PCA – Hybrid Classification – Classification Accuracy Assessment

UNIT V: RECENT DEVELOPMENTS AND APPLICATIONS IN REMOTE SENSING

18 hrs.

Recent developments in Remote Sensing: RADAR, LiDAR, Microwave, Hyper spectral image – Application of remote sensing: Natural resource management, Land use / Land cover mapping, Agriculture, Forestry, Water resources

TEXT BOOKS

Reddy, Anji, M. *Remote Sensing and Geographical Information System*. 3rd ed. Hyderabad: BS Publication, 2008, Chapters: 6.1-6.3, 6.5-6.7. Print.

Joseph, George. *Fundamentals of Remote Sensing*. 2nd ed. Hyderabad: University Press India Limited, 2009, Chapters: 11.1-11.4. Print.

Lillie Sand, Thomas M. and Ralph, W. Keifer. *Remote Sensing and Image Interpretation*. 6th ed. New York: John Wiley and Sons, 2008, Chapters: 1.1-1.5, 1.8, 1.9, 5.14, 7.7, 7.8, 7.10- 7.12, 7.17, 8.1 & 8.2. Print.

REFERENCE BOOK

Jensen, John R. *Remote Sensing of the Environment an Earth Resource Perspective*. Pearson Education, 2003. Print.

PRG1102 REMOTE SENSING LAB

LAB I

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- develop computational skills
- use remote sensing software
- develop skills in creating database and layers

EXPERIMENTS:

1. Data acquisition : Downloading satellite data from open sources - Inserting scanned map / GPS points / Satellite image
2. Interoperability: Import and Export maps
3. Data Preparation, Layer Stacking, Data Merging
4. Georeferencing the Toposheet
5. Georeferencing the Satellite image
6. Subset and Mosaicing in ERDAS
7. Satellite Data Acquisition
8. Digitisation of Point, Line & Polygon

Lab Manual

ERDAS Field Guide, 7th ed. Leica Geosystems, 2003. Print

PRG1103 DIP LAB

LAB II

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the link between the Remotesensing and Digital Image Processing
- acquire image enhancement techniques
- recognize the use of data classification

EXPERIMENTS:

1. Image Restoration: Geometric correction
2. Radiometric and Atmospheric correction
3. Visual interpretation of Satellite data
4. Image Enhancement: Filter, Stretch, Density slicing
5. Image Classification: Supervised
6. Image Classification: Unsupervised
7. Post Classification Processing
8. Change Detection

Lab Manual

ERDAS Field Guide. 7th ed. Leica Geosystems., 2003.Print

PRG2101 GEOGRAPHICAL INFORMATION SYSTEM THEORY

LEARNING OUTCOMES

6 hrs. / wk.

On successful completion of the course, the student will be able to

- know the basics of GIS analysis
- recognize database construction, data input and editing
- describe the techniques of advanced GIS analysis
- practice GIS in Geomatic technology

COURSE OUTLINE:

UNIT I: FUNDAMENTALS OF GIS

18 hrs.

Introduction – Concept of GIS – Over view of information system – The Four Ms – GIS definitions and terminology – Entities – Attribute – Topology – Spatial data – GIS architecture – Components of GIS – GIS work flow

UNITII: DATA BASE CREATION

18 hrs.

Introduction – Use of open source data (Satellite & Vector data) – Building GIS database – storage of GIS data – spatial data: spatial database models – Attribute data models: DBMS – Functions of DBMS – Components of DBMS – Simple list – Ordered sequential files – indexed files – Hierarchical database – RDBMS – Object Oriented database

UNIT III: DATA INPUT & EDITING

18 hrs.

Introduction – Use of existing spatial dataset – Creation of spatial dataset – Data input methods: Keyboard entry – Manual digitizing – Scanning and automatic digitizing – Electronic file transfer – Detecting and correcting errors: vector/ raster data editing - Data transformation, re-projection and generalization – Edge matching and rubber sheeting. Capturing coordinates data using GPS – advantages of GPS – GPS data for GIS -Attribute data creation, editing and correction.

UNIT IV: SPATIAL ANALYSIS

18 hrs.

Introduction – Spatial measurement – Reclassification – Buffer – Queries – Overlay analysis: Vector / Raster overlay – Interpolation – Network Analysis – Surface Analysis: DEM – TIN – Slope – Aspect etc. – Visibility Analysis.

UNIT V: OUTPUT – MAP COMPOSITION

18 hrs.

GIS output – Cartographic Outputs: Map as output – Thematic map – Choropleth map – Chorochromatic map – Isopleth map – Choroschematic map – Cartogram – Multimedia maps 3D - 4D – Fly through – Non-cartographic outputs: Bar – Chart.

TEXT BOOK

Reddy, Anji, M. *Remote Sensing and Geographical Information System*. 3rd ed. Hyderabad: BS Publication, 2008, Chapters: 7.1-7.4, 7.6-7.8, 9.1-9.6, 10, 12.1, 12.4 – 12.8, 12.10. Print.

REFERENCE BOOK(S):

Burrough, Peter, A., and Rachael, A. McDonnell. *Principles of Geographical Information Systems*. New York: Oxford University Press Inc., 1998. Print.

Lo Albert, C.P and Yeung, K.W. *Concepts and Techniques of Geographical Information System*. New Delhi: Prentice Hall of India, 2005. Print.

Heywood, Lan, Sarah Cornelius and Steve Carver. *Introduction to Geographical Information System*. 2nd ed. Pearson Education, 2003. Print.

PRG2102 GIS LAB - LAB I

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- analyse satellite data and map composition
- acquire skills in data input and editing
- identify the use of data integration

EXPERIMENTS:

1. Georeferencing the toposheet in GIS Software
2. Georeferencing the satellite image in GIS Software
3. Creating database and layers
4. Spatial Data input
5. Spatial Data editing
6. Attribute data input & editing
7. Data integration
8. Working with tables, working with symbology

Lab Manual

Introduction to Arc GIS I for Arc View, Arc Editor, Arc Info. United States: ESRI educational services, 2003. Print

Introduction to Arc GIS II for Arc View, Arc Editor, Arc Info. United States: ESRI educational services, 2003. Print.

PRG2103 ADVANCED GIS LAB - LAB II

LEARNING OUTCOMES

3 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the use of special tools of GIS in real time
- recognize the use of GPS in fixing location
- analyze the new data.

EXPERIMENTS:

1. Mapping techniques : Spatial analytical tools: buffer, reclass, overlay, interpolation
2. Spatial statistics tools: analyzing patterns, mapping clusters
3. Surface analysis: TIN, DEM
4. Surface analysis: Slope, Aspect
5. Network analysis: shortest path & best path
6. Use of GPS data in fixing location
7. Integration of GPS & GIS
8. Map Composition

Lab Manual

Introduction to Arc GIS I for Arc View, Arc Editor, Arc Info, United States: ESRI educational services, 2003. Print.

Introduction to Arc GIS II for Arc View, Arc Editor, Arc Info, United States: ESRI educational services, 2003. Print.

EVALUATION PATTERN
PG DIPLOMA COURSE UNDER NON CBCS

| Sem. | Course Code | Course Title | Course Type (Theory / Lab) | Total Hrs./ Week | | FORMATIVE | | | | | | | | | | | | SUMMATIVE | | | | | | | | |
|------|-------------|---|-------------------------------|------------------|----|-----------|----|-----|----|-----|----|------|----|------|----|------|----|-----------|-----|-------|--------|------|------|------|-----------|--|
| | | | | | | CA1 | | CA2 | | CA3 | | Test | | Assn | | Quiz | | F. Lab | | Total | Theory | | Lab | Viva | Exam Hrs. | |
| | | | | | | RM | RM | RM | RM | No | RM | No | RM | No | RM | No | RM | RM | GM | | RM | RM | TH | Lab | | |
| I | PRG1101 | REMOTE SENSING AND DIGITAL IMAGE PROCESSING | TH | 6 | - | - | - | - | 2 | 40 | 2 | 10 | 1 | 10 | - | - | 60 | 40 | 100 | - | - | 3.00 | - | | | |
| I | PRG1102 | REMOTE SENSING LAB | LA | - | 3 | - | - | - | - | - | - | - | - | - | 1 | 75 | 75 | - | - | 25 | - | - | 3.00 | | | |
| I | PRG 1103 | DIP LAB | LA | - | 3 | - | - | - | - | - | - | - | - | - | 1 | 75 | 75 | - | - | 25 | - | - | 3.00 | | | |
| II | PRG2101 | GEOGRAPHICAL INFORMATION SYSTEM | TH | 6 | - | - | - | - | 2 | 40 | 2 | 10 | 1 | 10 | - | - | 60 | 40 | 100 | - | - | 3.00 | - | | | |
| II | PRG2102 | GIS LAB | LA | - | 3 | - | - | - | - | - | - | - | - | - | 1 | 65 | 65 | - | - | 25 | - | - | 3.00 | | | |
| II | PRG2103 | ADVANCED GIS LAB | LA | - | 3 | - | - | - | - | - | - | - | - | - | 1 | 65 | 65 | - | - | 25 | - | - | 3.00 | | | |
| II | PRG0104 | PROJECT | PR | - | 18 | 20 | 20 | 20 | - | - | - | - | - | - | - | - | 60 | - | - | - | 40 | - | - | | | |

DEPARTMENT OF CHEMISTRY

PREAMBLE

The Department of Chemistry revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

Ratification:

Experiments based on the following concepts have been included in CHE0302CP - Experimental Physical Chemistry:

- (i) Chemical Kinetics – hydrolysis of ester
- (ii) Phase diagram – two component system

PG Syllabus

- A new Elective course PCH 3424E Cheminformatics for drug design is introduced
- The course PCH1524M is modified with slight changes as PCH1527M

B.Sc. (Spl.) CHEMISTRY – AIDED (From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed In |
|--------------|-------------------------|--|------------|-----------|------------------------------------|
| V | CHE5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | CHE5401CM | COORDINATION AND BIOINORGANIC CHEMISTRY | 5 | 4 | AW- 2015 |
| | CHE5503CM | NITROGEN COMPOUNDS AND NATURAL PRODUCTS | 5 | 5 | |
| | CHE5502CM | CHEMICAL KINETICS, CATALYSIS AND ELECTRO CHEMISTRY | 5 | 5 | AW- 2015 |
| | CHE5202CP | INSTRUMENTAION LAB | 3 | 2 | |
| | CHE0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW- 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW- 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| TOTAL | | | 30 | 24 | |
| VI | CHE6501CM | ORGANIC SYNTHESIS AND SPECTROSCOPY | 5 | 5 | AW- 2015 |
| | CHE6504CM | PHOTOCHEMISTRY, PHASE EQUILIBRIA AND INSTRUMENTAL ANALYSIS | 5 | 5 | AW- 2015 |
| | CHE6503CM | MOLECULAR SPECTROSCOPY, QUANTUM CHEMISTRY AND GROUP THEORY | 5 | 5 | AW- 2015 |
| | CHE6501CT | APPLICATIONS OF CHEMINFORMATICS | 6 (4T+ 2L) | 5 | |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW- 2015 |
| | CHE0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW- 2015 |
| TOTAL | | | 30 | 30 | |

Total number of credits for 2014 batch (semesters I – VI) 147

CHE5503CM NITROGEN COMPOUNDS AND NATURAL PRODUCTS

THEORY

LEARNING OUTCOME

5 hrs. / wk.

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

- acquire the knowledge on the reactions of amines and nitro compounds
- describe the properties of heterocyclic compounds
- recognize the structure and properties of biomolecules
- analyse the structure and properties of natural products

COURSE OUTLINE:

UNIT I: AMINES AND NITRO COMPOUNDS

15 hrs.

Amines: Preparation and properties – Hofmann-Martius rearrangement – Fischer-Hepp rearrangement – Diazoamino-aminoazo rearrangement – Benzidine rearrangement – Lossen rearrangement – Schmidt reaction – Gabriel phthalimide synthesis – Hoffmann's exhaustive methylation – Effect of substituent and solvent on the basicity of aliphatic and aromatic amines – basicity and steric effects – Libermann nitroso test – Schotten – Baumann reaction – Carbylamine reaction – distinction between 1°, 2° and 3° amines – Hofmann's method – Hinsberg reagent and nitrous acid – conversion of amines into substituted amides

Diazonium Salts: preparation – coupling reactions – synthetic applications of diazonium salts.

Nitrocompounds: preparation and reactions of nitroalkanes – Nef reaction and Mannich reaction leading to Michael addition and reduction – tautomerism of nitroalkanes – distinction between nitroalkanes and alkylnitrites

UNIT II: HETEROCYCLIC COMPOUNDS:

15 hrs.

Introduction – nomenclature – five membered rings – preparation and structure of furan – pyrrole – electrophilic substitution – reactivity and orientation – derivatives – Knorr-pyrrole synthesis – Paal-Knorr synthesis – Indole – Fischer Indole synthesis – six membered rings – pyridine – synthesis – structure – basicity of pyridine – electrophilic substitution – nucleophilic substitution – Chichibabin reaction – methods of ring fission – piperidine
Self study – thiophene.

Concept for Virtual Lab:

Structure and reactions of heterocyclic compounds

UNIT III: NUCLEIC ACIDS, AMINOACIDS AND PROTEINS

15 hrs.

Components of nucleic acids – Nucleosides and nucleotides – ATP- role as energy carrier – kinetic stability of ATP in cell – structure, synthesis and reactions of adenine – guanine – cytosine – Uracil and Thymine – structure of polynucleotides – amino acids – peptides and their classification – α -amino acids – synthesis – ionic properties and reactions – zwitterions – pK_a values – isoelectric point and electrophoresis – study of peptides – determination of their primary structures – end group analysis – methods of peptide synthesis – synthesis of peptides using N-protecting – C-protecting and C-activating groups – Solid-phase synthesis

Concept for Virtual Lab: Protein folding

UNIT IV: ALKALOIDS AND TERPENOIDS**15 hrs.**

Alkaloids: Definition – extraction – general properties – general methods of determining structure – classification – structure elucidation and synthesis of pyridine and piperidine group – piperine, pyridine and pyrrolidine group – cocaine

Terpenoids: Introduction – classification – isolation – isoprene rule and special isoprene rule – general methods of determining the structure – structure and synthesis of acyclic – citral bicyclic – camphor

Concept for Virtual Lab: Extraction of alkaloids

UNIT V: CARBOHYDRATES:**15 hrs.**

Monosaccharides – classification – family tree of saccharides – configuration of aldoses in relation to glyceraldehydes – constitution of glucose and fructose – stereochemistry of glucose – oxidation – interconversions – lower aldose to higher aldose – Kiliani synthesis – Ruff degradation – conversion of an aldose into its epimer – aldose into ketose – mutarotation of glucose – configuration of glucose – absolute configuration – cyclic structure of D(+) glucose – configuration about anomeric carbon – methylation – determination of ring size – conformations of glucose – disaccharides – general study of cellobiose – sucrose (structure and specific properties) – Haworth structure.

TEXT BOOKS

Jain, M. K. and Sharma, S. C. *Modern Organic Chemistry*. 4th ed. New Delhi: Vishal Publishing, 2013. Print.

Morrison, R. T. and Boyd, R.N. *Organic Chemistry*. 7th ed. New Delhi: Prentice Hall, 2008. Print .

REFERENCE BOOKS

Agarwal, O.P. *Chemistry of natural products - Vol. II*. 32nd ed. Meerut: Goel Publishing House, 2007. Print .

Chatwal Gurdeep. *Chemistry of natural products - Vol. II*, 5th ed. Delhi: Himalaya publishing House, 2008. Print.

Finar, I.L. *Organic Chemistry – Vol. I & II*, 8th ed. New Delhi: Pearson Education, 2011. Print.

WEBSITE

<http://www.chemtube3d.com/HeterocyclicTitle%20page.html>

<http://www.chemtube3d.com/Proteinframe.html>

CHE5202CP INSTRUMENTATION LAB**LEARNING OUTCOME****3hrs. / wk.**

On successful completion of the course, the student will be able to

- validate the theoretical concepts through experiments.
- analyze and interpret the experimental data.
- design an indigenous experiment based on the concepts.

EXPERIMENTS:

The students will be trained in the following instruments with respect to the principle, working and various applications.

- Flame photometer
- Nephelometer
- TDS analyzer
- Fine Particulate matter analyzer
- UV Visible Spectrophotometer
- UV-Photoreactor

One self designed experiment by the student based on any one of the instrumental technique

DEMONSTRATIONS:

The demonstration of the following sophisticated instruments will be given.

Separation techniques using High Performance Liquid Chromatography and Gas Chromatography – Thin film maker – Atomic Force Microscopy – Scanning Tunnelling Microscope – Microwave Synthesizer

REFERENCES

Gary, D. Christian. *Analytical Chemistry*, 6th ed. New York: John Wiley & Sons, 2011. Print.
 Mendham J., Denney, R. C., Barnes, J. D., Thomas, M. and Sivasankar, B. *Vogel's textbook of quantitative chemical analysis*. 6th ed. New Delhi: Pearson, 2011. Print.
 Skoog, D.A., West, D.M., Holler, F.J. and Crouch, S.R. *Fundamentals of Analytical Chemistry*, India: Cengage Learning, 2014. Print.

WEBSITES

<http://www.dartmouth.edu/~>

<http://amrita.vlab.co.in/>

CHE6504CM PHOTOCHEMISTRY, PHASE EQUILIBRIA AND INSTRUMENTAL ANALYSIS (Theory)

LEARNING OUTCOME :

5 Hrs. / wk.

On successful completion of the course, the student will be able to

- apply suitable instrumental technique for analysis of chemical compounds.
- describe the various photophysical and photochemical processes.
- illustrate the behavior of chemical mixtures using suitable phase diagrams.
- predict the electric and magnetic properties of molecules.

COURSE OUTLINE:

UNIT I : PHOTOCHEMISTRY

15 hrs.

Principles of photochemistry – consequences of light absorption – Jablonski diagram – light absorption by solutions – laws of photochemistry – quantum yield and its determination – primary and secondary processes – photochemical reactions – photochemical rate law – kinetics of photochemical reactions – hydrogen-chloride and hydrogen-bromide – photophysical processes – chemiluminescence – bioluminescence – photosensitization – quenching – applications of photochemistry – laser action

Concepts for virtual lab: Photophysical processes.

UNIT II : PHASE EQUILIBRIA

15 hrs.

Difference between phase and state of matter – definition of terms – phase – components and degrees of freedom – derivation of Gibb's phase rule – phase diagrams of one component systems –water –

sulfur systems – liquid Helium system – two component systems-simple eutectic systems – thermal analysis and cooling curves – phase diagrams of Pb-Ag and KI – water systems – freezing mixtures – formation of compounds with congruent and incongruent melting points – ferric chloride-water – sodium sulphate – water systems.

UNIT III : ELECTRIC AND MAGNETIC PROPERTIES

15 hrs.

Electric properties of molecules – polarization in an electric field – Clausius – Mosotti equation – Debye equation – symmetry and dipole moment – measurement of dipole moment – dependence of polarisability on frequency – bond moments – group moments – dipole moments and molecular structure. Magnetic properties of molecules – magnetic permeability – magnetic susceptibility – para and dia magnetism – molecular interpretation of para and dia magnetism – measurement of magnetic susceptibility – ferro and antiferromagnetism.

UNIT IV : INSTRUMENTAL METHODS OF ANALYSIS

15 hrs.

Principles and method of analysis using Atomic Absorption Spectroscopy – fluorimetry – Thermo Gravimetry – Differential Thermal Analysis – amperometry – coulometry – voltammetry.

Demonstrations:

Atomic Absorption Spectroscopy, fluorimetry, voltammetry.

Concepts for virtual lab

Thermogravimetry, Differential Thermal Analysis

UNIT V : POLYMER CHEMISTRY

15 hrs.

Introduction – classification of polymers – degree of polymerization – polydispersity and polydispersity index – molar mass of polymers – number average and mass average molar mass – determination of molar mass of polymers – osmometry and viscometry – types of polymerization – kinetics of addition and condensation polymerization – applications of important polymers – polyethylene – polyvinyl chloride – polystyrene – commercially important polymers – nylon – teflon

Concepts for virtual lab

Determination of viscosity average weight of polymers.

TEXT BOOK(S)

Arun Bahl, Bahl, B.S. and Tuli, G.D. *Essentials of Physical Chemistry*, New Delhi: S.Chand and Co. Ltd, 2009. Print.

Gowariker, V.R., Viswanathan, N.V. and Jayadev Sreedhar. *Polymer Science*, New Delhi: Wiley Eastern Ltd, 1986. Print.

Puri, B.R, Sharma, L.R. and Pathania, S. *Principles of Physical Chemistry*, 46th ed. Jalandhar: Vishal Publishing Co., 2012. Print.

Skoog, D.A., West, D.M., Holler, F.J. and Crouch, S.R. *Fundamentals of Analytical Chemistry*. India: Cengage Learning, 2014. Print.

PCH1527M ORGANIC REACTION MECHANISM

THEORY

LEARNING OUTCOMES

5 hrs. / wk.

On successful completion of the course, the student will be able to

- identify and describe the different types of reaction mechanisms
- recognize the relationship between structure and reactivity
- compare the mechanistic details of substitution, elimination and addition reactions
- employ the name reactions for carrying out organic conversions

COURSE OUTLINE:

UNIT I : INTRODUCTION TO REACTION MECHANISM

15 hrs.

Structure and stability of carbocations – carbanions – free radicals – carbenes – nitrenes – types of **reaction mechanisms** – Hammond postulate – microscopic reversibility – Methods of determining mechanism – isotopic labeling – kinetic evidence – isotope effect – cross over experiments

UNIT II : STRUCTURE AND REACTIVITY

15 hrs.

Effect of structure and Reactivity – resonance and field effects – steric effects – quantitative treatments of the effect of structure and reactivity – LFER – Hammett and Taft equation – importance of σ and ρ values in aromatic electrophilic substitutions – Labelling and kinetic isotopic effects

Aromaticity – Huckel's rule – aromaticity in 5, 6, 7 and 8 membered rings (recall) – Aromatic systems with electron numbers other than six – systems of two electrons – four electrons (anti aromaticity) – eight electrons – ten electrons and more than ten electrons – annulenes and hetero annulenes

UNIT III: NUCLEOPHILIC SUBSTITUTION AND ELIMINATION REACTIONS

15 hrs.

Aliphatic nucleophilic substitution – Mechanisms – S_N2 , S_N1 , mixed S_N1 & S_N2 , S_Ni , SET – Neighbouring group mechanism – NGP by π and σ bonds (non classical carbocations) – reactivity – effect of substrate – attacking nucleophile – leaving group and reaction medium – substitution at vinylic – trigonal and allylic carbons

Elimination – mechanisms of β eliminations – (E2, E1, E1CB) – E1 – E2 – E1CB spectrum – orientation of double bonds – reactivity – effect of substrate – attacking base – leaving group and medium

UNIT IV: ADDITION REACTIONS AND AROMATIC SUBSTITUTION

15 hrs.

Addition to C-C multiple bonds – mechanisms – electrophilic – nucleophilic – free radical – orientation and reactivity – addition of conjugated systems – cyclopropane rings – carbon – hetero multiple bonds.

Electrophilic additions – mechanism of addition of halogens and hydrogen halides on carbon – carbon double bond system

Aromatic Electrophilic Substitution – Arenium ion mechanism – orientation and reactivity in monosubstituted benzene rings – benzene rings with more than one substituent – effect of leaving group – o/p ratio.

Aromatic Nucleophilic substitution – mechanism – S_NAr – S_N1 – benzyne – reactivity – effect of substrate – leaving group and attacking nucleophile

UNIT V: SELECTED ORGANIC NAME REACTIONS

15 hrs.

Favorskii reaction – Stark enamine reaction – Michael addition – Sharpless asymmetric epoxidation – Hofmann – Loffler-Freytag reaction – Shapiro reaction – Baeyer-villegar reaction – Bischler-Napieralski reaction – Robinson annelation – Heck reaction – Suzuki coupling – Sonogashira coupling – Kumada coupling – Negishi coupling – Mukaiyama coupling

REFERENCE BOOK(S)

Carey, F.A. *Organic Chemistry*. 2nd ed. New York: McGraw-Hill Inc., 1992, (Units II, III & IV). Print.

Edwin, S. Gould. *Mechanism and Structure in Organic Chemistry*, New York: Holt Rinehart and Winston Inc ., 1959, (Units I, II, III & IV). Print .

Jerry March. *Advanced Organic Chemistry*, 4th ed. New Delhi: Wiley eastern limited, 1999. Print.

Lowry, T.H. and Richardson, K.S. *Mechanism and Theory in Organic Chemistry*. London: Harper and Row, 1976, (Unit I). Print.

Moody, C. J. and Whitham, G. H. *Reactive intermediates*. New York: Oxford chemistry Primers, 1992, (Unit I). Print.

Raj, K. Bansal. *Organic Reaction Mechanism*. New Delhi: Tata McGraw Hill, 1990, (Units II, III & IV). Print.

Reinhard Bruckner. *Advanced Organic Chemistry - Reaction Mechanisms*. London: Academic Press, 2003, (Unit I). Print.

Solomons, T.W.G. *Organic Chemistry*. U.S.A.: John Wiley & Sons, Inc., 1976, (Units II, III & IV). Print.

Sykes, P. *A Guidebook to Mechanism in Organic Chemistry*, 6th ed. New Delhi: Orient Longman Private limited, 1988, (Unit II). Print.

PCH3424E CHEMINFORMATICS FOR DRUG DESIGN

(Lab cum Theory)

LEARNING OUTCOME

3T+1L Hrs. / wk.

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

- recognize the different types of 2D and 3D molecular representations
- identify and describe the applications of various databases
- describe the various drug-target interactions

COURSE OUTLINE:

UNIT I: CHEMICAL REPRESENTATION OF MOLECULES

12 hrs.

Basics of Organic Compounds – Classification – IUPAC nomenclature – functional groups –

Structure representation of Chemical Compounds – Line notations – WLN – ROSDAL – SMILES – SMARTS – molecular representation using graph theory – matrix

representations –adjacency – distance – atom-connectivity and bond matrix – connection table – Z-matrix – **Various File Formats**- structure of Molfiles – Sdfiles

UNIT II: DATABASES AND CHEMICAL STRUCTURE SEARCHING **11 hrs.**

Databases – Source – content – design – accessibility and use – chemical database – PUBCHEM – CHEMBANK and DRUGBANK – Biological database – PDB

Molecular structure Searching techniques – full structure – super structure – substructure and similarity searching methods – similarity based on 2D fingerprints – Tanimoto and Tversky – Dice coefficient – cosine – Euclidean distance – properties of similarity and distance coefficient

UNIT III: INTRODUCTION TO DRUG-DESIGN AND DISCOVERY **11 hrs.**

Drug design – Ligand based drug design – drug likeliness – Lipinski's rule of five – and structure based de novo design techniques – **Drug targets** – enzymes – receptors – proteins – nucleic acids – lipids – carbohydrates – **Discovery of drug candidates** – Natural Products – Lead development and optimization

UNIT IV : MOLECULAR RECOGNITION AND DOCKING **11 hrs.**

Molecular recognition in drug-target binding – intermolecular interactions – electrostatic or ionic bonds – hydrogen bonds – van der Waals interactions – dipole-dipole and ion-dipole interactions – hydrophobic interactions – Formulation of a **QSAR equation**

Docking – Docking procedures – Rigid docking – Flexible docking – scoring functions – docking softwares – **Case studies** – Anti-influenza drug – HIV protease inhibitors – Fast acting insulin –ADME Properties

UNIT V: LAB **15 hrs.**

- Construction of molecules using an online software and saving in different file formats
- Obtaining the SMILES notation of the molecules
- Retrieving chemical information from PUBCHEM database
- Getting the crystal structure of a target protein molecule from pdb database
- Performing similarity, substructure and exact structure search of chemical compounds in databases.
- Calculating properties of molecules
- Docking Molecules onto their targets

REFERENCE BOOKS

Andrew, R. Leach and Gillet Valerie, J. **An Introduction to Chemoinformatics. revised ed. Netherland: Springer, 2007**, (Unit II). Print.

Graham, L. Patrick. An introduction to medicinal chemistry. 4th ed. UK: Oxford university press, 2009, (Unit III, IV). Print.

Johann Gasteiger and Thomas Engel, **ed. Chemoinformatics: A Textbook**. Weinheim: **Wiley VCH, 2003**, (Unit I, II). Print.

Larsen et al. *Textbook of Drug Design and Discover*. 3rd ed. London and NewYork : Taylor and Francis, 2004, (Unit III, IV). Print.

DEPARTMENT OF BOTANY

PREAMBLE

The Department of Botany revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

The department proposes a paper **MMB1607 IN-DEPTH STUDY** related to the respective area of research in M.Phil. Microbiology.

B.Sc. (Spl.) Botany – Aided

(From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs./ wk. | Credit | Passed in |
|------|-------------------------|---|-----------|-----------|---------------------------------------|
| V | BOT5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | BOT5401CM | GENETICS | 4 | 4 | AW-2015 |
| | BOT5402CM | EVOLUTION & PALEOBOTANY | 4 | 4 | AW-2015 |
| | BOT5501CM | ENVIRONMENTAL BIOLOGY & APPLIED MICROBIOLOGY | 6 | 5 | - |
| | BOT5202CP | LAB FOR ENVIRONMENTAL BIOLOGY & APPLIED MICROBIOLOGY | 4 | 2 | - |
| | BOT0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW-2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | TOTAL | 30 | 23 | |
| VI | BOT6401CM | APPLIED BOTANY | 4 | 4 | AW-2015 |
| | BOT6501CM | MOLECULAR BIOLOGY | 5 | 5 | - |
| | BOT6502CM | BIOTECHNOLOGY | 5 | 5 | - |
| | BOT6201CP | LAB FOR APPLIED BOTANY | 3 | 2 | AW-2015 |
| | BOT6202CP | LAB FOR MOLECULAR BIOLOGY & BIOTECHNOLOGY | 4 | 2 | AW-2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW-2015 |
| | | TOTAL | 30 | 28 | |

Total number of credits for 2013 batch (semesters I – VI) 145

BOT5501CM ENVIRONMENTAL BIOLOGY AND APPLIED MICROBIOLOGY THEORY

LEARNING OUTCOME

6 hrs. / wk.

On successful completion of the course the student will be able to

- analyze the ecosystem and appreciate the different types of interaction seen among plants and microbes
- analyze and evaluate the role of microbes in eco sustainability in the light of national and global environmental issues and learn about the distribution, sampling devices and control measures of air microflora
- understand the various factors influencing microbial spoilage of food and food borne diseases and analyze the process involved in the production of fermented products
- recognise the role of microbes in disease establishment and their control

COURSE OUTLINE:

UNIT I: ECOSYSTEM AND ECOLOGICAL FACTORS:

18 hrs.

Definition, scope, historical background – special focus on Indian ecosystem – abiotic and biotic components of aquatic and terrestrial ecosystem, Ecological pyramids, food chain, food web, energy flow. Classification, climate, topographic, edaphic and biotic factors, effects of the factors on plants at optimal and supra optimal levels.

UNIT II: BIOGEOCHEMICAL CYCLES AND POPULATION INTERACTION:

18 hrs.

Characteristics and structure of communities, Process of succession – Hydrosere, Xerosere. Biogeochemical cycles – Definition, classification, Carbon, Water, Oxygen, Nitrogen, Sulphur and Phosphorus cycle. Neutralism, Commensalism, Synergism, Mutualism, Competition, Amensalism, Antagonism, Parasitism and Predation

UNIT III: CLIMATE CHANGE – GLOBAL AND ISSUES IN INDIA

18 hrs.

Climate change- Causes and effects, Natural disasters- Earthquakes, cyclones, floods. Carbon sinks, Ecological footprint, Climate change and loss of biodiversity, Sustainable development – Global and issues in India, Solid waste management – Composting, Sewage treatment. Pollution, Aerobiology- Air borne biological materials, Air sampling devices – Impactors (Slit Sampler, Cascade impactor, Hirst trap, Anderson sampler, Rotorod, Vertical cylinder trap), Impingers

UNIT IV: FOOD AND INDUSTRIAL MICROBIOLOGY

18 hrs.

Classes of foods – Perishable, Semiperishable and Non-perishable, Food as a substrate for microbes, Factors (Intrinsic and Extrinsic). sources of food contamination, Food spoilage – Milk, Meat and Canned food, Food infection and food intoxication. Screening and preservation of industrially important micro organisms, and fermentation media. Batch fermentor. Microbial production of industrially important products [Penicillin & Citric acid]

UNITV: MEDICAL MICROBIOLOGY and IMMUNOLOGY

18 hrs.

Types of immunity – innate immunity and its mechanism, Acquired immunity – vaccines. Antigens – essential features, Antibodies – properties, Immunoglobulins – structure, Antigen – antibody reactions – precipitation, agglutination, Hypersensitivity – classification, mechanism & manifestation, Host – pathogen relationship – normal microbial flora of human body, Antibiotic test for potency – Kirby – Bauer test, MIC test. Causative

organism, symptoms, diagnosis and control of the following diseases: AIDS, Tuberculosis, Malaria

TEXT BOOK(S)

Abdul, K. Abbas and Andrew, H. Litchman. *Basic Immunology – Functions and disorders of the immune system*. New Delhi: Elsevier India Pvt. Ltd., 2006. Print.

Frazier, W.C. and Westhoff, D.C. *Food Microbiology*. 4th ed. New Delhi: Tata McGraw Hill, 2009. Print.

Kumar, Arvind. *A Text Book of Environmental science*. New Delhi: APH Publishing Corporation, 2009. Print.

Patel, A. *Industrial Microbiology*. New Delhi: McMillan India Ltd., 2006. Print.

Shetty, N. *Immunology – Introductory Text Book*. New Delhi: New Age International Publishers, 2006. Print.

Shukla. *Ecology*. New Delhi: S.Chand & Company Ltd., 1996. Print.

Tilak, S.T. and Basumatary, S.K. *Aerobiology*. Aurangabad: Vivek Mudranalaya, 1982. Print.

REFERENCE BOOK(S)

Adams, M.R. and Moss, M.O. *Food Microbiology*. New Delhi: New Age International (P) Limited Publishers, 1996. Print.

Atlas, R.M. and Bartha, R. *Microbial Ecology: Fundamentals and Applications*. California: The Benjamin / Cummings Publishing Company Inc., 2000. Print.

Bhachura, E. *Text book of Environmental studies for under graduate students*. Hyderabad: Universities Press (India) Pvt. Ltd., 2006. Print.

Casida, J.E. *Industrial Microbiology*. New Delhi: Wiley Eastern Ltd., 1968. Print.

Crueger, W. and Crueger, A. *A textbook of Industrial Microbiology*. New Delhi: Panima Publishing Corporation, 2000. Print.

Das, R. R. *Environmental Studies*. New Delhi: Paragon International Publishers, 2006. Print.

Greenwood, D., Slack, R.C.B. and Peuther, J.F. *Medical Microbiology*. 15, Hong kong: ELST Publishers, 1997. Print.

Levinson, W.E. and Jawetz, E. *Medical Microbiology & Immunology*. 4th ed. New York: Prentice Hall International Inc., 1996. Print.

Misra. S. P., Pandey, S. N. *Essential Environmental studies*. New Delhi: Ane Books India, 2008. Print.

Misra, D.D. *Fundamental concepts in Environmental studies*. New Delhi: S. Chand & Company Ltd., 2009. Print.

Roitt, I. *Essential Immunology*. 11th ed., U.S.A: Blackwell Science Inc., 2006. Print.

Singh, H.R. *Environmental Biology*. New Delhi: S. Chand and company Ltd., 2009. Print.

Tizard, I.R. *Immunology: An Introduction*. 2nd ed. Philadelphia: W.B. Saunders, 1998. Print.

BOT5202CP LAB FOR ENVIRONMENTAL BIOLOGY & APPLIED MICROBIOLOGY

LAB

LEARNING OUTCOME

4 hrs. / wk.

On successful completion of the course the student will be able to

- determine the concentration of pollutants in the atmosphere
- isolate and identify microbes causing food spoilage
- report the obtained ecological data
- interpret and relate plant and microbial life to the environmental conditions.

COURSE CONTENT:

1. Air samplers – Particle analysis, measurement of CO₂ & CO concentration in air.
2. Effect of disinfectant (lysol) and UV on the growth of microbes.
3. Isolation of Enumeration of microorganism from spoiled food.
4. Dye reduction tests – Methylene blue.
5. Screening of microbes for the production of antibiotics – Crowded plate technique
6. Starch hydrolysis test for the production of amylase and casein hydrolysis test for the production of protease
7. Isolation of clinically important bacteria from sputum, throat swab and urine.
8. Antibiotic sensitivity test – Kirby- Bauer test, MIC test.
9. Antigen-antibody reaction – Blood grouping
10. Study of vegetation in the campus by - Quadrat method, Line transect, Belt transect method.
11. Physical parameters of water - pH, Temperature, Turbidity
12. Chemical parameters of water - Acidity, Alkalinity, Dissolved oxygen
13. Bacteriological analysis of water sample – Test for coli forms

REFERENCE BOOKS

- Cappucino, J.G. and Sherman, N. *Microbiology – A Laboratory manual*. 7th ed. South Asia: Pearson Education Inc. & Dorling Kindersley Publishing Inc., 2009. Print.
- Gunasekaran, P. *Laboratory Manual in Microbiology*. New Delhi: New Age International Pvt. Ltd. Publishers, 1995. Print.
- Harrigan, W.F. *Laboratory methods in Food Microbiology*. 3rd ed. UK: Academic Press Ltd., 1998. Print.
- Kannan, N. *Laboratory Manual in General Microbiology*. Palani: Paramount Publications, 1996. Print.
- Manivasakam, N. *Industrial Effluents – Origin, Characteristics, Effects, Analysis & Treatment*. Coimbatore: Sakthi Publications, 1987. Print.
- Trivedi, P.R. and Raj, A. *Environmental water and soil analysis*. New Delhi: Adshadeep Publishing House, 1992. Print.

BOT6501CM MOLECULAR BIOLOGY

THEORY

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course the student will be able to

- understand the genetic principles that contribute to the development and maintenance of an organism
- describe replication of DNA, transcription into RNA & translation to proteins
- understand the genetic code & translation of nucleic acid sequence into amino acid sequence
- analyze the implications of mutation & the ways in which bacteria can exchange genes
- appreciate the regulation of gene expression in prokaryotes

COURSE OUTLINE :

UNIT I: NUCLEIC ACIDS

15 hrs.

DNA and RNA as genetic material. Replication of DNA in prokaryotes-conservative, semi conservative, dispersive, *In vitro* DNA synthesis, mechanism and enzymes of DNA replication, Models of replication - rolling circle replication.

UNIT II: MUTATION

15 hrs.

Types of mutation – Point mutation, induced mutations – chemical – 5 bromo uracil, NTG (N-Methyl-N'-nitro-N-nitrosoguanidine), physical - UV. Applications of mutations, repair mechanisms - photo reactivation, excision repair, SOS & mismatch repair

UNIT III: TRANSCRIPTION

15 hrs.

Mechanism of transcription, post transcriptional processing, regulation of transcription-positive & negative control.

UNIT IV: TRANSLATION, GENE EXPRESSION AND REGULATION

15 hrs.

Translation – Genetic code in Prokaryotes, Wobble hypothesis, Protein synthesis – mechanism and inhibitors of protein synthesis. Operon concept – Lac & Trp., Post translational modification.

UNIT V: GENETIC RECOMBINATION IN BACTERIA

15 hrs.

Properties of plasmids, Types of plasmid – col, R plasmids. Conjugation – F⁺, F⁻, Hfr, F['] Mechanism, mapping. Transformation - Competance, Mechanisms. Transduction – Types – Generalised, Specialised, Abortive transduction and its mechanisms.

TEXT BOOK(S)

Freifelder, D. *Essentials of Molecular Biology*. New Delhi: Narosa Publishing House, 1993. Print.

Snustad, D. P. and Simmons, J. M. *Principles of Genetics*. 6th ed. New York: John Wiley & Sons Inc., 2012. Print.

REFERENCE BOOK(S)

Clark, D.P. *Molecular Biology – Understanding the Genetic Revolution*. London: Elsevier Academic Press, 2005. Print.

Gardner, E.J. *Principles of Genetics*. 9th ed. New York: John Wiley & Sons Inc., 1999. Print.

Hyde, R. David. *Genetics and Molecular Biology with Fundamentals of Biostatistics*. New Delhi: TATA McGraw Hill Education Pvt. Ltd., 2010. Print.

Klug, S. William and Cummings, R. M. *Concepts of Genetics*. 7th ed. Singapore: Pearson Education Pvt. Ltd., 2003. Print.

Lewin, B. *Genes VII*. New York: Oxford University Press, 2001. Print.

Pierce, A. B. *Genetics, A Conceptual Approach*. New York: W.H. Freeman & Company, 2003. Print.

Snustad, D. P. and Simmons, J. M. *Principles of Genetics*, 6th ed. New York: John Wiley & Sons Inc., 2012. Print.

BOT6502CM BIOTECHNOLOGY THEORY

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course the student will be able to

- define the principles and applications of biotechnology
- describe the process involved in the regeneration of plant tissue *invitro*
- appreciate the various methods of gene transfer in plants and animals
- understand the basic concepts of nanomaterials and biosynthesis of nanoparticles

COURSE OUTLINE:

UNIT I: HISTORY & ENZYMES OF rDNA TECHNOLOGY

15 hrs.

- i) History of Biotechnology – current development and future priorities
- ii) Enzymes involved in rDNA technology - Restriction endonucleases I, II, III, Reverse transcriptase & ligases. Overview of vectors used in rDNA technology. Vector – Plasmid, Phagemid, Cosmid.

UNIT II: PLANT BIOTECHNOLOGY

15 hrs.

Plant tissue culture, history, principles and methods of tissue culture – Isolation and pretreatment of explant material. Callus culture, organogenesis, somatic embryogenesis, meristem culture, anther culture. Protoplast culture – Isolation and culture methods. Micropropagation in plants – methods and application – somaclonal variation – detection and isolation of variants. Synthetic seeds – Encapsulation and application. GM Plants – Golden rice & BT cotton – Methods and applications, advantages and disadvantages.

UNIT III: METHODS OF GENE TRANSFER

15 hrs.

Direct DNA transfer, Biolistics, Electroporation, *Agrobacterium* mediated. Blotting techniques – Northern, Southern & Western blotting, PCR.

UNIT IV: ANIMAL BIOTECHNOLOGY

15 hrs.

Animal tissue culture – History, organ culture, cell culture, primary culture, animal cell line, Finite and continuous cell line. Gene transfer methods in animals – transfection, microinjection, electroporation, use of polycations, embryo transfer and *invitro* fertilization. Transgenic animals – transgenic sheep.

UNIT V: BASICS OF NANOMATERIALS & BIOLOGICAL SYNTHESIS OF NANOPARTICLES

15 hrs.

Introduction & biological synthesis of Nanotechnology – Definition, Classification & properties of nanomaterials. Use of bacteria, fungi, actinomycetes for nanoparticle synthesis, magnetotactic bacteria for natural synthesis of nanoparticles; Mechanism of

formation: Viruses as a component for the formation of nanostructured materials: Role of plants in nanoparticle synthesis.

TEXT BOOK(S)

Dubey, A.C. *A Text Book of Biotechnology*. New Delhi: S. Chand & Company Ltd., 1993. Print.

Kumar, H.D. *A Text Book on Biotechnology*. New Delhi: Affiliated East West Press Pvt. Ltd., 1981. Print.

Florence Periera – Raja. *Animal Biotechnology*. New Delhi: Dominant Publishers and Distributors, 2006. Print.

Ranga, M.M. *Animal Biotechnology*. Jodhpur, 2005. Print.

Slater, A., Scott, N.W. and Fowler, M.R. *Plant Biotechnology*. New York: Oxford University Press, 2003. Print.

Trivedi, P.C. *Nanobiotechnology*. Jaipur: Pointer Publishers, 2008. Print.

REFERENCE BOOK(S)

Balaji, Subbiah. *Nanobiotechnology*. Chennai: MJP Publishers, 2010. Print.

Balasubramanian, D., Bryce, C.F.A., Dharmalingam, K., Green, J. and Jayaraman, K. *Concepts in Biotechnology*. Hyderabad: University Press Ltd., 1996. Print.

Glick, B.R., Jack, J. Pasternak. *Molecular Biotechnology*. New Delhi: Panama Publishing Corporation, 1996. Print.

Old, R.W., and Primrose, S.B. *Principles of Gene Manipulation and Genomics*. Oxford: Blackwell Publications, 2009. Print.

Rao, C.N.R., Muller, A. and Cheetham, A.K. *The Chemistry of Nanomaterials – synthesis, properties and application*. Volume I & II, USA: Wiley – VCH Verlag Gmbh & Co., 2004. Print.

Rao, K A., Hornyak, L.G., Dutta, J. and Tibbals. F.H. *Introduction to Nanoscience*. New York: CRC Press, 2008. Print.

M. Phil., Microbiology

(Applicable to students of batch 2016 and onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Passed in |
|------|-------------|---|------------|-----------|
| I | MMB1501 | RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS IN BIOLOGY | 5 | AR 2010 |
| | MMB1502 | ADVANCED MICROBIOLOGY | 5 | AR 2010 |
| | MMB1607 | IN - DEPTH STUDY | - | - |
| II | MMB2604 | PROJECT | - | AR 2010 |

MMB1607 IN-DEPTH STUDY

LEARNING OUTCOME

On successful completion of the course the student will be able to

- comprehend the latest research in the field of her dissertation
- relate the published literature in the field of dissertation
- critically analyse & interpret the published data related to her dissertation

COURSE OUTLINE:

Each student will undertake an in-depth study of published literature related to the topic of dissertation that will be carried out in semester Ivl.

Students are expected to review 25 research papers relevant to the topic which will be evaluated for formative requirement.

DEPARTMENT OF ZOOLOGY**PREAMBLE**

The Department of Zoology revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

B.Sc. Zoology (Specialization in Biotechnology) - Aided

(From 2014 Batch onwards)

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|-------------------------|---|-----------|---------|------------------------------------|
| V | ZOO5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | - |
| | ZOO5401CM | EVOLUTION | 4 | 4 | AW 2015 |
| | ZOO5402CM | GENETIC ENGINEERING | 4 | 4 | AW 2015 |
| | ZOO5503CT | BIO PROCESS & MICROBIAL BIOTECHNOLOGY | 4T + 1L | 5 | AW 2015 |
| | ZOO5201CP | LAB IN GENETIC ENGINEERING | 4 | 2 | AW 2015 |
| | ZOO0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | LIBRARY | 1 | | |
| | Total | 30 | 23 | | |
| VI | ZOO6501CM | PLANT AND ANIMAL BIOTECHNOLOGY | 6 | 5 | AW 2015 |
| | ZOO6502CM | ANIMAL BEHAVIOUR | 5 | 5 | AW 2015 |
| | ZOO6503CM | ECONOMIC ENTOMOLOGY | 5 | 5 | AW 2015 |
| | ZOO6201CP | LAB IN PLANT AND ANIMAL BIOTECHNOLOGY | 4 | 2 | AW 2015 |
| | ZOO0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW 2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | LIBRARY | 1 | | | |
| | Total | 30 | 27 | | |

Total number of credits for 2014 batch (semesters I – VI) 143

ZOO5201CM INTRODUCTION TO RESEARCH METHODOLOGY

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course the student will be able to

- recognize the significance of doing research
- appreciate the theoretical aspects of research
- involve themselves in doing the project on their own

COURSE CONTENT:

UNIT I:

6 hrs.

History of research – Types of research. History of Science – Scientific method, genesis of scientific discovery. Collection of reference material – primary, secondary, tertiary sources, preparation of author index, Title and subject card. Modern developments in library services.

UNIT II:

6 hrs.

Selecting a problem and designing the methodology of the work. Research proposal – hypothesis, statement, significance, assumption and limitation. Review of literature, materials and methods, time budget and cost.

UNIT III:

6 hrs.

Tools of science and research designs-different methods to test the hypothesis. Collection of data -methods involved – primary data, secondary data, surveys – questionnaire, interviews. Sampling techniques-different types of sampling-random sampling and non random sampling.

UNIT IV:

6 hrs.

Classification of data-types of classification. Tabulation-different kinds of tables-components of table. Presentation and analysis of data – Diagrammatic representation-bar diagrams, pie diagrams, pictograms and cartograms. Graphs of frequency distribution-histograms, frequency polygon, smooth frequency curves, Ogives.

UNIT V:

6 hrs.

Analysis of data - Description measures-various measures of central tendency-measures of dispersion. The research report – sample title page, acknowledgement, table of contents.List of tables, main body of the text, reference materials.

REFERENCE BOOK(S)

Adishesiah, W.T.V. and Sekar, S. *Educational and Social Research*. Coimbatore: Velanpathipagam, 1997 .Print.

Gurumani, N. *Research Methodology for Biological Sciences*. Chennai: MJP Publishers, 2014. Print.

Jeyaraj , N. ed. *Introduction to Research methodology - A Multidisciplinary Approach*. Madurai, India: Lady Doak College, 2008. Print.

Kothari, C.R. *Research Methodology-Methods and Techniques* . 2nd ed. New Delhi: Wiley Eastem Ltd., 1992. Print.

Kurien, C.T. *A Guide to Research in Economics*. Coimbatore: Rainbow Publications, 1985. Print.

Medawar, P.B. *Advice to a Young Scientist*. USA: Basic book, Harper Collins, 1979. Print.

Rao, Sundar, P.S.S. and Richard, J. *Introduction to Biostatistics and Research Methods*. 5th ed. New Delhi: PHI Learning Private Ltd., 2012. Print.

Saravanel, P. *Research Methodology*. Allahabad: Kitab Mahal, 1987. Print.

Thanulingam, N. *Research Methodology*. New Delhi: Himalaya Publishing House, 2000. Print.

WEBSITES

www.google.com, www.scirus.com, www.csus.com - for unit I.

DEPARTMENT OF BIOTECHNOLOGY

PREAMBLE

The Department of Biotechnology revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively. The department is now presenting the same for semesters V and VI for 2014 batch.

The department proposes a paper **MMB1701 In-Depth Study of Published Literature** related to the respective area of research in M.Phil. Biotechnology.

B.Sc. Biotechnology – Self – Financed

(From 2014 Batch onwards)

| Sem. | Course Code | Course title | Hrs./ wk | Credits | Passed in |
|------|-------------------------|--|-----------|-----------|---------------------------------------|
| | BTE5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW 2015 |
| | BTE5401CM | IMMUNOTECHNOLOGY | 4 | 4 | AW 2015 |
| | BTE5403CM | EVOLUTION | 4 | 4 | - |
| | BTE5502CM | rDNA TECHNOLOGY & BIOSAFETY | 5 | 5 | - |
| | BTE5201CP | rDNA & IMMUNOTECHNOLOGY LAB | 4 | 2 | AW 2015 |
| | BTE0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW 2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | AW 2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | LIBRARY | 1 | - | |
| | | Total | 30 | 23 | |
| | BTE6401CM | PLANT BIOTECHNOLOGY | 4 | 4 | 'AW' 2015 |
| | BTE6402CM | ANIMAL BIOTECHNOLOGY | 4 | 4 | 'AW' 2015 |
| | BTE6403CM | INDUSTRIAL BIOTECHNOLOGY & IPR | 4 | 4 | 'AW' 2015 |
| | BTE6201CP | INDUSTRIAL BIOTECHNOLOGY LAB | 4 | 2 | 'AW' 2015 |
| | BTE6301CP | PLANT & ANIMAL BIOTECHNOLOGY LAB | 5 | 3 | 'AW' 2015 |
| | | INTER DISCIPLINARY COURSES | 4 | 4 | 'AW' 2015 |
| | | LIFE FRONTIER ENGAGEMENT | 5 | 6 | 'AW' 2015 |
| | | Total | 30 | 27 | |

Total number of credits for 2013 batch (semesters I – VI) 142

BTE 5403CM EVOLUTION

THEORY

LEARNING OUTCOME

4 hrs. / wk.

On successful completion of the course, the student will be able to

- relate the concept of origin of life through the fossil records.
- analyze the evolutionary changes in a population
- apply the molecular phylogenetic tools in evolutionary studies

COURSE OUTLINE:

UNIT I : ORIGIN OF LIFE

12 hrs.

The big bang and formation of Earth crust – continental drift – geological time scale. Fossil: types and formation of fossils – radiometric and paleomagnetic dating – Origin of life: Theories – Urey & Miller's experiment – formation of coacervates, microspheres and macromolecules – origin of prokaryotes and eukaryotes.

UNIT II : MECHANISM OF EVOLUTION

12 hrs.

Theories of organic evolution – Lamarckism- Neo Lamarckism – Darwinism- mutation theory – modern synthetic theory: Basic forces of evolution – primary and accessory – gene flow-random genetic drift – Bottleneck effect – Founder's effect – Isolating mechanisms: geographical and reproductive isolation – speciation – types, mechanism – patterns.

UNIT III : VARIATION

12 hrs.

Genetic variation in population – polymorphism – types – genotype frequency – allelic frequency – principle and application of Hardy Weinberg equilibrium – factors affecting Hardy Weinberg equilibrium – Adaptive coloration and mimicry in animals – Co-evolution – plant – herbivore interaction, pollinator – flower interaction

UNIT IV : EVOLUTION OF SELECTED ANIMALS

12 hrs.

Levels of evolution Micro, macro, mega evolution and adaptive radiation in animals – Evolution of Horses – Apes – Human Evolution – Biological and cultural evolution – Human line – up to *Homo sapiens*.

UNIT V : MOLECULAR EVOLUTION:

12 hrs.

Phylogenetic analysis – tools for assessment of molecular evolution, DNA phylogeny: Molecular clock – Cytochrome C, Mitochondria, Protein phylogeny: Haemoglobin – Phylogenetic analysis – dendrogram.

TEXT BOOK(S)

Chattopadhyay, S. *LIFE: Evolution, Adaptation and Ethology*. 3rd ed. Kolkata: Books and Allied Pvt. Ltd, 2012. Print.

Hall, B.K. and Hallgrímsson, B. *Strickberger's Evolution*. 5th e., New Delhi: Jones and Barlett India. 2014. Print.

REFERENCE BOOK(S)

Arora, M.P. *Evolutionary Biology*. 1st ed. New Delhi: Himalaya Publication House, 1990. Print.

Futuyma, D.J. *Evolution*. 2nd ed. USA: Sinaer Associates Inc. Publishers, 2009. Print.

Jha, A.P. *Genes and Evolution*. 1st ed. New Delhi: MacMillan India Ltd, 1993. Print.

Ridley M, *Evolution*. 2nd ed. UK: Oxford University Press, 2007. Print.

Ajay Paul, *Text book of genetics from genes to genome*, 1st ed. New Delhi: Chand Publications, 2011. Print.

Savage, R.J.G. *Mammal Evolution: An illustrated guide*. 1st ed. London: Facts on file Inc., 1986. Print.

BTE5502CM rDNA TECHNOLOGY & BIOSAFETY

(Theory)

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course, the student will be able to

- integrate the knowledge of gene cloning and expression
- apply rDNA technology in life science research
- state the concept of bio safety in gene manipulation

COURSE OUTLINE:

UNIT I : MOLECULAR TOOLS OF rDNA TECHNOLOGY

15 hrs.

History – enzymes used in gene manipulation – restriction enzymes (types and nomenclature), DNA modifying enzymes – polynucleotide kinase, methyl transferase, Alkaline phosphatase, polymerases (DNA, RNA & Reverse transcriptase) and DNA ligases.

UNIT II : VECTORS AND CLONING TECHNIQUES

15 hrs.

Salient features of an ideal vector – Plasmid derived cloning vectors – pBR322, pUC18/19, Phage derived vectors – lambda (Insertional and replacement vectors) & filamentous – Advanced vectors – Cosmid, phagemid; expression vectors, pET based vectors, artificial chromosome vectors (BAC & YAC), shuttle vectors.

UNIT III : CLONING STRATEGIES

15 hrs.

Construction of genomic and cDNA libraries, PCR and its applications. Construction of recombinant vector – ligation – cohesive ends, blunt end – linkers and adaptors, TA cloning. Introduction to host cell – transformation and *in vitro* packaging. Screening – immunochemical, hybridization techniques.-southern, northern, western

UNIT IV : SEQUENCING METHODS

15 hrs.

Sanger's chain termination and Gilbert's chemical cleavage method of sequencing, Automated DNA sequencing, , Pyro sequencing, whole genome and Shot gun approach.

UNIT V : BIOSAFETY FOR rDNA TECHNOLOGY

15 hrs.

Bio safety – Risk groups (categories - I,II,III & IV) and safety guidelines –The Cartagena protocol – AIA – LMO – The Miami's group - compromise group – LMG. Regulatory bodies in India – RDAC,IBSC, RCGM, MEC, GEAC.

TEXT BOOK(S)

Brown, T.A. *Gene Cloning and DNA Analysis*, 5th ed. UK: Blackwell Scientific Publications, 2006. Print.

Richard, J. Reece. *Analysis of genes and genomes*. United States: John Wiley and Sons, 2004. Print

REFERENCE BOOK(S)

Channaraayappa. *Molecular Biotechnology - Principles and Practices*. India: Universities Press. Private Limited, 2006. Print.

Department of Biotechnology, Ministry of Science & Technology, Revised *Recombinant DNA Safety Guidelines*. New Delhi: Government of India, 1994. Print.

Mickloss, D.A. and Frever, G.A. *DNA Science - A First Course*. New York: Cold Spring Harbor Laboratory Press, 2003. Print.

Primrose, S.B. and Twyman, R.M. *Principles of Gene Manipulation and Genomics*. 7th ed. New York: Blackwell Scientific Publications, 2006. Print.

Rateledge, C. and Kristiansen, B. *Basic Biotechnology*. New Delhi: Cambridge University Press, 2006. Print.

Sambrook, J. and Russell, D.W. *A Laboratory Manual*. New York: Cold Spring Harbor Laboratory Press, 2001. Print.

Walker, J.M. and Gingold, E.B. *Molecular Biology and Biotechnology*. 3rd ed. New Delhi: Panama Publishing Corporation, 2001. Print.

Young, M. and Howell, R. *Comprehensive Biotechnology*. 2nd ed. Volumes I, II, III & IV, Elsevier Publications. 1985. Print.

WEBSITE(S)

<http://www.nature.com>

[http://www.neb.com/tools and resources/](http://www.neb.com/tools_and_resources/)

<http://www.genomenetwork.org>

<http://www.science.org>

<http://www.highwirepress.org>

<http://www.ncbi.nlm.nih.gov/pubmed>

<http://dbtbiosafety.nic.in/>

M.Phil., Biotechnology (Applicable to students of batch 2016 and onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Passed in |
|------|-------------|--|------------|---------------------|
| I | MBT1604 | RESEARCH TECHNIQUES AND METHODOLOGY | 6 | AR- 2010 as MZB1601 |
| | MBT1605 | ADVANCES IN BIOTECHNOLOGY | 6 | AR -2010 as MZB1602 |
| | MBT1701 | IN-DEPTH STUDY OF PUBLISHED LITERATURE | --- | |
| II | MBT2801 | DISSERTATION AND VIVA VOCE | --- | AR- 2010 as MZB2801 |

MBT1701 IN - DEPTH STUDY OF PUBLISHED LITERATURE

LEARNING OUTCOMES

On successful completion of the course the students will be able to

- select the latest research papers in the proposed research field
- synthesize research hypothesis based on the literature
- design experiments to test the proposed hypothesis

COURSE OUTLINE:

Each student will undertake an in-depth study of published literature related to the topic of dissertation that will be taken up in Semester II.

Each student will be given a minimum of 20 research papers related to the dissertation topic for review.

Submission of Pre-proposal which includes hypothesis, review and methodology.

DEPARTMENT OF COMPUTER SCIENCE

PREAMBLE

The Department of Computer Science revised the undergraduate curriculum to fit into the Integrated Curricular Model evolved by the college in 2013. The course profile and course content for the semesters I, II & III, IV for 2014 batch were passed in the Academic Council meetings held during 2014 and 2015 respectively.

The following text book is added for CSC/ITM 6402CT LINUX PROGRAMMING:

Shekhar, Vijay. *Red Hat Linux- Study guide*. 1st ed. New Delhi: Firewall media, 2006. Chapters: 1 & 2. Print.

For CSC/ITM 5502CT CLOUD COMPUTING, Chapter 12 is included in the text book

Sosinsky, Barrie. *Cloud Computing Bible*. 1st ed. New Delhi: Wiley India Pvt. Ltd., 2012.

The interdisciplinary course **ITMA6401DT Application of Fuzzy sets using MATLAB** is offered to BSc. Computer Applications students also with course code **CSMA 6401DT**.

B.Sc. Computer Applications - Self-Financed

(From 2014 Batch onwards)

| Sem. | Course Code | Course Title | Hrs./ wk. | Credits | Passed in |
|------|-------------------------|---|-----------|-----------|---------------------------------------|
| V | CSC5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | CSC55041CT | STATISTICS USING R | 4T +2L | 5 | AW-2015 |
| | CSC5502CT | CLOUD COMPUTING | 4T +2L | 5 | AW-2015 |
| | CSC5301CP | LAB IV (WEB PROGRAMMING USING ASP.NET) | 6 | 3 | AW-2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV/ VBC0202FV |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | CSC0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW-2015 |
| | | TOTAL | 30 | 21 | |
| VI | CSC6501CM | OPERATIONS RESEARCH | 5 | 5 | |
| | CSC 6502CM | MOBILE COMPUTING | 5 | 5 | AW-2015 |
| | CSC6501CT | COMPUTER GRAPHICS | 4T + 2L | 5 | AW-2015 |
| | CSC6402CT | LINUX PROGRAMMING | 3T + 2L | 4 | AW-2015 |
| | | INTERDISCIPLINARY COURSES | 4 | 4 | AW-2015 |
| | CSC0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW-2015 |
| | | TOTAL | 30 | 29 | |

Total number of credits for 2014 batch (SEMESTERS I – VI) – 140

B.SC. INFORMATION TECHNOLOGY AND MANAGEMENT – SELF FINANCED

(From 2014 Batch onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits | Passed in |
|------|-------------------------|--|------------|-----------|---|
| V | ITM5201CM | INTRODUCTION TO RESEARCH METHODOLOGY | 2 | 2 | AW-2015 |
| | ITM5501CM | HUMAN RESOURCE MANAGEMENT | 6 | 5 | AW-2015 |
| | ITM5301CP | LAB IV (WEB PROGRAMMING USING ASP.NET) | 6* | 3 | AW-2015 |
| | ITM5502CT | CLOUD COMPUTING | 4T + 2L | 5 | AW-2015 |
| | | INTERDISIPLINARY | 4 | 4 | AW-2015 |
| | ITM0601LM | LIFE FRONTIER ENGAGEMENT | 4 | - | AW-2015 |
| | VBC0203FV/ VBC0202FV | WOMEN'S STUDIES / HUMAN RIGHTS AND DUTIES | 2 | 2 | AV 2014 as VBC0201FV / VBC0202FV |
| | Total | 30 | 21 | | |
| VI | ITM6502CM | OPERATIONS RESEARCH | 5 | 5 | |
| | ITM6501CM | MANAGERIAL ACCOUNTING | 5 | 5 | AW-2015 |
| | ITM6402CT | LINUX PROGRAMMING | 3T + 2L | 4 | AW-2015 |
| | ITM6403CT | PHP PROGRAMMING | 3T + 3L | 4 | AW-2015 |
| | | INTERDISCIPLINARY | 4 | 4 | AW-2015 |
| | ITM0601LM | LIFE FRONTIER ENGAGEMENT | 5 | 6 | AW-2015 |
| | | Total | 30 | 28 | |

TOTAL NUMBER OF CREDITS FOR 2014 BATCH (SEMESTERS I – VI) - 141

CSC6501CM / ITM6502CM OPERATIONS RESEARCH

(Theory)

LEARNING OUTCOME

5 Hrs. / wk.

On successful completion of the course, the student will be able to

- apply the optimization techniques
- determine the most efficient economical solutions
- identify the best strategy to be applied in real life situations

COURSE OUTLINE:

UNIT-I : LINEAR PROGRAMMING PROBLEM

15 hrs.

Mathematical formulation – graphical solution - simplex method – Big-M Method.

UNIT-II : DUALITY IN LINEAR PROGRAMMING

15 hrs.

Formulating a dual problem – duality and simplex method - dual simplex methods

UNIT-III : TRANSPORTATION and SCHEDULING PROBLEM

15 hrs.

General transportation problem – Finding initial basic feasible solutions – test for optimality – unbalanced transportation problem Scheduling – PERT – CPM.

UNIT-IV : ASSIGNMENT PROBLEM

Assignment problem – mathematical formulation and Assignment method – unbalanced assignment problem.

UNIT-V : GAME THEORY

15 hrs.

Two person zero sum game-Games without saddle point- graphical solution of $2 \times n$ and $m \times 2$ games – dominance property.

TEXT BOOK(S)

Kantiswarup, Gupta, P.K. and Manmohan. *Operations Research*. 18th ed. New Delhi: Sultan Chand & Sons, 2009. Chapters: 2,3,4.1-4.4,5.1-5.4,5.7-5.9,10.1-10.2,10.4-10.6,10.9,10.12-10.13,10.15,11.1-11.4,17.1-17.7. Print.

REFERENCE BOOK(S)

Taha, Hamdy, A. *Operations Research*. 8thed. New Delhi: The Macmillan Publishing Company, 2008. Print.

Premkumar. *Operations Research*. Revised and Enlarged Edition. New Delhi: Sultan Chand & Sons Publishing Company, 2007. Print

WEBSITE(S):

textofvideo.nptel.iitm.ac.in/112106134/lec1.pdf

www.mysliderule.com/topic/operations-research

<http://www.mathforum.org>

<http://www.orsoc.org.uk>

DEPARTMENT OF FASHION DESIGNING

PREAMBLE

With the introduction of B.Sc. Fashion Designing in 2014, the department is now presenting the course profile, course content and evaluation for semesters V and VI for 2014 batch.

B.Sc. Fashion Designing– Self-Financed (From 2014 batch onwards)

| Sem. | Course Code | Course Title | Hrs. / wk. | Credits |
|--|-------------------------|--|------------|-----------|
| V | FDS5401CM | Fashion Retailing and Buying | 4 | 4 |
| | FDS5301CT | Draping Techniques in Fashion | 2T+2L | 3 |
| | FDS5201CP | Surface Embellishment | 3L | 2 |
| | FDS5202CP | Computer Aided Designing | 4L | 2 |
| | FDS5201EP | Fashion Styling | 3L | 2 |
| | FDS5501TC | Fashion Designing Internship – I * | 10L | 5 |
| | VBC0201FV/ VBC0202FV | Women's Studies / Human Rights and Duties | 2 | 2 |
| Total | | | 30 | 20 |
| *The 150 required hours of Internship is completed during the summer vacation that follows semester IV | | | | |
| VI | FDS6501CM | Fashion Management | 5 | 5 |
| | FDS6502CM | Textile Testing | 5 | 5 |
| | FDS6401CT | Fashion Photography and Modelling | 3T+2L | 4 |
| | FDS6301CP | Fashion Portfolio Preparation and Presentation | 5L | 3 |
| | FDS6501TC | Fashion Designing Internship – II * | 10L | 5 |
| Total | | | 30 | 22 |
| * 30 working days from the beginning of semester VI will be utilized for Internship | | | | |

Total number of credits for 2014 batch (semesters I – VI): 134

FDS5401CM FASHION RETAILING AND BUYING THEORY

LEARNING OUTCOME

4 hrs. / wk.

On successful completion of the course, the student will be able to

- know about the different kinds of retail operations
- identify the buying procedures at the market
- promote and improve customer services and sales associates

COURSE OUTLINE:**UNIT I: RETAILING INDUSTRY** **10 hrs.**

Introduction – Retailing Strategies for the 21st century: Value directed retailing, Service oriented retailing – Global Expansion – Globalization of Retailing. Retail Pricing: Markup, Price points.

UNIT II: TYPES OF RETAIL STORES **12 hrs.**

Types of retailing: Online fashion retailing, Offline fashion retailing, Franchise retailing. Designer Named franchised boutiques – Procedures to start up a franchised designer studio.

UNIT III: E-TAILING **16 hrs.**

Introduction – Definition – Models in e-retailing – Cataloging, on boarding, Supply chain and logistics – Performance metrics and customer handling – Benefits of catalog shopping – Opportunities in Indian e-tailing – Multi-products and Niche products.

UNIT IV: CHANGING DIMENSIONS OF FASHION RETAILING **12 hrs.**

Growth of private labels – Retailers into manufacturing – Concentration of retail power – Logistics and Distribution – Globalization of Retailing – Relationship Marketing.

UNIT V: FASHION BUYING **10 hrs.**

Introduction to Buying: The Buyer's role, The Buying-Selling Cycle, Line Buying vs Trend Buying – Types of Buying Offices – Sourcing places – Sourcing clusters.

REFERENCE BOOKS

Dickerson, Kitty G. *Inside the Fashion Business*. 7th ed. New Delhi: Pearson education Inc., 2003. Print.

Frings, Gini Stephens. *Fashion from Concept to Consumers*. 7th ed. New Delhi: Pearson education Inc., 2003. Print.

Underhill, Paco. *Why We Buy- Science of Shopping*. New York: Simon & Schuster, 2008. Print.

India Business of Fashion Report 2013, Volume no:1. Images Yearbook.

FDS5301CT DRAPING TECHNIQUES IN FASHION**LAB CUM THEORY****LEARNING OUTCOME** **(2T+2L) hrs. / wk.**

On successful completion of the course, the student will be able to

- know about the advanced draping techniques
- estimate the truing method
- apply the advanced techniques in draping

COURSE OUTLINE:**UNIT I: INTRODUCTION TO DRAPING** **5T+5L hrs.**

Introduction to draping – tools and equipment – preparation of muslin for draping. Draping of basic bodice front, back, sleeve, basic skirt. Draping stages: draping, marking, truing.

Lab experiments:

Draping of basic bodice back and front

Draping of Basic sleeve

- Draping of Basic skirt
- UNIT II: DRAPING OF BLOCKS** **6T+6L hrs.**
- Draping of bodice blocks variation: Bustier, Asymmetric bodice, off shoulder design, halter –
Waist line variation: Empire, lowered, pointed and princess bodice. Draping of skirts: one
piece basic skirt, gored skirt, flared skirt, pleated skirt
- Lab experiments:**
- Draping of bodice blocks variation: Bustier, Asymmetric bodice, off shoulder design, halter
Draping of waist line variation: Empire, lowered, pointed and princess bodice. Draping of
skirts: one piece basic skirt- gored skirt, flared skirt, pleated skirt.
- UNIT III: DRAPING OF BASIC COMPONENTS** **6T+6L hrs.**
- Draping of yokes: midriff yoke, shirt yoke, hip yoke – Draping of dolman sleeve: raglon
sleeve, kimono sleeve – collar: convertible, peter pan, stand collar.
- Lab experiments:**
- Draping of yoke variation
Draping of dolman sleeve: raglon sleeve, kimono sleeve,
Draping of Collar: Convertible, Peter pan, Stand collar.
- UNIT IV: DRAPING OF APPLICATIONS** **6T+6L hrs.**
- Draping of flounces – ruffles – peplums – halter – twists: butterfly, two piece neck yoke –
Cowl variation: neck cowl, underarm cowl.
- Lab experiments:**
- Draping of applications: flounces, ruffles, peplums – twists: butterfly, two piece neck yoke
Cowl variation: neck cowl, underarm cowl.
- UNIT V: DRAPED GARMENTS** **7T+7L hrs.**
- Draping method of Tops – leggings – Party wear for men and women.
- Lab experiments:**
- Draping of Tops and Leggings
Draping of Party wear for men and women

REFERENCE BOOKS

- Crawford, Connie Amaden, *The Art of Fashion Draping*. U.S.A: 3rd Edition, Laurence King
Publishing, 2005. Print.
- Emeritus, Hilde Jaffe. *Draping for Fashion Design*. U.S.A: 5th Edition, Prentice Hall, 2011.
Print.
- Kiisel, Karolyn. *Draping: The Complete Course*. U.S.A: Laurence King Publishing, 2013.
Print.

FDS5201CP SURFACE EMBELLISHMENT

LAB

LEARNING OUTCOME **3 hrs. / wk.**

On successful completion of the course, the student will be able to

- know about the basic embroidery stitches
- practice the Indian traditional embroidery works
- apply the advanced techniques in traditional embroidery patterns

COURSE OUTLINE:

LIST OF EXPERIMENTS:

15 hrs.

I. Basic embroidery stitches:

1. Running and its variations
2. Back stitch
3. Stem stitch
4. Chain stitch and its variations
5. Lazy daisy stitch
6. Button hole and its variations
7. Herring bone and its variations
8. Knots and its variations
9. Straight stitch
10. Feather stitch
11. Machine embroidery
12. Computerized embroidery

II. Surface ornamentation techniques:

10 hrs.

1. Couching
2. Appliqué work
3. Cut work
4. Patch work
5. Beads/ sequins/ ribbon works/ Aari/ Zardhosi
6. Smocking

III. Traditional embroidery:

20 hrs.

1. Kantha of Bengal
2. Kashida of Bihar and Kashmir
3. Embroidery of Gujarath
4. Phulkhari of Punjab
5. Embroidery of Rajasthan
6. Chikankari of Uttarpradesh
7. Kasuthi of Karnataka

IV. Application of the surface Embellishment in the following:

1. Home furnishing
2. Accessories
3. Garment

REFERENCE BOOKS

Haxell, Kate. *The Stitch Bible: A Comprehensive Guide to 225 Embroidery Stitches and Techniques*. U.K: David & Charles, 2012. Print.

Kooler. *Donna Encyclopedia of Needlework*, U.S.A: Leisure Art Inc., 2000. Print.

Shailaja, D. Naik. *Traditional Embroideries of India*. New Delhi: South Asia Books, 1996. Print.

FDS5202CP COMPUTER AIDED DESIGNING

LAB

LEARNING OUTCOME

4 hrs. / wk.

On successful completion of the course, the student will be able to

- use the technical knowledge in the area of designing
- create patterns and layouts through CAD techniques
- design the garments using software

COURSE OUTLINE:

LIST OF EXPERIMENTS:

1. Motif Creation- Embroidery and Printing **4 hrs.**
2. Illustrating Children's Garments **4 hrs.**
 - a. Jabla – different styles
 - b. Frocks – different styles
 - c. Middi & tops – different styles
3. Women's Garments **4 hrs.**
 - a. Salwar and kameez – different styles
 - b. Full gowns – different styles
 - c. Blouse – different styles
4. Men's Garments **6 hrs.**
 - a. Shirts – different styles
 - b. S B Vest coat
 - c. Trousers
 - d. Kurta Pyjama – different styles
5. Application of Elements of Design(Line, Shape, Texture, Colour and Form) and Principles of Design (Emphasis, Balance, Proportion, Rhythm and Harmony) **8 hrs.**
6. Application of Colour Harmony in Design(Pantones, System colour, RGB, CMYK) **6 hrs.**
7. Preparing pattern for the following **8 hrs.**
 - a. Bodice front
 - b. Bodice back
 - c. Basic sleeve
 - d. Basic skirt
8. Layout for Baby's frock. **5 hrs.**
9. Textile Designing **9 hrs.**
10. Designing Draped Styles **6 hrs.**

FDS5201EP FASHION STYLING

LAB

LEARNING OUTCOME

3 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the requirements of a stylist
- develop an advanced critical awareness of the fashion stylist's role as a practitioner
- combine style with design

COURSE OUTLINE:

1. Introduction to Fashion Styling: Design collection and presentation on various styles of fashion. **3 hrs.**
2. Concept of Styling: Color Matching, Accessories Coordination, Mix and Match **3 hrs.**
3. Hairdo: **11 hrs.**
 1. Highlighted Messy bun with Long Side – Swept Bang
 2. Side Fish-tail braided hairdo
 3. French braid
 4. French twist
 5. Poof voluminous ponytail
4. Eye Makeup: Classic, Smokey, Retro, Lashy, Golden shadow, Lens and shine. **6 hrs.**
5. Fashion theme makeover: **15 hrs.**
 1. Classic
 2. Retro
 3. Rustic
 4. Nude & vibrant colors
 5. Dewy
6. Back Stage Activity of Various Events (Fashion shows, Advertisements, Cultural events, Wedding): **7 hrs.**
 1. Situation handling
 2. Technical tips – Ironing, Tacking, Quick stitches and draping.

REFERENCE BOOKS

Brown, Bobbi. *Bobbi Brown Makeup Manual: For Everyone from Beginner*. United States: Grand Central Life & Style, 2011. Print.

Morris, Rae. *Makeup: The Ultimate Guide Paperback*. London: Apple Press, 2008. Print.

Website: www.youtube.com

FDS5501TC FASHION DESIGNING INTERNSHIP – I

LAB

LEARNING OUTCOME

10 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the various departmental activities involved in industries
- describe production systems
- evaluate quality control system

Sample of Internship Industries:

Penguin Apparels Pvt. Ltd., Kappalur, Madurai, Tamil Nadu, India.

S. A. Knitwears Pvt. Ltd., Madurai, Tamil Nadu, India.

Madurai Integrated Textile Park Limited By Pass Road, Vadipatti, Madurai 625218.

FDS6501CM FASHION MANAGEMENT

THEORY

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the requirements of customer satisfaction
- develop managerial skills in the field of Fashion industry
- analyse the company's profit level

COURSE OUTLINE:

UNIT I: FASHION AND RETAIL MANAGEMENT

15 hrs.

Introduction – Retailing Concept – Opportunities and threats in retailing – Business and Management Ethics – Technology and relationships in retailing – Differences in relationship building between goods and service retailers – Consumerism- Role of retail manager.

UNIT II: BRAND AND BOUTIQUE MANAGEMENT

15 hrs.

Introduction – Definition – Brand Identity – Brand Loyalty – Brand Status – Brand Associations – Concept of Brand Equity – Integrity of Brand – Brand creation – Elements of Brand, Ethics of brand name; Brand awareness – Work plan to create a boutique.

UNIT III: VISUAL MERCHANDISING

15 hrs.

Introduction – Definition – Purpose – Principles of Visual Merchandising – Elements of Visual merchandising – Types of probes- Types of display – Interior displays, Abstract Styles, Live models, Vendors participation – Procedure to display – Trends in visual merchandising.

UNIT IV: HUMAN RESOURCE MANAGEMENT

15 hrs.

Introduction – Definition and concept of HRM – Functions of HRM – Human Resource Policies and procedures – Challenges to HR Professionals – Strategic HRM – Trends in Human Resource Management – Pre-employment requirement, Recruitment and Training – Uses of social networking – Role of Human Resource manager.

UNIT V: CUSTOMER RELATIONSHIP MANAGEMENT

15 hrs.

Introduction – Purpose of CRM; Determinants of CRM – Key stages of development in CRM; Various techniques of accessing customer requirement – Market survey – Functions and various models of CRM – Information Technology and Customer Relationship Management, Face to face customer relationship management; Benefits of CRM; Implementation of CRM.

REFERENCE BOOKS

Diamond, Ellen. *Fashion Retailing for Multi-channel Approach*. U.S.A: Pearson Education, 2005.

Dickerson, Kitty, G. *Inside the Fashion Business*. 7th ed. New Delhi: Pearson education Inc., 2003. Print.

Frings, Gini Stephens. *Fashion from Concept to Consumers*. 7th ed. New Delhi: Pearson education Inc., 2003. Print.

India Business of Fashion Report 2013. Volume no:1. Images Yearbook.

FDS6502CM TEXTILE TESTING THEORY

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course, the student will be able to

- identify the quality standard of fabrics
- classify the different testing methods of fabric
- use the testing equipments

COURSE OUTLINE:

UNIT I: INTRODUCTION TO QUALITY TESTING

20 hrs.

Quality – Definition – Importance of quality and quality control, QC, QA. Raw material inspection – fabric inspection – 4 point system, 10 point system – in process inspection – final inspection – 100% inspection – statistical sampling – AQL standards – specifications sheet. Introduction to testing – terminology of testing – selection of samples for testing standard.

UNIT II: FIBRE AND YARN TESTING

15 hrs.

Fibre testing: cotton fibre length – baer sorter. Fineness – air flow principle instruments, micronaire. Maturity – caustic soda swelling. Strength – Presley bundle strength tester, stelometer, shirly trash analyser. Yarn testing: yarn numbering system – Yarn Count Conversion. Instruments for count determination – quadrant balance, beesley balance. Yarn strength testing – single strength tester, lea strength tester. Yarn twist, yarn evenness, yarn hairiness and crimp testing.

UNIT III: FABRIC TESTING

15 hrs.

Fabric testing: fabric particulars – length, width, crimp, weight, cover factor. Fabric strength- fabric tensile strength tester, hydraulic busting strength tester. Fabric abrasion – fabric pilling – drape tester – Fabric stiffness – fabric permeability tester – Flammability. Colour fastness: crocking test, perspiration test, sunlight, laundering, pressing and dry leaning aspects, whiteness index, matching cabinets

UNIT IV: ACCESSORIES TESTING

10 hrs.

Accessories testing – sewing threads, button, lining, interlining, hook, laces, elastics, zipper and packing materials. Testing on dimensional stability bow, skewness, shrinkage.

UNIT V: QUALITY STANDARDS

15 hrs.

Testing Agency and Standards – Vendor evaluation standards – Social Audit – ISO – Quality certification and Compliances – Banning Hazardous material – Standard Opportunity Procedure SOP- Quality Certification.

REFERENCE BOOKS

- Booth, J. E. *Principles of Textile Testing* . 1st ed. New Delhi: CBS Publications, 1996. Print.
- Kothari, V.K. *Process Control in Textile Manufacturing*. 1st ed. Cambridge: Woodhead Publishing, 2012. Print.
- Morton, W.E. and Hearle, J.W.S. *Physical Properties of Textile Fibres*. , 4th ed. revised ed. Cambridge: Head Wood Publishing Ltd., 2008. Print.

FDS6301CP FASHION PORTFOLIO PREPARATION AND PRESENTATION

LAB

LEARNING OUTCOME

5 hrs. / wk.

On successful completion of the course, the student will be able to

- develop practical knowledge through internship training
- prepare a portfolio
- design various garments, predicting the trends

COURSE OUTLINE:

LIST OF EXPERIMENTS

Stages involved in Portfolio Preparation

- a) Collection for portfolio: research, forecasting trendy
- b) Preparation of customer profiling
- c) Preparation of theme board and mood board
- d) Preparation of story board
- e) Preparation of colour board and fabric board
- f) Preparation of flat sketches/silhouette development
- g) Preparation of accessory board
- h) Preparation of photographic board
- i) Preparation of pattern according to the design selected garment
- j) Constructing the garment to the customer profile
- k) Tech pack Preparation.

| | |
|---|---------|
| I. Preparation of Portfolio for Kidswear | 20 hrs. |
| II. Preparation of Portfolio for Women's Wear | 20 hrs. |
| III. Preparation of Portfolio for Men's Wear | 20 hrs. |
| IV. Portfolio presentation: Soft copy, Hard copy, Modelling with Photoshop. | 15 hrs. |

REFERENCE BOOKS

- Barrett, Joanne. *Designing Your Fashion Portfolio*. New Delhi: Bloomsbury Publishing India Private Limited, 2012. Print.
- Kiper, Anna. *Fashion Portfolio: Design and Presentation*. London: Batsford Ltd., 2014. Print.
- Tain, Linda. *Portfolio Presentation for Fashion Designers*. 3rd revised ed. New York: Fairchild Publications, 2010. Print.

FDS6401CT FASHION PHOTOGRAPHY AND MODELLING

LAB CUM THEORY

LEARNING OUTCOME

(3T+2L) hrs. / wk.

On successful completion of the course, the student will be able to

- define the basics of photography
- express the feel of the product
- value the fashion product

COURSE OUTLINE:

UNIT I: INTRODUCTION TO PHOTOGRAPHY AND CAMERA **10 hrs.**

Principles of Photography – Types of photography – Basics of digital photography – Speed, Shutter, Aperture, ISO – Components involved in Photography – Types of cameras – Camera handling – support and accessories – Lenses – Lens filters.

UNIT II: COMPOSITION AND BASIC LIGHTING **10T+9L hrs.**

Nature of light – the human vision – light source – Understanding the camera and Lighting Techniques – Primary Lighting – Soft, Accent or Secondary Lighting, Atmosphere
Lighting – types of colour – controlling intensity of light – Over and under exposures.

LAB:

- i). Photographs with various lightings
- ii). Photographs with various backgrounds
- iii). Golden ratio

UNIT III: UNDERSTANDING THE HUMAN ANATOMY **10T+6L hrs.**

Introduction – Concept of Posing – Body language and Attitude – Types of modeling walk : Cat Walk and Ramp Walk Technique – Personal style and Photogenic Skills – Grooming Etiquette.

UNIT IV: MODELLING IN ADVERTISING **5T+5L hrs.**

Introduction to Fashion Modelling – Ethics of modelling – Psychology in advertising – Understanding the minds of people- Exploiting the weakness of Humanism – Modelling in advertisements.

UNIT V: STRATEGIES OF FASHION PHOTOGRAPHER **10T+10L hrs.**

Techniques to be a successful fashion photographer – Revealing the fashion sense, expressions & emotions – Importance of background of the object – Highlighting techniques of textures – Photo editing and photo sharing techniques.

LAB:

- i) Close-Up shots
- ii) Long shots
- iii) Modelling snaps
- iv) Action photographs
- v) Highlighting the features of a designer costume.
- vi) Flat photography
- vii) Product photography
- viii) Ghost – Mannequin photography

REFERENCE BOOKS

Frost, Lee. *Teach Yourself Photography*. 3rd ed. New York: McGraw-Hill Education, 2005. Print.

Peterson, Bryan. *Learning to See Creativity: Design, Color & Composition in Photography*. USA: Amphoto books, 2006. Print.

FDS6501TC FASHION DESIGNING INTERNSHIP- II
LAB

LEARNING OUTCOME

10 hrs. / wk.

On successful completion of the course, the student will be able to

- identify advanced techniques followed in industries
- match the merchandising & marketing process
- practice an entrepreneurial skill

Sample of Internship Industries:

Penguin Apparels Pvt. Ltd., Kappalur, Madurai, Tamil Nadu, India.

S. A. Knitwears Pvt. Ltd., Madurai, Tamil Nadu, India.

Madurai Integrated Textile Park Limited, Bye Pass Road, Vadipatti, Madurai – 625218.

Evaluation pattern for Internship

| Formative | | | | Summative | | |
|------------|--------|------|-------|----------------------------|------|-------|
| Work diary | Report | Viva | Total | Evaluation by the industry | Viva | Total |
| 20 | 20 | 20 | 60 | 20 | 20 | 40 |

DEPARTMENT OF PSYCHOLOGY

PREAMBLE

The Department of Social Sciences is offering a postgraduate degree programme in Psychology from the academic year 2016-17. Since many of the undergraduates opt for postgraduate programme in Psychology, this initiative would help the aspiring psychologists to pursue their higher studies in the same institution. The programme is planned to comprise of two specializations, viz., **Counselling and Psychotherapy** and **Industrial Psychology** to help the students meet the demands in an increasingly competitive and ability-driven economy with competency in Resource Management and Therapeutic Interventions.

The course outline of semesters I and II of M.Sc. Psychology, is presented here.

M.Sc. PSYCHOLOGY COURSE PROFILE

SELF-FINANCED

| Sem. | Course code | Course title | Hrs./wk. | Credits | Passed in |
|------|-------------|--------------------------------------|--|---------|-----------|
| I | PPY1501M | ADVANCED PSYCHOLOGICAL PROCESSES – I | 4T+2L | 5 | |
| | PPY1502M | RESEARCH METHODS AND STATISTICS | 6T | 5 | |
| | PPY1401M | DEVELOPMENT ACROSS THE LIFE SPAN | 5T | 4 | |
| | PPY1402M | FOUNDATIONS IN COUNSELLING | 5T | 4 | |
| | PPY1503M | SOCIAL PSYCHOLOGY | 5T+1L | 5 | |
| | PPY1201F | INTERNSHIP: CASE WORK | 10 working days – 6 hrs./ day (mid-semester break) | 2 | |

| Sem. | Course code | Course title | Hrs./wk. | Credits | Passed in |
|------|-------------|--|---|-----------|-----------|
| | | VALUE EDUCATION | 2 | 1 | |
| | | TOTAL | 30 | 26 | |
| II | PPY2501M | ADVANCED PSYCHOLOGICAL PROCESSES – II | 4T+2L | 5 | |
| | PPY2502M | PERSPECTIVES ON PERSONALITY | 6T | 5 | |
| | PPY2503M | PSYCHOPATHOLOGY | 6T | 5 | |
| | PPY2504M | PSYCHOLOGICAL ASSESSMENT | 3T + 3L | 5 | |
| | PPY2401E | INTERPERSONAL DYNAMICS | 4T | 4 | |
| | | LIBRARY | 2 | | |
| | PPY2401F | INTERNSHIP: PSYCHO-EDUCATIONAL INTERVENTION Evaluation | 20 working days – 6 hrs./day (summer break) | 4 | |
| | | Total | 30 | 28 | |

SELF-LEARNING COURSES

| Course Code | Course title | Credits |
|-------------|--|---------|
| PPY0401D | PERSONAL GROWTH: AN EXPERIENTIAL ENQUIRY | 4 |
| PPY0402D | INDUSTRIAL RELATIONS AND LABOUR WELFARE | 4 |

PPY1501M ADVANCED PSYCHOLOGICAL PROCESSES – I

(Lab cum theory)

LEARNING OUTCOME:

4T+2L hrs. / wk.

On successful completion of the course, the student will be able to

- comprehend the biological basis of the psychological processes.
- appreciate the dynamics behind the processes of Perception, Learning and Memory.
- analyze the interrelationships among the psychological processes of Perception, Learning and Memory.

UNIT I: BIOLOGICAL BASES OF BEHAVIOUR

12T+6L

The mind – brain relationship: Dualism, Monism and Interactionism. Genetics and Evolution. Neurons: Structure of neuron, Types of neurons. Nerve Impulse Transmission – Action Potential, Resting Potential, All or None Law – Neurotransmitters and behavior – Organisation of the nervous system. Central Nervous System and Peripheral Nervous System: Somatic and Autonomic Nervous Systems – Sympathetic and Para Sympathetic Nervous Systems – Glandular control of behaviour – Neural impact on health. Neuroscience techniques: PET, CT, Functional MRI, ERP and other imaging techniques – Interrelation between brain and behaviour.

EXPERIMENTS

1. Bender Visual-Motor Gestalt Test- Brannigan & Decker.
2. Benton Facial Recognition Test

UNIT II: ATTENTION**12T+4L**

Attention – Nature and roles of attention, Types, Theories and current developments: Bottleneck and Capacity theories; Automatic and Controlled processing, Switching Attention, Biological basis of attention. Human Consciousness – States of consciousness – Natural States of consciousness: Waking states of consciousness – Self-awareness, Sleep and Dream, Fantasy. Altered states of consciousness: Meditation, Hypnosis. Psychoactive Drugs and Consciousness – Neurobiology of consciousness.

EXPERIMENTS

1. Test of Everyday Attention
2. Division of Attention

UNIT III: PERCEPTION**12T+6L**

Modularity of Perception: Visual Perception (Form and pattern perception); Tactile perception: (Shape and Object perception), Space Perception, Speech Perception, Auditory Perception, Multimodal Perception; Multisensory interaction and Integration: Synesthesia, Comparing the senses. Theories of Perception: Gestalt approach, Top Down vs. Bottom Processing, Pattern Recognition: Feature detection analysis, Template matching, Prototype matching; Brain and Perception: Dorsal and Ventral pathways; Disruptions of Perceptions: Illusions and Agnosia. Neurobiology of attention and perception.

EXPERIMENTS

1. Test of Visual-Perceptual Skills (III edition) Martin
2. Shape constancy
3. Stroop colour and Word Test-Golden and Freshwater

UNIT IV: LEARNING**12T+8L**

Basic concepts in learning: Habituation, Contiguity theory – Guthrie, Learning theory – Thorndike, Classical Conditioning – Pavlov, Operant Conditioning- Skinner, Observational Learning – Albert Bandura, Cognitive theory – Tolman. Transfer of Learning – Neurobiology of learning.

EXPERIMENTS

1. Maze for studying the effect of punishment
2. Mirror Drawing
3. Measuring Judgment or reaction time with Chronoscope

UNIT V: MEMORY**12T+6L**

Sensory memory: Iconic and Echoic; Short Term Memory: Capacity and characteristics, Memory Codes, Recognition of items in STM, Working Memory; Long Term Memory: Encoding and Retrieval in Long Term memory, Autobiographical and eyewitness memories; Semantic Network and Models of Knowledge Representation, Episodic Memory, Procedural (Implicit and Explicit) Models of memory for new information: General approach, Simple association models and SAM model ; Forgetting: Reproduction and Reconstruction in memory, Theories of Forgetting; Disorders and disruptions of memory: Amnesia, Traumatic and False Memories, Confabulation; The Multimodal Approach, Improving Prospective Memory; Metacognition: Metamemory – Tip of the

Tongue phenomenon – Metacomprehension – Neurobiology of Memory.

EXPERIMENTS

1. Memory Drum
2. Automated *Working Memory Assessment* (AWMA)
3. Recognition Memory Test – Warrington
 - **Any 10 experiments to be completed**
 - **List of experiments to be updated with relevant assessments on a yearly basis**

TEXT BOOK(S):

Margaret. M .W. (1995). *Cognition*. New York: Prism Books Pvt. Ltd.

Edward. S.E. Stephen. K. M. (2008). *Cognitive psychology: Mind and Brain*.
New Delhi: Prentice Hall of India.

REFERENCE BOOK(S):

Kathy Pazdek. (2006). *Applied Psychology*. New Jersey: Lawrence Erlbaum Associates Publishers.

Carroll. D. W. (2007). *Psychology of Language*. Massachusetts: Brooks Cole.

Jay. T. (2003). *The Psychology of Language*. New Delhi: Prentice Hall India.

Goldstein E. (2009). *Sensation and Perception*. New Delhi: Cengage Learning.

Solso. R. L. Maclin. H. O. Maclin. M. K. (2008). *Cognitive Psychology*. New Delhi: Pearson Education.

Galotti. K. M. (2008). *Cognitive Psychology in and out of the Laboratory*. New Delhi: Cengage Learning.

Stenberg. R. J. (2012). *Cognitive Psychology*. New Delhi: Cengage Learning,

Morgan.T.C and King R.A. (2010). *Introduction to Psychology*. New Delhi: Tata Mc Graw Hill.

Baron R. A. (2011). *Psychology*. New Delhi: Prentice hall of India Pvt. Ltd.

PPY1502M RESEARCH METHODS AND STATISTICS

(Theory)

LEARNING OUTCOME:

6 hrs. / wk.

On successful completion of the course, the student will be able to

- comprehend the methods in psychological research
- apply skills required for analyzing and interpreting research data
- prepare research projects

COURSE OUTLINE:

UNIT I: RESEARCH PROCESS

15 hrs.

Research: Definitions, types: basic and applied, quantitative and qualitative, historical research, limitations, ethical issues. Research problem – source, selection criteria, formulation, operational definition of variables.

Hypothesis: types, errors in hypothesis testing, one tailed and two tailed tests.

UNIT II: RESEARCH DESIGNS**15 hrs.**

Nature, Function, Types: Experimental Designs: True Experimental (Between group, within groups, factorial). Quasi-experimental Designs: (Designs with control group, designs without control group, designs to measure developmental changes). Non-experimental: (Observational, survey, correlational). Other ways of classifying Research Designs: Designs based on the purpose of the study: Exploratory, Descriptive designs, Diagnostic designs, Experimental designs. Designs classified by their intended use: Interventions designs, Evaluation designs, Action research designs. Designs indicating the effects of time: Cross sectional research designs, Longitudinal research designs.

UNIT III: SAMPLING AND DATA COLLECTION METHODS**20 hrs.**

Universe and Sample – meaning, sampling distribution, types of sampling methods: probability and nonprobability, Sampling errors and non-sampling errors. Concept of Probability, Normal Probability Curve.

Data: types, sources-primary and secondary; Tools: Quantitative – questionnaire, interview schedule, Scaling techniques – Reliability and validity of the tool.

Qualitative - observation, interviewing, case study, focus group discussion, projective tests

UNIT IV: * ANALYSIS AND INTERPRETATION OF DATA**25 hrs.**

Analysis: Averages, Dispersion, Tests of Significance: t test; Z Test, Correlation: Pearson, Spearman. Regression. ANOVA, Two-way ANOVA.

Brief reference to: MANOVA, Factor Analysis, Discriminant Function Analysis, Path Analysis.

Basics of Non-Parametric Tests: Chi-Square, Wilcoxon Signed Rank Test, Mann-Whitney U Test, Kruskal Wallis H Test, Friedman Test, Analysis using Software: SPSS, ATLAS

UNIT V: REPORT WRITING**15 hrs.**

General guidelines, need for a report. Organizing information and Presentation of data: tables, diagrams and graphs, Report writing in APA format, references in APA format

*** Lab component to be incorporated by linking with the other two lab courses**

PPY1501M - ADVANCED PSYCHOLOGICAL PROCESSES – I and PPY1503M - SOCIAL PSYCHOLOGY

TEXT BOOKS:

Goodwin. C. J. (2003). *Research in Psychology*. USA: John Wiley & Sons Inc.

Kothari. C. R. (1985). *Research Methodology*. New Delhi: Wiley Eastern Limited.

McBurney. D. H & White T.L. (2007). *Research Methods*. New Delhi: Akash Press.

REFERENCE BOOK(S)

Seltiz. C. Jahoda Metal. (1966). *Research Methods in Social Relations*. New York: Holt. Rhinehart and Winston.

Howell. D.C. (1992). *Statistical Methods for Psychology*. California: Duxbury Press.

Kerlinger. F. N. (1995). *Foundations of Behavioural Research*. New Delhi: Surjeet Publication.

Lewis-Bec. M. S. (1994). *International Handbook of Quantitative Applications of Social Sciences*. London: Sage Topan.

McBurney. D. H. (2001). *How to Think Like a Psychologist: Critical Thinking in Psychology*. New Jersey: Prentice Hall.

Pillai. R.S.N and Bagavathi. (1984). *Statistics Theory and Practice*. New Delhi: S. Chand.

- Rajathi. A and Chandran P. (2010). *SPSS for you*. Chennai: MJP Publishers.
- Siegal. S. (2002). *Non-parametric Statistics for the Behavioural Sciences*. New Delhi: Tata McGraw Hill.
- Saslow. Carol A. (1982). *Basic Research Methods*. Massachusetts: Addison Wesley Publishing Company.
- William. M.K. (2006). *Research Methods*. New Delhi: WILEY dreamtech India Pvt. Ltd.

PPY1401M DEVELOPMENT ACROSS THE LIFE SPAN

(Theory)

LEARNING OUTCOME:

5 hrs. / wk.

On successful completion of the course, the student will be able to:

- comprehend the complex phenomenon of human development across the lifespan
- recognize the milestones, major challenges and developmental tasks related to different domains of development
- analyse developmental connections across different points in the human life span

COURSE OUTLINE:

UNIT I: INTRODUCTION AND BEGINNINGS

15 hrs.

The life span perspective: Characteristics of Life Span Development, the nature of development, Scope of development, Social contexts of life span development. Biological beginnings: genetic foundation, heredity and environment interaction.

Prenatal development and birth: Fertilization, Conception, prenatal stages, birth, postpartum period. Biology and Environmental: Prenatal environmental influence – teratogens. Birth – The organized new born. Birth Complications – SIDS

UNITII: PHYSICAL DEVELOPMENT

15 hrs.

Course of Physical growth: Changes in size, proportions. Important physical changes across life span: Skeletal growth, Gross motor skills, Brain development. Factors affecting physical growth: heredity, nutrition. Puberty: physical transition to adulthood – Puberty and adolescent health abuse. Sexual maturation, Sexual risk-taking – disorders. Aging: Longevity – Biological Theories of Aging: the aging brain – health problems.

UNIT III: LANGUAGE AND COGNITIVE DEVELOPMENT

15 hrs

Early learning and perceptual capacities: Perceptual development in infancy. Components of language. Theories of language development. Prelinguistic development. Phonological, semantic, grammatical and pragmatic development. Metalinguistic awareness. Cognitive development – Piagetian perspective, Vygotskian perspective. The information processing perspective. Moral development: Piaget, Kohlberg. Development of morally relevant self control. Cognitive maturation. Cognitive changes in adulthood, cognitive abilities in middle age, cognitive neuroscience and aging.

UNIT IV: EMOTIONAL AND SOCIAL DEVELOPMENT

15 hrs

Functions of emotions, development of emotional expressions, responding to others emotions, temperament and development. Development of attachment – Bowlby's ethological theory. Ainsworth's study. Emotional changes during adolescence – relationship with family, peers and adults.

Socio-emotional changes during adulthood-intimate relationships, families and social

relationships. Middle age – relationships, changes. Old age – Loneliness. Emotional problems across lifespan.

UNIT V: SELF DEVELOPMENT

15 hrs

Emergence of self and development of self concept-self esteem. Constructing an identity – Erikson, Marcia. Gilligan. Role of gender stereotypes and gender roles. The self at adolescence, adulthood and midlife. Development of self in the Indian context – Views of Ramanujam, Kakra, Saraswathi.

Development of sexuality – Orientation and behaviour, Issues and attitudes: Non-marital and marital life styles. Parenthood. Psychosocial changes in midlife.

The self at mid-life, midlife crisis – Empty nest and refilling. Stress and personal control. Aging issues. Death dying and grieving: Defining death and life, Developmental perspective on death, Facing one's own death: Kubler Ross – stages of dying.

TEXTBOOK(S):

Santrock. J. W. (2011). *A Topical Approach to Life-Span Development*. New Delhi: Tata McGraw-Hill.

Santrock. J. W. (2010). *Life-Span Development*. New Delhi: Mc Graw hill Education Pvt. Ltd.

REFERENCE BOOK(S):

Berk. L.E. (2011). *Child Development*. Newdelhi: Phi Learning Pvt. Ltd.

Papalia. D.E. Olds. W.S. Feldman. R.D. (2001). *Human Development*. New York: Mc Grawhill.

Newman & Newman. (2003). *Development through Life: A Psychosocial Approach*. USA: Thomson Wadsworth.

Weiner. I. B. Freedheim. D. K. (2003). *Handbook of Psychology, Developmental Psychology* (ed). New Jersey: John Wiley and Sons.

Kakar. S. (1981). *The Inner World- A Psychoanalytic Study of Childhood and Society in India*. New Delhi: Oxford University Press.

Ramanujam. B. K. (1979). "Towards Maturity: Problems of Identity Seen in the Indian Clinical Setting." In S. Kakar. (Ed.). *Identity and Adulthood*. p. 37-55. Delhi: OUP.

Saraswathi, T.S. (1999). *Culture, Socialization and Human Development: Theory, research and applications in India* (Ed.). New Delhi: Sage.

PPY1402M FOUNDATIONS IN COUNSELLING

(Theory)

LEARNING OUTCOME:

5 hrs./wk.

On successful completion of the course, the student will be able to

- comprehend the various techniques and stages of counseling
- appreciate the ethical, legal and professional issues pertaining to counselling
- analyze critically the significance of counseling as a helping profession

COURSE OUTLINE:

UNIT I : COUNSELLING : THE ART AND SCIENCE OF HELPING

10 hrs.

Defining features of Counselling; Major goals of counselling; Difference between guidance

and Counselling; Counselling and Psychotherapy; Types of counselling, Lay and Professional Counselling. Purpose and goals of counselling. Ethical issues in counseling. Counselling as an Interdisciplinary area- Distinctiveness and overlap

UNIT II: THEORIES AND TECHNIQUES OF COUNSELLING **18 hrs.**

The uses of conceptualization in counselling practice, Approaches to Counselling
Psychodynamic Approach: Freudian, Neo Freudian, Modern. Humanistic Perspective: Existential and Client Centered Cognitive Approach: Transactional Analysis, Rational Emotive Therapy. Behavioral Approach: Operant Conditioning and Behavioral Modification. Indian Contribution: Yoga and Meditation.

UNIT III: MODELS OF COUNSELLING **17 hrs.**

Eclectic Model, Egan's Skilled Helper Model: Skills-Exploration, Understanding, Acting. Cormier and Hackney Model: Stages: Rapport building, Exploration/Assessment, Establishing working alliance, Counseling Intervention, Ending/Termination and Follow up.

UNIT IV: COUNSELLING IN DIFFERENT SETTINGS **15 hrs.**

Role and functions of a counsellor in different settings – Educational and Career Counselling, Marriage and family counselling, Industrial Counselling, Counselling in Clinical settings, Counselling in De-addiction centres, Counselling Special groups-Crisis counseling, Abuse counselling, Counselling the disabled, Geriatric counselling; Grief Counselling.

UNIT V: PERSONAL AND PROFESSIONAL ASPECTS OF COUNSELLING **15 hrs.**

Personality and background of counselor, credentials of counsellors, common problems for beginning counsellors. The counselling relationship as a key theme in contemporary theory and practice – personal and professional boundary. Skills and qualities of an effective counselor.

TEXT BOOK(S):

Gladding. S T. (2013). *Counselling* (6e). Dorling Kindersley India Pvt.ltd.

McLeod. J. (2009). *An introduction to counselling*. UK: McGraw-Hill Education.

REFERENCE BOOK(S):

Gibson. R. L and Mitchell M.H. (2006). *Introduction to counseling and guidance* (6e). New Delhi: Prentice-Hall of India Pvt. Ltd.

Antony. D.J. (2003). *Skills Of Counselling*. Tamil Nadu: Anugraha publications.

Nugent. F.A. (1990). *An Introduction to the Profession of Counselling*. Columbus,USA: Merrill Publishing company, A Bell and Howell Information, Company.

Nystul. M.S. (1993). *The Art and Science of Counselling and Psychotherapy*. New York: Macmillan publishing company.

PPY1503M SOCIAL PSYCHOLOGY

(Lab cum Theory)

LEARNING OUTCOME:

5T+1L hrs./wk.

On successful completion of the course, the student will be able to

- comprehend the major theoretical perspectives in Social Psychology
- appreciate interpersonal and group level psychological processes in the cultural context
- apply the intervention strategies in the various arenas of life

UNIT I: INTRODUCTION

12 hrs.

Applied Social Psychology: Definition, Historical Context, Social Influence on Behaviour: The power of the Situation, Levels of Analysis. Social Psychological Theory: The Scientific Process, Functions of Social Psychological Theories, Characteristics of Social Psychological Theories.

UNIT II: THE SELF

14T + 4L hrs.

Self Presentation: Managing the self in different social contexts, Self-Knowledge – knowing who we are. Thinking about the Self: Personal versus Social Identity, Self-Esteem: Attitude towards Ourselves, Social Comparison – Self as target of Prejudice.

Applying Social Psychology to one's own Life.

Personal Relationship: Need to be close, The Selection process, The science of Closeness. Classroom: Cognitive Errors and student-teacher relations, Self-Perceptions and Academic Consequences. Positive well-being: Positive Social Psychology, Optimism. Broadening the perspective on positive well-being

Assessments:

1. Self Image Profile for Adults
2. The General Self-Efficacy Scale (GSE)

UNIT III: EVALUATING AND RESPONDING TO THE SOCIAL WORLD

14T + 6L hrs.

Attitude – formation, influence, change- the role of persuasion, Cognitive dissonance theory, Measurement of attitudes. Stereotypes: nature and origin. Prejudice and discrimination: techniques for countering.

Aggression: Nature, causes and control. Conformity and Compliance – symbolic social influence, obedience to authority.

Assessments:

1. Aggression Questionnaire
2. Novaco Anger scale and Provocation Inventory
3. Conflict Tactics Scale
4. Experiments on Social Conformity
5. Attitude scale – A scale to be prepared and validated (Likert or Thurstone model)

UNIT IV: EMERGING TRENDS IN SOCIAL PSYCHOLOGY

16 hrs.

Gender issues, impact of media, terrorism and violence, caste, class and communal discrimination, personal space and territoriality, ecological variables in social psychology.

UNIT V: INTERVENTION AND APPLICATION

15T + 5L hrs.

Design of Interventions, Evaluation of Interventions, Evidence – Based Interventions:

Identifying the problem, Developing a solution, Goal Setting and Designing the Intervention, Implementing the Intervention, Application of Social Norm Theory.

The social psychological roots of Social Anxiety, Self-Presentation Theory, Hopelessness Theory Approach to treating Depression, Sports Teams: Team Dynamics, Team Building, Media: Impact of Media Violence, Organization and Community: Diversity Versus Prejudice and Stigmatization, Bringing about social change, Leadership: Theories, Styles.

Assessments :

1. Sociometry and Sociogram
2. Beck's Hopelessness Scale
3. Leadership Profile Indicator

- **Any 8 assessments to be completed.**
- **List of assessments to be updated with relevant tests on a yearly basis**

TEXT BOOK(S):

Schneider. F.W. Gruman. J.A. & Coutts. L.M. (2011). *Applied social psychology: Understanding and addressing social and practical problems*. NewDelhi: Sage Publications.

Myers. D. G. (1999). *Social Psychology*. New Delhi: McGraw- Hill Companies.

Baron.R.A. & Byrne. D. (2006). *Social Psychology*.India: Dorling Kindersey Pvt.Ltd,

REFERENCE BOOK(S):

Worchel. S. Cooper.J. Goethals. G.R.(1991). *Understanding Social psychology*. California: Brooks\Cole Publishing Company.

Krutch, Crutchfield & Ballachy. (1963). *Individual in society*. New york: Mc Graw Hill, International Book Company.

Mc David J.W. Herbert H. (1986). *Social Psychology: individuals. Groups & Societies*. New Delhi: CBS Publishers and distributors.

PPY1201F CASE WORK

(Internship)

LEARNING OUTCOME:

6 hrs./day (10 days)

On successful completion of the course the student will be able to

- comprehend the requirements for doing a case work
- evaluate a case in a comprehensive manner
- apply skills in preparing a case report according to a validated format.

The student will be required to identify a case from an educational/ organizational/ health care set up and collect adequate information regarding the case using a validated format and prepare and present a comprehensive report.

PPY2501M ADVANCED PSYCHOLOGICAL PROCESSES – II

(Lab cum theory)

LEARNING OUTCOME:

4T+2L hrs./wk.

On successful completion of the course, the student will be able to:

- comprehend the higher order psychological processes.
- appreciate the dynamics of the components of Cognition
- analyse the interconnections among intelligence, motivation, emotion and cognition.

UNIT I: INTELLIGENCE

14 hrs.

Introduction: Definitions, Determinants of Intelligence – nature versus nurture. Contrasting views: Theories of Intelligence: Factor theories – Spearman, Thurstone, Thorndike, Guilford, Cattell, Gardner. Process theories – Sternberg, Vernon. Measurement of Intelligence: Extremes of intelligence: Mental retardation and Giftedness. Neurobiology of Intelligence

UNIT II: MOTIVATION AND EMOTION

10T + 8Lhrs.

Theories of motivation: Hull's theory, Arousal theory, Expectancy theory, Self Determination Theory, Self-actualization theory, Alderfer's ERG theory, Equity theory. Primary drives and secondary drives.

Nature of Human Emotion: Basic emotional experiences. Theories of emotion: James-Lange, Cannon-Bard, Schachter-Singer. Emotional intelligence, Culture and Emotions. Emotional Intelligence. Neurobiology of Motivation and Emotion.

EXPERIMENTS

1. Emotions and expressions – Gilliam
2. Overeating Questionnaire
3. Child Apperception Test

UNIT III: THINKING, PROBLEM SOLVING, CREATIVITY

12T + 6Lhrs.

Concepts and Categorization: Function of concepts, Structure of Natural Object Categories, Association and Hypothesis Testing, Use of categories in reasoning; Problem Solving: Types of problem, Understanding the problem, Strategies of Problem Solving (Sub goals, analogues) Problem – Solving Approaches: Gestalt, Newell and Simon's theory, Factors that influence Problem Solving. Impediments to problem solving. Creativity: Creative process, Creativity and Functional Fixedness. Investment theory of Creativity, Judging Creativity.

EXPERIMENTS

1. Tower of London
2. Torrence Creativity Test

UNIT IV: REASONING, DECISION MAKING AND META COGNITION

12T + 8Lhrs.

Reasoning: Types of Reasoning: Deductive, Inductive and everyday reasoning, Syllogistic Reasoning (Conditional Reasoning) ; Approaches to the study of reasoning: Componential, Rules/heuristics, mental models approaches; Patterns of Reasoning Performance; Decision Making: Models – Compensatory and Non-compensatory; Types of decisions: Decisions in risk, under certainty and uncertainty; Basic concepts: Estimating Probabilities, combining probabilities and values, risk dimensions; Models in Decision Making: Utility models (Expected utility, Multiattribute utility, Dual Processing); Cognitive Illusions in

Decision Making: Availability, representativeness, framing effects, illusory correlations, hindsight effects, overconfidence. Artificial intelligence, robotics, models on information processing, Consciousness

EXPERIMENTS

1. Hanfmann Kananin Concept Formation Test.
2. Leon Mann Decision making test
3. Delis- Kaplan Executive Function System

UNIT V: LANGUAGE COMPREHENSION AND PRODUCTION

12T + 8Lhrs.

Defining Language: Origins of language, meaning, structure and use; Perspectives of Language: Modularity Hypothesis, Whorfian Hypothesis and Neuropsychological perspectives. Psycholinguistics. Factors affecting Comprehension, Reading processes and Discourse processes.

Writing: Cognitive model, planning the writing assignment, sentence generation, revision; Embodied Cognition; Bilingualism – Code Switching, Advantages and Disadvantages of Bilingualism; Brain and Language

EXPERIMENTS

1. Communication Checklist – Adult (CC-A)
2. Woodcock Reading Mastery Test
3. Lexical Decision Making test (online)
 - **Any 10 experiments to be completed.**
 - **List of experiments to be updated with relevant assessments on an yearly basis**

TEXT BOOKS:

Matlin. W. M. (1995). *Cognition*. State University of New York, Geneseo New York: Prism Books pvt ltd.

Smith. E. E. Stephen K. M. (2008). *Cognitive psychology: Mind and brain* New Delhi Prentice Hall of India.

REFERENCE BOOKS:

Kathy Pazdek. (2006). *Applied psychology*. New Jersey: Lawrence Erlbaum Associates Publishers.

Carroll. D. W. (2007). *Psychology of language*. Massachusetts: Brooks Cole.

Jay .T. (2003). *The psychology of language*. New Delhi: Prentice Hall India.

Goldstein. E. (2009). *Sensation and perception* New Delhi: Cengage Learning.

Solso. R. L. Maclin. H. O. Maclin. M. K. (2008). *Cognitive psychology* New Delhi: Pearson Education.

Galotti. K. M. (2008). *Cognitive psychology in and out of the laboratory* New Delhi: Cengage Learning.

Stenberg. R. J. (2012). *Cognitive psychology* New Delhi: Words worth Cengage Learning.

Morgan.T.C. and King R.A. (2010). *Introduction to Psychology*. NewDelhi: Tata Mc GRAW HILL.

Baron R. A. (2011) *Psychology*. New Delhi: Prentice hall of India Pvt. Ltd.

PPY2502M PERSPECTIVES ON PERSONALITY

(Theory)

LEARNING OUTCOME:

6 hrs. / wk.

On successful completion of the course the student will be able to:

- comprehend the multiple perspectives on Personality
- appreciate the various perspectives to arrive at an integrated perception of personality
- evaluate personality as a multi-causal phenomenon

UNIT I: A. INTRODUCTION TO PERSONALITY PSYCHOLOGY

12 hrs.

- A. Introduction: Definition, Levels of personality analysis – human nature, individual differences, uniqueness. Theories of personality, contemporary research in personality.
- B. Biological domain: Genetics and personality; Heritability, nature-nurture debate
Physiological approaches to personality; physiological measures, physiologically based theories. Evolutionary perspectives; Evolution and natural selection, Evolutionary Psychology, Sex Differences.

UNIT II: INTRA-PSYCHIC DOMAIN

20 hrs.

- A. Psychoanalytic approaches to personality. Freud; structure and dynamics of personality
- B. Neo-analytic movements: Analytical Psychology- Jung. Individual Psychology- Adler. Ego psychology-Erikson. Interpersonal theory-Sullivan. Neurotic Anxiety-Horney, . Klein. Developmental Psychoanalysis-Anna Freud. Object relations – Harlow, Mahler, Winnicott. Psychoanalysis in the Indian context – Kakar
- C. Motives and personality: basic concepts, big three motives. Need Press Analysis – Murray.
- D. Humanistic – Existential traditions. Maslow, Rogers, Rollo May, Viktor Frankl

UNIT III: THE BEHAVIOURAL DOMAIN AND SOCIAL-CULTURAL AND ADJUSTMENT DOMAIN

20 hrs.

- Behaviourist and learning aspects of personality. Pavlov, Skinner, Dollard and Miller, Bandura and Walters
- A. Sex-gender and personality, Culture and personality. Personality and social interaction
 - B. The ecology of human behavior: Micro and Macro contexts. Indian Approaches
 - C. Feminist approaches, Trans-personal approaches- Barry

UNIT IV: DISPOSITIONAL DOMAIN: TRAIT APPROACH

19 hrs.

- A. Trait-causal properties, descriptive summaries, Identification of the most important traits, trait – type distinction. Allport
- B. Taxonomies of personality: Cattell; 16 PF, Eysenck: Hierarchical model. Circumplex taxonomies
- C. The Five-Factor Model: theory, evidence and applications
- D. Personality dispositions over time: stability, coherence and change

UNIT V: THE COGNITIVE / EXPERIENTIAL DOMAIN

19 hrs.

- A. Personality revealed through perception; field dependence, pain tolerance
- B. Personality revealed through interpretations; The psychology of personal constructs; Kelley
- C. Emotion and Personality; Emotional states versus emotional traits. Content versus style of emotional life

- D. Approaches to Self; Descriptive component of the self, evaluative component of the self, social component of the self. Social cognitive theory and the person

TEXT BOOK:

Larsen. R.J. Buss. D.M.Deuskar. MU. (2014). *Personality psychology Domains of knowledge about human nature*. NewDelhi: Mc Graw hill education India.

REFERENCE BOOKS

Mc Adams. D. P. (2002). *The person an integrated introduction to personality psychology*. NY. USA: John Wiley and Sons Inc.

Hall. C.S. Lindzey. G. Campbell. J. B. (2016) *Theories of Personality*. New Delhi: Wiley India Pvt ltd.

Fragar. R.C. Fadiman. J. (2007). *Personality and Personal Growth*. Delhi: Pearson Education.

Bischoff. L .J. (1970). *Interpreting Personality Theories*. Harper & Rowny.

Hjelle. L.A. Zeigler. D.J. (1991). *Personality Theories: Basic Assumptions, Research, & Applications*. Mcgraw-Hill International Book Co.

Kakar. S. (2011). *The Inner World: A Psycho-analytic Study of Childhood and Society in India*. New Delhi: Oxford university press.

PPY2503M PSYCHOPATHOLOGY

(Theory)

LEARNING OUTCOME:

6 hrs. / wk.

On successful completion of the course, the student will be able to

- comprehend the concepts of human abnormality.
- compare the major forms of mental disorders.
- analyse the causative factors of abnormal behaviour.

COURSE OUTLINE:

UNIT I : INTRODUCTION

10 hrs.

Abnormality, Classification of Mental Disorders, Diagnostic and Statistical Manual of Mental disorders (DSM) - DSM IV-TR and DSM V, Clinical Assessment of Abnormal Behaviour. International Classification of Diseases (ICD) ICD-10. Mental Status Examination.

UNIT II: STRESS, ANXIETY AND MOOD DISORDERS

20 hrs.

- (a) Stress and adjustment disorders: Stress, Adjustment Disorders, Post Traumatic Stress Disorder (PTSD) - Nature, Causal Factors.
- (b) Panic and Anxiety Disorders: Specific Phobias, Social Phobias, Panic Disorder, Agoraphobia. Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder (OCD) - Nature, Causal Factors
- (c) Mood Disorders And Suicide: Unipolar Mood Disorders, Bipolar Disorders, Suicide- Nature, Causal factors

UNIT III: SOMATOFORM, DISSOCIATIVE AND EATING DISORDER**20 hrs.**

- (a) Somatoform disorders: Somatoform Disorders: Somatization Disorder, Hypochondriasis, Pain Disorder, Conversion Disorder, Malingering/Factitious Disorder – Nature, Causal Factors.
- (b) Dissociative Disorders: Dissociative Amnesia and Fugue, Dissociative Identity Disorder, Depersonalization Disorder- Nature, Causal Factors
- (c) Eating disorders and obesity :: Anorexia Nervosa, Bulimia Nervosa – Risk and Causal factors in eating disorders.

UNIT IV: PERSONALITY, ADDICTION DISORDERS AND SEXUAL VARIANTS**20 hrs.**

- (a) Personality disorders. Clinical feature, types: Cluster A (paranoid, schizoid and schizotypal personality disorders). Cluster B (histrionic, narcissistic, antisocial and borderline personality disorders). Cluster C (avoidant, dependent, Obsessive-compulsive personality disorders)- clinical feature, causal factors. Antisocial personality disorder and psychopathy - Causal factors
- (b) Addiction disorders: Alcohol abuse and dependence. Drug abuse and dependence- Nature, Causal factors
- (c) Sexual variants, abuse and dysfunctions: Sexual and gender variants: paraphilias, GID, Causal factors. Childhood sexual abuse: pedophilia, incest, rape. Sexual dysfunctions: dysfunctions of sexual desire, sexual arousal, orgasmic disorders, dysfunctions involving sexual pain - Nature, Causal factors

UNIT V: SCHIZOPHRENIA, COGNITIVE DISORDERS AND DISORDERS OF CHILDHOOD AND ADOLESCENCE**20 hrs.**

- (a) Schizophrenia and other psychotic disorders: Perspectives on Schizophrenia – Clinical Description – Symptoms and Subtypes – Causes – Diagnosis. Causal factors
- (b) Cognitive disorders: Cognitive Impairment Disorders: Delirium, Dementia: Alzheimer's, Pick's, Huntington's, Parkinson's. Amnesic Disorders – Nature, Causal factors
- (c) Disorders of childhood and adolescence: Disorders of Childhood & adolescence: Attention Deficit Hyperactive Disorder, Oppositional Defiant Disorder, Conduct disorder, Autism, Mental retardation, Dyslexia. Nature, Causal factors

TEXT BOOK(S):

Carson. R. C., Mineka. S. & Butcher, I N. (2003). *Abnormal Psychology and Modern Life*. New York: Prentice Hall

Diagnostic and Statistical Manual for Mental Disorders (DSMIV- (TR)). Fourth Edition, , The Division of Publications and Marketing. Washington DC. American Psychiatric Association.

ICD-10. (2007). *The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines*, Geneva, World Health Organization, AITBS Publishers in India.

REFERENCE BOOK(S):

Sarason. Irwin G. and Barbara R. Sarason. (2009). *Abnormal psychology: the problem of maladaptive behavior*. New Delhi: Prentice hall.

Alloy L. B. Riskind J.H. & Mandos M.J. (2006). *Abnormal Psychology: Current*

Perspectives. (9e). New Delhi: Tata McGraw-Hill Pub. Com. Ltd.

Comer. R. J. (1999). *Abnormal Psychology*. New Jersey: W. H. Freeman Co.

Davison. G. C. & Neale. J. M. (1998). *Abnormal Psychology*, (7e). New York: John Wiley & Sons.

PPY2504M PSYCHOLOGICAL ASSESSMENT

(Lab cum Theory)

LEARNING OUTCOME:

3T+ 3L hrs. / wk.

On successful completion of the course the students will be able to:

- comprehend the basic processes involved in psychological measurement
- appreciate the variations involved in psychological measurement.
- apply skills to assess behavioural variables

UNIT I: PSYCHOLOGICAL MEASUREMENT

8 hrs.

Measurement: Meaning, differences between psychological and physical properties of scales and measures. Orientation to Mental Measurement. Levels of Measurement – Nominal, Ordinal, Interval and Ratio Scales. Psychophysics. Laws: Weber's Law, Fechner's Law. Psychophysical Methods: Method of Average Error. Method of Minimal Changes. Method of Constant Stimuli. Method of Paired Comparisons. Types of scales; Uses of scales.

UNIT II: PSYCHOLOGICAL TESTING

6 hrs.

History of psychological testing, Meaning, Principles of Psychological Assessment, Steps in test construction. Standardization, Reliability and Validity, Norms and Interpretation. Types of test.

UNIT III: APPLICATION OF PSYCHOLOGICAL TESTING

6 hrs.

Areas of application: Educational, Occupational, Clinical and Counselling. Characteristics of a good Ethical and social consideration in psychological testing.

UNIT III: MEASURING INTELLIGENCE

5T + 15L.

Historical antecedent of modern intelligence testing. Theories of intelligence. The development of Intelligence testing. Stanford – Binet Intelligence scales, Alpha and Beta Tests, Mental Age, Intelligence Quotient, Weschler Scales; Raven's Progressive Matrices. Types of Intelligence Testing – Individual, group and special groups. Multi-level Batteries : K-ABC, Bhatias' battery of Intelligence, Cog AT. Evaluation of intelligence testing. Issues about assessment of intelligence.

TESTS

1. Binet Kamat Test of Intelligence.
2. Seguin Form Board
3. Raven's APM (advance progressive matrices)
4. Bhatia's battery of intelligence
5. Vineland Social Maturity Scale
6. Wechsler's Adult Intelligence Scale (WAIS)
7. Raven's SPM (Standard Progressive Matrices)
8. Differential Aptitude Test (DAT)

9. The neuro-behavioural Cognitive status Examination
10. Neuro-psychological battery for the elderly- NIMHANS

UNIT IV: ASSESSING PERSONALITY

5T + 15L.

Assessment in the study of personality, Forms of assessment: situational assessments, Observations of behaviour, task performance measures, physiological measures, Tests. Types of personality tests – Objective tests - Self report inventories (MMPI, EPQ, MCMI, MBTI, 16 PF, NEO-PI, CPI), Projective tests: Inkblot Techniques, Pictorial techniques, Verbal Techniques. Clinical Interviews, Behavioral Assessments. Assessing motives, interests and attitudes. Evaluation of personality testing.

TESTS:

1. EPQ (Eysenck's Personality Questionnaire)
 2. 16 PF
 3. NEO-Personality Inventory
 4. MBTI
 5. FIRO -B
 6. Locus of Control
 7. Kent-Rosanoff Test
 8. Rorschach Ink-blot Test
- **Any 10 tests to be completed**
 - **List of tests to be updated with relevant assessments on a yearly basis**

TEXTBOOK:

Anastasi. A. Urbina. S. (2002). *Psychological Testing*. New Delhi: Pearson Education.

REFERENCE BOOKS

- Caoley. K. (2014). *An introduction to psychological assessment and psychometrics (2e)*. New Delhi: Sage publication.
- Larsen. R.J. Buss. DM. Deuskar. M.U (2014). *Personality psychology Domains of knowledge about human nature (4e)*. New Delhi: Mc Graw Hill education India.
- Gregory. R. J. (2006). *Psychological testing: History, Principles and applications*. New Delhi: Pearson Education.

PPY2401E INTERPERSONAL DYNAMICS

(Theory)

LEARNING OUTCOME:

4 hrs./wk.

On successful completion of the course the student will be able to

- comprehend the dynamics of human interaction
- develop a healthy perspective of human relationships.
- appreciate the explicit and subtle dynamics of human relationships

COURSE OUTLINE:

UNIT I: INTERPERSONAL PERCEPTION AND ATTRACTION

12 hrs.

Interpersonal perception: Factors Influencing accuracy of interpersonal perceptions: Halo effect, Frame of reference, Stereotypes, Prejudices, Forming and changing impressions. Role of Non-verbal cues. Theories of attribution – bias in attribution, role of central traits, role of appearance – self perception. Self esteem, locus of control.

UNIT II: INTERPERSONAL ATTRACTION**12 hrs.**

Attraction and Love: meaning, theoretical models – Reward model, Balance Model-Heider, Newcomb, Sternberg's triangular model. Proximity, Physical attractiveness, similarity and complementarity. Sociometry. Reciprocation of liking, communicating liking – sociogram. Impact of social media on attraction and relationships.

UNIT III: INTERPERSONAL INFLUENCE**12 hrs.**

Social facilitation, social inhibition. Influence of Social roles: Gender roles-Culture and gender. Conformity. Studies of Asch, Sherif and Milgram. Factors influencing conformity situational and personal factors. Psychological processes involved in conformity. Social manipulation techniques.

UNIT IV: INTERPERSONAL CONFLICTS**12 hrs.**

Conflict; nature, types-intrapersonal and interpersonal, factors influencing conflict, reduction of conflict. Conflict resolution – Transactional Analysis. Peacemaking.

UNIT V: INTERPERSONAL HELPING**12 hrs.**

Altruism – Meaning, theoretical Models: Social exchange, Empathetic-joy model, Social norms, Sociobiology. Personal influences, situational influences. Increasing interpersonal helping.

TEXT BOOK(S):

Myers. D.G. (1999). *Social Psychology*. New Delhi: McGraw- Hill Companies.

Baron. R.A. & Byrne. D. (2006). *Social Psychology*. India: Dorling Kindersey Pvt. Ltd.

REFERENCE BOOK(S):

Worchel.S. Cooper.J. Goethals. GR. (1991). *Understanding Social psychology*. Books\Cole Publishing Company.

Krutch. Crutchfield & Ballachy (1963). *Individual in society*. New York: International Book Company: Mc.Graw Hill.

Mc. David J.W. Herbert .H. (1986). *Social Psychology: individuals, Groups & Societies*. CBS Publishers and distributors.

PPY2401F INTERNSHIP–PSYCHO EDUCATIONAL INTERVENTION**LEARNING OUTCOME:****6 hrs./day (20 days)**

On successful completion of the course the student will be able to

- gain knowledge identifying areas of intervention
- acquire skills in planning and executing an psycho educational intervention.

The student will be required to identify a group from an educational/ organizational/ clinical set up and collect adequate information to assess the need, plan and prepare an appropriate intervention and implement it.

PPY0401D PERSONAL GROWTH: AN EXPERIENTIAL ENQUIRY

(Theory)

LEARNING OUTCOME:

On successful completion of the course the student, will be able to

- comprehend the concept of experiential learning, that is, learning through experience and reflection,
- develop a more focused yet free flowing awareness and experience of personal selfhood.
- apply skills and clarify values through reflection regarding self and growth and enter the challenges of young adulthood in a more free flowing, vibrant and alive manner.

UNIT I: INTRODUCTION

Self-introduction. theoretical roots: Jung, Adler, Rogers, Maslow. Multicultural perspectives: Western influences- Judeo-Christian views. Eastern perspectives: Hindu, Buddhist and Islamic perspectives. Post modern approaches.

UNIT II: THE EXPERIENCING SELF

Addressing the question —“who am I”? What is my personal search”? “What is my relationship with the world in which I exist?” Self in Moments of living: Vicissitudes of the “unformed” & “unstructured self”— the significance of “playing”, “flirting” “exploring” “un-integrating” and “hiding”. An inclusion of the “not knowing” mode in our journey through disintegration — unintegration to integration “Becoming alive to one’s own life”

UNIT III: TOWARDS THE FLOW OF LIFE

The ongoing process of “becoming”. Search for authenticity, meaning and choice. Engaging with loss, despair and angst. Flux, change, transience and emptiness. Independent, Interdependent and Relational Self.

UNIT IV: EXPERIENTIAL PARADIGMS

Psychoanalytic, Existential, Transpersonal, Positive Psychology and personal growth. challenges of managing emotions in experience.

UNIT V: SELF AND WORLD

Re-Examining oneself: The Socially and Culturally Conditioned Being. What do I stand for and how did I come to internalize the values that I hold? – One’s social and cultural internalizations. Examining my choices regarding work and the direction I choose to embark in life. reaching a fuller participation vis-à-vis the world in which one exist.

REFERENCE BOOKS:

- Atherton. J.B. (2002) *Learning and teaching: Teaching from experience* Columbus. Ohio: Merrill.Exeter. D.J. (2001). *Learning in the outdoors*. London: Outward Bound.
- Rogers. C. R .(1995). *On Becoming a Person: A Therapist's View of Psychotherapy*. Newyork: Houghton Mifflin Company.
- Rogers. C R .(1995). *A way of being*. New York: Houghton Mifflin Company.
- Bollas. C. (1992). *Being a Character—Psychoanalysis and Self Experience*. London: Routledge.
- Frankl. E. V. (1984). *Man’s Search for Meaning*. New York: Beacon Press.
- Kakar. S. (1978). *The inner world a Psychoanalytic study of childhood and society*. India: Oxford.

PPY0402D INDUSTRIAL RELATIONS AND LABOUR WELFARE

(Theory)

LEARNING OUTCOME:

On successful completion of the course, the student will be able to

- comprehend the importance of Industrial Relations
- explain the context of labour welfare in India.
- apply the appropriate labour legislation at the work place.

UNIT I: INDUSTRIAL RELATIONS

Concepts – Importance – Industrial Relations problems in the Public Sector and Private Sector – Growth of Trade Unions – Codes of conduct.

UNIT II: INDUSTRIAL CONFLICTS

Disputes – Impact – Causes – Strikes – Prevention – Industrial Peace – Government Machinery – Conciliation – Arbitration – Adjudication.

UNIT III: LABOUR WELFARE AND INDUSTRIAL SAFETY

Concept – Objectives – Scope – Need – Voluntary Welfare Measures – Statutory Welfare Measures – Labour – Welfare Funds – Education and Training Schemes.

Causes of Accidents – Prevention – Safety Provisions – Industrial Health and Hygiene – Importance – Problems – Occupational Hazards – Diseases – Psychological problems – Counseling – Statutory Provisions.

UNIT IV: LEGAL SYSTEMS FOR INDUSTRIAL RELATIONS

The Factories Act, 1948 The Industrial Disputes Act, 1947. The Industrial Employment (Standing Orders) Act, 1946. The Employees State Insurance Act, 1948 The Trade Unions Act, 1926. Employee Provident Fund Act, 1952. Worker's Compensation Act, 1923. Industrial Safety Act, 1948.

UNIT V: WELFARE OF SPECIAL CATEGORIES OF LABOUR AND UNORGANISED SECTOR

Child Labour – Gender Labour – Contract Labour – Construction Labour – Agricultural Labour – Differently abled Labour –BPO & KPO Labour - Social Assistance – Social Security – Implications.

TEXT BOOK(S):

Mamoria. C.B. and Mamoria. S. (2007). *Dynamics of Industrial Relations*. New Delhi: Himalaya Publishing House.

REFERENCE BOOK(S):

Venkata Ratnam. C.S. (2007). *Globalisation and Labour Management Relations*. Response Books.

Sen.R. (2007). *Industrial Relations in India, Shifting Paradigms*. New Delhi. Macmillan India Ltd.

Srivastava. (2007). *Industrial Relations and Labour laws*. New Delhi: Vikas Publications.

Sarma. A. M. (2008). *Welfare of Unorganized Labour*. Himalaya Publishing House.

Rao. S. (2007). *Essentials of Human Resource Management and Industrial Relations (Text and Cases)*. New Delhi: Himalaya Publications.

B.Voc. DEGREE PROGRAMME

PREAMBLE

With the introduction of B.Voc. in Health Care Services and B.Voc. in Medical Lab Technology in 2015 – 2016, the course profile, course content and evaluation pattern for semesters I & II were passed in the Academic Council meeting held in September 2015. The department is now presenting the same for semesters III & IV.

B.Voc.in Medical Lab Technology

(From 2015 batch onwards)

| Sem. | Category | Course Code | Course Title | Hrs. / wk. | Credits |
|--------------|--------------------------------|-------------|---|------------|-----------|
| III | PART I GENERAL EDUCATION | ENG3201FL | ENGLISH FOR COMMUNICATION III | 2 | 2 |
| | | MLT3201GE | LIFE SKILLS III | 2 | 2 |
| | | MLT3201GP | BASIC COMPUTER SKILLS III | 2 | 2 |
| | | MLT3202GE | HUMAN BIOLOGY – ANATOMY AND PHYSIOLOGY II | 2 | 2 |
| | | MLT3203GE | COMMUNICABLE DISEASES AND PREVENTIVE CARE | 2 | 2 |
| | | MLT3204GE | BASICS IN BLOOD BANKING | 2 | 2 |
| | PART II SKILL COMPONENT | MLT3601ST | BLOOD BANK TECHNIQUES I | 3T + 3L* | 6 |
| | | MLT3602ST | CLINICAL BIOCHEMISTRY II | 3T + 3L* | 6 |
| | | MLT3603ST | SYSTEMIC BACTERIOLOGY | 3T + 3L* | 6 |
| TOTAL | | | | 30 | 30 |
| IV | PART I GENERAL EDUCATION | ENG4201FL | ENGLISH FOR COMMUNICATION IV | 2 | 2 |
| | | MLT4201GE | LIFE SKILLS IV | 2 | 2 |
| | | MLT4201GP | BASIC COMPUTER SKILLS IV | 2 | 2 |
| | | MLT4202GE | QUALITY ASSURANCE | 2 | 2 |
| | | MLT4203GE | IMMUNOLOGY | 2 | 2 |
| | | MLT4204GE | CLINICAL VIROLOGY AND MYCOLOGY | 2 | 2 |
| | PART II SKILL COMPONENT | MLT4601ST | BLOOD BANK TECHNIQUES II | 3T + 3L* | 6 |
| | | MLT4602ST | CLINICAL EXAMINATION OF BODY FLUIDS AND FEACES II | 3T + 3L* | 6 |
| | | MLT4601SI | INTERNSHIP | 6 | 6 |
| TOTAL | | | | 30 | 30 |

General Education: 24 Credits, Skill Education: 36 Credits

* 3L hrs/Wk – Total: 45L hrs/semester: 20 hrs in-house training and 25hrs in hospital/ labs

ENG3201FL ENGLISH FOR COMMUNICATION III

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- communicate in both personal and impersonal situations
- develop vocabulary skills related to day to day activities
- use proper English grammar structure – both written and spoken

COURSE OUTLINE:**UNIT I: Grammar** **8 hrs.**

Degrees of comparison, Gerund, Singular and Plural, Verbs- Phrasal verbs, Modal verbs, Linking words.

UNIT II: Vocabulary Enrichment **7 hrs.**

Personality types, Abbreviations, Clothing, Colors, Banking, Traffic terms, Health and health care, Vegetables and Fruits, household appliances.

UNIT III: Reading and Writing skills **7 hrs.**

- a. Reading for pleasure and knowledge – Biographies of famous personalities - Louis Pasteur, Wilhelm Rontgen, Alexander Fleming, Dr. Robert Koch, Rene Laennec- Florence Nightingale, Clarissa "Clara" Barton, Dorothea Dix.
- b. Note taking, Comprehension passage related to Medical Lab Technology and Health Care Services, Report writing, anecdotal records, common Terms and expressions, case report, case history.

UNIT IV: Speaking skills **8 hrs.**

Talk about yourself, your friend, teacher, hobbies, Discuss about media, festival, travel& tourism, library.

REFERENCE BOOK(S)

Joseph, K.V. *A Text Book of English Grammar*. Chennai: Vijay Nicole Imprints Private Limited, 2006. Print.

Kumar, Sasi V., Kiranmai Dutt, P, and Geetha Rajeevan. *A Course in Listening and Speaking II*. India: Cambridge UP, 2015. Print.

Lester, Mark, and Larry Beason. *The McGraw-Hill Handbook of English Grammar and Usage*. New York: McGraw-Hill, 2005. Print.

Murphy Raymond. *Essential English Grammar*. Chennai: Cambridge UP, 1998. Print.

Prasad P. *The Functional Aspects of Communication Skills*. New Delhi: S K Kataria & Sons, 2014. Print.

Pal, Rajendra and Premlata Suri. *English Grammar and Composition*. New Delhi: Sultan Chand And Sons, 2011. Print.

Rose, Selva. *Career English for Nurses*. New Delhi: Orient Blackswan Private Limited, 2013. Print.

Xavier, A.G. *Practical English Grammar*. Mumbai: St. Paul's Press, 1988. Print.

MLT3201GE / HCS3201GE LIFE SKILLS – III**(Theory)****LEARNING OUTCOME** **2 hrs. / wk.**

On successful completion of the course the student will be able to

- develop self awareness
- discuss positive attitude to success
- demonstrate skills to handle fear, anger, anxiety, shyness and depression

COURSE OUTLINE:**UNIT I: SELF AWARENESS AND EMPATHY** **7 hrs.**

- a) Self Awareness: Definition, Importance, Developing self awareness, Johari window,

SWOT analysis, Barriers to self disclosure, Tips to self disclosure

b) Empathy: Meaning, Importance of empathy in health care profession, Developing empathy skills

UNIT II: DEALING WITH ATTITUDE **7 hrs.**

a) Attitude: Definition, Importance, Types, Attitude at workplace - Factors that determine attitude, ABC model of attitudes

b) Attitude to success: Meaning of success, Obstacles, Measurement, Guidelines

UNIT III: EMOTIONS: FEAR AND ANGER **8 hrs.**

Emotions: Definition, Kinds of fear, Understanding and managing fear. Anger : Myths and facts, Importance of anger management, Understanding and managing anger

UNIT IV: COPING WITH SHYNESS, ANXIETY AND DEPRESSION **8 hrs.**

Shyness: Causes, Symptoms, Managing shyness – Anxiety: Causes, Symptoms and Managing anxiety – Depression: Causes, Symptoms, Managing depression.

TEXT BOOK

Alphonse, Xavier S.J. *We Shall Overcome – A Text Book on Life Coping Skills*. Chennai: MCRDCE Publications, March, 2004. Print.

REFERENCE BOOK(S)

Bender, Peter Urs and Robert, A. Tracz. *Secrets of Face to Face Communication*. New Delhi: Macmillan India Limited, 2005. Print.

Shiv Khera. *You Can Win*. New Delhi: Macmillan India Ltd., 1998. Print.

Shiv Khera. *Living with Honour*. New Delhi: Macmillan India Ltd., 2003. Print.

MLT3201GP / HCS3201GP BASIC COMPUTER SKILLS III

(Lab)

LEARNING OUTCOME **2 hrs. / wk.**

On successful completion of the course, the student will be able to

- comprehend the basic concepts of database
- design and develop a database using sql
- acquire and apply skills in PC assembling and troubleshooting

COURSE OUTLINE:

UNIT I: DATABASE SOFTWARE AND APPLICATIONS **5 hrs.**

Database concepts using Access Data manager: Terminologies- Screen layouts: Database Window- Design View-Datasheet view – Tables: Creation- Editing-Deleting- Finding Data- Table Relationships-Sorting and Filtering - Forms - Reports

LAB Exercises:

- Creating Patient, Doctor and staff table
- Retrieving the details
- Creating Forms and Reports for real time applications

UNIT II: STRUCTURED QUERY LANGUAGE **5 hrs.**

Creating queries - SQL statements - Setting relationship - Using wizards - GUI - Form - Creating & printing reports

LAB Exercises:

- Creating SQL Statement
- Setting Relationship between tables
- Report Generation

UNIT III: HARDWARE INSTALLATION AND CONFIGURATION **8 hrs.**

Motherboard components - Computer Assembly - Disassembly and Reassembly - System Board Configuration – Booting - Configuring – Disk drive adapter and Hard disk.

LAB Exercises:

- PC assembling
- Installation of OS
- Handling Pen drive and CD

UNIT IV: TROUBLESHOOTING AND SYSTEM MAINTENANCE **12 hrs**

Troubleshooting considerations and support options - Systematic Troubleshooting - Troubleshooting Tools and Practices – System Maintenance and disaster management.

- Troubleshooting the problems(Hardware and Software)
- Antivirus Installation

TEXT BOOK

Alphonse, Xavier S.J. *Computer Made Easy: A Text Book on Basic Computing Skills*. Chennai: MCRDCE Publications, 2011. Print.

REFERENCE BOOK

Zacker, Craig and John Rourke. *PC Hardware The Complete Reference*. New Delhi: Tata McGraw Hill Publishing Company, 2001. Print.

REFERENCE SITE(S):

<http://www.Pccomputers.com>

<http://www.pcguides.com/topic.html>

<http://www.hardwarecentral/hardwarecentral/tutorial.com>

**MLT3202GE / HCS3202GE HUMAN BIOLOGY –
ANATOMY AND PHYSIOLOGY - II
(Theory)**

LEARNING OUTCOME **2 hrs. / wk.**

On successful Completion of the course, the student will be able to

- Comprehend the structure of human body
- recognize the interrelated functions of all systems
- apply the knowledge in taking care of the sick

COURSE OUTLINE:

UNIT I: MUSCULO - SKELETAL SYSTEM **8 hrs.**

Bone of skull and Thoracic cage – Vertebral column and pelvic girdle – Skeleton of upper and lower limb, joints – Muscles of the skeleton , types , muscles of head , neck , upper and lower limb , thorax , diaphragm , abdomen , pelvis.

UNIT II: NERVOUS SYSTEM **7 hrs.**

Divisions-Central and Peripheral nervous system – Autonomic nervous system:

sympathetic and parasympathetic nervous system – Nerve – Cranial nerves – Brain and its functions – Neurons : Structure, types, neurotransmitters – Cerebrospinal fluid – Blood Brain barriers – Reflex .

UNIT III: ENDOCRINE SYSTEM **7 hrs.**

Endocrine gland –Types : Pituitary thyroid, para thyroid, adrenal, endocrine pancreas – Gastrointestinal hormones – Functions and clinical correlation.

UNIT IV: SPECIAL SENSES **8 hrs.**

Eye : Functional anatomy , optics of vision , retina, structure and function , visual pathways , color vision – Ear : Functional anatomy , auditory pathways, balance , hearing defects , vestibular apparatus – Nose : Sensation of smell , olfaction mechanism – Tongue : Functional anatomy and Taste pathways.

TEXTBOOK

Pearce, E.C. *Text book of Anatomy & Physiology for Nurses*. 16th ed. New Delhi: Jaypee Brothers Medical Publishers, 1993. Print.

REFERENCE BOOK(S)

Ashalatha, P.R. and Deepa G. *Text book of Anatomy & Physiology for Nurses*. 4th ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Chalkley, A.M. *A Textbook for the Health Worker (ANM)*. Volume II. 1st ed. New Delhi: New Age International (P) Ltd., 2009. Chapters: 14,15,16,17. Print.

Chaurasia, B.D and Garg, K. *Human Anatomy Regional and Applied*. New Delhi: CBS Publications, 2012. Print.

Waugh, A., Grant, A., Ross and Wilson, *Anatomy and Physiology in health and illness*, 11th ed., New York: Churchill Livingstone, Elsevier, 2010. Print.

MLT3203GE / HCS3203GE COMMUNICABLE DISEASES AND PREVENTIVE CARE
(Theory)

LEARNING OUTCOME **2 hrs. / wk.**

On successful completion of the course, the student will be able to

- identify patients with sign and symptoms of communicable diseases.
- gain knowledge about communicable diseases.
- demonstrate skill in nursing care of patients with communicable diseases and focus on prevention

COURSE OUTLINE:

UNIT I: INTRODUCTION TO PREVENTIVE CARE **4 hrs.**

Definition and Purpose of Isolation Nursing – Immunization – Medical terminology related to Communicable Diseases.

UNIT II: NURSING MANAGEMENT FOR VIRAL DISEASE **10 hrs.**

Measles – Chicken pox – Hepatitis –Acquired Immuno Deficiency Syndrome – Poliomyelitis Rabies.

UNIT II: NURSING MANAGEMENT FOR BACTERIAL DISEASE **8 hrs.**

Typhoid – Diphtheria – Tetanus – Cholera – Tuberculosis.

UNIT IV: NURSING MANAGEMENT FOR VECTOR BORNE DISEASES **8 hrs.**

Malaria – Filaria – Dengue Fever – Chikungunya.

TEXTBOOK

Chalkley, A.M. *Textbook for the Health Worker (ANM)*. Volume II. 1st ed. New Delhi: New Age International (P) Ltd., 2009. Print.

REFERENCE BOOK(S)

Kasthuri Sundar Rao. *An Introduction to Community Health Nursing*. 4th ed. Chennai: B.I.Publications Pvt. Ltd., 2004. Print.

Park, K. *Essentials of Community Health Nursing*. 4th ed. Jabalpur : M/S Banarsidas Bhanot Publishers, 2004. Print.

Park, K. *Textbook of Preventive And Social Medicine*. 21st ed. Jabalpur :M/S Banarsidas Bhanot Publishers, 2011. Print.

Manual for Community Health Nursing, New Delhi: Prepared by & Published by The Trained Nurses Association of India,2006. Print.

MLT3204GE BASICS IN BLOOD BANKING (Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- demonstrate the concepts of blood banking
- identify the major blood group systems
- illustrate the effective clinical use of blood

COURSE OUTLINE:

UNIT I: INTRODUCTION

6 hrs.

Historical aspect–Functional structure of blood bank– Immunohaematology – ABO blood group system: Subgroups – Rh blood group system–Other blood group system–Bombay blood group.

UNIT II: RECIPIENT AND DONOR SELECTION

9 hrs.

Recipient–Blood request form–Blood samples–Donorrecruitment and retention– Donorselection–Criteria for selection of donors: Donor questionnaire, Physical examination,General appearance, Age, Haematocrit, Vital parameters–Medical history– Donor deferral–Information provided to donors.

UNIT III: AUTOLOGOUS BLOOD

6 hrs.

Predeposit: Criteria for donation, Testing of units, Labelling requirements, Pretransfusiontesting–Perioperative: Hemodilution–Post operative and post traumatic– Records of autologous procedures.

UNIT IV: DOCUMENTATION IN BLOOD BANKING

9 hrs.

General requirements: Policies, Manuals, SOP, Data sheets, Forms, Records of donors and donor's blood and its components, Record of recipient – Blood unit identification – Labeling for whole blood and its component: color scheme – Instruction to the transfusion – Special requirement for component label.

TEXT BOOK

Sood, R., *Concise Book of Medical Laboratory Technology (Methods and Interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

REFERENCE BOOK(S)

Godkar, P.B. and Godkar D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol-1-3. 5th ed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5thed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT3601ST BLOOD BANK TECHNIQUES I

(Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course the student will be able to

- describe the common blood group system
- analyze and interpret ABO blood grouping and Rh typing and resolve ABO discrepancies
- give an effective service in blood bank

COURSE OUTLINE:

UNIT I: GENERAL GUIDELINES

6T+5L

General policies – Quality assurance System – Biosafety and Waste disposal: Protection of blood bank personnel against laboratory infection, Personnel protection, Disposal of blood and laboratory material.

PRACTICAL:

Procedures for biosafety and waste management

- Collection
- Segregation at source of generation of waste
- Disposal

UNIT II: COLLECTION OF BLOOD FROM DONORS

7T+6L

Collection of blood from donors – Phlebotomy (review) – Equipments and Materials Required: Anticoagulant solutions, Volume of blood, Samples for laboratory tests, Identification, – Donor reaction – Therapeutic phlebotomy – Outdoor blood donation camps.

PRACTICAL:

- Checking vital parameters.
- Collection of Data – Forms and Work sheets
 - Donor's medical history
 - Donor questionnaire and consent form
 - Donor deferral sheet
 - Blood request form
 - Donor reaction sheet
 - Blood donor registration form
 - Worksheets for serum, cell grouping and Rh typing
- Procedure for Monitor donor during the donation

UNIT III: TESTING OF DONATED BLOOD**10T+9L**

Determination of ABO group – Determination of Rh(D) type – Previous records – Tests for detecting unexpected antibodies in serum: Albumin, indirect anti human globulin – Laboratory tests for infectious diseases: HIV, HBsAg, HCV, VDRL, MP – Quarantine storage – Sterility.

PRACTICAL:

- Screening tests for donated blood
 - Qualitative test for ABO grouping with antisera
 - Qualitative test for ABO by tube method
 - Determination of Rh (D) type grouping by slide method

UNIT IV: PREPARATION OF BLOOD COMPONENTS**12 hrs.**

General principles – Red blood cell components: Red blood cells, Washed red cells, Leucocyte depleted red blood cells, Frozen and deglycerolised red blood cell concentrate – Random donor platelets – Leucocytes reduced platelets – Plasma: Single donor plasma, Fresh frozen plasma, Factor VIII deficiency plasma – Cryoprecipitated anti-hemophilic factor.

UNIT V: APHERESIS**10 hrs.**

Introduction – Plasmapheresis: Selection of donors, Records, Volume of plasma – Cytapheresis: Selection of donors, Care of donors, Records, Platelet concentrates (Single Donor Platelets), Granulocyte concentrates, Double Red Cell Collection – Therapeutic plasmapheresis and cytapheresis.

3L hrs. / wk. – Total: 45L hrs/semester: 20 hrs in-house training and 25hrs in hospital/ labs**TEXT BOOK(S)**

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol – 1. 5th ed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Standards for Blood Banks and Blood Transfusion Services, New Delhi: Ministry of Health and Family Welfare, 2007. Print.

REFERENCE BOOK(S)

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT3602ST CLINICAL BIOCHEMISTRY II**(Lab cum Theory)****LEARNING OUTCOME****3T+3L**

On successful completion of the course the student will be able to

- demonstrate the various tests done in a clinical biochemistry lab
- identify the various equipments in the clinical biochemistry laboratory
- give an effective service in hospital diagnostics, preventive and public health areas

COURSE OUTLINE:

UNIT I: AUTOMATION IN BIOCHEMISTRY

9T+ 6L

Historical aspects – Automated and Semi-automated analyzers – The Component steps in fully automated systems: Identification, Preparation, Handling, Storage, Delivery of specimen and reagent, Mixing, Incubating and reading, Measurement devices, Signal processing, Handling of data and control of microprocessors.

PRACTICAL:

- Introduction to working of an semi - autoanalyzer
- Operation of semi –autoanalyzer

UNIT II: ACID – BASE BALANCE

9 hrs.

Introduction – Diffusion of gases in the lungs: Action of buffer system – The hemoglobin buffers– Disturbances in acid–base balance: Respiratory acidosis and alkalosis, Metabolic acidosis and alkalosis– Determination of blood pH, PCO₂, PO₂ and Bicarbonate.

UNIT III: KIDNEY FUNCTION TESTS

9T+6L

Formation of urine – Hormonal regulation of kidney function: Renin-angiotensin system – Kidney functions– Kidney function tests: Group I tests: blood urea nitrogen, serum creatinine, Group II tests: Serum total protein and cholesterol, Group III tests: Creatinine and urea clearance, Group IV tests: Osmolarity of serum and urine, Group V tests: Serum electrolytes – Diseases of the kidney: Renal failure, Glomerulonephritis, Diabetic kidney.

PRACTICAL:

- Determination of creatinine clearance
- Determination of urine protein creatinine ratio

UNIT IV: LIVER FUNCTION TESTS

9T+6L

Liver functions – Bile pigment metabolism – Disorder in bilirubin metabolism – Metabolism of bile acids – Prehepatic jaundice – Hepatic jaundice – Posthepatic jaundice– Clinical manifestations of liver disease – Liver diseases: Chronic and autoimmune Hepatitis, Cirrhosis– Investigations of liver functions – Liver function tests: Serum bilirubin, SGPT, SGOT.

PRACTICAL:

- Determination of serum bilirubin with interpretation
- Determination of serum SGPT

UNIT V: CARDIAC PROFILE TESTS

9T+2L

Blood supply to heart – The cardiac cycle – Risk factors – The response to injury Hypothesis – Heart diseases: Ischemic heart disease, Congestive heart failure, Acute coronary syndromes, Acute myocardial infarction, Angina pectoris, Acute and chronic cardiac failure, Rheumatic heart disease– Cardiac profile test: Blood sugar, Serum cholesterol, Creatine phosphokinase.

PRACTICAL:

- Determination of SGOT

3L hrs/wk – Total: 45L hrs/semester: 20 hrs in-house training and 25hrs in hospital/ labs

TEXT BOOK

Shanmugam, A. *Fundamentals of Biochemistry for Medical Student*. 7th ed. New Delhi: Wolters Kluwer (India) Private Ltd., 2013. Print.

REFERENCE BOOK(S)

Godkar, P.B. and Godkar D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol – 1-3. 5thed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT3603ST SYSTEMIC BACTERIOLOGY (Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course the student will be able to

- describe key macroscopic and microscopic features of bacterial pathogens
- perform and interpret various staining techniques
- evaluate patient specimen acceptability for analysis

COURSE OUTLINE:

UNIT I: COLLECTION, TRANSPORT AND EXAMINATION OF SPECIMENS

9T+10L

Standard operation procedures– Specimen collection, preservation and transportation – Examination of specimens: Urine, Sputum, Throat and mouth samples, Pus, Faeces (review) – Antimicrobial sensitivity test: Antibiotics, Antimicrobial action, Importance and Limitations of antimicrobial sensitivity test.

PRACTICAL:

- Collection procedure for urine, faeces, Sputum
- Antimicrobial sensitivity test
- Gram staining method.
- Acid Fast staining method.

UNIT II: DIAGNOSTIC APPROACH TO ANAEROBES

9T+2L

Introduction to anaerobes–Macroscopic and microscopic examination of anaerobes – Inoculation of solid and liquid media (review) – Incubation of inoculated media – Anaerobic jars–Anaerobic bags or pouches–Anaerobic chambers.

PRACTICAL:

- Preparation of culture media

UNIT III: STUDY OF GRAM POSITIVE BACTERIA

10T+4L

Morphology, Cultural and biochemical characteristics of Gram positive bacteria: *Staphylococcus*, *Streptococcus*, *Enterococci*, *Neisseriae*, *Corynebacterium*, *Mycobacterium*, *Clostridium*.

PRACTICAL:

- Morphological and biochemical study of Gram positive bacteria

UNIT IV: STUDY OF GRAM NEGATIVE BACTERIA

10T+4L

Morphology, cultural and biochemical characteristics of Gram negative bacteria: *Escherichia coli*, *Klebsiella*, *Proteus*, *Shigella*, *Salmonella*, *Pseudomonas*, *Vibrio*,

Spirochaetes.

PRACTICAL:

- Morphological and biochemical study of Gram negative bacteria

UNIT V: AUTOMATION IN BACTERIOLOGY

7 hrs.

Introduction – BACTEK system – The ATB system – The VITEK system – The API System
– Working of Versa TREK analyzer.

3L hrs/Wk – Total: 45L hrs/semester: 20 hrs in-house training and 25hrs in hospital/ labs

TEXT BOOK(S)

Gupte, S. *The short text book of medical microbiology Including parasitology.* Part 4. 10th ed. New Delhi: Jaypee Brothers Medical Publishers, 2010. Print.

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology.* 3rd ed. Mumbai: Bhalani Publishing House, 2014. Chapters: 30, 31, 33, 34. Print.

REFERENCE BOOK(S)

Ananthanarayan, Paniker. *Textbook of microbiology.* 9th ed. Hyderabad: Universities press (India) Private Limited, 2013. Print.

Mukherjee, K.L. *Medical Laboratory Techniques.* Vol – 1-3. 5th ed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and Interpretation).* 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and Interpretation).* 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

ENG4201FL ENGLISH FOR COMMUNICATION IV

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completing this course, students will be able to:

- improve the level of listening and reading skills
- communicate effectively in various situations by enhancing their Speaking & Writing skills
- Increase the functional competence in English language skills in various environments

COURSE OUTLINE:

UNIT I: GRAMMAR

8 hrs.

Voices, Compound words, Idioms and phrases, Question tag, Homophones and Homonyms.

UNIT II: VOCABULARY ENRICHMENT

7hrs.

Medical terminologies- IV, medical supplies and tools, medical specialists, Family and relationships, People and occupations, seasons and weather.

UNIT III: READING AND WRITING SKILLS

7 hrs.

- a. Short stories, Comprehension passages related to Medical Lab Technology and Health Care Services, Understanding newspaper headlines, Reading exercises, prescribed texts, magazines, prescription chart, Patients' records, Reading pathology report.

- b. Finishing the story, Narrative and Descriptive writing, Letter writing formal and informal, charting and documentation, Bank Pay in Slip, Ration Card Application Forms, and other Application Forms.

UNIT IV: SPEAKING SKILLS

8 hrs.

Talk about day to day activities, Giving opinions, Complaining, Interrupting, Agreeing, Disagreeing, Educating patients, Explaining drug interactions, Telephone conversation, Giving advice and Giving instructions, Checking and Explaining laboratory tests.

REFERENCE BOOK(S)

Joseph, K.V. *A Text Book of English Grammar*. Chennai: Vijay Nicole Imprints Private Limited, 2006. Print.

Kumar, Sasi V. P Kiranmai Dutt, and Geetha Rajeevan. *A Course in Listening and Speaking II*. India: Cambridge UP, 2015. Print.

Lester, Mark and Larry, Beason. *The McGraw-Hill Handbook of English Grammar and Sage*. New York: McGraw-Hill, 2005. Print.

Murphy Raymond, *Essential English Grammar*. Chennai: Cambridge UP, 1998. Print.

Prasad, P. *The Functional Aspects Of Communication Skills*. New Delhi: S K Kataria & Sons, 2014. Print.

Pal, Rajendra and Premlata, Suri. *English Grammar and Composition*. New Delhi: Sultan Chand and Sons, 2011. Print.

Rose, Selva. *Career English for Nurses*. New Delhi: Orient Blackswan Private Limited, 2013. Print.

Xavier, A.G. *Practical English Grammar*. Mumbai: St. Paul's Press, 1988. Print.

MLT4201GE / HCS4201GE LIFE SKILLS IV

(Theory)

LEARNING OUTCOME

2 hrs./wk.

On successful completion of the course the student will be able to

- acquire skills to cope up failure and criticism
- discuss the need to handle grapevine at workplace
- demonstrate skills for effective interpersonal relations and emotional intelligence competencies

COURSE OUTLINE:

UNIT I: INTERPERSONAL RELATIONS

8 hrs.

Definition – Importance, Types, Factors affecting interpersonal relationship, Need for Interpersonal relationships at workplace, Tips to improve Interpersonal relationships

UNIT II: EMOTIONAL INTELLIGENCE

7 hrs.

Definition – Importance – Components of Emotional intelligence (EI) – Developing Emotional Intelligence Competencies

UNIT III: COPING WITH FAILURE AND CRITICISM

9 hrs.

Coping with Failure: Positive attitude towards failure – Winners Vs Losers – Rational approach to failure. Criticism: Definition – Beliefs about Criticism – Types – Self criticism – Coping with criticism.

UNIT IV MANAGING GRAPEVINE**6 hrs.**

Meaning – Characteristics – Types – Importance – Advantages and disadvantages – Grapevine communication at workplace – Handling grapevine.

TEXT BOOK

Alphonse Xavier S.J. *We Shall Overcome – A Text Book on Life Coping Skills*. Chennai: MCRDCE Publications, March, 2004. Print.

REFERENCE BOOK(S)

Bender Peter Urs and Robert A. Tracz. *Secrets of Face to Face Communication*. New Delhi: Macmillan India Limited, 2005. Print.

Goleman, Daniel. *Working with Emotional Intelligence*. Bantam Publishers, 1998. Print.

Shiv, Khera. *You Can Win*. New Delhi: Macmillan India Ltd., 1998. Print.

Shiv, Khera. *Living with Honour*. New Delhi: Macmillan India Ltd., 2003. Print.

MLT4201GP /HCS4201GP BASIC COMPUTER SKILLS IV**(Lab)****LEARNING OUTCOME****2 hrs / wk.**

On successful completion of the course, the student will be able to

- Comprehend the difference between website and Search Engines
- Analyze Internet surfing
- Search and retrieve the information
- Infer transactions in online applications.

COURSE OUTLINE:**UNIT I : BASICS OF INTERNET****12 hrs.**

Introduction - An Overview of Networking - LAN,MAN, WAN – Getting and compiling information - Services of Internet - Requirements for getting internet connection.-Access the Internet

UNIT II : BROWSING**5 hrs.**

Searching Basics Searching over internet - Search Engines - Browsers-Creating E-Mail account- -Browsing for Education

UNIT III: EMAIL PROCESSING**7 hrs.**

Electronic Mail - Sending a Mail - Receiving a Mail - Downloading a Mail -Creating a Group in Mail - Deleting a Mail - Identifying a Spam

UNIT IV: ONLINE APPLICATIONS**6 hrs.**

Online banking - Online Payment - Online education - Online communication around the world - Websites.-Online transaction-Searching for E-Booking -Online communication and certification

TEXT BOOK

Alphonse, Xavier S.J. *Computer Made Easy: A Text Book on Basic Computing Skills*. Chennai: MCRDCE Publications, 2011. Print.

REFERENCE SITES

<http://www.wikihow.com/Create-a-Gmail-Account>

<http://new-account.com/gmail/>

<http://www.wikihow.com/Set-up-a-Facebook-Account>

MLT4202GE QUALITY ASSURANCE

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- demonstrate the concepts of medical laboratory quality assurance
- identify the various laboratory standards and certification
- evaluate quality assurance data, identify errors and formulate plan for corrective action

COURSE OUTLINE:

UNIT I: QUALITY ASSURANCE

7 hrs.

Introduction – Total quality management framework – Quality laboratory processes (QLPS), Quality assurance (QAS) – Essential elements of quality assurance.

UNIT II: QUALITY ASSESSMENT AND CONTROL

8 hrs.

Quality assessment (QA) – Quality control (QC) – Internal quality control – Control of variables, Sources of variations in analytical phase of laboratory tests – Errors, Pre analytical error, Post analytical error.

UNIT III: QUALITY CHARTS

7 hrs.

Formulating quality control charts – Standards, Control, Analyte, Median, Drift, Shift, Bias, Outliers, Imprecision, Standard deviation, Preparation of Levey–Jenning charts.

UNIT IV: STANDARDS AND CERTIFICATION

8 hrs.

Accreditation and certification – ISO standards – Quality council of India (QCI) – National Accreditation Board for Hospitals & Healthcare providers (NABH) – National Board for Testing and Calibration Laboratories (NABL).

TEXT BOOK

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

REFERENCE BOOK(S)

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol. 1-3. 5th ed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT4203GE IMMUNOLOGY

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- describe components of the immune system, their functional interactions as it relates to immunity, disease states and disorders
- illustrate the innate and adaptive immune responses, autoimmunity and hypersensitivity
- recognize the significance of immune systems in cooperative functioning to maintain health

COURSE OUTLINE:**UNIT I: INTRODUCTION TO IMMUNOLOGY****7 hrs.**

Immunological terms: Immunity, Antigen, Antibody, Monoclonal Antibodies, Innate and adaptive immunity, Active and passive immunity, Immunization – Basic mechanism of innate immunity – Origin of immune cells – T cells – B cells – Cytokines.

UNIT II: IMMUNE SYSTEM**8 hrs.**

Function of immune system – Cell mediated immunity process – Antigen mediated immunity process – Immunoglobulin classes – Factors that influence immunity.

UNIT III: HYPERSENSITIVITY**8 hrs.**

Definition–Types–Immediate (anaphylactic) hypersensitivity, Cytotoxic hypersensitivity, Immune complex hypersensitivity, Delayed (cell–mediated) hypersensitivity.

UNIT IV: AUTOIMMUNE DISEASES**7 hrs.**

Definition – Systemic lupus erythematosus (SLE) – Rheumatoid Arthritis (RA) – Rheumatic Fever: Major and Minor criteria – Graves' disease – Inflammatory bowel diseases.

TEXT BOOK

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and Interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

REFERENCE BOOK(S)

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol.1-3. 5thed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT4204GE CLINICAL VIROLOGY AND MYCOLOGY**(Theory)****LEARNING OUTCOME****2 hrs. / wk.**

On successful completion of the course the student will be able to

- demonstrate the concepts of virology and mycology
- identify the various types of viruses and fungi
- understand the role of various viruses and fungi that cause infection in humans

COURSE OUTLINE:**UNIT I: INTRODUCTION TO VIROLOGY****6 hrs.**

Introduction – Classification: Based on symptomatology, Based on chemical, physical and biological properties, International committee on taxonomy of viruses (ICTV) Chemical composition of viruses.

UNIT II: DNA VIRUS**8 hrs.**

Structure, Replication, Pathogenicity, Mode of transmission, Laboratory diagnosis and preventive measures of the DNA viruses: Lentivirus, Herpes Virus, Pox virus, Hepatitis Virus.

UNIT III: RNA VIRUS**8 hrs.**

Structure, Replication, Pathogenicity, Mode of transmission, Laboratory diagnosis and preventive measures of the RNA viruses: Togavirus, Rhabdovirus, Paramyxovirus, HIV.

UNIT IV: CLINICAL MYCOLOGY**8 hrs.**

Laboratory Diagnosis of mycoses: Direct microscopic examination of specimens, Staining, Culture, Serological tests – *Candida albicans* – *Cryptococcus neoformans* – *Aspergillus* – Zygomycetes – Dermatophytes.

TEXT BOOK

Ananthanarayan, Paniker. *Textbook of microbiology*. 9th ed. Hyderabad: Universities press (India) Private Limited, 2013. Print.

REFERENCE BOOK(S)

Arora, B. *Practical microbiology*. New Delhi: CBS Publishers & Distributors. Print.

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rded. Mumbai: Bhalani Publishing House, 2014. Print.

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol. 1-3. 5thed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5thed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT4601ST BLOOD BANK TECHNIQUES II**(Lab cum Theory)****LEARNING OUTCOME****3T+3L**

On successful completion of the course the student will be able to

- recognize the tests related to antibody identification, compatibility testing, and transfusion reactions
- relate immunological principles to perform the procedures in blood bank
- give an effective service in blood bank

COURSE OUTLINE:**UNIT I: STORAGE, TRANSPORTATION AND EXPIRATION OF BLOOD****12 hrs.**

Refrigeration and freezers for storage – Transportation– Storage and expiration: Whole blood, Red blood cell components, Frozen red cells, Washed and deglycerolised red blood cells, Leucocytes depleted red blood cells, Platelet concentrate, Granulocyte concentrate, Plasma :Single donor plasma, Fresh frozen plasma and cryoprecipitate.

UNIT II: COMPATIBILITY TESTING**8T+14L**

Repeat testing of donor blood – Testing of recipient blood – Crossmatch – Coombs' Test: Determination of D^u, Antibody titration– Selection of blood and components for transfusion– Massive transfusion– Neonates.

PRACTICAL:

- Indirect Antiglobulin (Coomb's) test
- Direct Antiglobulin (Coomb's) test
- Antiglobin (Coomb's) crossmatching
- Quantitative determination of antibody titer
- Determination of D^u by tube method

UNIT III: BLOOD TRANSFUSION**10 hrs.**

Issue and reissue of blood for transfusion –Urgent requirement of blood –Transfusion Of blood and components: Informed consent, Identification of recipient and donor unit, Supervision, General conditions for transfusion, Guidelines for transfusion practices, Special considerations for use of components, Irradiation, Leucocyte depleted Component.

UNIT IV: TRANSFUSION COMPLICATIONS AND MANAGEMENT**5 hrs.**

Error prevention, Detection, reporting and evaluation, Immediate complication, Delayed complications – Guidelines for management of adverse transfusion reactions: Cause, Signs and symptoms, Prevention, Management.

UNIT V: QUALITY MANAGEMENT**10T+6L**

Quality control of reagents– ABO and anti–D reagents– Red cell panel– Antihuman globulin reagent– Bovine serum albumin– Enzyme reagents– Hepatitis B antigen, anti–HCV (Hepatitis C virus) and anti–HIV1 & 2 Test– Test for syphilis: VDRL test – Equipment maintenance.

PRACTICAL:

- Detection of HIV-1 and 2
- Detection of anti-HCV antibodies

3L hrs/Wk – Total: 45L hrs/semester: 20 hrs in-house training and 25hrs in hospital/ labs

TEXT BOOK(S)

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol.1. 5thed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Standards for Blood Banks and Blood Transfusion Services, New Delhi: Ministry of Health and Family Welfare, 2007. Print.

REFERENCE BOOK(S)

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5thed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

MLT4602ST CLINICAL EXAMINATION OF BODY FLUIDS AND FAECES II**(Lab cum Theory)****LEARNING OUTCOME****3T+3L**

On successful completion of the course the student will be able to

- demonstrate the concepts of various body fluids
- identify the various techniques in examination of various body fluids
- apply the skills gained through training in the hospitals & in the community

COURSE OUTLINE:**UNIT I: CEREBROSPINAL FLUID****10T+10L**

Normal composition of CSF: clinical significance– Physical examination: Color,

Appearance, Presence of blood and clot– Chemical examination: Determination of glucose, Protein, Chlorides – Microscopic examination: Total Leukocyte count, Differential Leukocyte count.

PRACTICAL:

- Physical examination of CSF
- Microscopic examination of CSF
- Chemical Examination of CSF

UNIT II: SEMINAL FLUID

10T+5L

Physiology of seminal fluid–Anatomy of male reproductive tract – Testicular functions – Morphology of human spermatozoa – Testicular components of semen – Semen analysis – Routine examination of semen: Colour, Volume, Viscosity, Sperm motility, Sperm count.

PRACTICAL:

- Routine examination of semen

UNIT III: SPUTUM

10T+5L

Chemical composition of sputum – Routine examination of sputum: Colour, Consistency, Odor, Microscopic examinations: Pus cells, Red blood cells – Interpretative report format – Clinical conditions.

PRACTICAL:

- Routine examination of sputum

UNIT IV: CAVITY FLUID

9 hrs.

Physical, Chemical and Microscopic examination of fluids: Pericardial fluid – Peritoneal fluid – Synovial fluid.

UNIT V: GASTRIC CONTENTS

6 hrs.

Chemical analysis of gastric contents: Free acid, Combined acid, Bile, Blood, Lactic acid, Starch – Functions of gastrointestinal hormones: Gastrin, Secretin.

3L hrs/Wk – Total: 45L hrs/semester: 20 hrs in house training and 25hrs in hospital/ labs

TEXT BOOK

Godkar, P.B. and Godkar, D.P. *Text Book of Medical Laboratory Technology*. 3rd ed. Mumbai: Bhalani Publishing House, 2014. Print.

REFERENCE BOOK(S)

Mukherjee, K.L. *Medical Laboratory Techniques*. Vol. 1-3. 5th ed. New Delhi: Tata McGraw Hill Publishers, 2008. Print.

Sood, R. *Concise Book of Medical Laboratory Technology (Methods and interpretation)*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers, 2015. Print.

Sood, R. *Medical Laboratory Technology (Methods and interpretation)*. 5th ed. New Delhi: Jaypee Brothers Medical Publishers, 2006. Print.

Evaluation Pattern

B.Voc. in Medical Lab Technology

III SEMESTER

YEAR: 2016-2017

| Course code | Course Title | Course Type | Hrs. / wk. | Formative | | | | Summative | | | |
|-------------|---|-------------|------------|-----------|----|-----|----|-----------|-----|----------|--------|
| | | | | Theory | | Lab | | Theory | Lab | Duration | |
| | | | | No. | RM | No. | RM | RM | RM | Theory | Lab |
| ENG3201FL | ENGLISH FOR COMMUNICATION III | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT3201GE | LIFE SKILLS III | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT3201GP | BASIC COMPUTER SKILLS III | LA | 2 | - | - | 3 | 75 | - | 25 | | 1½ hrs |
| MLT3202GE | HUMAN BIOLOGY – ANATOMY AND PHYSIOLOGY II | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT3203GE | COMMUNICABLE DISEASES AND PREVENTIVE CARE | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT3204GE | BASICS IN BLOOD BANKING | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT3601ST | BLOOD BANK TECHNIQUES I | L /T | 6 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| MLT3602ST | CLINICAL BIOCHEMISTRY II | L /T | 6 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| MLT3603ST | SYSTEMIC BACTERIOLOGY | L /T | 6 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |

* 2 evaluations by course teacher and 1 evaluation by Industrial partner

| Course code | Course title | Course type | Hrs. / Week | FORMATIVE | | | | SUMMATIVE | | | |
|-------------|---|-------------|-------------|-----------|----|-----|-----|-----------|-----|----------|--------|
| | | | | Theory | | Lab | | Theory | Lab | Duration | |
| | | | | No. | RM | No. | RM | RM | RM | Theory | Lab |
| ENG4201FL | ENGLISH FOR COMMUNICATION IV | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT4201GE | LIFE SKILLS IV | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT4201GP | BASIC COMPUTER SKILLS IV | LA | 2 | - | - | 3 | 75 | - | 25 | | 1½ hrs |
| MLT4202GE | QUALITY ASSURANCE | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT4203GE | IMMUNOLOGY | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT4204GE | CLINICAL VIROLOGY AND MYCOLOGY | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| MLT4601ST | BLOOD BANK TECHNIQUES II | L/T | 6 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| MLT4602ST | CLINICAL EXAMINATION OF BODY FLUIDS AND FEACES II | L/T | 6 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| MLT4601SI | INTERNSHIP | LA | 6 | - | - | - | 100 | - | - | - | - |

* 2 evaluations by course teacher and 1 evaluation by Industrial partner

| Internship Assessment | | | | | | | | | | | | | |
|-----------------------|------|-------|--------------------------|----------------------------|---------------------------|----------------------|-------|----------|------------------------|----------------|-----------------|----------|-------|
| Formative (Internal) | | | Summative (External) | | | | | | | | | | |
| Case Study | Viva | Total | Application of Knowledge | Care for tools & equipment | Economic use of materials | Safety Consciousness | Speed | Accuracy | Quality of Workmanship | Amount of Work | No. of Attempts | Attitude | Total |
| 15 | 10 | 25 | 5 | 5 | 5 | 5 | 10 | 10 | 10 | 10 | 5 | 10 | 75 |

Excellent – 5; Very Good – 4; Good – 3; Fair – 2; Satisfactory – 1.

B.Voc. – HEALTH CARE SERVICES

Course Profile

| Sem. | Category | Course Code | Course Title | Hrs. / wk. | Credits |
|--------------|--------------------------------|-------------|--|------------|-----------|
| III | PART I GENERAL EDUCATION | ENG3201FL | ENGLISH FOR COMMUNICATION III | 2 | 2 |
| | | HCS3201GE | LIFE SKILLS III | 2 | 2 |
| | | HCS3201GP | BASIC COMPUTER SKILLS III | 2 | 2 |
| | | HCS3202GE | HUMAN BIOLOGY – ANATOMY AND PHYSIOLOGY II | 2 | 2 |
| | | HCS3203GE | COMMUNICABLE DISEASES AND PREVENTIVE CARE | 2 | 2 |
| | | HCS3204GE | BASICS OF ANESTHESIOLOGY | 2 | 2 |
| | PART II SKILL COMPONENT | HCS3601ST | MEDICAL AND SURGICAL NURSING I | 3T+3L* | 6 |
| | | HCS3602ST | MEDICAL AND SURGICAL NURSING II | 3T+3L* | 6 |
| | | HCS3603ST | BASICS IN SURGERY AND OPERATION THEATRE | 3T+3L* | 6 |
| TOTAL | | | | 30 | 30 |
| IV | PART I GENERAL EDUCATION | ENG4201FL | ENGLISH FOR COMMUNICATION IV | 2 | 2 |
| | | HCS4201GE | LIFE SKILLS IV | 2 | 2 |
| | | HCS4201GP | BASIC COMPUTER SKILLS IV | 2 | 2 |
| | | HCS4202GE | PEDIATRIC NURSING | 2 | 2 |
| | | HCS4203GE | GERIATRIC NURSING | 2 | 2 |
| | | HCS4204GE | COMMUNITY HEALTH NURSING | 2 | 2 |
| | PART II SKILL COMPONENT | HCS4601ST | OBSTETRICAL NURSING | 3T+3L* | 6 |
| | | HCS4602ST | INTENSIVE NURSING CARE IN OPERATION THEATRE | 3T+3L* | 6 |
| | | HCS4601SI | INTERNSHIP | 6 | 6 |
| TOTAL | | | | 30 | 30 |

General Education: 24 Credits, Skill Component: 36 Credits

*** 3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in-house training and 20 hrs in hospital/ labs**

HCS3204GE BASICS OF ANESTHESIOLOGY

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- identify and maintain the anesthesia apparatus and equipment.
- describe the various types of anesthesia and drugs.
- demonstrate skill in basic life support

COURSE OUTLINE:

UNIT I : INTRODUCTION TO ANESTHESIA

10 hrs.

Meaning and Stages of anesthesia – Types of anesthesia : General anesthesia , epidural anesthesia , spinal anesthesia , local anesthesia , intravenous anesthesia , gases used in anesthesia – General anesthesia protocols : Premedication , pre oxygenation , induction , muscle relaxation for intubation , maintenance of anesthesia , reversal, extubation – Basic life support : Cardio Pulmonary Resuscitation .

UNIT II : INSTRUMENTS

4 hrs.

Face mask – Ambu bag resuscitator – Reservoir bag – Laryngoscope – Endotracheal tubes : Techniques of Intubation , cuff pressure , deciding the size of Endotracheal tubes , nasal intubation , extubation , airways – Oxygen delivery system : Oxygen delivery system in non intubated patient , venture mask , alarm and safety devices , low flow oxygen delivery systems – Nebulizers – Static current – Sterilization of anesthetic equipments.

UNIT III : ANESTHESIA APPARATUS AND EQUIPMENT

8 hrs.

Anesthesia apparatus – Parts of Anesthesia apparatus – Mechanics of gas flow in Anesthesia apparatus: High pressure system, cylinder valves, pressure gauge, yoke assembly – Safety features of machine: Checking of Anesthesia apparatus breathing circuits, composition of soda lime, signs of exhaustion of soda lime.

UNIT IV : ANESTHETIC DRUGS

8 hrs.

Anesthetic drugs – Premedication, pain relief, producing unconsciousness, maintenance of anesthesia, muscle relaxation, reflex suppression reversal anesthesia – Role of nurse in administering anesthetic drugs.

TEXTBOOK

Ahanatha pillai, S. *Anesthesiology for Nurses*, 1st ed. New Delhi: Jaypee brothers medical publication (P) Ltd., Reprinted 2010, Print.

REFERENCE BOOK(S)

Ahanatha pillai, S. *Manual of anesthesia for operation theatre technicians*, 2nd ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2013, Print.

Arun B., Kilpadi. *Hand book of Operation theatre technique*. 1st ed., New Delhi: Jaypee brothers medical publication (P) Ltd., 2006. Print.

Brigden Raymond John. *Operation theatre techniques for nurses*. 2nd ed. New York: Edinburg church chill living stone publication, 1990. Print.

Dutta, T.K. *Fundamentals of operation theatre services*. 2nd ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2005, Print

Rashmi, S. Patil. *Operation theatre technique*. 2nd ed. Mumbai: Vora medical publications, 2015. Print.

HCS3601ST MEDICAL AND SURGICAL NURSING I
(Lab cum Theory)

LEARNING OUTCOME **3T+3L**

On successful completion of the course, the student will be able to

- identify various Gastro Intestinal disorders and demonstrate skill in providing nursing care
- develop skill in carrying nursing interventions for clients with Cardio Vascular and Endocrine system problems
- demonstrate skill in providing nursing care to client's with disorders of Respiratory System

COURSE OUTLINE:

UNIT I: NURSING CARE FOR RESPIRATORY PROBLEMS **10T+5L**

Upper Respiratory system : Rhinitis , Laryngitis , Cancer Larynx – Lower Respiratory system – Chronic Obstructive Pulmonary Diseases (COPD) , Asthma , Pneumonia , Pleural effusion.

Practical

- Steam Inhalation : Nelson inhaler , Nebulizer
- Oxygen Therapy: Mask, Tent, Nasal Catheter

UNIT II : NURSING CARE FOR CARDIOVASCULAR PROBLEMS **10T+5L**

Coronary Artery Diseases: Angina, Myocardial Infarction – Congestive Cardiac Failure – Blood: Anemia, Leukemia – Vascular Diseases: Deep Vein Thrombosis, Varicose Vein.

Practical

- ECG
- Pulse oxymeter
- Blood Transfusion
- Bandaging.

UNIT III : NURSING CARE FOR GASTRO INTESTINAL PROBLEM **12T+6L**

Peptic ulcer – Appendicitis – Intestinal Obstruction – Hemorrhoids – Hernia – Cirrhosis of liver – Cholecystitis – Pancreatitis.

Practical

- Ryle's Tube Feeding
- Ryle's Tube Aspiration
- Sitz bath
- Colostomy care .

UNIT IV : NURSING CARE FOR ENDOCRINE DISORDERS **8T +6L**

Diabetes Mellitus – Hyper thyroidism – Hypo thyroidism – Cushing syndrome –Addison's disease.

Practical

- GTT (Glucose Tolerance Test)
- Blood Sugar : Random, Fasting, Postprandial
- Thyroid profile
- Intake / Output chart.

UNIT V : NURSING CARE FOR ABNORMAL CELL GROWTH **5T+3L**

Meaning of cancer – Classification of cancer – Management of cancer – Chemotherapy, Radiation Therapy, Surgical management.

Practical

- Care of patients receiving chemotherapy
- Pre and Post operative care.

3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in -house training and 20 hrs in hospital/ labs

TEXTBOOK

Giresh Kumar, K.P. *Medicine at finger tips*. 2nd ed. Hyderabad: Paras Medical Books Pvt. Ltd., 2009. Print.

REFERENCE BOOK(S)

Ansari and Kaur, P.V. *Concise Course, Medical and Surgical Nursing – I*. New Delhi: S.Vikas and Company Medical Publishers, 2011. Print.

Basavanthappa, B.T. *Medical and Surgical Nursing*. 2nd ed. New Delhi: Jaypee Brother, Medical Publishers, 2009. Print.

Brunner and Suddarth. *Textbook of Medical & Surgical Nursing*. Vol. I & II. 11th ed. Wolters Kluwer (India) Pvt. Ltd., 2008. Print.

Chalkley A.M. *A Textbook for the Health Worker (ANM)*. Vol. II. 1st ed. New Delhi: New Age International (P) Ltd., 2009. Print

Inamdar Madhuri. *Nursing Arts (Principle and Practice)- Part I & Part II*. 2nd ed. Mumbai: VORA Medical Publications, 2009. Print.

Nancy, Stephanies. *Principles & Practice of Nursing, Nursing arts Procedures*. Vol. I & II, 4th ed., Indore, N.R. Publishing House, 2012. Print.

HCS3602ST MEDICAL AND SURGICAL NURSING II (Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course, the student will be able to

- conclude various Renal and Urological disorders and display skill in giving care.
- demonstrate skill in giving nursing care to clients with Neurological diseases and disorders.
- employ skill in providing care for clients with various Eye and ENT disorders.

COURSE OUTLINE:

UNIT I : NURSING CARE FOR NEPHRO AND UROLOGICAL PROBLEMS

12T+4L

Nephrology : Nephritis, Nephritic syndrome, Acute Renal Failure Chronic

Renal Failure – Urology : Renal calculi, Benign Hypertrophy of Prostate (BPH), Prostate cancer

Practical

- Catheterization
- Catheter care
- Bladder irrigation
- Care of Patient on Dialysis
- Intake / Output chart.

UNIT II : NURSING CARE FOR NEUROLOGICAL PROBLEMS

10T +4L

Epilepsy – Head Injury – Meningitis – Encephalitis – Cerebral Vascular Accident (CVA) –

Spinal cord Injury.

Practical

- Neurological Assessment
- Preparation for CT scan, MRI
- Lumbar puncture
- Rehabilitation
- Personal Hygiene : Mouth care , Back care.

UNIT III : NURSING CARE FOR EYE PROBLEMS **8T +7L**

Cataract – Glaucoma – Conjunctivitis – Blindness.

Practical

- Eye drops
- Eye Ointment
- Eye irrigation
- Eye Bandage.

UNIT IV : NURSING CARE FOR ENT PROBLEMS **7T +4L**

Otitis media, Mastoiditis, Deafness, Deviated Nasal Septum, Sinusitis, Tonsilitis

Practical

- Ear drops instillation
- Ear irrigation
- Ear bandage
- Nasal drops instillation

UNIT V: NURSING CARE FOR ORTHO &SKIN PROBLEMS **8T+ 6L**

Fracture – Osteomyelitis – Osteoporosis – Burns – Psoriasis

Practical

- Ortho Splint
- Plaster Of Paris (POP)
- Traction
- Walking Aids
- Skin: Topical application, Wound dressing.

3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in-house training and 20 hrs in hospital/ labs

TEXTBOOK

Giresh Kumar, K.P. *Medicine at finger tips*. 2nd ed. Hyderabad: Paras Medical Books Pvt. Ltd., 2009. Print.

REFERENCE BOOK(S)

Ansari and Kaur, PV. *Concise Course, Medical and Surgical Nursing - I*, 4th ed. New Delhi: S.Vikas and Company Medical Publishers, 2011. Print.

Basavanthappa, B.T. *Medical and Surgical Nursing*. 2nd ed. New Delhi: Jaypee Brother, Medical Publishers, 2009. Print.

Brunner and Suddarth. *Textbook of Medical & Surgical Nursing*. Vol. I & II. 11th ed. Wolters Kluwer (India) Pvt. Ltd., 2008. Print.

Chalkley, A.M. *Textbook for the Health Worker (ANM)*. Vol. II. 1st ed., New Delhi, New Age International (P) Ltd., 2009. Print.

Inamdar, Madhuri. *Nursing Arts (Principle and Practice)- Part I & Part II*. 2nd ed. Mumbai: VORA Medical Publications, 2009. Print.

HCS3603ST BASICS IN SURGERY AND OPERATION THEATRE

(Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course, the student will be able to

- know about Surgical team and their role
- exhibit skill in disinfection and sterilization of instruments
- gain knowledge about the methods suture materials

COURSE OUTLINE:

UNIT I : ENVIRONMENT AND SURGICAL TEAM

13 hrs.

Environment : Structure of operation theatre , changing room , sterilizer room , store room , scrub room , operation theatre , recovery room , cleaning room – Surgical Team : Surgeon, Assistant Surgeon, Anesthetist , Senior manager , Senior staff nurse , Scrub nurse , Operation Theatre assistant , Circulator (or) runner – Responsibilities of Surgical Team Members.

UNIT II : SURGICAL ASEPSIS AND STERILIZATION

10T+6L

Surgical asepsis – Principles of surgical asepsis – Operation Theatre ethics and discipline – Operation Theatre protocols – Techniques of theatre dress : Cap , Mask, Scrubbing – Operation Theatre cleaning – Sterilization : Review the methods of Sterilization – Sterilization of equipments: Washing and packing of surgical instruments for sterilization – Theatre linen handling and disinfection – Segregation and disposal of biomedical waste.

Practical

- Operation Theatre Techniques: Cap and mask , scrubbing , donning gown , gloving , degloving
- Disinfection and Sterilization of Operation theatre : fumigation
- Sterilization of equipments: washing and packing of surgical instruments
- Theatre linen handling and disinfection
- Segregation and disposal of biomedical waste.

UNIT III: SUTURE MATERIALS AND INSTRUMENTS

6T+8L

Suture material : Absorbent , Non absorbent , Metal clips , Staples – Sterilization of suture materials – Suture needle – Instruments :Surgical trolley preparation for Various Surgery.

Practical

- Preparation for Suturing
- Sterilization of Suture materials
- Preparation for Suture removal
- Surgical trolley preparation for Various Surgery : Abdominal surgery, Obstetrical Surgery.

UNIT IV: OPERATION THEATRE MAINTENANCE

8T+5L

Quality assurance : Monitor and assurance quality – Documentation in Operation Theatre : records, consent – Water supply – Drainage system – Electrical equipment – Bacteriological monitoring – Swab culture of the following : Operation Theatre table, Equipments, Roof, Water ,Air exposure , Solution – Calibration certificate – Maintenance of Air Conditioner – Laminar airflow system – Central oxygen system – Central vacuum ventilator.

Practical

- Maintenance of operation theatre records
- Preparation for Swab culture of the following: Operation Theatre table, equipments, Roof, Water, Air exposure, Solution culture.

UNIT V : SAFETY MANAGEMENT IN OPERATION THEATRE**8T +6L**

Prevention from injury: Mechanical, thermal, chemical, radiation, bacteriological injury – Allergens, vermin and insects – Sources of hazards : faulty design, electrical hazards, anesthetic gases and sharp instruments – Miscellaneous : Infection control in the intensive care unit, Prevention of endogenous infection.

Practical

- Preparation of intensive care unit and its instruments: Unit cleaning, care of instruments.

3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in-house training and 20 hrs in hospital/ labs**TEXTBOOK**

Rashmi, S. Patil. *Operation theatre technique*. 2nd ed. Mumbai: Vora medical publications, 2015, Print.

REFERENCE BOOK(S)

Ahanatha pillai .S. *Anesthesiology for Nurses*.1st ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2010.Print.

Arun, B. Kilpadi. *Hand book of Operation Theatre Technique*.,1st ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2006.Print.

Brigden Raymond John. *Operation Theatre Techniques for Nurses*. 5th ed. New York: Churchill Living Stone,1990. Print.

Dutta, T.K. *Fundamentals of operation theatre services*. 2nd ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2005. Print.

HCS4202GE PEDIATRIC NURSING**(Theory)****LEARNING OUTCOME****2 hrs. / wk.**

On successful completion of the course, the student will be able to

- explain the concepts of Child Health Nursing.
- assess the growth and development of a child in different stages.
- recognize the role of nurse in management of child with congenital defects.

COURSE OUTLINE:**UNIT I : NURSING CARE FOR CONGENITAL ANOMALIES****10 hrs.**

Cleft lip and cleft palate – Anorectal Anomalies –Cyanotic and Acyanotic Heart Diseases: Tetralogy Of Fallot – Neural Tube Defect – Hypospadiasis – Epispadiasis – Undescended Testis.

UNIT II : NURSING CARE FOR DISEASES OF RESPIRATORY SYSTEM**6 hrs.**

Upper and lower Respiratory Tract Infections: Rhinitis, Tonsillitis, Bronchitis, Bronchial Asthma, Pneumonia.

UNIT III : NURSING CARE FOR DISEASES OF CARDIO VASCULAR SYSTEM**6 hrs.**

Congestive Cardiac Failure – Rheumatic Fever – Infective Endocarditis – Anemia, Leukemia – Hemophilia.

UNIT IV : NURSING CARE FOR DISEASES OF GASTRO INTESTINAL TRACT, NEPHROLOGY, NEUROLOGY**8 hrs.**

Gastro Intestinal Tract: Appendicitis, Acute Gastro Enteritis, Worm infestations: Tapeworm, Hookworm – Nephrology: Nephritis, Nephrotic Syndrome – Neurology: Meningitis and Convulsive disorder, Cerebral palsy.

TEXTBOOK

Dutta, Parul. *Paediatric Nursing*. 2nd ed. New Delhi: Jaypee brothers Medical Publishers (P) Ltd., 2009. Print.

REFERENCE BOOK(S)

Chalkley A.M. *Textbook for the Health Worker (ANM)*. Vol. II, 1st ed. New Delhi: New Age International (P) Ltd., 2009. Print.

Tambulwadkar. *Paediatric Nursing*. 2nd ed. Mumbai: Vora Medical Publications, 1999. Print.

Piyush Gupta. *Essential Paediatric Nursing*. 3rd ed. New Delhi: CBS Publishers and Distributors, 2011. Print.

HCS4203GE GERIATRIC NURSING

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- describe the meaning Geriatric nursing
- recognize the role of nurse in Physical care of the elderly
- demonstrate skill in geriatric nursing

COURSE OUTLINE:

UNIT I : OVERVIEW OF AGING

4 hrs.

Theories of Aging – Physical and Physiological changes of Old age – Trends and Issues.

UNIT II : BASIC SKILLS FOR GERONTOLOGIC NURSING

10 hrs.

Health Promotion and Health Maintenance – Communicating with Older Adults –Older Adults : Health Assessment ,Nutritional requirements , Medications ,Meeting Safety Needs.

UNIT III : PSYCHOSOCIAL CARE OF THE ELDERLY

8 hrs.

Cognition and Perception – Self-Perception and Self-Concept – Roles and Relationships – Coping and Stress, Values and Beliefs – End of Life Care – Sexuality and Ageing.

UNIT IV : PHYSICAL CARE OF THE ELDERLY

8 hrs.

Meeting Nutritional Needs – Care of Ageing Skin and Mucous – Membranes – Elimination – Sleep and Rest – Activity and Exercise.

TEXTBOOK

Patricia, A. Williams. *Basic Geriatric nursing*. 6th ed. Missouri: Elsevier Health Sciences Publications, 2012. Print.

REFERENCE BOOK(S)

Gloria Hoffman Word, RN, BSN and MS. *Basic Geriatric Nursing*. 5th ed., Elsevier E-Book on Vital Source. 2013.

Sue, E. Meinar. *Gerontological Nursing*. 4th ed. Elsevier e Book on vital source, imprint Mosby Publications, 2011.

HCS4204GE COMMUNITY HEALTH NURSING

(Theory)

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, the student will be able to

- explain the concept of health and disease – their dimensions and determinants
- gain the knowledge about Epidemiology
- identify the Health care system in India and discuss the role of a nurse

COURSE OUTLINE:

UNIT I: INTRODUCTION

6 hrs.

Definition and terms related to Community Health Nursing: Health, Disease, Community Health, Community Health Nursing – Determinants of Health – Qualities of Community Health Nurse.

UNIT II: EPIDEMIOLOGY

6 hrs.

Definition – Epidemiological Triad – Disease transmission – *Expanded Program on Immunization* Schedule.

UNIT III: HEALTH CARE DELIVERY SYSTEM

10 hrs.

Primary Health Care – Sub centre – Community Health Care – Voluntary Health Agencies – Records and Reports maintained in Health Centre – Home visits: Purposes and Principles, Bag technique, Treatment of minor ailments, Health Education .

UNIT IV: FAMILY WELFARE

8 hrs.

Definition – Aims and objectives – Family welfare program – *Review of Family planning methods: permanent and temporary* – Role of nurse in Family welfare program.

TEXTBOOK

Park, K. *Essentials of Community Health Nursing*. 4th ed. Jabalpur: M/S Banarsidas Bhanot Publishers, 2004. Print.

REFERENCE BOOK(S)

Chalkley, A.M. *Textbook for the Health Worker (ANM)*. Vol. II. 1st ed. New Delhi: New Age International (P) Ltd., 2009. Print.

Kasthuri Sundar Rao. *An Introduction to Community Health Nursing*. 4th ed. Chennai: B. I. Publications Pvt. Ltd., 2004. Print.

Park, K. *Textbook of Preventive And Social Medicine*. 21st ed. Jabalpur: M/S Banarsidas Bhanot Publishers, 2011. Print.

Manual for Community Health Nursing. 18th ed. Prepared by & Published by The Trained Nurses' Association of India, New Delhi, 2006. Print.

HCS4601ST OBSTETRICAL NURSING

(Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course, the student will be able to

- explain the physiological changes in pregnancy.
- recognize the role of midwife in caring for a woman in labour.
- develop skill in assessment of newborn at birth and demonstrate skill in caring mother in puerperal period.

COURSE OUTLINE:

UNIT I : NURSING CARE FOR PREGNANT WOMEN

7T +5L

Physiological changes in Pregnancy – Diagnosis of Pregnancy – Antenatal Assessment – Antenatal Care.

Practical

- Antenatal Assessment : History collection , Abdominal palpation, Breast Examination
- Breast feeding technique
- Vaginal Examination
- Antenatal Exercise.

UNIT II : NURSING CARE FOR WOMEN IN LABOUR

10T +5L

Preparation of Labour and Delivery – Physiological Changes in I, II, III Stage of Labour – Mechanism of Labour – Management of 1st , 2nd 3rd Stage –, Episiotomy and Suturing.

Practical

- Vaginal Examination
- Assisting in conduction of Labour
- Assisting in Episiotomy Suturing .

UNIT III : NURSING CARE FOR BABY AT BIRTH

10T+5L

Newborn – APGAR Scoring – Newborn Assessment – Newborn Care

Practical

- New born Assessment :ABGAR scoring, physical examination
- Newborn Care :Warmer, Incubator, Phototherapy
- Cord care
- Eye care

UNIT IV : NURSING CARE FOR MOTHER DURING PUERPERIUM

10T+6L

Physiology of Puerperium – Breast feeding – Postnatal Care : Breast care , Episiotomy care – Family planning :Temporary and Permanent methods for male and female.

Practical

- Postnatal Assessment
- Postnatal Care : Breast care , Episiotomy care
- Health education on Breast feeding

UNIT V : INFERTILITY

8T+4L

Infertility: Definition, Causes, Signs and Symptoms, Investigation, and Treatment – Disorders of Menstruation – Sexually Transmitted Diseases.

Practical

- Identification of Obstetrical Instruments
- Preparation for Dilatation and Curettage (D&C)

3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in-house training and 20 hrs in hospital/ labs

TEXTBOOK

Thresamma, CP. *A Guide to Midwifery Students*. 1st ed. New Delhi: Jaypee Brothers Medical Publishers, 2008, Print.

REFERENCE BOOK(S)

Annama Jacob. *A Comprehensive Textbook and Gynaecological Nursing*. 3rd ed. New Delhi: Jaypee Brothers Medical Publishers, 2012. Print.

Chalkley, A.M. *A Textbook for the Health Worker (ANM)*. Vol. II, 1st ed. New Delhi: New Age International (P) Ltd., 2009. Print.

Dutta, D.C. *Textbook of Obstetrics*. 6th ed. Kolkata: Hiralal Konar Publishers New Central Book Agency (P) Ltd., 2004. Print.

Myles. *Textbook for Midwifery*. 14th ed. London: Mary law Publications, 2003. Print.

HCS4602ST INTENSIVE NURSING CARE IN OPERATION THEATRE

(Lab cum Theory)

LEARNING OUTCOME

3T+3L

On successful completion of the course, the student will be able to

- know about the advanced monitor in anesthesia
- demonstrate skill in pre and post operative Nursing care
- apply the skills gained through training in Intensive Care

COURSE OUTLINE:

UNIT I : PRE OPERATIVE NURSING CARE

8T +6L

Assessment – Physical examination – History collection – Past, Present, allergy, disease, surgery – Investigation :Cardio Vascular, Respiratory, Endocrine System, Angiogram , Renal and liver function – Psychological preparation – Pre operative care : Skin preparation , Bowel preparation ,Premedication.

Practical

- Assessment – Physical examination , History collection
- Pre operative care: Skin preparation, Bowel preparation, Administration of premedication.

UNIT II : PER OPERATIVE NURSING CARE

7T +6L

Preparation of operation theatre – Preparation of instruments: myotrolley – Identification of patient – Position used for surgery – Preparation of surgical site – Draping – Assisting – Assisting in radiological procedure.

Practical

- Preparation of Operation Theatre
- Preparation of instruments
- Position used for surgery
- Basic monitoring (clinical monitoring) : Pulse rate ,color of skin , blood pressure , any signs of sympathetic over activity, urine output.

UNIT III : ADVANCED MONITORING IN ANESTHESIA

10T+6L

Advanced monitoring (Instrumental monitoring) – cardio vascular monitoring:

(i) Non invasive : ECG , Non Invasive Blood pressure , Tran esophageal eco cardiography,
(ii) Invasive-Invasive Blood pressure , central venous pressure monitoring – Respiratory monitoring : Pulse oximetry, Capnography , blood gas analysis , lung volumes ,oxygen analyzers ,airway pressure monitoring – Temperature monitoring – Neuromuscular monitoring – Monitoring depth of anesthesia – Monitoring blood loss – Expired gas analysis – Use of computer in operation theatre: Diathermy, Capanoscope, Laparoscope, Endoscope

Practical

- Cardio vascular monitoring
- Respiratory monitoring

- Temperature monitoring
- Neuromuscular monitoring
- Monitoring depth of anesthesia
- Monitoring blood loss
- Expired gas analysis.

UNIT IV: POST OPERATIVE CARE

12T +4L

Intensive care unit set up – Commonly used in ICU equipments – Ventilators : General principles, ventilator modes and setting , monitoring , supportive therapy , weaning – Shock management – Nutritional therapy : Parental route , Enteric route – Pain management – Chest physiotherapy – Endo tracheal intubation – Tracheotomy care – Acute respiratory failure : Respiratory acidosis, Respiratory alkalosis , Metabolic acidosis Metabolic alkalosis .

Practical

- Nutritional therapy: Enteric route , Parental route
- Pain management : Patient manures to reduce the complications and pains, analgesics
- Chest physiotherapy
- Endo Tracheal intubation
- Tracheotomy care.

UNIT V : CENTRAL STERILIZATION SUPPLY DEPARTMENT

8T +3L

Central Sterilization Supply Department – Definition, Setup of CSSD, Process of sterilization – Decontamination : cleaning, drying, packaging, storage, transport – Arranging equipment trolley for Specific surgery.

Practical

- Central Sterilization Supply Department : Cleaning – Drying – Packaging – Storage
- Arranging equipment trolley for Specific surgery: Abdominal surgery, Obstetrical surgery.

3L hrs/Wk – Total: 45L hrs/semester: 25 hrs in- house training and 20 hrs in hospital/ labs

TEXTBOOK

Rashmi, S.Patil. *Operation Theatre Technique*. 2nd ed. Mumbai: Vora medical publications, 2015. Print.

REFERENCE BOOK(S)

Ahanatha pillai, S. *Manual of anesthesia for operation theatre technicians*. 2nd ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2013. Print .

Arun, B.Kilpadi. *Hand book of Operation theatre technique*. 1st ed. New Delhi : Jaypee brothers medical publication (P) Ltd., 2006, Print .

Brigden Raymond and John. *Operation theatre techniques for nurses*. 2nd ed. New York: Churchill living stone, 1990. Print .

Dutta, T.K. *Fundamentals of operation theatre services*. 2nd ed. New Delhi: Jaypee brothers medical publication (P) Ltd., 2005, Print.

EVALUATION PATTERN

HEALTH CARE SERVICES

III SEMESTER

YEAR: 2016-2017

| Course code | Course Title | Course Type | Hrs / Week | FORMATIVE | | | | SUMMATIVE | | | |
|-------------|---|-------------|------------|-----------|----|-----|----|-----------|-----|----------|--------|
| | | | | Theory | | Lab | | Theory | Lab | Duration | |
| | | | | No. | RM | No. | RM | RM | RM | Theory | Lab |
| ENG3201FL | English for Communication III | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS3201GE | Life Skills III | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS3201GP | Basic Computer Skills II | LA | 2 | - | - | 3 | 75 | - | 25 | | 1½ hrs |
| HCS3202GE | Human Biology – Anatomy and Physiology II | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS3203GE | Communicable diseases and Preventive Care | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS3204GE | Basics of Anesthesiology | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS3601ST | Medical and Surgical Nursing I | L /T | 3+3 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| HCS3602ST | Medical and Surgical Nursing II | L /T | 3+3 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| HCS3603ST | Basics in Surgery and Operation Theatre | L /T | 3+3 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |

*2 - evaluations by Course teacher and 1 - evaluation by Industrial partner.

SEMESTER IV

*2 - evaluations by Course teacher, 1- evaluation by Industrial partner.

| Course code | Course title | Course type | Hrs. / Week | FORMATIVE | | | | SUMMATIVE | | | |
|-------------|---|-------------|-------------|-----------|----|-----|-----|-----------|-----|----------|--------|
| | | | | Theory | | Lab | | Theory | Lab | Duration | |
| | | | | No. | RM | No. | RM | RM | RM | Theory | Lab |
| ENG4201FL | ENGLISH FOR COMMUNICATION IV | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS4201GE | LIFE SKILLS IV | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS4201GP | BASIC COMPUTER SKILLS IV | LA | 2 | - | - | 3 | 75 | - | 25 | - | 1½ hrs |
| HCS4202GE | PEDIATRIC NURSING | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS4203GE | GERIATRIC NURSING | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS4204GE | COMMUNITY HEALTH NURSING | TH | 2 | 3 | 60 | - | - | 40 | - | 1½ hrs | - |
| HCS4601ST | OBSTETRICAL NURSING | L/T | 3+3 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| HCS4602ST | INTENSIVE NURSING CARE IN OPERATION THEATRE | L/T | 3+3 | 3 | 30 | 3* | 45 | 10 | 15 | 2hrs | 3hrs |
| HCS4601SI | INTERNSHIP | LA | 6 | - | - | 2 | 100 | - | 25 | - | - |

| Internship Assessment | | | | | | | | | | | | | |
|------------------------------|-------------|--------------|---------------------------------|---------------------------------------|----------------------------------|-----------------------------|--------------|-----------------|-------------------------------|-----------------------|------------------------|-----------------|--------------|
| Formative (Internal) | | | Summative (External) | | | | | | | | | | |
| Case Study | Viva | Total | Application of Knowledge | Care for tools & equipment | Economic use of materials | Safety Consciousness | Speed | Accuracy | Quality of Workmanship | Amount of Work | No. of Attempts | Attitude | Total |
| 15 | 10 | 25 | 5 | 5 | 5 | 5 | 10 | 10 | 10 | 10 | 5 | 10 | 75 |

Excellent – 5; Very Good – 4; Good – 3; Fair – 2; Satisfactory – 1

CENTRE FOR ENTREPRENEURSHIP DEVELOPMENT

PREAMBLE

To develop vocational skills of the students and instil the seed of entrepreneurship, the college has offered a few vocational courses in semester III. A few more courses are proposed wherein some of them will be semester long programmes.

VOCATIONAL COURSES (SEMESTER LONG PROGRAMME)

From 2015 batch onwards

| S. No. | Course Code | Course Title |
|--------|-------------|--|
| 1. | CHE3201VI | TEXTILE – DYEING AND PRINTING |
| 2. | BOT3202VI | KITCHEN GARDEN AND ORGANIC FOOD PRODUCTS |
| 3. | BOT3203VI | PAPER RECYCLING |
| 4. | CED3232VI | AARI AND ZARDHOSI WORK |
| 5. | CED3233VI | BAKERY AND FOOD PRESERVATION |

VOCATIONAL COURSES (CRASH COURSES)

From 2015 batch onwards

| S. No. | Course Code | Course Title |
|--------|-------------|--|
| 1. | CED3220VI | SILK THREAD JEWELLERY DESIGNING |
| 2. | CED3221VI | CANVAS PAINTING |
| 3. | CED3222VI | CERAMIC ART WORK |
| 4. | CED3223VI | TERRACOTTA JEWELLERY MAKING |
| 5. | CED3224VI | KNITTING |
| 6. | CED3225VI | STAINED GLASS PAINTING |
| 7. | CED3226VI | TANJORE PAINTING |
| 8. | CED3227VI | DISH WASH, HAND WASH AND TOILET WASHES |
| 9. | CED3228VI | RIBBON WORK EMBROIDERY |
| 10. | CED3229VI | SILK PAINTING |
| 11. | CED3230VI | PAPER ART AND PAPER QUILLING |
| 12. | CED3231VI | ARTIFICIAL FLOWER MAKING AND ARRANGEMENT |
| 13. | CWS 3201VI | WOMEN – LIGHTS CAMERA ACTION |

CHE3201VI TEXTILE – DYEING AND PRINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- know the pre-treatment methods
- develop the skills in dyeing
- develop skills in printing

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

8 hrs.

Introduction, Pre-treatment – scouring, bleaching – Dyeing: Direct dyes (cotton, jute and synthetic fibers), Natural dyes, Tie and dye – Printing: Batik, Screen (Demonstration)

REFERENCE BOOK(S)

Study material: *Textile Wet Processing*. The Directorate of Technical Education, Tamilnadu.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

BOT3202VI KITCHEN GARDEN AND ORGANIC FOOD PRODUCTS

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- prepare a layout of kitchen garden and set a garden
- produce organic products
- start their own venture

COURSE OUTLINE:

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Kitchen garden – Site selection, site analysis, crop selection, Layout – preparation and maintenance (planting, irrigation, manuring (organic manure / vermi compost / biofertilizer), plant protection) harvesting and marketing – Methods of green manufacture, products of green manufacture – organic farming, eco-friendly green products – Organic products – Food – Fruit and vegetables, Nuts and seeds, Flour and Grains, Herbs – Processed foods – Organic juice, canned goods, frozen vegetables, Organic coffee, and Organic baby food – Terrace Gardening

REFERENCE BOOK(S)

William, D. Adams and Tom LeRoy. *The Southern Kitchen Garden: Vegetables, Fruits, Herbs and Flowers Essential for the Southern Cook*. United States: Taylor Trade Publishing, 2007. Print.

Bird, Richard. *Growing Fruit and Vegetables: the complete practical guide to kitchen gardening, from planning and planting to care and maintenance*. United Kingdom: Hermes House, 2003. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

BOT3203VI PAPER RECYCLING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- adopt the technology of paper recycling
- make stationery and gift articles for various occasions
- create paper jewellery
- start their own ventures

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government

Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Rationale for recycling – Role of an individual in prevention of pollution – Paper making as small scale industry – Collection of waste paper – Segregation of waste paper – Quantum assessment of paper waste – Pulping and moulding of paper into value added products – Packaging and marketing of finished paper products – Eco-awareness programme on waste paper management

REFERENCE BOOK(S)

McKinney, R. *Technology of Paper Recycling*. Germany: Springer Netherlands, 2012. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3232VI AARI AND ZARDHOSI WORK

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course the student will be able to

- acquire basic skill of aari and zardhosi work
- make different types of zardhosi in blouses
- start their own venture

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Padagam (Basic Stitch) – Closed V – *Katta*, V- *Katta* and *Katta* – *Giju/Ambea* – *Salli* and Load – *Jamki* and Sugar Beads – Running Zardhosi – Leaf Zardhosi – *Murruku* Zardhosi – Checked Zardhosi – Tracing and Practical Design

REFERENCE BOOK(S)

Gupta, Charu Smita. *Zardhosi: Glittering Gold Embroidery*. USA: Abhinav Publications, 2009. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3233VI BAKERY AND FOOD PRESERVATION

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course, the student will be able to

- understand the basics of baking and sweetmeat making
- bake cakes, cookies and make sweets
- develop techniques for food preservation
- maintain quality control in production, as well as storage

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional

Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: PREPARATION OF BAKERY PRODUCTS AND FOOD PRESERVATION **24 hrs.**

Tea Cake, Chocolate Cake, Cookies, Sweets and Chocolates, Chocolate Bouquets – Food Preservation – Juices and Syrups – Jam – Pickle and Ready-mix – Safety issues with Do's and Don'ts

REFERENCE BOOK(S)

Kumar, Ashok Yogambal. *Textbook of Bakery and Confectionary*. New Delhi: PHI Learning Publications, 2010. Print.

Kapoor, Sanjeev. *Chocolate*. Mumbai: Popular Prakashan Publications, 2011. Print.

Reejhsinghani, Aroona. *Best of Indian Sweets and Desserts*. Mumbai: Jaico Publishing House, 2001. Print.

Chadwick, Janet. *The Beginner's Guide to Preserving Food at Home*. United States: Storey Publications, 2009. Print.

Rahman, Shafiur. *Handbook of Food Preservation*. 2nd ed. United States: CRC Press, 2007. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3220VI SILK THREAD JEWELLERY DESIGNING

LEARNING OUTCOMES **2 hrs. / wk.**

On successful completion of the course, the student will be able to

- learn and develop creative and technical skills for jewellery design
- do comprehensive training in silk thread jewellery designing
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP **6 hrs.**

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: **24 hrs.**

Introduction – thread tying – *jimki* making and finishing – hook drop making – necklace set making and finishing – bangle tying and finishing – mini set

REFERENCE BOOK(S)

Banes, Helen and Sally Banes. *Fiber and Bead Jewelry*. New York: Sterling Publishing. Print.

Ciotti, Bonatella. *Simply Stunning Beaded Jewelry*. New York: Sterling Publishing, 2007. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3221VI CANVAS PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- learn and develop new ways of thinking , seeing and creating
- build confidence through exercises that help to explore different types of painting techniques.
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction, sketching, 1st coat painting, 2nd coat painting, shading, and finishing, stone fixing, high lightning, outline sketching and finishing

REFERENCE BOOK(S)

Washor, Joyce. *Big Art Small Canvas: Paint Easier, Faster and Better with small oils*. United States: North light books, 2006. Print.

Marine, Carol. *Daily Painting*. United States: Guptill Publishing, 2014. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3222VI CERAMIC ART WORK

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- prepare board and art on board
- do comprehensive training in ceramic art work.
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction, board preparation no:1, ceramic dough mixing, art on board no:1, finishing and painting, figure designing trial on clay, figure designing on ceramic, painting and finishing and final touch

REFERENCE BOOK(S)

Peterson, Susan. *Working With Clay*. New York: Laurence King Publishing, 2002. Print.

Dahn, Jo. *New Directions in Ceramics*. New York: Bloomsbury publishing, 2015. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3223VI TERRACOTTA JEWELLERY MAKING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- understand the basic shape designing
- make different kinds of jewellery
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction, basic shape designing, pendent designing, pendent carving, necklace tying, *jimki* designing, necklace painting, *jimki* painting – choice of colour combination in terracotta jewellery designing

REFERENCE BOOK(S)

McGrath, Jinks. *A Complete Course for Beginners*. United Kingdom: Apple Press, 2007. Print.

McGrath, Jinks. *The Complete Jewellery-Maker*. United Kingdom: A & C Black, 2012. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3224VI KNITTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire the skill of Knit different stitches and patterns
- carry out and run experimental design work in knitting technology
- communicate a design idea to knitwear engineers for implementation
- apply adequate technologies and materials in relation to their own design concept

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Basic Knot Tying – Table Mat Tying – Spoon and Fork Holder Tying – Border Tying – Fixing the Holder – Macaroni Bag Designing

REFERENCE BOOK(S)

Patel, Aneeta. *Knitty Gritty: Knitting for the Absolute Beginner*. New York: Bloomsbury Publishing PLC, 2011.

Spencer, David J. *Knitting Technology*. United Kingdom: Pergammon Press, 1983. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3225VI STAINED GLASS PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire basic skill of French Window Painting
- gain knowledge to implement French Window Painting in contemporary environments.
- become good entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Cone Preparation – Sketching on OHP Sheet – Tracing on Transparent Glass – Painting on Transparent Glass – Cone Application on Designed Glass – Painting – Interior ideas and Professional Application

REFERENCE BOOK(S)

Ganz, James A. and R. Richard Brettell. *Great French Paintings from the Clark: Barbizon through Impressionism*. United Kingdom: Sterling and Francine Clark Art Institute, 2011. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3226VI TANJORE PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course, the student will be able to

- prepare designs for Tanjore painting
- use brush, mix colours and paint
- become an entrepreneur

COURSE OUTLINE:

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: PAINTING

24 hrs.

Board Preparation – Sketching – Stone Fixing – 2D Effect Application – Foil Fixing – Painting – Finishing

REFERENCE BOOK(S)

Westlake, Nat Hubert John. *A History of Design in Painted Glass*. New York: J. Parker and Company Publications, 1981. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3227VI DISH WASH, HAND WASH AND TOILET WASHES

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- know techniques for preparing Dish Wash, Hand Wash, Toilet washes.
- maintain quality control in production, as well as storage
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II: WASHES

24 hrs.

Dish wash Formula, Dish wash making, Scented Dish wash, Hand wash mixing, Perfumed Hand wash mixing, Phenoyl Mixture Formula, Phenoyl making, Dish wash presentation, Hand wash presentation, Scented phenoyl making and tips – Safety issues with Do's and Don'ts

REFERENCE BOOK(S)

Lai, Kuo-Yann. *Liquid Detergents*. United States: CRC Press, 1996. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3228VI RIBBON WORK EMBROIDERY

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire the skill of Embroidery ribbon basic stitches
- design ribbon work embroidered cell phone pouch
- become an Ribbon embroidery designer

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Embroidery Ribbon Basic Stitches – Designing on cell phone pouch – Designing on Bag Material – Other dress materials – Sarees and Jewellery

REFERENCE BOOK(S)

Montano, [Judith Baker](#). *Elegant Stitches: An Illustrated Stitch Guide & Source Book of Inspiration*. United States: C&T Publishing Inc., 1995. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3229VI SILK PAINTING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- acquire basic skill of tracing and painting in silk
- create a complete silk painting
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Introduction – Tracing and painting basic – Tracing – First and second coat painting – Shadowing

REFERENCE BOOK(S)

Kennedy, Jill and Jane Varrall. *Silk Painting – New ideas and textures*. New York: Dover Publications, Inc., 1994. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3230VI PAPER ART AND PAPER QUILLING

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- make stationery and gift articles for various occasions
- create paper jewellery
- identify different type of paper and handle tools that are used for making paper products
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Paper Art – Stationery – Paper Jewellery – Gift Articles – Paper Jewellery – Greeting Cards – Pen Holders – Quilled Jewel Boxes – Wall Hanging (two types)

REFERENCE BOOK(S)

Gary, Lord. *Mural Painting Secrets for Success: Expert Advice For Hobbyists And Pros*, United States: North Light Books, 2008. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CED3231VI ARTIFICIAL FLOWER MAKING AND ARRANGEMENT

LEARNING OUTCOMES

2 hrs. / wk.

On successful completion of the course the student will be able to

- make flowers using different materials
- design creative flower arrangements
- become an entrepreneur

COURSE OUTLINE

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

24 hrs.

Flower Making and Flower Arrangement: Organdie – Stockings – Imported Ribbon Flower – Satin Ribbon – Paper Bouquet making

REFERENCE BOOK(S)

Brinley, Rosemary. *Artificial Flower Making*. United Kingdom: Dickens Press, 2015. Print.

Packer, Jane. *The Complete Guide to Flower Arranging*. London: DK Publishing, 1998. Print.

Badi, R.V. and N.V. Badi. *Entrepreneurship*. New Delhi: Vrinda Publications Pvt. Ltd., 2005. Print.

CWS3201VI WOMEN – LIGHTS CAMERA ACTION

LEARNING OUTCOME

2 hrs. / wk.

On successful completion of the course, students will be able to

- critique gender based discrimination
- learn techniques of visual media
- produce effective short films

COURSE OUTLINE:

UNIT I: ENTREPRENEURSHIP

6 hrs.

Concept of Entrepreneurship – Qualities of Entrepreneurs – Product Selection – Institutional Support – DIC, MSME DI – Infrastructural support schemes – Sources of Finance – Government Assistance – skill development – Skill India, NSDC – Start Ups – Angel Investors – Preparation of cash book and statement of cost and profit – Advertising and sales promotion for small business

UNIT II:

PART A: LEVEL OF UNDERSTANDING CONCEPTS

4 hrs.

Understanding gender and its societal construction, forms of gender discrimination, Challenging Stereotypes

PART B: LEVEL OF ATTAINING SKILLS

4 hrs.

- a. Deconstructing a film: Basic understanding of a visual media, types of films, Current scenario of Indian films and their depiction of Women

16 hrs.

- b. Constructing a film: Elements of Script Writing-Concept, One-line story, Plot, Scene, Screenplay. Basics of Video camera, Editing techniques, Non-Linear Editing (preferably Adobe Premier Pro or CC versions), Importance of Sound-Ambience, BGM, Sound effects

REFERENCES BOOK(S)

Jha, Uma Shankar and Pujari Premlata. ed. *Indian Women Today – Tradition, Modernity and Challenge*. Vol. I, II & III. New Delhi: Kanishka Publishers, 1996. Print.

Sushma, Srivastava. *Encyclopedia of Women and Development*. New Delhi: Commonwealth Publishers, 2007. Print.

Evaluation Pattern

| Course Type | Total Hours per week | | Formative | | | | | | |
|--------------|-------------------------|----|-----------|----|------------|-------|------|----|-------|
| | TH | LA | Test | | Assignment | | Quiz | | Total |
| | | | No. | RM | No. | RM | No. | RM | |
| | Semester Long Programme | 1 | 1 | 1 | 40 | 2 | 40 | 1 | 20 |
| Crash Course | 1 | 1 | - | - | 2 | 40+40 | 1 | 20 | 100 |

CENTRE FOR WOMEN'S STUDIES

(UGC Supported)

PREAMBLE

The Centre for Women Studies, Lady Doak College offers evaluation based courses on women studies for students from all disciplines in the college. The Centre facilitates learning processes that allow students to interact with diverse fields such as law, media and health etc. Programmes/workshops on Legal aid for women evoked an impetus in the centre to develop and offer a PG Elective Course **PWS2401E Women Dignity and Legal Protection**.

The Centre for Women Studies in its engagement with students discovered that the Media as a powerful platform for highlighting unequal gender hierarchies had not yet been sufficiently utilized. Hence, in an attempt to help them articulate meaningful expressions on gender equity, it also plans to offer a Vocational Course on visual media for the II year students, **CWS3201VI Women – Lights Camera Action**.

The Course code for the Foundation Course on Women's Studies which is currently being offered will be changed **from VBC0201FV to VBC0203FV** for students of the 2015 batch onwards.

PWS2401E WOMEN DIGNITY AND LEGAL PROTECTION

LEARNING OUTCOMES

4hrs. /wk.

On successful completion of the course, students will be able to

- understand their constitutional rights and responsibilities
- recognize structures of inequality leading to power relations that discriminate and subordinate women
- have an understanding of the various laws that govern the security, safety and wellbeing of women

COURSE OUTLINE:

UNIT I: CONSTITUTIONAL PROVISIONS AND WOMEN

12 hrs.

Constitution as the supreme law – Preamble – Fundamental rights – Article 14-16, 19, 21, 21A, 23, 24 – Constitutional Remedies – Article 32 – Writs, Habeas Corpus etc. – Directive Principles of State policy – Article 37, 38, 39, 39A(d), 41 & 42 – Fundamental Duties – Article 51A(e) – Landmark Judgements based on the Constitutional Remedies – Air India vs. Nargesh Meerza case(1981). **Re-opening dance bars (2013)**

UNIT II: THE GIRL CHILD

12 hrs.

PART A – DISCRIMINATORY PRACTICES

Social Practices – Son Preference – Its history and consequences – Female infanticide & Female Foeticide – Technological growth and development – Sex Selective Forcible Abortions – Skewed Sex Ratio

Discrimination in nurture and care: Culturally forced responsibilities – Sibling care – Household work – Malnourished and stunted growth – Access to education: Insufficient infrastructures – Absence of safety mechanisms for girls – Child Labour – Child Abuse – Child Trafficking – Child Marriage

Existing Government schemes for the Girl Child and the need for Affirmative Action

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS

12 hrs.

Sex determination and termination of pregnancy [Voluntary Health Association of Punjab vs. Union of India, 2006] – Child labour [M.C. Mehta vs. State of Tamilnadu 1996], [Peoples Union for Democratic Rights vs. Union of India 1982], (Asiad Workers case) – Child Marriage [Association for Human Rights vs. Union of India 2010] – Compulsory education [National Coalition for Education vs. Union of India 2014] – Child abuse and child trafficking [State of Punjab vs. Gurmit Singh, 1996], [Sakshi vs. Union of India 2004], [Court on its own motion vs. State of Delhi 2007]

UNIT III: WOMEN IN THE FAMILY

PART A - DISCRIMINATORY PRACTICES

12 hrs.

Power relations and decision making – Family/Community Honour – Honour killings – Property ownership – Dowry system – Domestic Violence – Women's reproductive health – Single Women – Adoption and Guardianship – Women Senior Citizens

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS

Property, succession, guardianship, deed and will – [Mrs. Mary Roy etc., vs. State of Kerala 1986], [Mohamad Ahmed Khan vs. Shah Bano Begum 1985] – Marriage, family and maintenance [Seema vs. Ashwini Kumar 2006] – Dowry and domestic violence [A. Jayachandra vs. Aneel Kaur 2004, [Shobha Rani vs. Madhukar Reddy 1988] – Reproductive health [Devika Biswas vs. Union of India 2012], [Bilkis & Aravind vs. Government of Delhi 2015] – Divorce, maintenance, child support, unwed mothers [Roxann Sharma vs. Arun Sharma 2015] – Adoption and guardianship [Shabnam Hashmi vs. Union of India 2005]

UNIT IV: WOMEN IN PUBLIC SPACES

12 hrs.

PART A – DISCRIMINATORY PRACTICES

Sexual Abuse – Eve Teasing – Rape – Acid Attacks – Sexual Harassments at Workplaces – Indecent Representations of Women – Media – Cyber Crime – Human Trafficking – Working conditions – Protection and Safety Mechanisms for Women – Women's political participation –

Reservations for Women in Governance

PART B – LANDMARK JUDGEMENTS AND RELEVANT LAWS

Complaints Committee – [Vishaka vs. State of Rajasthan case AIR 1997 SC 3011], [M/s. The Statesman Limited, and their workman Smt. Rina Mukherjee @ Rina Jamshedji vs. The State of West Bengal 2013] – Rape [Om Prakash vs. Dil Bahar (2006)], [Nirbhaya Case 2012], [Subramanian Swamy vs. Raju] – Acid Attacks [Laxmi vs. Union of India 2014], [Aarti Thakur vs. State of Maharashtra 2014], [Shaheen vs. State of Haryana], [Parivartan Kendra vs. Union of India 2013 (Curbing the Sale of Acid)] – Eve Teasing [Murugan Vs. State 2001, (Sarikha Shah case)], Victim Compensation Schemes – Indecent Representation of Women in Media, [Ranjit D. Udeshi vs. State of Maharashtra (Milind Soman and Madhu Sapre)] – Cyber Crimes on Women [Tamil Nadu vs. Suhas Katti 2004] – Working conditions, Remuneration, Maternity Benefits, [J. Jebaselvi vs. The Principal District Judge 2007] – Retirement Benefits, Nomination, Compensation for death, Nomination – Compensation for Death or Injury at Work [Justice Hariparantha's Judgement 2016] – Compassionate Appointments for Women

UNIT V: PROCEDURE FOR LEGAL ACTION

12 hrs.

Offence – What is an offence? – Filing an FIR – Arrest, grounds of arrest – Kinds of offences (Bailable and non-Bailable) – Arrest warrant – Powers of Police – Rights of arrested persons including the right to bail – Procedure to be followed during enquiry and investigation – Rights of Victim – Litigation and Litigate Procedures – Right to Information – Public Interest Litigations – Case studies on various modes of dispute settlement mechanisms i.e. Lok Adalats, Family Courts, Mahila Courts, Crimes against Women Cells [All Women Police Stations], NCW, NHRC, State Commissions

REFERENCES BOOK(S)

Roy, Kalpana. ed. *Encyclopedia of Violence Against Women and Dowry Death in India*. Vol.1, 2, 3. New Delhi: Amol Publications, 1999. Print.

Sharma, Reshmi. *Women, Law and Judicial System*. New Delhi: Regal Publications, 2009. Print.

WEBSITE(S)

http://persmin.gov.in/DOPT_ActRules_AIS_Rules_Index.asp Revised All India Service Rules (Constitutional Provisions and provisions common to All India Services) - Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions, Government of India

www.lawmin.nic.in – Ministry of Law and Justice, Government of India – The Constitution of India

www.data.gov Open Government Data [OGD], Government of India

www.india.gov.in The Registrar General and Census Commissioner, India, Ministry of Home Affairs, Government of India

www.rchiips.org/nfhs/ - National Family Health Survey India, International Institute for Population Sciences, Mumbai.

www.hrln.org - Human Rights Law Network (HRLN)

RELEVANT ACTS:

Preconception and Prenatal Diagnostic Techniques (Prohibition of Sex Selection) Act 1994, The Medical Termination of Pregnancy Act 1971 & The Medical Termination of Pregnancy

(Amendment) Bill 2014, Child Labour (Prohibition and Regulation) ACT 1986, The Prohibition of Child marriage ACT 2006, The Right of Children to Free and Compulsory Education Act 2009, Protection of Children from Sexual Offences ACT 2012 [POSCO], Compulsory Marriage Registration ACT 2005, Domestic Violence and Protection of Women from Domestic Violence Act 2005, Maintenance and Welfare of Parents & Senior Citizens ACT 2007, The Indecent Representation of Women (Prohibition) ACT 1986, Tamil Nadu Prohibition of Harassment of Woman ACT, 1998, Information Technology ACT 2000, Supreme Court Judgments on Acid Attacks, The Scheduled Castes and Scheduled Tribes [Prevention of Atrocities] ACT 1989, Sexual Harassment of Women at Workplace [Prevention, Prohibition and Redressal] ACT 2013 – Vishakha Guidelines, The Maternity Benefits ACT 1961, Equal remuneration ACT 1976, Minimum wages ACT 1948, Factories ACT 1948, The Mines ACT 1952.

CURRICULUM PLANNING AND EVALUATION CELL

- A. Introduction of two Non-Major Elective courses
- B. Provision for Sports and NCC Students
- C. Pass percentage for B. Com.(Hons.)
- D. Project For III UG as Extra Credit Course
- E. Evaluation pattern for NCC
- F. Summative Question Paper Pattern
- G. M.Phil. Evaluation Pattern

A. NON-MAJOR ELECTIVE COURSE

(from 2015 batch onwards)

COURSE PROFILE

| Sem. | Course Code | Course Title | Offered to | Hrs. / wk. | Credits |
|------|-------------|--|------------|------------|---------|
| III | COPH3201EI | CONSUMER AWARENESS ON EVERYDAY APPLIANCES | ALLM | 2 | 2 |
| IV | CSPH4201EP | INTRODUCTION TO SATELLITE IMAGE PROCESSING AND GIS | ALLM | 2 | 2 |

COPH3201EI CONSUMER AWARENESS ON EVERYDAY APPLIANCES

(Theory)

LEARNING OUTCOME

2 hrs./wk.

On successful completion of the course, the student will be able to

- improve her quality of buying by acquiring a working knowledge of the multiple gadgets and devices used in daily life
- understand differences between products from multiple brands and make intelligent purchase decisions
- learn the basics of marketing of gadgets used in daily life as a career option

COURSE OUTLINE

UNIT I: POWER GADGETS AT HOME AND WORK

6 hrs.

The electric power grid – single and three phase connection – UPS – Voltage stabilizers – lighting – energy saving devices and techniques (fluorescent, CFL, LED, solar panels) – paying for electricity – household equipment: – simple maintenance – safety precautions – understanding power ratings and power consumption of devices (electric fan, air cooler, air conditioner, refrigerator, microwave oven, washing machine, rice cooker, gas stove, induction stove)

UNIT II: COMMUNICATION AND ENTERTAINMENT ELECTRONICS

9 hrs.

Telephone – Facsimile – Cell phone – Photocopier – Scanner – Printer

High fidelity sound reproduction – microphones – CD/DVD/Blu-ray players – portable media players – compressed audio – amplifiers – loud speakers – crossover circuits (active and passive) others – graphic equalizers – surround sound formats (matrix surround, Dolby 5.1, DTS) – use of headphones – home theatre systems

Satellite TV/Radio and DTH/WiFi and networking – display monitors (CRT, Plasma, LCD, LED, OLED) – display resolution (SD, HD, UHD).

Understanding specifications of equipment on information/data sheets

UNIT III: PRODUCT INFORMATION

10 hrs.

Brand name and brand mark – selection of good brand – Corporate brand and product brand – Packing, packaging and package – essentials of good package – labeling – types of labels – contents of good label – product guarantee and warranty – standardization – product servicing – after sales services – legal issues and laws on product information – Issues in advertising, pricing and promotions

UNIT IV: ONLINE RESOURCES

5 hrs.

Apps, cloud based resources – e-commerce and productivity tools – access patterns – Comparing products online – choosing websites and online stores – awareness on terms and conditions – privacy policy – Disclaimer – billing, guarantee and delivery – significance of social networking sites, browsers and cookies – email scams – knowledge on complaint procedure and disputes settlement – security issues on payment portals

REFERENCE BOOK(S)

Pillai, R.S.N. and Bahavathi. *Modern Marketing Principles & Practice*. New Delhi: S.Chand and Company Ltd., 2010.

Memoria, C.B. and Joshi. *Principles and Practices of Marketing*. New Delhi: Kitab Mahal, 2012.

Kleinert, Eric. *Troubleshooting and Repairing Major*. 3rd ed. Tab Electronics, 2012.

Zmetana, Katherine. *Time-Life Books Complete Fix-It-Yourself Manual*. 1st ed. Prentice Hall Trade, 1989.

The Editors of Time-Life Books, *How Things Work in Your Home: And What to Do when They Don't*, Holt Paperbacks, 1987.

CSPH4201EP INTRODUCTION TO SATELLITE IMAGE PROCESSING AND GIS

(Lab)

LEARNING OUTCOME

2 hrs./wk.

On successful completion of the course, the student will be able to

- acquire knowledge on open source for downloading data
- apply the techniques of DIP ranging from preprocessing to image classification
- inquire the available methods for integrating image processing and GIS

COURSE OUTLINE

30 hrs.

DATA DOWNLOAD

Google Earth: Pinning a particular place – specifying postal address – layer on/off – marking measurements – onscreen digitization – navigation – finding latitude/longitude for a particular position – Security – GLCF – DivaGIS – ILWIS – QGIS

- Downloading and Installation of software
- Finding a latitude / longitude value for a location

GPS / SMARTPHONE

Navigation – shortest path – best path – Location Based Services

- Finding best route between two location

IMAGE PROCESSING

Histogram construction, rationing, colour display techniques – Smoothing – Simplification – detection – Area aggregation

- Enhancing image quality
- Extracting information from an image

CAPABILITIES OF GIS AND DIP

Querying – buffer analysis – surface interpolation – classification – map composition.

- Exercise on classification
- Applying the principles of Image processing and GIS in different discipline

WEBSITE(S)

<http://www.qgistutorials.com/en/>

http://www.ilwis.org/user_friendly_gis_teach_yourself.htm

<https://earth.google.com/>

<http://glcf.umd.edu>

<http://www.diva-gis.org>

B. PROVISION FOR SPORTS AND NCC STUDENTS will come into effect from the academic year 2016-17

- All sports students and NCC students attending long camps are given an option of writing **one formative test** only, but have to complete all other components of continuous assessments.
- The aggregate of formative and summative marks **OR** the marks obtained only in the summative examinations, whichever is higher, will be considered for declaration of the result.

C. B.COM. (HONS.)

Pass percentage for B.Com. (Hons.) is raised from 40% to 50%. The summative minimum is increased from 30% to 40%. It is applicable from 2016 batch onwards.

D. PROJECT FOR III UG AS EXTRA CREDIT COURSE

III UG students are given a provision to do an academic project and earn 5 extra credits. A separate course code will be given, as example, ENG0501PR.

E. EVALUATION FOR NCC

| Course Code | Course Title | Formative | | | | |
|-------------|----------------------|-----------|-----|-----|-----|-------|
| | | CA1 | CA2 | CA3 | CA4 | Total |
| NCC0207C | FIELD TRAINING – I | 25 | 25 | 25 | 25 | 100 |
| NCC0208C | FIELD TRAINING – II | | | | | |
| NCC0209C | FIELD TRAINING – III | | | | | |

F. SUMMATIVE QUESTION PAPER PATTERN

| UNDERGRADUATE (2014 BATCH) | | |
|---|-------------------------------------|---|
| Maximum Marks: 100 (MCQ – 25; Descriptive – 75) | | For Core and Support courses |
| | | Duration: 3 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 25 x 1 = 25 | Nil |
| B | 5 x 3 = 15 | 5 out of 6 |
| C | 5 x 6 = 30 | Internal Choice |
| D | 3 x 10 = 30 | 3 out of 4 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 15 = 15 | Optional |
| Maximum Marks: 80 (MCQ – 20; Descriptive – 60) | | For Foundation and Lab cum Theory courses |
| | | Duration: 2½ hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 20 x 1 = 20 | Nil |
| B | 5 x 3 = 15 | 5 out of 6 |
| C | 5 x 5 = 25 | Internal Choice |
| D | 2 x 10 = 20 | 2 out of 3 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 12 = 12 | Optional |
| Maximum Marks: 60 (MCQ – 15; Descriptive – 40) | | For Lab cum Theory with < 3T hrs., Research Methodology & Self-Learning |
| | | Duration: 2 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 15 x 1 = 15 | Nil |
| B | 5 x 2 = 10 | 5 out of 6 |
| C | 3 x 5 = 15 | 3 out of 4 |
| D | 2 x 10 = 20 | 2 out of 3 |
| (Only for Core courses) from semester II onwards | | |
| H | 1 x 10 = 10 | Optional |
| POSTGRADUATE (2015 BATCH) | | |
| Maximum Marks: 100 | | All Major and Major Optional courses |
| | | Duration: 3 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 8 = 40 | Internal Choice |
| C | 3 x 15 = 45 | 3 out of 4 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 15 = 15 | Optional |
| Maximum Marks: 80 | | Lab cum Theory and Electives |
| | | Duration: 2½ hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 7 = 35 | Internal Choice |
| C | 2 x 15 = 30 | 2 out of 3 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 12 = 12 | Optional |
| Maximum Marks: 60 | | For Lab cum Theory with <3T hrs. & Self-Learning |
| | | Duration: 2 hrs. |
| Sections | No. of questions and marks allotted | Choice |
| A | 5 x 3 = 15 | 5 out of 6 |
| B | 5 x 5 = 25 | Internal Choice |
| C | 2 x 10 = 20 | 2 out of 3 |
| (Only for Major courses) from semester II onwards | | |
| H | 1 x 10 = 10 | Optional |

G. M.PHIL. EVALUATION PATTERN

This evaluation pattern will come into effect from the academic year 2016-17

| COURSE TITLE | FORMATIVE | | | | | | | | SUMMATIVE | |
|---------------------------------------|-----------|-----------|------------|-----------|---------|-----------|-----|-----------|-----------|--------|
| | Test | | Assignment | | Seminar | | Lab | | Lab | Theory |
| | No. | Req. Max. | No. | Req. Max. | No. | Req. Max. | No. | Req. Max. | | |
| Research Methodology (Theory) | 2 | 80 | 1 | 20 | 1 | 20 | - | - | - | 80 |
| Research Methodology (Lab cum Theory) | 2 | 80 | - | - | 1 | 20 | 1 | 20 | 30 | 50 |
| Other papers if any | 2 | 80 | 1 | 20 | 1 | 20 | - | - | - | 80 |

IN-DEPTH STUDY

| Presentation I | Presentation II | Total |
|----------------|-----------------|-------|
| 50 | 50 | 100 |

DISSERTATION AND VIVA VOCE

| COURSE TITLE | Formative | | | | Summative | | | Total |
|----------------------------------|--|--|--------|-------|-----------|------|-------|-------|
| | Presentation - I / Assignment - I / Lab - I | Presentation - II / Assignment - II / Lab - II | Report | Total | Report | Viva | Total | |
| DISSERTATION AND VIVA VOCE | 30 | 30 | 120 | 180 | 80 | 40 | 120 | 300 |