Sarada Vilas College
Krishnamurthypuram, Mysuru

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1.3 – Curriculam Enrichment

Data related to - 1.3.2

Sl. No	Content
Scanned copy of syllabus notification in which experiential learning is compulsory	
1.	Undergraduate courses: Botany, Zoology, Microbiology, Biotechnology
2.	Postgraduate courses: M.Sc Chemistry M.Com

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UNIVERSITY OF MYSORE

Estd. 1916

Vishwavidyanilaya Karyasoudha
Crawford Hall, Mysuru- 570 005

No.AC.2(S)/31/18-19

Dated: 15.06.2018

NOTIFICATION

Sub: Revision of syllabus for Botany (UG) as per CBCS pattern from the academic year 2018-19.

Ref: 1. Decision of Board of Studies in Botany (UG) meeting held on 27.02.2018.
2. Decision of the Faculty of Science & Technology Meeting held on 21.04.2018.
3. Decision of the Deans Committee meeting held on 22.05.2018.

*****

The Board of Studies in Botany (UG) which met on 27th February, 2018 has recommended to revise the syllabus for B.Sc. Botany as per CBCS pattern from the academic year 2018-19.

The Faculty of Science and Technology and the Deans committee meetings held on 21-04-2018 and 22-05-2018 respectively have approved the above said proposal with pending ratification of Academic Council and the same is hereby notified.

The CBCS syllabus of B.Sc. Botany course is annexed. The contents may be downloaded **from the University website i.e., www.uni-mysore.ac.in.**

Draft approved by the Registrar

Deputy Registrar(Academic)

To:

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Dean, Faculty of Science & Technology, DOS in Physics, Manasagangotri, Mysore.
3. The Chairperson, BOS in Botany, DOS in Botany, Manasagangotri, Mysore.
4. The Chairperson, Department of Studies in Botany, Manasagangotri, Mysore.
5. The Director, College Development Council, Moulya Bhavan, Manasagangotri, Mysore.
6. The Principals of the Affiliated Colleges where UG Program is running in Science stream.
7. The Deputy/Assistant Registrar/Superintendent, AB and EB, UOM, Mysore.
8. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation), UOM, Mysore.
9. Office file.

UNIVERSITY OF MYSORE

CHOICE BASED CREDIT SYSTEM (CBCS) & CONTINUOUS ASSESSMENT AND GRADING PATTERN (CGPA) FOR UNDER GRADUATE PROGRAMS

B.Sc., BOTANY

Syllabus and Scheme of Examination

2018-19

6) Study of *Sargassum, Polysiphonia*
6) Study of *Rhizopus, Neurospora*
7) Study of *Puccinia, Penicillium*
8) Study of Agaricus / Pleurotus
9) Study of fungal diseases: Downy Mildew disease of Bajra, Tikka disease of Groundnut, Late blight of potato, Citrus Canker, Tobacco mosaic disease, Sandal Spike Disease, Root Knot of Mulberry.
10) Study of lichens, study of morphology, internal structure and reproduction in *Marchantia.*
11) Study of morphology, internal structure and reproduction in *Anthoceros*
12) Study of morphology, internal structure and reproduction in *Funaria.*

BOTANY - SECOND SEMESTER -DSCB 1.2

PTERIDOPHYTA, GYMNOSPERMS, PLANT MORPHOLOGY & TAXONOMY

(Course duration: 16 weeks with 4 hours of instruction per week)

Theory-64 Hrs

Unit- 1: Pteridophyta: Introduction, general characteristics, classification, structure and reproduction. (Developmental details not required). Type Study- *Psilotum, Selaginella, Equisetum, Marsilea.* A brief account on Heterospory and seed habit; Stelar evolution in Pteridophytes.

Unit-2: Gymnosperms: Introduction, general characteristics and classification; Morphology and reproduction of *Cycas, Pinus and Gnetum.* (Anatomy of Root, Stem and Leaf are to be studied). Fossils and fossilization; Geological time scale; Fossil Gymnosperms; Economic importance of Gymnosperms.

Unit-3: Morphology of Angiosperms: Parts of a flowering plant; monocot and dicot plant root systems; Root modifications- fusiform, napiform, conical fasciculated, tuberous, prop, stilt, climbing, respiratory, parasitic and epiphytic; shoot system; stem modifications-rhizome, tuber, corm, bulb, runner, stolon, offset, sucker, phylloclade (*Opuntia, Euphorbia*), cladode (*Ruscus, Asparagus*); Leaf- parts, phyllotaxy, simple and compound leaves, pinnate and palmate); Leaf modifications -tendril, spine, phyllode, pitcher. Inflorescence- racemose, cymose and special types (cyathium, thyrsus, verticellaster, hypanthodium).

Unit-4: Flower : Abrief account of floral morphology and floral diagram. Fruits- classification-simple (dry dehiscent, dryindehiscent, Schizocarpic and fleshy types); aggregate and composite; Structure of dicot seed and monocot seed. **Plant Taxonomy-** Plant nomenclature, binomial system, ICBN and ICN principles; Bentham and Hooker system of classification; Herbarium and its importance; Botanical gardens, floras and their importance; Study of following plant families; Malvaceae, Fabaceae, Asteraceae, Apocynaceae, Solanaceae, Euphorbiaceae, Liliaceae, Orchidaceae and Poaceae.

Practicals: One Practical of 2 Hours /Week-32 Hrs

1) Study of morphology, anatomy and reproductive organs of *Psilotum, Selaginella.*
2) Study of morphology, anatomy and reproductive organs of *Equisetum, Marselia*
3) Study of morphology, anatomy and reproductive organs of *Cycas*
4) Study of morphology, anatomy and reproductive organs of *Pinus*
5) Study of morphology, anatomy and reproductive organs of *Gnetum*
6) Modifications of root.
7) Modifications of stem.
8) Modifications of leaf
9) Study of Inflorescences: Racemose, Cymose and Special types.
10) Study of Fruits-simple, aggregate and composite type
11-14) Scientific description of the following plant families: Malvaceae, Fabaceae, Asteraceae, Apocynaceae, Solanaceae, Euphorbiaceae, Liliaceae and Poaceae.

Field Visits: Field trips to the local areas to study identify and record the Flora. Field visit report shall be submitted at the time of practical examination.

Principal
Sarada Vilas College
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BOTANY - THIRD SEMESTER -DSCB- 1.3

PLANT ECOLOGY, PLANT ANATOMY AND PLANT PHYSIOLOGY

(Course duration: 16 weeks with 4 hours of instruction per week)

Theory-64 Hrs

Unit-1: Plant Ecology: Introduction, definition and concept; Ecological factors-brief account of climatic, edaphic, topographic and biotic factors; Structure and function of Ecosystem; Energy flow in an ecosystem; Food chains and food webs; Ecological pyramids; Plant adaptations-hydrophytes, xerophytes, halophytes, parasites, epiphytes; Plant succession, steps of succession; hydrosere and xerosere; Phytogeography - vegetation of Karnataka.

Unit -2: Plant Anatomy: Structure of a plant body; Tissue and organ system; Meristems - types, Tissues -s imple tissues, parenchyma, collenchyma and sclerenchyma and their characteristics; Complex tissues: xylem, phloem, vascular bundle, types; Tissue system- epidermal, trichomes and stomata, structure and types; Anatomy of dicot and monocot root, stems and leaf; Secondary growth in dicot stem; Anomalous secondary growth in *Dracaena;* Laticifers - structure, types and functions.

Unit-3: Plant Physiology: Water relations- diffusion, imbibitions, osmosis, cell as an osmotic system; short distance transport-active and passive absorption of water; Long distance transport-ascent of sap; TCT Theory; Absorption of mineral salts- carrier concept; Transpiration-definition, types, mechanism of stomatal movement (K+ ion concept); Guttation; hydroponics and aeroponics; phloem transport - Munch's hypothesis; plant growth - definition, phases of growth, sigmoid curve; phyto-hormones- application of auxins, gibberellins, cytokinins,

ethylene, and ABA; Tropic movements- phototropism, thigmotropism, geotropism and hydrotropism; photoperiodism, Vernalisation.

Unit-4: Enzymes-classification, properties, and mode of action; Photosynthesis-photosynthetic apparatus and pigments; Mechanism of light and dark reactions - C3, C4, CAM Pathway and C2 Cycle (Photorespiration); Respiration- aerobic respiration - Glycolysis, Krebs' cycle, Terminal Oxidation; Anaerobic respiration -alcoholic and lactic acid fermentation; Nitrogen metabolism-biological nitrogen fixation, nitrate reduction, synthesis of amino acids.

Practicals: One Practical of 2 Hours /Week-32 Hrs

1) Morphological characters of hydrophytes: *Elodea.* Halophytes- Vivipary and Pneumatophores; Xerophytes-*Casuarina;* Epiphytes-Orchids; *Parasites- Cuscuta.*
2) Anatomical characters (Slides only): *Elodea, Casuarina* stem, Orchid root (T.S.), *Cuscuta*-T.S. of host stem with parasite.
3) Study of Ecological Instruments: Hygrometer, Anemometer, Rain Gauge, Altimeter.
4) Study of Tissue systems: Parenchyma, Collenchyma and Sclerenchyma, Xylem and Phloem.
5) Anatomy of dicot and monocot-Stems.
6) Anatomy of dicot and monocot-Roots.
7) Anatomy of dicot and monocot- Leaves.

Major Experiments

8) (a) Suction force due to Transpiration, (b) Experiment on oxygen evolution during photosynthesis. Effect of light intensity; quality of light (Red, Blue, Green)
9) Separation of chloroplast pigments by paper chromatography and demonstration of starch in the leaf.

Minor Experiments

10) Streaming of cytoplasm (*Hydrilla* leaf) and Experiment to demonstrate fermentation (Kuhne's vessel). Measurement of growth by using Auxanometer.
11) Determination of unequal transpiration by using cobalt chloride paper.
12) Biochemical tests for carbohydrates, fats and proteins.

Note: An ecological field study shall be conducted for 1-2 days.

BOTANY - FOURTH SEMESTER -DSCB- 1.4

CELL AND MOLECULAR BIOLOGY, GENETICS; REPRODUCTIVE BIOLOGY AND PLANT BREEDING

(Course duration: 16 weeks with 4 hours of instruction per week)

Theory-64 Hrs

Unit-1: Cell and Molecular Biology: Cell structure and function- prokaryotic and eukaryotic cell; Cell organelles - cell wall, cell membrane, nucleus, mitochondrion, chloroplast, endoplasmic reticulum, Golgi apparatus, lysosomes and ribosome; Chromosome- structure, nucleosome concept; mitosis and meiosis; Nucleic acids; DNA- Chemistry, structure, types and

BOTANY - FIFTH SEMESTER - DSEB- 1.1

TAXONOMY OF FLOWERING PLANTS

(Course duration: 16 weeks with 4 hours of instruction per week)

Theory-64 Hrs

Unit-1: Principles of Taxonomy: A brief account of classical and modern Taxonomy; Systems of classification; Broad outline of Engler and Prantl's, Hutchinson's and Cronquist System of classifications with merits and demerits. A brief account of APG system of classification; Plant Nomenclature-Binomial system, ICBN /ICN – Principles, rules, Typification, Ranks, categories and taxonomic hierarchy; author citation, valid publication, rejection of names, principle of priority and its limitations.

Unit-2: Important Botanical gardens of India and World; Botanical Survey of India- Aims and objectives; Taxonomy in relation to palynology, cytology, embryology, phytochemistry, anatomy; Numerical taxonomy; Field and herbarium; Techniques - important herbaria; Hortus Malabaricus.

Unit-3: Study of general characters, morphological peculiarities, systematic position (Bentham and Hooker) and economic importance of the following plant families - Annonaceae, Magnoliaceae, Nymphaeceae Brassicaceae, Rutaceae, Meliaceae, Rosaceae, Myrtaceae, Cucurbitaceae, Apiaceae, Rubiaceae, Apocynaceae, Solanaceae Convolvulaceae, Bignoniaceae.

Unit-4: Study of general characters, morphological peculiarities, systematic position and economic importance of the following plant families - Acanthaceae, Verbenaceae, Scropulariaceae, Lamiaceae, Amaranthaceae, Cuscutaceae, Nyctaginaceae, Euphorbiaceae, Moraceae, Orchidaceae, Musaceae, Cannaceae, Zingiberaceae and Arecaceae,.

Practicals: One Practical of 2 Hours /Week-32 Hrs

1 -12) Study of vegetative and floral characters of the Annonaceae, Magnoliaceae, Brassicaceae, Rutaceae, Rosaceae, Myrtaceae, Cucurbitaceae, Apiaceae, Rubiaceae, and Convolvulaceae, Acanthaceae, Verbenaceae, Scropulariaceae, Lamiaceae, Amaranthaceae, Nyctaginaceae, Loranthaceae, Moraceae, Orchidaceae, Musaceae, Cannaceae, Zingiberaceae, Arecaceae.
13). Mounting of a properly dried and pressed specimen of any wild plant on herbarium sheet. (The herbarium sheet shall be submitted with record book at the time of examination). **Note**: Field trip of 2-3 days to a floristically rich area is compulsory.

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BOTANY - FIFTH SEMESTER - DSEB- 1.3

PLANT PROPAGATION TECHNIQUES

(Course duration: 16 weeks with 4 hours of instruction per week)

Theory-64 Hrs

Unit-1: Introduction - Scope and importance of plant propagation; Green house, Net house, Poly house techniques, garden tools, pots, implements and media; Organic manure and substrates-farmyard manure, leaf mould, bone meal, oil cakes, wood ash, charcoal, liquid manure, peat moss, sphagnum moss, vermiculite, compost and vermi-compost.

Unit-2: Watering and Fertilizers: Irrigation methods - drip irrigation, sprinkler irrigation, bucket kit drip irrigation and drum kit irrigation; Application of fertilizers, fertilizer grade; Organic fertilizers; Bio-fertilizers and chemical fertilizers; Phyto-hormones ; Growth regulators; Rooting hormones, sex modification hormones, flower induction, application.

Unit-3: Vegetative propagation: Cuttings-stem cuttings -soft, hard wood and herbaceous, leaf cuttings, root cuttings; Grafting- whip and tongue, wedge and cleft, bark, side grafting, approach; Budding- patch, chip, ring and T- budding; Layering - simple, compound, tip, mound, air and trench layering; Aftercare of plants- disbudding, defoliation, de fruiting, pruning, shaping and topiary.

Unit 4: Plant Tissue Culture Techniques: Definition, scope, sterilization of materials, media, equipments and laboratory; Plant tissue culture media, the plant growth regulators, culture types, shoot tip, callus, cell suspension cultures, root cultures and embryo culture.

Practicals: One Practical of 2 Hours /Week

1) Implements used in plant propagation.
2) Organic manure and substrates, compost preparation.
3) Preparation of Vermi-compost.
4) Vegetative propagation: Types of Cuttings and Grafting.
5) Vegetative propagation: Types of Budding and Layering.
6) Potting, repotting, transplantation.
7) Biofertilizers, Chemical fertilizers.
8) Tissue culture – Equipment sterilization, media preparation.
9) Explants culture.
10) Micro propagation.
11) Visit to a nursery, Tissue culture Laboratory and horticulture garden
12) Soil health testing.

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UNIVERSITY OF MYSORE

Estd. 1916

Vishwavidyanilaya Karyasoudha
Crawford Hall, Mysuru- 570 005

Dated: 15.06.2018

No.AC.2(S)/31/18-19

NOTIFICATION

Sub: Revision of syllabus for Zoology (UG) as per CBCS pattern from the academic year 2018-19.

Ref: 1. Decision of Board of Studies in Zoology (UG) meeting held on 01.03.2018 & 02.03.2018.
2. Decision of the Faculty of Science & Technology Meeting held on 21.04.2018.
3. Decision of the Deans Committee meeting held on 22.05.2018.

*****

The Board of Studies in Zoology (UG) which met on 01st March, 2018 and 02nd March, 2018 has recommended to revise the syllabus for B.Sc. Zoology as per CBCS pattern from the academic year 2018-19.

The Faculty of Science and Technology and the Deans committee meetings held on 21-04-2018 and 22-05-2018 respectively have approved the above said proposal with pending ratification of Academic Council and the same is hereby notified.

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Draft approved by the Registrar

15/6

Deputy Registrar(Academic)

To:

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Dean, Faculty of Science & Technology, DOS in Physics, Manasagangotri, Mysore.
3. The Chairperson, BOS in Zoology, DOS in Zoology, Manasagangotri, Mysore.
4. The Chairperson, Department of Studies in Zoology, Manasagangotri, Mysore.
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II SEMESTER :ZOOLOGY
DSC 1B: PRACTICAL ANIMAL DIVERSITY 2
4hr/weekx16=64hr

1. Hemichordata: Balanoglossus, T.S. through proboscis, collar, branchio-genital region.

Urochordata: Ascidia

Cephalochordata: Amphioxus, T.S. through pharynx and intestine.

2 Cyclostomata: Petromyzon, Ammocoetes larva, Myxine.

3 Fishes: Scoliodon, Zygaena, Pristis, Narcin, Trygon.: Echeinis, Hippocampus, Anguilla.

4. Slide preparation : placoid, cycloid and ctenoid scales.

5. Amphibia: Ichthyophis. Salamander, Axolotl larva, Rana,

6 Reptilia: Varanus, Chelone, cobra, Viper, Krait,, sea snake, Rat snake.

7 Aves: Kingfisher, Parakeet, Woodpecker, Crow, Owl, Duck. Structure of a quill feather.

8 Mammalia: Rabbit, Rat, Bat, Loris.

9 Osteology: Skulls of shark, Frog and Crocodile.

10. Osteology: Skulls of Pigeon and Rabbit.

11. Osteology: Vertebrae (atlas, pro, amphi, and acoelous) of frog, Pigeon (heterocoelous and synsacrum) and Rabbit (atlas, axis and thoracic).

12. Osteology: Pectoral girdles and forelimb skeletons of Frog, Pigeon and Rabbit. Pelvic girdles and hindlimbs of Frog, Pigeon and Rabbit.

13 &13 Bird watching: Preparation and submission of checklist of birds in the campus/ near by places.

14,15,16. Demonstration of dissection (preserved) to show internal systems (digestive, circulatory, nervous and excretory) of Frog/ rat.

PRACTICAL ANIMAL DIVERSITY 2

SCHEME OF PRACTICAL EXAMINATION

Time 3hr Max,marks 80

1.Mount and identify the scale of given edible fish	10
2.Identify with reasons the specimens Ato H	5x8=40
3.Identify and draw diagram of skeletons D and E	10x2=20
(1Axial skeleton and appendicular skeleton)	
4.Report on bird watching /field study	10

PRACTICAL ANIMAL DIVERSITY 2

SCHEME OF EVALUATION FOR PRACTICAL III

1.Mounting- 5, Identification – 3.diagram 2
2. Identification with classification up to classes- 2, labeled diagram- 2, reasons- 1
3. Identification- 4, labeled diagram- 4, reasons- 2
4.Collection of data 6, report 4

COMPULSORY STUDY TOUR: A study tour, accompanied by teachers should be arranged after for on the spot study of the bio-diversity in sanctuaries/ National parks/ seashores. T. A. and D. A. for accompanying staff should be borne by the college from E. C. funds or other heads.

Principal
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V SEM ZOOLOGY

DSE 1: PRACTICAL ENDOCRINOLOGY AND REPRODUCTION
4hr/week/16=64 hr

1.Study of permanent slides of mammalian endocrine glands – Pituitary,.thyroid, adrenal, and pancreas.

2 and 3. Study of permanent histology slides of mammals (Rat/ Rabbit / Sheep): Intestine, stomach, liver, exocrine pancreas, kidney, testes and ovary

4, and 5: Micrtomy and Preparation of paraffin sections of 5 organs – instestine, liver, pancreas, kidney, testis/ ovary of a mammal (Slaughter house specimen- Sheep)

6 and 7: Staining of paraffin sections of different organs.

8 and 9: Histometry: Measurement of diameter of the thyroid follicles, adrenal cortex, and seminiferous tubules

10. Collection of Indian population data based on census records and plotting a graph to show growth rate.

11 and 12: Identification of various family planning devices, their mode of application and understanding underlying principle

.13 & 14 Visit to fertility clinic/IVF centers and preparation of report on types of fertility problems and their remedies.

15, 16 Visit to Veterinary hospitals to study artificial insemination and preparation of report

SCHEME OF PRACTICAL EXAMINATION

Time: 3 Hrs. **Max. Marks:80**

1. Identify with reasons the slide A to E (Pr. 2,3,4,5) 5 X 5 = 25

2. Identify and comment on E and F (Pr. 11 and 12) 5 X 2=10

3 Stain, mount and identify with reasons the paraffin sections provided. 20

4. Measurement of the diameter of the thyroid follicle/seminferous tubule/adrenal cortex 15

5. One report on field study **10**

SCHEME OF VALUATION FOR PRACTICAL VI

1.Identification -1, diagram- 1, reason -3

2 Identification -1, comments-4

3 Identification -5, diagram -5, staining 10

4 Procedure including calibration 10, results 5,

5.Collection of data/information -5, report writing 5

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VI SEMESTER : ZOOLOGY

DSE 1B : PRACTICAL MOLECULAR CELL BIOLOGY,ETHOLOGY AND EVOLUTIONARY BIOLOGY

4hr/weekx16=32 hr

1.Micrometry: Use of ocular and stage micrometers to measure cell and nuclear dimensions.

2 Isolation of DNA from animal / plant tissues (Mulberry leaf / Coconut endosperm)-Demonstration

3 Estimation of RNA by Orcinol method-demonstration.

4 Calculation of allele frequency – PTC, tongue rolling, attached ear lobes in human.

5 Calculation of allele frequency. ABO blood group in humans.

6 Homologous organs: Serial homology in Crustacea – Appendages of Prawn.

7 Homologous organs: Mouth parts of insects and forelimbs of vertebrates.

8 Analogous organs: Wings of insects and birds

9 Study of aquatic adaptations; Shark,frog,turtle,duck,whale

10 Study of arboreal adaptations – Chameleon, Loris, sloth ,Rhacophores

11Study of volant adaptations - Dragon fly, Pigeon, Bat, Exocoetes and Draco.

12 Coloration and mimicry-leaf insect, stick insect,Geomatrid caterpillar,rat snake

13 Deepsea and desert adaptations: Anennarius, Flat fish, Phrenosoma, Kangaroo rat

14,15,16: Field study to collect data on different genetic traits (tongue role, attached ear lobe, ABO blood Group,thumb, and calculation of allelic frequency and submission of report)

SCHEME OF PRACTICAL EXAMINATION

Time: 3 Hrs. **Max. Marks:80**

1.	Measurement of cell/nuclear diameter and calculating	15
2.	Problem from practical 4 and 5	10
3.	Identification and comments on significance on A to c	3x5=15
4.	Identify and comment on adaptive significance ,D to H	5X5=25
5.	Report on field study (one)	15

SCHEME OF VALUATION

1. Procedure 5,calibration 5 and results 5
2. Procedure 5, results 5
3. Procedure 5, results 5
4. Identification 1, diagram 1, comments 3
5. Data collection 5, compilation and report 10

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V SEM ZOOLOGY)

DSE 1A: PRACTICAL BIOCHEMISTRY AND APPLIED ZOOLOGY (ELECTIVE 1)
4hr/weekx16=64 hr

1. Qualitative tests to detect carbohydrates in the given test samples- Molisch's test, Iodine test, Fehling's test and Picric acid test.

2. Qualitative tests to detect proteins in the given test samples- Biuret test, Ninhydrin test, Millon's test and Xanthoproteic test.

3. Qualitative tests to detect lipids in the given test samples- Acrolin test, Sudan 3 test, Salkowasky test.

4 and 5: Detection of normal and abnormal constituents of urine.

5. Demonstration of Vermiculture in the laboratory or college campus.

6. Morphology and life history of *Bombyx mori*.

7. Identification and uses of different equipment in silkworm rearing.

8. Morphology of different species of locally available honey bee species and enlisting their foraging plants

9.Identification of different local food fishes (any five).

10 &11: Collection of data such as height, weight, blood groups, etc. among students and calculation – mean, standard deviation and errors,. Construction of graph, histograms and bar diagrams using data obtained. (A minimum of two sets of data for each of statistical calculation)

12-16: Field oriented projects – to be changed every year:

i) Visit to Vermiculture farm/silkworm rearing center /Fish farm/ Dairy/ Poultry/ Zoo/ wildlife sanctuary for on the spot study of culture practice and a report to be submitted .

ii) Enlisting different invertebrate/vertebrate fauna in the college campus/ town/ nearby hill/farms. Study may focus on particular group eg. birds, reptiles, insects, etc. A detailed report on their taxonomic position, habitat preference etc. has to be prepared.

Two reports, one from each section has to be submitted for assessment.

Principal
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V I SEM ZOOLOGY

DSE 1B : PRACTICAL ENVIRONMENTAL BIOLOGY (ELECTIVE 2)

4hr/week x16 = 64 hr

1 &2: Collection of water samples from different sources(pond, river, ground water,etc.) and recording color, odor,pH and temperature

3 Estimation of dissolved oxygen in two water samples.

4 Estimation of BOD in two water samples (sewage and tapwater/river water)

5 Estimation of dissolved carbon dioxide in two water samples.

6 Estimation of chloride content in two water samples.

7 Estimation of hardness of two water samples.

8 and 9: Study of pond ecosystem – observation of various constituents, plankton, fauna and flora.

10. Study of artificial ecosystem-aquarium

11. and 12: Study of garden soil fauna using Berlesse funnel apparatus.

13. Positive animal interactions: Mutualism – Termite and Trichonympha,Commensalism – Echeineis and Shark, Proto co-operation – Hermit crab and Sea anemone

14. Negative animal interactions: Parasitism – Head louse, Bedbug, Female mosquito, Ticks and mites. Predation – Snake and Frog.

15 &16: Field visits to asses the pollution status of water bodies based r odor, water color, release of sewage etc. Solid waste accumulation and disposal status /collection of data on air pollution from different agencies and and preparation of report.

DSE 1B : PRACTICAL ENVIRONMENTAL BIOLOGY (ELECTIVE 2)

SCHEME OF PRACTICAL EXAMINATION

3 hr 80 marks

1.Two estimations from practical 3-7	20x2=40
2.Comment on spot A (prac.10,11,12)	10X1=10
3.Identify and comment on B-E (two each from practicals13&14)	4x5=20
4.Report on field visit	10

SCHEME OF VALUATION

1.Principal and procedure-10, results 8, comments -2 per estimation

2.Identification-2, diagram 3,comments –5

3.Identification 1,diagram 1,comments3

4Collection of data 5, report write-up- 5

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UNIVERSITY OF MYSORE

D0S IN COMMERECE

CHOICE BASED CREDIT SYSTEM-2011-2012

M.COM. COURSE STRUCTURE AND SYLLABUS

MINIMUM CREDITS REQUIRED FOR M.COM. DEGREE

I to IV Semesters	HARD CORE COURSE		SOFT CORE COURSE		OPEN ELECTIVE COURSE		TOTAL	
	Numbers	Credits	Numbers	Credits	Numbers	Credits	Numbers	Credits
	11	48	5	20	2	8	18	76

MINIMUM CREDITS TO BE REGISTERED BY A STUDENT IN A NORMAL PHASE TO SUCESSFULLY COMPLETE M.COM. DEGREE IN FOUR SEMESTERS

Semesters	HARD CORE COURSE		SOFT CORE COURSE		OPEN ELECTIVE COURSE		TOTAL	
	Numbers	Credits	Numbers	Credits	Numbers	Credits	Numbers	Credits
I	4	16	1	4	-	-	5	20
II	3	12	1	4	1	4	5	20
III	2	08	2	8	1	4	5	20
IV	2	12	1	4	-	-	3	16
TOTAL	11	48	5	20	2	8	18	76

MINIMUM CREDITS TO BE REGISTERED BY A STUDENT IN A NORMAL PHASE TO SUCESSFULLY COMPLETE M.COM. DEGREE IN ODD AND EVEN SEMESTERS

Semesters	HARD CORE COURSE		SOFT CORE COURSE		OPEN ELECTIVE COURSE		TOTAL	
	Numbers	Credits	Numbers	Credits	Numbers	Credits	Numbers	Credits
ODD	6	24	3	12	1	4	10	40
EVEN	5	24	2	08	1	4	08	36
TOTAL	11	48	5	20	2	8	18	76

Dean
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Sarada Vilas College
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ODD SEMESTERS-M.Com

Sl. No.	Title of the Course	Hard Core/ Soft Core/ Open Elective	Number of Credits			
			L	T	P	Total
HCO1	Accounting Theory	HC	3	1	0	4
HCO2	Corporate Governance	HC	3	1	0	4
HCO3	Financial Management	HC	3	1	0	4
HC04	Marketing Management	HC	3	1	0	4
HC05	Business Research Methods	HC	3	1	0	4
HC06	International Business	HC	3	1	0	4
SCO1	Business Policy and Environment	SC	3	1	0	4
SC02	Statistics for Business Decisions	SC	3	1	0	4
SC03	Management of Non-Profit Organizations	SC	3	1	0	4
SC04	Portfolio Management	SC	3	1	0	4
SC05	Elective Group A: Agri- Risk Management Paper:1 Agri- Commodity Derivatives	SC	3	1	0	4
SC06	Elective Group B :Bank Management Paper1: Principles of Bank Management	SC	3	1	0	4
SC07	Elective Group C: Business Taxation Paper 1: Indirect Tax Law and Practice	SC	3	1	0	4
SC08	Elective Group D: Financial Accounting Paper 1:Contemporary Areas of Financial Accounting	SC	3	1	0	4
SC09	Elective Group E: Financial Management Paper 1: Futures, Options and Swaps	SC	3	1	0	4
SC10	Elective Group F: Human Resource Management Paper 1: Strategic Management of Human Resources	SC	3	1	0	4
SC11	Elective Group G: International Business Paper 1:International Business Institutions and Agreements	SC	3	1	0	4
SC12	Elective Group H: Management Accounting Paper 1:Marginal Costing and Decision Making	SC	3	1	0	4
SC13	Elective Group I: Marketing Management Paper 1:Advertising and Brand Management	SC	3	1	0	4
0E01	Personal Financial Planning	OE	3	1	0	4

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EVEN SEMESTERS-M.Com.

Sl. No.	Title of the Course	Hard Core/ Soft Core/ Open Elective	Number of Credits			
			L	T	P	Total
HC01	Capital Market Instruments	HC	3	1	0	4
HC02	Human Resource Management	HC	3	1	0	4
HC03	Organizational Behavior	HC	3	1	0	4
HC04	International Accounting	HC	3	1	0	4
HC05	Major Project Work	HC	0	2	6	8
SC01	Computer Applications in Commerce	SC	2	1	1	4
SC02	Strategic Management	SC	3	1	0	4
SC03	Elective Group A: Agri- Risk Management Paper 2: Weather Risk Management	SC	3	1	0	4
SC04	Elective Group B: Bank Management Paper-2 Credit Risk Management	SC	3	1	0	4
SC05	Elective Group C : Business Taxation Paper 2: Corporate Tax Law and Planning	SC	3	1	0	4
SC06	Elective Group D: Financial Accounting Paper 2: International Financial Reporting Standards	SC	3	1	0	4
SC07	Elective Group E: Financial Management Paper 2:Financial Derivatives as Hedging Tools	SC	3	1	0	4
SC08	Elective Group F: Human Resource Management Paper2: International Human Resource Management	SC	3	1	0	4
SC09	Elective Group G: International Business Paper 2.Foreign Exchange Management	SC	3	1	0	4
SC10	Elective Group H: Management Accounting Paper 2: Tools and Techniques of Control	SC	3	1	0	4
SC11	Elective Group I: Marketing Management Paper 2.Supply Chain Management	SC	3	1	0	4
OE01	Retail Banking	OE	3	1	0	4
0E02	Financial Accounting	OE	3	1	0	4

Elective Groups:

Any one *group* from the available electives shall be selected by a student at the commencement of III Semester. Once a group has been selected, no change in the selected group will be allowed later. The Department will announce at the end of the second semester, any one or more elective groups which will be offered during III and IV semesters depending upon the availability of faculty members and the demand for electives.

Major Project Work:

A student in the fourth semester shall register for a Major Project Work which carries 8 credits. The guide for the Major Project Work shall be allotted to the students in the third semester. Work load for Major Project Work tutorial class is 2 hours per batch of 8 students per week for the teacher. The student shall do field work and library work in the remaining 6 hours per week. Continuous assessment criteria for major project work include:

Component-I(C_1): Periodic Progress and Progress Reports (25%)

Component- II (C_2): Results of Work and Draft Report (25%)

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UNIVERSITY OF MYSORE
Estd 1916

Vishwavidyanilaya Karyasoudha
Crawford Hall, Mysuru- 570 005

No.AC6/153/2020-21

Dated: 03-02-2022

Notification

Sub:- Revision of Syllabus, Project work, Dissertation are for M.Com Program for the academic year 2021-22.

Ref:- 1. BOS in Commerce meeting held on 23-11-2021
2. Decision of the Faculty meeting held on 30-11-2021.
3. Decision of the AC meeting held on 23-12-2021.

*****

The Board of studies in Commerce (PG) which met on 23-11-2021 has decided and recommended to revision of Syllabus, Project work, Dissertation are for M.Com program from the Academic year 2021-22.

The Faculty of Commerce and Academic Council at their meetings held on 30-11-2021 and 23-12-2021 respectively have also approved the above said decision, hence it is hereby notified.

The syllabus and Examination pattern is annexed herewith and the contents may be downloaded from the University Website i.e., www.uni-mysore.ac.in

Draft approved by the Registrar

03/02

Deputy Registrar(Academic)
Deputy Registrar (Academic)
University of Mysore
Mysore 570 005

To:-

1. All the Principal of affiliated Colleges of University of Mysore, Mysore. Those who are running M.Com Courses.
2. The Registrar (Evaluation), University of Mysore, Mysuru.
3. The Chairman, BOS/DOS, in Commerce, Manasagangothri, Mysore.
4. The Dean, Faculty of Commerce, DOS in Commerce, Manasagangotri, Mysuru.
5. The Director, Distance Education Programme, Moulya Bhavan, Manasagangotri, Mysuru.

IV SEMESTER

Sl. No.	Title of the Course	Number of Credits			
		L	T	P	Total
Hard Core Papers					
HC10	International Accounting	3	1	0	4
HC11	Dissertation	0	2	6	8
Soft Core Papers					
SC16	Elective Group A: Business Taxation Paper 2: Corporate Tax Law and Planning	3	1	0	4
SC17	Elective Group B: Financial Accounting Paper 2: International Financial Reporting Standards	3	1	0	4
SC18	Elective Group C: Financial Management Paper 2: Financial Derivatives	3	1	0	4
SC19	Elective Group D: Human Resource Management Paper2: International Human Resource Management	3	1	0	4
SC20	Elective Group E: Management Accounting Paper 2: Cost Management	3	1	0	4

Credits earned: Hard core: 12 Soft Cores: 08

DISSERTATION

A student in the fourth semester shall register for a Dissertation Work which carries 8 credits. Work load for Dissertation Work - Tutorial class is for 2 hour per batch of 8 students per week per teacher. The student shall do field work and library work in the remaining 6 hours per week. Continuous assessment criteria for Dissertation work include:

Component-I(C 1): Presentation of synopsis and Periodic Progress Reports – 40 Marks

Component- II (C 2): Final Viva-voce (Board of Examiners) – 40 Marks

Component-III (C3): Dissertation Evaluation - 120 Marks.

Total -200 Marks

The Dissertation shall be prepared as per the broad guidelines given below:

a) Dissertation shall be typed in Times New Roman with one and half line spacing in 12 Font Size.
b) The size of the Dissertation shall be with a minimum of 40,000 words and a maximum of 50,000 words.
c) Dissertation shall be printed on both sides of the paper.
d) The Dissertation shall be Normal/ spiral bounded.