

SYLLABUS & PROGRAMME STRUCTURE

Skill Enhancement Course (SEC)

Human Physiology

(General)

(Choice Based Credit System)

(Effective from the Academic Session 2017-2018)

Sixth Semester

**MAHARAJA BIR BIKRAM UNIVERSITY
AGARTALA, TRIPURA: 799004**

Semester – VI
SEC – Paper – IV
(General)
HUMAN PHYSIOLOGY

Full Marks - 100

(Any one from 4A, 4B, 4C & 4D)

SEC 4A: DETECTION OF FOOD ADDITIVES/ ADULTERANTS:

Qualitative tests for Food Adulteration:

Qualitative tests for identifying Food Adulterants in some food samples: Metanil yellow, Rhodamin B, Saccharin, Monosodium glutamate, Aluminium foil, Chicory, Bisphenol A and Bisphenol S, Chocolate Brown HT, Margarine, Pb, Hg, As, PCB, Dioxin etc in turmeric powder, besan, laddoo, noodles, chocolate and sweets

Suggested Readings:

1. *Practical Biochemistry in Medicine by Srinivas Rao., Academic Publishers.*
2. *Practical Physiology, by M.K. Manna, SritaraPrakashani, Kolkata*

OR

SEC 4B: HISTOPATHOLOGICAL TECHNIQUES

List of Practical:

1. Preparation of tissue sections, H&E staining of tissue sections,
2. Preparation and staining of bone marrow smear, measurement of diameter of megakaryocyte; Reticulocyte staining, staining of collagen in tissue sections.

Suggested Readings:

1. *Theory and Practice of Histological Techniques by J.D. Bancroft &A. Stevens, Churchill Livingstone.*

OR

SEC 4C: CLINICAL BIOCHEMISTRY (THEORY/PRACTICALS)

1. Photo-colorimetric estimation of blood constituents.
2. Measurement of blood glucose by Nelson-Somogyi method,
3. Measurement of blood inorganic phosphate by Fiske - Subbarow method,
4. Measurement of serum total protein by Biuret method and determination albumin globulin ratio,
5. Determination of serum amylase by iodometric method.

Suggested Readings:

1. *Practical Biochemistry in Medicine by Srinivas Rao., Academic Publishers.*
2. *Practical Physiology, by M.K. Manna, SritaraPrakashani, Kolkata.*

OR

SEC 4D: HEMATOLOGICAL TECHNIQUES (THEORY/PRACTICAL).

1. Preparation of blood smear and identification of blood cells.
2. Differential count, Arneith Index
3. Determination of haematocrit, MCV, MCH, MCHC, bleeding time, clotting time etc.
4. Determination of Total count of RBC and WBC.
5. Measurement of haemoglobin in blood.
6. Preparation of serum.
7. Detection of blood group and Rh type.

SEC: General Information:

- Skill Enhancement Course (SEC) is an integral component of both Honours and General Programmes across the Streams under UGC CBCS UGSyllabi.
- SEC-1 of each Subject will consist of diverse topics/themes the Earlier Semesters and similarly SEC-2 of each Subject will consist of diverse topics/themes related to the Later Semesters.
- Topics/Themes must be incorporated in each of two Syllabi of SEC meant for Project & Assignments corresponding to CBCS Honours & General/Pass Programmes. PROJECTS & Assignments should be guided in such a way that all Projects/Assignments are prepared by students on different titles & aspects/dimensions of topics/themes/issues incorporated in University approved SEC Syllabi.
- SEC will represent a well mentored and self prepared Project work in written form by a student on respective Syllabi or 5 Assignments in terms of systematic answers in written form against a broad type of question/query carrying 20 marks each applicable across all Streams & Programmes. In case of Science Faculty, Assignments may be on Practical issues/topics/experiments.

SEC: Distribution across Streams & Programmes :

- One Paper of SEC finds its place in each of Third and Fourth Semesters under **Honours Curricula across the Arts/Science/ Commerce Streams** comprising altogether two Papers. In this case SEC must relate to the Honours Subjects only.
- One Paper of SEC finds its place in each of Third to Sixth Semesters under **Arts General Programmes** comprising altogether four papers. Two Papers of SEC will be associated with first Elective Subject and two Papers of SEC will be associated with second Elective Subject (as per sequence of filling up Elective Subjects in the admission forms or preference of the candidate submitted otherwise) in case of Arts (General) Programmes. Across the Third to Sixth Semesters a candidate will take SEC in the sequence : SEC(First Elective, First Paper) or SEC-11, SEC (Second Elective, First Paper) or SEC-21, SEC(First Elective, Second Paper) or SEC-12 & SEC (Second Elective, Second Paper) or SEC-22 respectively.
- For **Science (General) Programme** 4 Papers of SEC will be tagged with at least two out of three Electives and the highest number of SEC Papers under a given Elective must not be more than two.
- The Commerce Department will conduct the SEC in the relevant themes/ topics/issues related to the respective SEC Syllabi: 2 Papers for Honours & 4 Papers for **Commerce (General) Programmes** structurally distributed as like as Arts.
- Same sub topic/theme cannot be opted by a given candidate/student in preparation of Project/ Assignments at different Semesters under SEC .

SEC: Assessment of Project/Assignments :

- Assessment of SEC will be made on Evaluation of the Written Form of Project Work consisting of 80 marks and Oral Interaction /Feedback with the students on Project / Theme consisting of 20 marks.
- A Project must consist of the following 6 Chapters:
 1. Introduction,
 2. Basic Concepts,
 3. Main Analysis on the selected Theme/ Theory,
 4. Supplementary or Complimentary Analysis to the Main Theme/Theory,
 5. Self Study Report & Conclusion ,
 6. List of References of Books & Other Materials.
- The Project & Assignment will follow the University approved Syllabi materials on Subject & Paper specific topics/themes/issues.
- The Project must consist of all the basic features including Cover Page, Preface, Certification by Guide and Contents etc. apart from Chapterisation.
- The word limits of a Project will be in between 2500 to 3500 and the word limits of an Assignment will be in between 400 to 500.
- 80 Marks on written form of Projects will be assessed as per the following format:

Assessment Profile of a Project		
Sl. No.	Assessment Aspects	Assigned Marks
01	Nature of Project Theme & Chapterisation	20
02	Topical Coverage & Consistency of Analysis.	20
03	Way of Presentation & Technical Elements	20
04	Academic Quality & Excellence.	20
Marks on Project Presentation:		80
Marks on Oral Feedback :		20
Total Marks on Project :		100

- Both the evaluated/ assessed Projects and bunch of Assignments will remain under the custody of the related Departments and the University may ask for the despatch of the Projects or bunch of Assignments as & when necessitated.
- The total marks on Projects or Assignments will have to be transmitted by the College to the University on or before the stipulated date.
- This is a general guideline. The respective department(s) may incorporate or modify as department(s) deem fit.