



1. Documents regarding Structure of Electives and Credit allocation for BSc Nursing (**Page number 1-41**)
2. Documents regarding Structure of Electives for MBBS (**Page number 42-228**)
3. Documents regarding Structure of Internship/Electives for BDS as per “BDS Course Regulation 2007” and Credit allocation of Public Health Dentistry (**Page number- 229- 247**)

*Arunima*  
\_\_\_\_\_  
**Registrar**  
King George Medical University  
Lucknow

*d. j. s.*  
\_\_\_\_\_  
**Vice Dean**  
Faculty of Medicine  
K.G. Medical University U.P.  
Lucknow



KING GEORGE'S MEDICAL UNIVERSITY U.P., LUCKNOW

# ELECTIVE MODULES

*BSc Nursing Program*

**(Modular content outline)**

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

*Cu*  
\_\_\_\_\_  
**PRINCIPAL**  
**KG MU College of Nursing**  
**King George's Medical University (LP)**  
**Lucknow**

## LIST OF ELECTIVE MODULES

**III & IV Semesters:** *To complete any one elective by end of 4<sup>th</sup> semester across 1<sup>st</sup> to 4<sup>th</sup> semesters*

1. Human values
2. Diabetes care
3. Soft skills

**V & VI Semesters:** *To complete any one of the following before end of 6<sup>th</sup> semester*

4. CBT
5. Personality development
6. Addiction psychiatry
7. Adolescent health
8. Sports health
9. Accreditation and practice standards
10. Developmental psychology
11. Menopausal health
12. Health Economics

**VII & VIII Semesters:** *To complete any one of the following before end of 8<sup>th</sup> semester*

13. Scientific writing skills
14. Lactation management
15. Sexuality & Health
16. Stress management
17. Job readiness and employability in health care setting

**Number of electives to be completed: 3 (Every module = 1 credit = 20 hours)**

*Arunima*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

# HUMAN VALUES

**PLACEMENT:** III & IV SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students to develop knowledge and attitude towards inculcating human values.

**LEARNING OUTCOMES:**

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

1. Understand the concept and importance of human values.
2. Analyze the impact of human values in family, society and profession.
3. Apply human values in education and clinical practice.

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|---|---|---|---|
| I    | 4            | Explain the concept of human values, nature and types   | <b>Introduction</b> <ul style="list-style-type: none"> <li>• Introduction to human values - Definition and nature of human values</li> <li>• Types of human values - Different categorization</li> <li>• Instrumental and extrinsic values</li> <li>• Personal and professional values</li> <li>• Examples of human values - cooperation, honesty, caring, compassion, love, respect, sharing, loyalty, appreciation, integrity, discipline, justice, solidarity, civility, non-violence</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Discuss some of the human values having universal relevance</li> <li>• Value clarification exercise</li> <li>• Role play</li> </ul>          | <ul style="list-style-type: none"> <li>• Quiz</li> </ul>  |
| II   | 4            | Understand the significance of human values and in nursing<br><br>Identify the difference between human, ethical and moral values | <b>Importance of human values</b> <ul style="list-style-type: none"> <li>• Need and importance of human values</li> <li>• Functions of values</li> <li>• Reflection on individual values</li> <li>• Human values, ethical values and moral values - differences and similarities</li> </ul>   | <ul style="list-style-type: none"> <li>• Reflective exercises and report</li> <li>• Sharing in groups</li> <li>• Discuss lessons from the lives and teachings of great leaders, reformers and administrators</li> </ul> | <ul style="list-style-type: none"> <li>• Evaluation of reflective report/group work report</li> </ul> |
| III  | 2            | Explore the role of human values in family and society  | <b>Role of human values in family and society</b> <ul style="list-style-type: none"> <li>• Family values</li> <li>• Social standards</li> <li>• Influence of family and society</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Short answers</li> </ul>                                     |
| IV   | 4            | Discuss the role of educational institutions in inculcating human values  | <b>Role of education and human values</b> <ul style="list-style-type: none"> <li>• Teachers as role model</li> <li>• Development of accountability, appreciation and helping nature</li> <li>• Discipline as a human value</li> <li>• Value education strategies</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case scenario and discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> </ul>                      |

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|---|--|---|--|
| V    | 4            | Explain the core values at workplace and apply in clinical settings | <b>Professional Values</b> <ul style="list-style-type: none"> <li>Professional values - examples</li> <li>Professional values and Value development in nursing</li> <li>Core values at workplace, application in clinical settings and implications</li> </ul> | <ul style="list-style-type: none"> <li>Case scenario and discussion</li> <li>Application in clinical practice - Reflection</li> </ul> | <ul style="list-style-type: none"> <li>Evaluation of assignment</li> </ul> |
| VI   | 2            | Explain the influence of culture on values                          | <b>Values and cross cultural influence</b> <ul style="list-style-type: none"> <li>Cultural values</li> <li>Universal application</li> <li>Universal declaration of human values and human rights</li> </ul>  | <ul style="list-style-type: none"> <li>Lecture cum discussion</li> <li>Case scenario and discussion</li> </ul>                        | <ul style="list-style-type: none"> <li>Short answers</li> </ul>            |

**ASSESSMENT METHODS:**

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

  
 \_\_\_\_\_  
**Registrar**  
 King George Medical University  
 Lucknow

# DIABETES CARE

**PLACEMENT:** III & IV SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students to develop knowledge, skill and attitude regarding Diabetes and care.

## LEARNING OUTCOMES:

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

1. Understand the concept of NCDs and relevant national programs.
2. Review the pathophysiology and clinical diagnostic criteria for diabetes.
3. Analyze the diabetes treatment options such as medication, diet, exercise and life style modifications.
4. Apply the principles and demonstrate self-management skills to achieve diabetes control .
5. Identify onset of complications and provide means of seeking appropriate and timely help.
6. Demonstrate understanding of recent updates in diabetes.

## CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|--|--|---|---|
| I    | 2            | Explain the concept of NCDs and national NCD programs  | <b>Introduction</b> <ul style="list-style-type: none"> <li>• Introduction to Diabetes as Non communicable disease burden - global &amp; national - Review</li> <li>• Diabetes risk factors, preventive measures &amp; risk reduction measures</li> <li>• Role of nurse in national programs relevant to Diabetes prevention, control and care</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Directed reading and assignments</li> </ul>          | <ul style="list-style-type: none"> <li>• Quiz</li> </ul>  |
| II   | 4            | Recall and discuss the pathophysiology of Diabetes, its clinical characteristics and diagnostic criteria | <b>Pathophysiology and diagnosis of Diabetes</b> <ul style="list-style-type: none"> <li>• Review - structure &amp; functions involved in key organs relating to diabetes (pancreas, liver, muscle, adipose tissue &amp; kidney)</li> <li>• Relationship between blood glucose and insulin</li> <li>• Prediabetes condition</li> <li>• Types of Diabetes - Type I &amp; II</li> <li>• Screening</li> <li>• Symptoms</li> <li>• Diagnostic Criteria</li> </ul> | <ul style="list-style-type: none"> <li>• Review</li> <li>• Case scenario and discussion</li> <li>• Sharing in groups</li> </ul> | <ul style="list-style-type: none"> <li>• Evaluation of group work report</li> </ul>   |
| III  | 4            | Discuss the available treatment options  | <b>Diabetes treatment options</b> <ul style="list-style-type: none"> <li>• <i>Life style modifications</i></li> <li>• <i>Diet therapy</i></li> <li>• <i>Exercise</i></li> <li>• <i>Medical therapy</i> <ul style="list-style-type: none"> <li>○ Oral antidiabetic agents used to treat diabetes</li> <li>○ types, actions, side effects and contraindications</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• Drug study</li> <li>• Written assignments</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Quiz</li> <li>• Test paper</li> <li>• Evaluation of written assignments</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|---|--|---|--|
|      |              |   | <ul style="list-style-type: none"> <li>○ Combination treatment regimen</li> <li>○ Medication considerations in elderly</li> <li>○ Insulin therapy - Types, regimen, preparation and administration</li> <li>○ Recent advances in medication therapy</li> </ul>   |   |  |
| IV   | 3            | Identify complications and provide timely support in management of complications                | <p><b>Complications of diabetes</b><br/><i>Diagnosis and management of</i></p> <ul style="list-style-type: none"> <li>• Hypoglycemia</li> <li>• Hyperglycemia</li> <li>• Diabetic ketoacidosis</li> <li>• Macrovascular complications</li> <li>• Diabetic retinopathy</li> <li>• Diabetic nephropathy</li> <li>• Neuropathy</li> <li>• Gestational diabetes in pregnancy</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case study</li> </ul>  | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Essay</li> <li>• Case study reports</li> </ul>     |
| V    | 5            | Identify the challenges of living with diabetes<br><br>Achieve effective self-management skills | <p><b>Self-Management</b></p> <ul style="list-style-type: none"> <li>• Challenges of living with diabetes</li> <li>• Role of self-care in diabetes management</li> <li>• Effective self-management skills to attain and maintain diabetes control</li> <li>• Monitoring blood glucose levels -methods to monitor diabetes control and analysis of blood glucose patterns</li> </ul> <p><b>Nutrition therapy</b></p> <ul style="list-style-type: none"> <li>• Nutritional needs of patients with diabetes</li> <li>• Nutritional assessment</li> <li>• Determination of body mass index (BMI), waist-to-hip ratio</li> <li>• Meal planning methods</li> <li>• Problems associated with diet therapy</li> </ul> <p><b>Physical activity</b></p> <ul style="list-style-type: none"> <li>• Role of exercise in diabetes management</li> <li>• Components of exercise prescription</li> <li>• Exercise needs assessment</li> <li>• Types of exercises</li> <li>• Benefits of yoga for people with diabetes</li> <li>• Strategies to prevent hypoglycemia during or after exercise</li> </ul> <p><b>Medication therapy</b></p> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Demonstration</li> <li>• Practice</li> <li>• Meal planning</li> <li>• Role play</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• OSCE</li> <li>• Assessment of meal plan</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities   | Assessment Methods   |
|------|--------------|---|---|--|--|
|      |              |   | <ul style="list-style-type: none"> <li>• Understanding action, side effects and contraindications</li> <li>• Insulin therapy - preparation and administration</li> <li>• Role of diabetes educator in education and counseling</li> </ul> <p><b>Complication identification and seeking appropriate help</b></p>  |  |  |
| VI   | 2            | <p>Update the knowledge on diabetes, its management and care</p> <p>Discuss the role of diabetes educator</p> <p>Identify the role of complementary therapies</p> | <p><b>Recent updates in diabetes</b></p> <ul style="list-style-type: none"> <li>• Oral health and diabetes</li> <li>• Managing diabetes during disasters</li> <li>• Recent update on treatment and care modalities</li> </ul> <ul style="list-style-type: none"> <li>• Role of diabetes educator in diabetes care, education, counseling and management</li> <li>• Complementary therapies</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Directed reading</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> </ul> |

#### ASSESSMENT METHODS:

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assignments - 10 marks
- Assessment of skills (Meal planning) - 10 marks

#### LEARNING RESOURCES:

- Facilitator manual for training nursing staff on “**Prevention and Management of Non-Communicable Diseases**” developed by People to People Health Foundation (PPHF), 2019


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## SOFT SKILLS

**PLACEMENT:** III & IV SEMESTER

**TOTAL HOURS:** 1 Credit (20 hours)

**DSECRPTION:** This module is designed to improve the soft skills of the students and covers important skills required for personal and professional lives such as etiquette, presentation, time management, motivation, decision making and team work.

### LEARNING OUTCOMES:

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

1. Identify & perform personal, professional & Social Etiquette
2. Illustrate Telephone Etiquette
3. Learn & apply Presentation skills.
4. Be empowered in Public Speaking
5. Practice appropriate time management and use planning tools
6. Incorporate Motivational skills in practice
7. Develop Decision making skills
8. Demonstrate Teamwork in workplace

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|--|--|---|---|
| I    | 4            | Identify & perform personal, professional & Social Etiquette | <p><b>Personal Etiquette:</b></p> <ul style="list-style-type: none"> <li>• Grooming and personal hygiene</li> <li>• Body language-Postures &amp; facial expressions</li> <li>• Punctuality and respectfulness</li> <li>• Manners</li> </ul> <p><b>Professional Etiquette:</b></p> <ul style="list-style-type: none"> <li>• Meeting etiquette</li> <li>• Workplace etiquette</li> <li>• communication etiquette-Oral &amp; written</li> </ul> <p><b>Social Etiquette:</b></p> <ul style="list-style-type: none"> <li>• What is Social Etiquette?</li> <li>• Why are social skills important?</li> <li>• Types of social skills</li> <li>• Conversational skills - Greetings, listening, interacting</li> <li>• Common courtesies - Thank you, No thank you, Excuse me, May I</li> <li>• Social skill defects</li> </ul> <p><b>Other types:</b></p> <ul style="list-style-type: none"> <li>• Classroom etiquette-respectful and punctual, use of cell phone, engagement in the class</li> <li>• Virtual classroom etiquette</li> <li>• Social media etiquette</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstration</li> <li>• return demonstration</li> </ul> | <ul style="list-style-type: none"> <li>• Feedback from faculty and co-students</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|---|--|---|--|
| II   | 2            | Illustrate Telephone Etiquette                              | <b>Telephone etiquette:</b> <ul style="list-style-type: none"> <li>• Introduce yourself first</li> <li>• Clarity of speech</li> <li>• Active listening and take notes</li> <li>• Use appropriate language</li> <li>• Remain cheerful</li> </ul>                              | <ul style="list-style-type: none"> <li>• Demonstration return</li> <li>• Demonstration</li> </ul>               | <ul style="list-style-type: none"> <li>• Anonymous Assessment</li> </ul>           |
| III  | 3            | Learn & apply Presentation skills.                          | <b>Presentation Skills:</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Types of Presentation Skills</li> <li>• Structure</li> <li>• Importance of Presentation skills</li> <li>• Making a Presentation</li> <li>• Delivering a Presentation</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture with discussion</li> </ul>                                     | <ul style="list-style-type: none"> <li>• Sample presentations</li> </ul>           |
| IV   | 2            | Empowered in Public Speaking                                | <b>Public Speaking:</b> <ul style="list-style-type: none"> <li>• Elements of Public Speaking</li> <li>• Types of Public Speaking</li> <li>• How do you begin a speech</li> <li>• How do you make your speech good</li> <li>• Factors of Public Speaking</li> </ul>           | <ul style="list-style-type: none"> <li>• Lecture &amp; Demonstration return</li> <li>• Demonstration</li> </ul> | <ul style="list-style-type: none"> <li>• Health talk</li> </ul>                    |
| V    | 2            | Practice appropriate time management and use planning tools | <b>Time management:</b> <ul style="list-style-type: none"> <li>• Know how to spend time</li> <li>• Set priorities</li> <li>• Using a Planning Tool</li> <li>• Getting Organised/Schedule time appropriately</li> </ul>   | <ul style="list-style-type: none"> <li>• Roleplay</li> </ul>  | <ul style="list-style-type: none"> <li>• Adherence to Timeline</li> </ul>          |
| VI   | 2            | Incorporate Motivational skills in practice                 | <b>Motivational skills:</b> <ul style="list-style-type: none"> <li>• Forming and Changing Habit</li> <li>• Gratitude</li> <li>• Positivity</li> <li>• Mindfulness</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture with discussion</li> </ul>                                     | <ul style="list-style-type: none"> <li>• 360 degree Feedback</li> </ul>            |
| VII  | 2            | Develop Decision making skills                              | <b>Decision making skills:</b> <ul style="list-style-type: none"> <li>• What is Decision making skills</li> <li>• The 5 Decision making skills</li> <li>• Styles of Decision making</li> <li>• How to develop decision making</li> </ul>                                     | <ul style="list-style-type: none"> <li>• Role play</li> </ul>   | <ul style="list-style-type: none"> <li>• Critical thinking Competencies</li> </ul> |
| VIII | 2            | Demonstrate Teamwork in workplace                           | <b>Team work:</b> <ul style="list-style-type: none"> <li>• Differentiate team/teamwork</li> <li>• Examples of team work skills</li> <li>• Working with different teams</li> <li>• Build a team in your workplace environment</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Lecture with discussion</li> </ul>                                     | <ul style="list-style-type: none"> <li>• Feedback from colleagues</li> </ul>       |

#### ASSESSMENT METHODS:

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assignments - 10 marks
- Assessment of skills (Time management/presentation/etiquette) - 10 marks

*Aradhana*  
Registrar  
King George Medical University  
Lucknow

# COGNITIVE BEHAVIOURAL THERAPY (CBT)

**PLACEMENT:** V & VI SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students acquire comprehensive knowledge regarding the basics of Cognitive Behavioural Therapy and develop an insight into behaviour of self and others. Further it is aimed at helping them to practice the principles of CBT for promoting Mental Health in Nursing Practice.

## LEARNING OUTCOMES:

On completion of the module, the student will be able to:

1. Explain the concept and techniques of CBT
2. Use techniques to develop a therapeutic alliance based on CBT
3. Discuss cognitive conceptualization-automatic thoughts and alternative explanations based on cognitive model
4. Describe strategies to identify and respond to cognitions including dysfunctional cognitions
5. Formulate thought records and action plans

## CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content   | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|--|---|---|--|
| I    | 6            | Explain the concept and techniques of CBT<br><br>Use techniques to develop a therapeutic alliance based on CBT | <b>Concepts and Techniques of CBT</b> <ul style="list-style-type: none"> <li>• Concept - Definition</li> <li>• Techniques and applications of CBT</li> <li>• Factors influencing effective delivery of CBT</li> <li>• CBT Model</li> <li>• The therapeutic relationship and setting goals with clients</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture and Discussion</li> <li>• Role play</li> <li>• Demonstration</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>Skills check:</b> Mastery demonstration of establishing a therapeutic relationship with the client in CBT and setting goals</li> </ul> |
| II   | 4            | Discuss cognitive conceptualization - automatic thoughts and alternative explanations based on cognitive model | <b>The Cognitive Model</b> <ul style="list-style-type: none"> <li>• Three levels of thoughts</li> <li>• Automatic thoughts - development and tracking</li> <li>• Designing and implementing experiments to test automatic thoughts</li> <li>• Biofeedback in CBT</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Assignment on automatic thoughts and its testing</li> </ul>  | <ul style="list-style-type: none"> <li>• Evaluation of assignment</li> </ul>   |
| III  | 5            | Describe strategies to identify and respond to cognitions including dysfunctional cognitions                   | <b>Identifying, Evaluating and Responding to Cognitions</b> <ul style="list-style-type: none"> <li>• <b>Socratic questioning</b> - Technique of questioning</li> <li>• <b>Behaviour experiments</b> - Relaxation, mindfulness, distraction techniques, graded task assignments, task scheduling etc.</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Role play</li> <li>• Assignment on identifying and responding to dysfunctional cognitions</li> </ul> | <ul style="list-style-type: none"> <li>• Evaluation of assignment</li> </ul>   |
| IV   | 5            | Formulate thought records and action plans   | <b>Designing Effective Action Plans and Thought Records</b> <ul style="list-style-type: none"> <li>• Thought records components</li> <li>• Action plan components</li> <li>• Identifying underlying and new core beliefs and assumptions</li> <li>• Facilitating completion of the action plan and reviewing the action plan at the next session</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Role play</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>Skills check:</b> Formulate thought records and action plans and prepare worksheets</li> </ul>   |

### ASSESSMENT METHODS:

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assignments - 10 marks
- Assessment of skills (Establishment of therapeutic relationship with client on CBT/Formulating thought records or action plans) - 10 marks

### LEARNING RESOURCES:

1. Greenberger D, Padesky CA. Mind over Mood: Change How You Feel By Changing the Way You Think. The Guilford Press; 2016
2. Beck JS, Beck AT. Cognitive Therapy: Basics and Beyond. Guilford Publications; 2011

### Websites:

<http://focus.psychiatryonline.org/cgi/content/full/4/2/173>

[http://www.learncognitivetherapy.com/cognitive\\_therapy.htm](http://www.learncognitivetherapy.com/cognitive_therapy.htm)

### NB:

- Brief notes on the content is attached below.

### CORSE CONTENT (Brief notes below)

#### UNIT I (6 Hours): CONCEPTS AND TECHNIQUES OF CBT

**Concept:** CBT is based on the concept that mental disorders are associated with characteristic alterations in cognitive and behavioral functioning and that this pathology can be modified with pragmatic problem-focused techniques, interaction of thoughts, feelings and behaviour.

#### Techniques and Applications of CBT

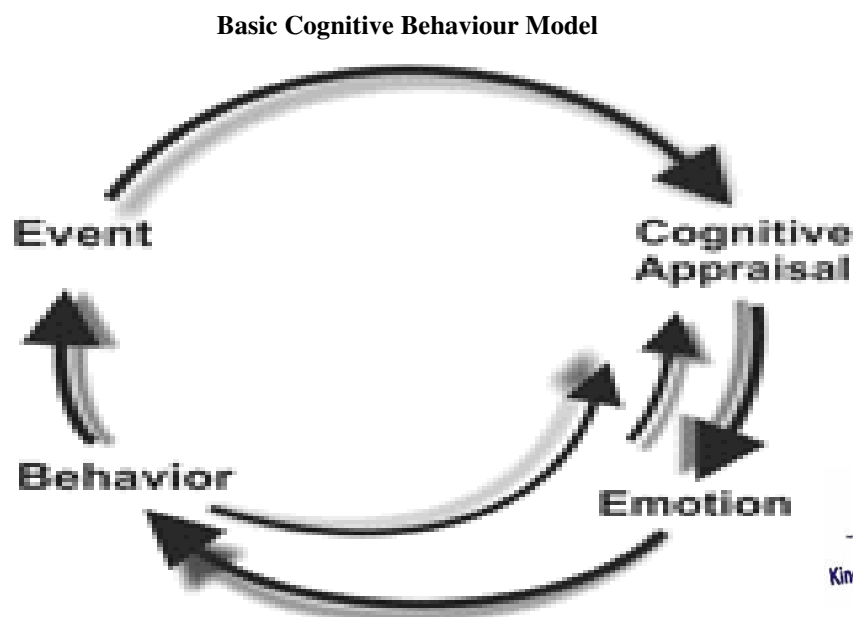
CBT is a cognitive technique and behavioural technique.

**Application** – wide applications: Psychiatric (Depression, Anxiety etc.) and non-psychiatric (sleep, fatigue, pain etc.)

#### Factors influencing effective delivery of CBT

Collaboration, formulation, homework etc.

#### The CBT model



Source: From Wright JH, Basco MR, Thase ME: Learning Cognitive-Behavior Therapy: An Illustrated Guide. Washington, DC, American Psychiatric Publishing, 2006, p 5

### **The therapeutic relationship and setting goals with clients**

- Assessment, person education, goal setting, practice of strategies, homework
- Collaborative therapy relationship

**Skills check:** Mastery demonstration of establishing a therapeutic relationship with the client in CBT and setting goals (Role play)

### **UNIT II (4 Hours): THE COGNITIVE MODEL**

**Three levels of thoughts:** automatic thoughts, underlying assumptions and schemas

Understanding interplay between levels of thought and moods, behaviour, physical functions and practice

#### **Automatic thoughts - development and tracking**

- Moment to moment unplanned thoughts
- Explain and clarify identification of automatic thoughts with examples from thought records/worksheets

E.g: questions that include

- a. What was going through your mind before you started to feel this way? Any other thoughts? Images?
- b. Circle hot thought

#### **Designing and implementing experiments to test automatic thoughts**

- Using scale or rating for automatic thoughts

#### **Biofeedback in CBT**

- Role and significance of Biofeedback in CBT

**Skills Check:** Assignment on automatic thoughts and its testing

### **UNIT III (5 Hours): IDENTIFYING, EVALUATING, AND RESPONDING TO COGNITIONS**

- Gathering evidence that supports and do not support the hot thoughts
- Actively search for information that contradicts the hot thoughts
- Writing all evidence for supporting that hot thoughts are not 100% true
- Identifying alternative or balanced thinking

#### **Socratic questioning**

- Technique of questioning

#### **Behaviour experiments**

Relaxation, mindfulness, distraction techniques, graded task assignments, task scheduling etc.

**Skills check:** Assignment on identifying and responding to dysfunctional cognitions

### **UNIT IV (5 Hours): DESIGNING EFFECTIVE ACTION PLANS AND THOUGHT RECORDS**

**Thought records components:** situation, moods, automatic thoughts, evidence that supports hot thought, evidence that does not support hot thoughts, alternative or balanced thoughts, rate moods now

**Action plan components:** Goal, action plan, time to begin, possible problems, strategies to overcome problems, progress

Identifying a problem in life that a person would like to change and writing an action plan

#### **Identifying underlying and new core beliefs and assumptions**

- Identify core beliefs by looking for themes in thought record
- Test by looking for evidence
- Strengthen new core beliefs by recording experiences that are consistent, and rate the confidence

#### **Facilitating completion of the action plan and reviewing the action plan at the next session**

- Motivating the clients to complete the plans

**Skills check:** Assignment on Formulate thought records and action plans

*Aruchana*  
Registrar  
King George Medical University  
Lucknow

# PERSONALITY DEVELOPMENT

**PLACEMENT:** V & VI SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students acquire an in-depth knowledge in factors influencing personality development, theories of personality development, personality traits, and personality disorders and further acquire skill in knowing one's own personality, understand others in their surroundings and bring positive change in life.

**LEARNING OUTCOMES:**

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

1. Describe how personality develops
2. Define various stages of personality development
3. Describe basic personality traits and personality types
4. Analyze how personality affects career choices
5. Describe methods for changing personality
6. Enumerate personality disorders
7. Demonstrate skills in identifying personality disorders
8. Utilize knowledge in knowing self and others and improve relationship with others
9. Provide care to patients with personality disorders by emphasizing on respecting individual culture and spiritual needs

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities   | Assessment Methods   |
|------|--------------|---|---|--|--|
| I    | 2            | Describe how personality develops<br><br>Explain factors contributing to personality development                                      | <b>Introduction to personality development</b><br><ul style="list-style-type: none"> <li>• Definitions</li> <li>• Components of personality</li> <li>• Importance of personality in achieving goals and success in life</li> <li>• Factors influencing personality development                             <ul style="list-style-type: none"> <li>○ Biological factors</li> <li>○ Environmental factors</li> </ul> </li> <li>• Nature vs Nurture concept in personality development</li> </ul>            | <ul style="list-style-type: none"> <li>• Lecture and Discussion method</li> <li>• Guest lecture</li> </ul> | <ul style="list-style-type: none"> <li>• Test paper</li> <li>• Quiz</li> </ul>           |
| II   | 5            | Enumerate stages of personality development from infancy to late adulthood<br><br>Explain various theories of personality development | <b>Stages and theories of personality development</b><br><ul style="list-style-type: none"> <li>• Development of personality from infancy to late adulthood</li> <li>• Theories of personality development                             <ul style="list-style-type: none"> <li>○ Psychoanalytic theory</li> <li>○ Psychosocial theory</li> <li>○ Trait and type theories of personality</li> <li>○ Humanistic approaches to personality</li> <li>○ Learning theories of personality</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Lecture and Discussion method</li> </ul>                          | <ul style="list-style-type: none"> <li>• Test paper</li> </ul>                           |
| III  | 3            | List various types of personalities   | <b>Assessment of personality</b><br><ul style="list-style-type: none"> <li>• Types of personalities</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture and Discussion method</li> </ul>                          | <ul style="list-style-type: none"> <li>• Visit report</li> <li>• Written exam</li> </ul> |

*Archan*  
**Registrar**  
 King George Medical University  
 Lucknow

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities   | Assessment Methods   |
|------|--------------|---|--|--|--|
|      |              | Describe effects of illness on personality change<br><br>Describe various personality assessments   | <ul style="list-style-type: none"> <li>• Personality changes due to illness</li> <li>• Personality assessment</li> </ul>   | <ul style="list-style-type: none"> <li>• Visit to clinical psychology department</li> <li>• Guest lecture</li> </ul> | <ul style="list-style-type: none"> <li>• Case discussion</li> </ul>  |
| IV   | 5            | Discuss personality and career success<br><br>Explain various methods of changing personality traits<br><br>Explain nursing implications of personality | <b>Personality and career success</b> <ul style="list-style-type: none"> <li>• Role of personality and career success</li> <li>• Methods of changing personality traits <ul style="list-style-type: none"> <li>○ Personal growth and self-efficacy</li> </ul> </li> <li>• Personality characteristics required for a nurse</li> <li>• Nursing implications of personality</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture and Discussion method</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Written exam</li> </ul>   |
| V    | 5            | Explain various personality disorders   | <b>Personality disorders</b> <ul style="list-style-type: none"> <li>• Definition</li> <li>• Types</li> <li>• Signs and symptoms</li> <li>• Medical management</li> <li>• Nursing management</li> <li>• Psycho-social therapies</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture and Discussion method</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Perform assessment of personality disorder patient and write assessment report</li> </ul> |

**ASSESSMENT METHODS:**

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks


---

**Registrar**  
**King George Medical University**  
**Lucknow**

# ADDICTION PSYCHIATRY

**PLACEMENT:** V & VI SEMESTER

**THEORY & CLINICAL:** 1 Credit (20 hours)

**THEORY:** 06 hours

**CLINICAL:** 14 hours

**DESCRIPTION:** This module is designed to help students to develop knowledge and competencies required for assessment, diagnosis, treatment and nursing management of individuals with various disorders related to addiction.

**LEARNING OUTCOMES:**

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

1. Describe the Terminologies such as Substance Use Disorders, addictive behaviours, addiction etc
2. Describe the classification of Psychoactive Substances
3. Describe various etiological factors of substance related disorders
4. Identify the psycho social issues of the individuals with substance use disorders.
5. Identify treatment related adverse effects and emergencies and manage them effectively
6. Demonstrate skill in managing patients with substance use disorders.
7. Apply nursing process in caring for patients with substance related disorders.
8. Utilize available support to rehabilitate needy individuals.

### CONTENT OUTLINE

| Unit | Time (Hours)    | Learning Outcomes   | Content  | Teaching/Learning Activities   | Assessment Methods  |
|------|-----------------|---|--|--|---|
| I    | 6 (T)<br>14 (P) | Explain and demonstrate skill in assessment of individuals with substance use disorders<br><br>Explain and demonstrate skill in management and nursing management of individuals with substance use disorders | <b>Substance use disorders, assessment and management</b><br><ul style="list-style-type: none"> <li>• Terminologies: Substance related Disorders, addictive behaviour, intoxication, tolerance, withdrawal etc.</li> <li>• Classification of Psychoactive Substances</li> <li>• Factors associated with substance related disorders</li> <li>• Psychosocial problems associated with substance use</li> <li>• Treatment Modalities for Substance - Related Disorders – Multi-Disciplinary Team Approach</li> <li>• Treatment related adverse effects and emergencies</li> <li>• Introduction to technology addiction and its management</li> <li>• Nursing Management of patients with substance use disorders</li> <li>• Rehabilitation issues</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Counseling Techniques</li> <li>• Disease model of addiction - Assignment</li> <li>• 2 day posting/visit to a de-addiction centre</li> </ul> | <ul style="list-style-type: none"> <li>• Perform assessment of individuals in in-patient or out-patient and write assessment report</li> <li>• Assessment of assignment</li> <li>• Performing health education at schools, colleges and other selected working areas - evaluation of education</li> </ul> |

**CLINICAL: 14 hours**

**Clinical Practice Competencies:**

On completion of the module, the student will be able to:

1. Assess individuals with substance use disorders
2. Identify risk factors of an individual and plan measures of management and relapse prevention
3. Inform, teach, and guide patients and their families

**ASSESSMENT METHODS:**

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assignments - 10 marks
- Assessment of skills (Assessment of individuals with substance use disorders/health education) - 10 marks

# ADOLESCENT HEALTH

**PLACEMENT:** V & VI SEMESTER

**THEORY & PRACTICAL:** 1 Credit (20 hours)

THEORY: 10 hours

LAB: 2 hours

CLINICAL: 8 hours

**DESCRIPTION:** This module is designed to help students to develop knowledge about developmental changes during adolescence and special psychosocial, reproductive and sexual health issues, needs and challenges of adolescents and competencies required for promoting their development and handling their health issues

## LEARNING OUTCOMES:

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

1. Describe the normal growth and development during adolescence
2. Assess the physical, reproductive and sexual changes during adolescence
3. Promoting the development of life skills among adolescents
4. Identify the developmental needs of adolescents
5. Demonstrate skills in Identifying the developmental and Psychosocial issues and challenges during adolescence
6. Discuss the nutritional requirements of adolescents, food habits and food fads prevalent in the adolescents
7. Demonstrate skills in communicating with adolescents
8. Develop competency in providing the Guidance and Counselling to adolescents
9. Identify, and manage common health problems among adolescents including Adjustment & conduct disorders, mental disorders, eating disorders, substance use disorders
10. Describe the reproductive and sexual health issues of adolescents including Sexual harassment, early marriage, teenage pregnancy, unsafe abortion and contraception, sexually transmitted disorders, HIV/AIDS

## CONTENT OUTLINE

| Unit | Time (Hours)     | Learning Outcomes  | Content   | Teaching/Learning Activities  | Assessment Methods   |
|------|------------------|--|---|---|--|
| I    | 2 (T)<br>2 (CL)  | Describe the normal growth and development during adolescence<br>Assess the physical, reproductive and sexual changes during adolescence<br>Promoting the development of life skills among adolescents | <b>Growth and development of of adolescents</b> <ul style="list-style-type: none"> <li>• Review of Principles of Growth and Development</li> <li>• Assessment of Growth and Development of Adolescents, including physical, reproductive and sexual changes</li> <li>• Promoting Growth and Development of Adolescents</li> <li>• Development of life skills among adolescents</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion &amp; Demonstration</li> <li>• Visit to the School or Family with Adolescent</li> </ul> | <ul style="list-style-type: none"> <li>• Perform assessment of Adolescent in School or Family and write assessment report</li> </ul> |
| II   | 1 (T)<br>1 (Lab) | Discuss the nutritional requirements of adolescents, food habits and food  | <b>Nutritional needs of adolescents</b> <ul style="list-style-type: none"> <li>• Nutritional requirements of adolescents</li> </ul> Food habits and food fads prevalent in the adolescent   | <ul style="list-style-type: none"> <li>• Discussion</li> <li>• Demonstration</li> </ul>   | <ul style="list-style-type: none"> <li>• Plan a One day Menu for an adolescent</li> <li>•</li> </ul>                                 |

| Unit | Time (Hours)               | Learning Outcomes   | Content  | Teaching/Learning Activities   | Assessment Methods  |
|------|----------------------------|---|--|--|---|
|      |                            | fads prevalent in the adolescents   |  |  |   |
| III  | 2 (T)<br>2 (CL)            | Identify the developmental needs of adolescents<br><br>Demonstrate skills in identifying the developmental and psychosocial issues and challenges during adolescence  | <b>Developmental needs of Adolescents</b> <ul style="list-style-type: none"> <li>• Developmental needs of Adolescents</li> <li>• Developmental issues during Adolescence</li> <li>• Psychosocial issues during Adolescence</li> <li>• Challenges during Adolescence</li> <li>• Guiding Parents on meeting the developmental needs of Adolescents and handling their issues and Challenges</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion</li> <li>• Demonstration</li> <li>• Visit to the Family with Adolescent</li> </ul> | <ul style="list-style-type: none"> <li>• Visit report</li> </ul>            |
| IV   | 1 (T)<br>1 (Lab)<br>2 (CL) | Demonstrate skills in communicating with adolescents<br><br>Develop competency in providing the Guidance and Counselling to adolescents   | <b>Communication, guidance and counseling</b> <ul style="list-style-type: none"> <li>• Communicating with adolescents</li> <li>• Guidance and Counselling</li> <li>• Role of Parents</li> </ul>  | <ul style="list-style-type: none"> <li>• Discussion</li> <li>• Demonstration</li> <li>• Role Play</li> </ul>                           | <ul style="list-style-type: none"> <li>• Assessment of role play</li> </ul> |
| V    | 2 (T)<br>2 (CL)            | Identify, and manage common health problems among adolescents including adjustment & conduct disorders, mental disorders, eating disorders, and substance use disorders                                       | <b>Common health problems including mental health problems</b> <ul style="list-style-type: none"> <li>• Common health problems among adolescents</li> <li>• Adjustment &amp; conduct disorders</li> <li>• Mental disorders</li> <li>• Eating disorders</li> <li>• Substance use disorders</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Visit to the Adolescent Clinic</li> </ul>                   | <ul style="list-style-type: none"> <li>• Visit report</li> </ul>            |
| VI   | 2 (T)                      | Describe the reproductive and sexual health issues of adolescents including Sexual harassment, early marriage, teenage pregnancy, unsafe abortion and contraception, sexually transmitted disorders, HIV/AIDS | <b>Reproductive and sexual health issues</b> <ul style="list-style-type: none"> <li>• Reproductive and sexual health issues during adolescence</li> <li>• Sexual harassment, early marriage, teenage pregnancy, unsafe abortion and contraception</li> <li>• Sexually transmitted disorders, HIV/AIDS</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>   | <ul style="list-style-type: none"> <li>• Short answers</li> </ul>           |

**CLINICAL: 8 hours**

**Clinical Practice Competencies:**

On completion of the module, the students will be able to:

1. Assesses the growth and development of adolescent
2. Assess the physical, reproductive and sexual changes during adolescence
3. Promote the development of life skills among adolescents
4. Identify and guide the parents to meet the developmental needs of adolescents
5. Demonstrate skills in communicating with adolescents
6. Identify the developmental and Psychosocial issues and challenges during adolescence
7. Identify the nutritional requirements of adolescents, food habits and food fads prevalent in the adolescents
8. Demonstrate skills in providing the Guidance and Counselling to adolescents
9. Identify, and manage common health problems among adolescents
10. Identify selected reproductive and sexual health issues of adolescents

**ASSESSMENT METHODS:**

- Test paper (Objective test, Short answers and case scenario and questions) - 30 marks
- Assignments - 10 marks
- Assessment of skills (Assessment of adolescent/One day menu planning for adolescent) - 10 marks

*Archan*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

# SPORTS HEALTH

**PLACEMENT:** V & VI SEMESTER

**THEORY & PRACTICAL:** 1 Credit (20 hours)

THEORY: 15 hours

PRACTICAL: 5 hours

**DESCRIPTION:** This Elective module is designed to enable students to gain knowledge about Sports Health, and role of Nursing in Sports Health, training, and management of sports injuries.

**LEARNING OUTCOMES:**

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

1. Demonstrate understanding of sports health.
2. Should be able to assess the severity of injury, recognize life threatening condition provide emergency care and initiate emergency procedures if any to avoid delay in care.
3. Participate effectively as a member of sports health team.
4. Understanding the importance of conditioning and sports injuries Rehabilitation.

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content   | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|--|---|---|--|
| I    | 15 (T)       | <p>Demonstrate understanding of sports health and Fitness pre-requisite for sports.</p> <p>Assess the severity of injury, recognize life threatening condition provide emergency care and initiate emergency procedures if any to avoid delay in care.</p> <p>Participate effectively as a member of sports health team.</p> <p>Understanding the importance of conditioning and sports injuries Rehabilitation.</p> | <ol style="list-style-type: none"> <li>1. Definition and scope of Sports Health and Physical Fitness</li> <li>2. Pre-Participation exam for sports</li> <li>3. On-field &amp; Off-field evaluation of athlete</li> <li>4. The Emergency Medical services System</li> <li>5. Physiological Principle of strength Training/Conditioning, Deconditioning</li> <li>6. Exercises and Environmental concern (Heat/Temperature Regulation, Acclimatization)</li> <li>7. Common sports injuries &amp; musculoskeletal assessment.</li> <li>8. Therapeutic/Rehabilitation modalities overview.</li> <li>9. On field management of sports injuries: Cryotherapy, sports taping etc.</li> <li>10. Protective Equipment: protective wrapping, protective eye wear, Helmets, face mask.</li> <li>11. Energy demands of Sports.</li> <li>12. Nutritional supplements,</li> <li>13. Ergogenic aids (Performance enhancing agents) and Doping.</li> </ol> | <ul style="list-style-type: none"> <li>• Guest lectures</li> <li>• Reading assignment by providing resources</li> <li>• Written assignment</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> <li>• Viva voce</li> </ul> |
| II   | 5 (P)        | To assess the sports injury and provide emergency care   |   | <ul style="list-style-type: none"> <li>• Field work</li> </ul>  | <ul style="list-style-type: none"> <li>• Evaluation of written field work</li> </ul>                             |

**ASSESSMENT METHODS:**

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

# ACCREDITATION AND PRACTICE STANDARDS

**PLACEMENT:** V & VI SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students to develop an understanding of quality assurance mechanism, the accreditation process and the accreditation and practice standards in nursing.

**LEARNING OUTOMES:**

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

1. Describe the Quality assurance mechanism in nursing
2. Explain the process of accreditation
3. Describe the accreditation standards for nursing institutions
4. Explain about the nursing practice standards and their rationale

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|---|---|--|---|
| I    | 5            | Describe the Quality assurance mechanism in nursing           | <b>Quality assurance in Nursing</b> <ul style="list-style-type: none"> <li>• Review the current trends and practices of quality assurance in nursing</li> <li>• Definition and significance of quality assurance</li> <li>• Process of quality assurance</li> <li>• Components of quality assurance model</li> <li>• Methods of quality assurance evaluation</li> <li>• Quality assurance models of nursing in India</li> <li>• Roles and responsibilities of National and state nursing professional and regulatory bodies in quality assurance</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> <li>• Essay</li> </ul> |
| II   | 5            | Explain the process of accreditation                          | <b>Accreditation</b> <ul style="list-style-type: none"> <li>• Definition of accreditation</li> <li>• The concepts of accreditation</li> <li>• Objectives of accreditation</li> <li>• Significance of accreditation</li> <li>• Types of accreditation</li> <li>• Accreditation process</li> <li>• Criteria for accreditations/Principal areas to be assessed</li> <li>• National and International accreditation agencies (education and health care organizations) ISO, UGC, NAAC, QCI, IIEEA, JCI, NABH etc.</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> <li>• Essay</li> </ul> |
| III  | 5            | Describe the accreditation standards for nursing institutions | <b>Accreditation Standards for nursing institutions</b> <ul style="list-style-type: none"> <li>• Definition of standards</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> <li>• Essay</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes  | Content   | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|--|---|--|---|
|      |              |  | <ul style="list-style-type: none"> <li>• Indian Nursing Council (INC) Standards - college/school and hospital/health facility</li> <li>• Standards for Quality Improvement in nursing: Standards Based Management and Recognition (SBM-R) approach</li> <li>• INC's Performance standards for various nursing institutions</li> <li>• International Council of Nurses (ICN) global standards for education and accreditation</li> <li>• International Confederation of Midwives (ICM) standards for professional Midwifery Education</li> <li>• WHO standards for educators</li> </ul>  |  |   |
| IV   | 5            | Explain about the nursing practice standards and their rationale | <p><b>Nursing Practice standards</b></p> <ul style="list-style-type: none"> <li>• Code of ethics and professional conduct for nurses in India</li> <li>• ICN - Code of ethics</li> <li>• Definition of practice standards</li> <li>• National and international standards for nursing practice <ul style="list-style-type: none"> <li>○ INC standards for practice</li> <li>○ National Nursing Commission Bill (Indian Nursing and Midwifery Council ACT (proposed)</li> <li>○ ICM standards for professional Midwifery Practice</li> <li>○ ICN global standards for practice</li> </ul> </li> <li>• International nursing excellence - Magnet Recognition program, JCI standards</li> <li>• India - NABH nursing excellence standards</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Visit to NAAC or NABH accredited nursing institutions and health care facility</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> <li>• Essay</li> <li>• Visit report</li> </ul> |

#### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

#### LEARNING RESOURCES:

- UGC guidelines
- NACC guidelines
- NABH manual
- JCI manual
- INC, ICN, ICM & WHO websites - For education and practice standards

# DEVELOPMENTAL PSYCHOLOGY

**PLACEMENT:** V & VI SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** The module is designed to assist the students to acquire knowledge regarding the various dimensions of development and special concerns related to various age groups and to develop an insight into the problems of various age groups. Further it is aimed at helping the students to recognise the deviated behaviours of various age groups and apply the principles and strategies of mental hygiene for the promotion of mental health and prevention, diagnosis and management of mental illness

**LEARNING OUTCOMES:**

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

1. Explain the theories related to the development of an individual
2. Describe prenatal development and special concerns related to the prenatal development
3. Explain the dimensions of development and special concerns related to infancy
4. Explain the dimensions of development and special concerns related to early childhood
5. Discuss the characteristics, dimensions of development and special concerns related to adolescence
6. Explain the characteristics, dimensions of development and special concerns related to adulthood
7. Describe the dimensions of development and special concerns related to elderly

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|--|--|--|---|
| I    | 2            | Describe growth and development  | <b>Introduction</b> <ul style="list-style-type: none"> <li>• Definition - Growth and development</li> <li>• Definition - Developmental psychology</li> <li>• Difference between growth and development</li> <li>• Dimensions of growth and development</li> <li>• Stages of development</li> <li>• Principles of development</li> <li>• Characteristics of development</li> <li>• Factors influencing the growth and development</li> <li>• Scope of developmental psychology</li> </ul> | <ul style="list-style-type: none"> <li>• Review</li> <li>• Lecture cum discussion</li> </ul> | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |
| II   | 2            | Explain the theories related to the development of an individual                       | <b>Theories related to development</b> <ul style="list-style-type: none"> <li>• Sigmund Freud Psychosexual development</li> <li>• Erik Erikson Psychosocial development</li> <li>• Piaget theory of cognitive development</li> <li>• Kohlberg's theory of moral development</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>                   | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |
| III  | 3            | Describe prenatal development and special concerns related to the prenatal development | <b>Prenatal development</b> <ul style="list-style-type: none"> <li>• Term: Prenatal development</li> <li>• Stages of prenatal development</li> <li>• Principles of hereditary and twins mechanism</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>                   | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|---|--|--|---|
|      |              |   | <ul style="list-style-type: none"> <li>• Factors affecting the prenatal development</li> <li>• Process of labour</li> <li>• Complications during labour that affects the transition period</li> <li>• Postnatal period</li> <li>• Complications in postnatal period that affects the transition period</li> <li>• Measures to reduce the risk during prenatal development, process of labour and postnatal period</li> <li>• Genetic counselling</li> <li>• Rooming in or KMC</li> </ul>   |  |   |
| IV   | 2            | Explain the dimensions of development and special concerns related to infancy         | <p><b>Infancy</b></p> <ul style="list-style-type: none"> <li>• Definition - Newborn and infancy</li> <li>• Normal characteristics of infancy</li> <li>• <i>Dimensions of growth and development in infancy:</i> <ul style="list-style-type: none"> <li>○ Physical, physiological and motor development</li> <li>○ Cognitive development or intellectual development</li> <li>○ Emotional development</li> <li>○ Social development</li> <li>○ Moral or character development</li> <li>○ Language development</li> </ul> </li> <li>• Special concerns in infancy</li> <li>• Remedial measures: Prevention and management</li> <li>• Newborn care and its significance</li> <li>• Breastfeeding and weaning and its significance</li> <li>• Parenthood</li> <li>• Low birth weight and its developmental consequences</li> <li>• Early infant stimulating programme</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Symposium</li> </ul>        | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |
| V    | 2            | Explain the dimensions of development and special concerns related to early childhood | <p><b>Early childhood</b></p> <ul style="list-style-type: none"> <li>• Definition - Toddler and preschooler</li> <li>• Normal characteristics of toddler and preschooler</li> <li>• <i>Dimensions of growth and development in toddler and preschooler:</i> <ul style="list-style-type: none"> <li>○ Physical and motor development</li> <li>○ Cognitive development or intellectual development</li> <li>○ Emotional development</li> <li>○ Social development</li> <li>○ Moral or character development</li> <li>○ Language development</li> </ul> </li> <li>• Special concerns in toddler and preschooler</li> <li>• Remedial measure: Prevention and management</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Panel discussion</li> </ul> | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes  | Content   | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|--|---|---|---|
|      |              |  | <ul style="list-style-type: none"> <li>• Lower order basic needs according to Maslow and its significance</li> <li>• Parent child bonding and its significance</li> <li>• Toilet training and its significance</li> </ul>   |   |   |
| VI   | 2            | Explain the characteristics, dimensions of development and special concerns related to middle and late adulthood | <p><b>Middle and late childhood</b></p> <ul style="list-style-type: none"> <li>• Definition - School going children</li> <li>• Normal characteristics of School going children</li> <li>• <i>Dimensions of growth and development in middle and late childhood:</i> <ul style="list-style-type: none"> <li>○ Physical and motor development</li> <li>○ Cognitive development or intellectual development</li> <li>○ Emotional development</li> <li>○ Social development</li> <li>○ Language development</li> <li>○ Moral or character development</li> </ul> </li> <li>• Special concerns in school going children</li> <li>• Remedial measure: Prevention and management</li> <li>• Role of discipline in moral development</li> <li>• Role of play in the process of development</li> <li>• Effect of parental employment in the process of development</li> <li>• Effect of mass media in the process of development</li> <li>• Role of peer group in the process of development</li> <li>• Role of behavioural technique in the process of development</li> <li>• Parenting style and its significance</li> <li>• School based mental health programme and services</li> <li>• Teacher student relationship and its significance</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Role play</li> </ul> | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |
| VII  | 3            | Discuss the characteristics, dimensions of development and special concerns related to adolescence               | <p><b>Adolescence</b></p> <ul style="list-style-type: none"> <li>• Definition - Adolescence and puberty</li> <li>• <i>Review:</i> <ul style="list-style-type: none"> <li>○ Physiological and hormonal changes</li> <li>○ Sexual maturation: primary and secondary characteristics</li> <li>○ Psychological impact of puberty</li> </ul> </li> <li>• Need for understanding the adolescence</li> <li>• Normal characteristics of adolescence</li> <li>• Misunderstanding about adolescence</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Debate</li> </ul>    | <ul style="list-style-type: none"> <li>• Long Essay</li> <li>• Short Essay</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods   |
|------|--------------|--|--|---|--|
|      |              |  | <ul style="list-style-type: none"> <li>• Adjustment and adolescence</li> <li>• <i>Dimensions of development in adolescence:</i> <ul style="list-style-type: none"> <li>○ Cognitive development or intellectual and mental development</li> <li>○ Personality development</li> <li>○ Emotional development</li> <li>○ Social development</li> <li>○ Moral development</li> </ul> </li> <li>• Special concerns in adolescence</li> <li>• Remedial measure: Prevention and management</li> <li>• Role of peer group or gang in the process of development</li> <li>• Role of parent, family and its relationship in the process of development</li> </ul> |   |  |
| VIII | 2            | Explain the characteristics, dimensions of development and special concerns related to adulthood | <b>Adulthood</b> <ul style="list-style-type: none"> <li>• Definition - Early adulthood and middle adulthood</li> <li>• Physical changes in adulthood</li> <li>• Cognitive changes in adulthood</li> <li>• Personality development in adulthood</li> <li>• Emotional development in adulthood</li> <li>• Social development in adulthood</li> <li>• Unique issues in adulthood: career, marriage, parenthood</li> <li>• Special concerns in adulthood</li> <li>• Remedial measure: Prevention and management</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Panel discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Short Essay</li> </ul>  |
| IX   | 2            | Describe the dimensions of development and special concerns related to elderly                   | <b>Elderly</b> <ul style="list-style-type: none"> <li>• Definition - Geriatric, Elderly</li> <li>• Theories of elderly</li> <li>• Physiological changes in elderly</li> <li>• Psychosocial changes in elderly</li> <li>• Special concerns in elderly</li> <li>• Remedial measure: Prevention and management</li> <li>• Terminal illness and elderly</li> <li>• Death and dying: Grief, palliative and hospice care</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Panel discussion</li> <li>• Case study</li> <li>• Visit to the old age home</li> </ul> | <ul style="list-style-type: none"> <li>• Essay</li> <li>• Short answers</li> <li>• Evaluation of Visit report/case study report</li> </ul> |

#### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

# MENOPAUSAL HEALTH

**PLACEMENT:** V & VI SEMESTER

**THEORY & CLINICAL:** 1 credit (20 hours)

THEORY: 10 hours

CLINICAL: 10 hours

**DESCRIPTION:** The module is designed to develop in-depth knowledge and understanding in menopausal health. It further helps the students to develop competency in providing quality care to the menopausal women and her families.

**LEARNING OUTCOMES:** On completion of the module, the student will be able to

1. Understand the concept of menopausal health in women.
2. Review and analyze the anatomy and physiology of menopause.
3. Develop competencies in providing quality care to these women.
4. Educate women and families about the problems faced by them.
5. Discuss the importance of hormone replacement therapy.

## CONTENT OUTLINE

| Unit | Time (Hours)    | Learning Outcomes                                      | Content   | Teaching/Learning Activities  | Assessment Methods   |
|------|-----------------|--|---|---|--|
| I    | 1 (T)           | Understand the concept and types of menopause          | <b>Introduction</b> <ul style="list-style-type: none"> <li>• Definition - menopausal health</li> <li>• Concept and types of menopause</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture</li> </ul>   | <ul style="list-style-type: none"> <li>• Objective test</li> </ul>                                     |
| II   | 2 (T)           | Analyze the endocrinal changes during menopause        | <b>Role of hormones in menopause</b> <ul style="list-style-type: none"> <li>• Effect of hormones such as estrogen, androgen</li> <li>• Progesterone and gonadotrophin</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture</li> </ul>   | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> </ul>            |
| III  | 2 (T)           | Describe Organ changes                                 | <b>Organ changes during menopause</b> <ul style="list-style-type: none"> <li>• Changes in the organs</li> <li>• Ovaries fallopian tubes, uterus, vagina, breast, bladder and urethra</li> <li>• Loss of muscle tone</li> </ul>                        | <ul style="list-style-type: none"> <li>• Lecture</li> <li>• Written assignment</li> </ul>               | <ul style="list-style-type: none"> <li>• Short answers</li> </ul>                                      |
| IV   | 2 (T)<br>4 (CL) | Assess women to identify menopausal signs and symptoms | <b>Assessment of menopausal women</b> <ul style="list-style-type: none"> <li>• History and physical examination</li> <li>• Diagnostic tests</li> <li>• Documentation</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture</li> <li>• Assessment of women</li> </ul>              | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Evaluation of assessment</li> </ul>  |
| V    | 3 (T)<br>6 (CL) | Describe management                                    | <b>Management of menopause</b> <ul style="list-style-type: none"> <li>• Identification of menopause</li> <li>• Management of the symptoms</li> <li>• Education and counseling of women and families</li> <li>• Hormone replacement therapy</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case presentation</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Evaluation of Case report</li> </ul> |

**CLINICAL:** 10 hours

**Clinical Practice Competencies:**

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

1. Counsel the women and her families
2. Understand the endocrinology of menopause
3. Perform the assessment and diagnose the women and plan proper nursing care
4. Educate the women about self care
5. Prepare the women for hormone replacement therapy

**ASSESSMENT METHODS:**

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

*Arunima*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

# HEALTH ECONOMICS

**PLACEMENT:** V & VI SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to help students to understand the basic concept of economics, health economics, the relationship between health and economic development, demand and supply, concept of cost and financing systems of health care services in India. This will enable them to appreciate financial aspects of health care services.

**LEARNING OUTCOMES:** On completion of the module, the student will be able to

1. Explain the meaning of economics and health economics.
2. Analyse the relationship between health and economic development.
3. Explain the concept of demand and supply.
4. Describe the structure of health care industry and characteristics of market for health care services.
5. Analyze the concept of cost in health care.
6. Discuss financing system of health care services in India.

## CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content   | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|--|---|--|---|
| I    | 2            | Understand the meaning and purpose of Economics and Health Economics   | <b>Introduction to Economics</b> <ul style="list-style-type: none"> <li>• Definition and meaning</li> <li>• Dimensions of economics<br/>Micro and Macro-economics</li> <li>• Positive and Normative economics</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>                       | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> </ul>                  |
| II   | 4            | Explain the basic concepts, focus and areas of health economics<br><br>Discuss the Implications of economic development to the health care services<br><br>Describe the factors that contribute to health problems in India and their solution | <b>Introduction to Health Economics</b> <ul style="list-style-type: none"> <li>• Concept of health economics</li> <li>• Scope of Health economics</li> <li>• Focus of health economics</li> <li>• Areas of health economics</li> <li>• The economics of health and health care service, health and economic development.</li> <li>• Implications of economic development to the health care services</li> <li>• Mechanism and sources of health financing in the country.</li> <li>• Causes of health problems in India.</li> <li>• Solutions to health problems</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case study</li> </ul> | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Short answers</li> <li>• Essay</li> </ul> |
| III  | 4            | Explain the concept and types of cost<br><br>Describe Cost benefit analysis and Cost-effectiveness analysis in health care   | <b>Cost of Health Care</b> <ul style="list-style-type: none"> <li>• Concept of cost, types of costs</li> <li>• Opportunity cost, total fixed and variable cost, average marginal and sunk cost</li> <li>• cost benefit analysis and cost effectiveness analysis</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case study</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> </ul>                                 |

| Unit | Time (Hours) | Learning Outcomes   | Content  | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|---|--|---|---|
| IV   | 4            | Understand the basic concept of financial management<br><br>Explain the characteristics of health care industry   | <b>Demand and Supply in Health Care</b> <ul style="list-style-type: none"> <li>• Concept of demand, need, supply, input, output, production function, industry and market</li> <li>• Structure of health care industry</li> <li>• Characteristics of health care services market</li> <li>• Demand side and supply side</li> <li>• Factors affecting demand</li> <li>• Factors influencing demand for medical care</li> <li>• Factors affecting supply</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Assignment on Demand for medical care</li> </ul>                       | <ul style="list-style-type: none"> <li>• MCQ</li> <li>• Evaluation of Assignment</li> </ul>           |
| V    | 6            | Describe the sources of financing of health care services<br><br>Discuss various health insurance schemes<br>Explain the role of state and central government on financing of health care services. | <b>Financing of Health Care in India</b> <ul style="list-style-type: none"> <li>• Financing system and allocation</li> <li>• Sources of financing of health care services</li> <li>• Health plans and outlays, the relative role of state and central government on financing of health care services</li> <li>• Factors influencing the state's ability to finance health care services</li> <li>• Role of voluntary organizations in health care</li> <li>• Public Private Partnership in providing services in health care</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Assignment - role of voluntary organizations in health care</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Evaluation of assignment</li> </ul> |

#### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

  
 \_\_\_\_\_  
**Registrar**  
 King George Medical University  
 Lucknow

# SCIENTIFIC WRITING SKILLS

**PLACEMENT:** VII & VIII SEMESTER

**Credit & Hours:** 1 Credit (20 hours)

**THEORY:** 12 hours

**PRACTICAL/LAB:** 8 hours

**DESCRIPTION:** This module is designed to provide the students with the necessary knowledge base to succeed in publishing scientific papers in indexed national/international journals or to prepare a grant application.

**LEARNING OUTCOMES:** On completion of this module, the student will be able to

1. Get inspiration and motivation to write effectively, concisely and clearly.
2. Understand the process and basics of scientific writing and publishing.
3. Equip them with skills to cite and manage references.
4. Write scientific manuscript for publication in indexed national/international journals.
5. Apply the principles in grant writing.

## CONTENT OUTLINE

| Unit | Time (Hours)   | Learning Outcomes   | Content  | Teaching/Learning Activities   | Assessment Methods   |
|------|----------------|---|--|--|--|
| I    | 2 (T)          | Get motivated to write  | <b>Basics of good writing</b> <ul style="list-style-type: none"> <li>• What makes good writing - choice of words, components of sentences and sentence structure, using tenses</li> <li>• Clarity, brevity and fitness - punctuation, paragraphs, logic and organization</li> <li>• Motivation for writing</li> </ul>  | <ul style="list-style-type: none"> <li>• Discussion</li> <li>• Review of news article</li> </ul>                             | <ul style="list-style-type: none"> <li>• Quiz</li> </ul>                       |
| II   | 2 (T)<br>2 (L) | Explain the basics and principles writing a scientific manuscript<br><br>Develop skills to cite and manage references | <b>Basics of writing a scientific manuscript</b> <ul style="list-style-type: none"> <li>• Definition and types</li> <li>• Characteristics - clear, simple and impartial</li> <li>• Reading scientific literature</li> <li>• <i>General Principles:</i> <ul style="list-style-type: none"> <li>○ Ask right questions</li> <li>○ Avoid jargon where possible</li> <li>○ Focus on your reader</li> <li>○ Don't show off</li> <li>○ Create a compelling opening paragraph</li> <li>○ Be confident</li> <li>○ Learn how to KISS (Keep it short and simple)</li> <li>○ Get active - Use the active voice rather than the passive one.</li> <li>○ Check for errors</li> <li>○ Use a style guide - writing style, referencing style</li> <li>○ Tools for reference management</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Reading scientific literature-Exercise</li> </ul> | <ul style="list-style-type: none"> <li>• Quiz</li> <li>• Test paper</li> </ul> |
| III  | 2 (T)          | Develop skills in preparing conference  | <b>Writing for conferences and publications</b> <ul style="list-style-type: none"> <li>• <i>Conferences</i></li> </ul>   | <ul style="list-style-type: none"> <li>• Discussion</li> </ul>   | <ul style="list-style-type: none"> <li>• Test paper</li> </ul>                 |

| Unit | Time (Hours)   | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods   |
|------|----------------|--|--|---|--|
|      |                | materials and presentation skills.<br><br>Describe the publishing process and ethics | <ul style="list-style-type: none"> <li>○ Developing conference materials: abstracts, posters and oral presentation.</li> <li>○ Conference presentation skills</li> <li>● <i>Publications:</i> <ul style="list-style-type: none"> <li>○ Phases for writing-planning, writing and publishing phase</li> <li>○ Reporting guidelines - CONSORT, STROBE etc</li> <li>○ Journals - choosing the right type of journal</li> <li>○ Publication ethics</li> <li>○ Author's responsibility</li> <li>○ Editorial process</li> <li>○ Plagiarism check tools</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● Preparation of a conference paper/poster</li> <li>● Guided reading</li> <li>● Written assignment - reporting guidelines</li> </ul>   | <ul style="list-style-type: none"> <li>● Assessment of the written assignment</li> </ul>                           |
| I    | 4 (T)<br>4 (L) | Develop skills in writing a research paper   | <b>Writing a research paper</b> <ul style="list-style-type: none"> <li>● General principles</li> <li>● Writing an Abstract</li> <li>● IMRAD format - <ul style="list-style-type: none"> <li>○ Introduction</li> <li>○ Methods</li> <li>○ Results</li> <li>○ And</li> <li>○ Discussion</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>● Lecture cum discussion/ Workshop on writing</li> <li>● Exercise on writing an abstract</li> <li>● Exercise on writing an effective discussion</li> <li>● Writing exercise for preparation of research paper for publication</li> </ul> | <ul style="list-style-type: none"> <li>● Evaluation of the prepared research manuscript for publication</li> </ul> |
| IV   | 2 (T)<br>2 (L) | Develop beginning skills of preparing a grant proposal with basic understanding      | <b>Overview of grant writing</b> <ul style="list-style-type: none"> <li>● Purposes</li> <li>● Funding opportunities</li> <li>● Principles</li> <li>● Writing a grant proposal</li> </ul>   | <ul style="list-style-type: none"> <li>● Exercise: Identify grant opportunities</li> <li>● Exercise: write a grant proposal</li> </ul>  | <ul style="list-style-type: none"> <li>● Evaluation of the exercise</li> </ul>                                     |

#### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

# LACTATION MANAGEMENT

**PLACEMENT:** VII & VIII SEMESTER

**THEORY:** 0.5 Credit (10 hours)

**CLINICAL:** 0.5 Credit (10 hours)

**DESCRIPTION:** The module is designed to develop in-depth knowledge and understanding in lactation management . It also help the students to develop competency in providing quality care to the lactating women and her families.

**LEARNING OUTCOMES:** On completion of the module, the student will be able to:

1. Understand the concept of lactation and anatomy of breast in postpartum women.
2. Discuss the physiology of lactation and composition of breast milk.
3. Develop competencies in providing quality nursing care to these women based on nursing process.
4. Educate women and families about the lactation problems faced by them and improve in breast feeding.
5. Dicuss the advantages of breast feeding and bonding.
6. Explain the importance of taking well balanced diet to facilitate lactation.

## CONTENT OUTLINE

| Unit | Time (Hours)    | Learning Outcomes                   | Content  | Teaching/Learning Activities                           | Assessment Methods                                   |
|------|-----------------|-------------------------------------|--|--|--|
| I    | 2 (T)           | Review the anatomy of breast        | <b>Anatomy of breast-Review</b><br>• Concept and anatomy of breast   | • Use of models<br>• Discussion                        | • Objective test<br>• Short answers                  |
| II   | 2 (T)           | Explain the Physiology of lactation | <b>Physiology of lactation</b><br>• Physiology of lactation<br>• Benefits of breast feeding  | • Discussion   | • Short answers<br>• Objective test                  |
| III  | 4 (T)<br>8 (CL) | Provide quality nursing care        | <b>Management of lactation</b><br>• Quality nursing care to patient for lactating women<br>• Well balanced diet<br>• Technique of breast feeding<br>• Prevention of breast engorgement | • Demonstration<br>• Discussion<br>• Case presentation | • Short answers<br>• Objective test<br>• Case report |
| IV   | 2 (T)<br>2 (L)  | Provide health education            | <b>Health education on</b><br>• Diet during lactation<br>• Breast care<br>• Clothing<br>• Personal hygiene etc.  | • Case method<br>• Demonstration                       | • Case report  |

### CLINICAL PRACTICE COMPETENCIES:

On completion of the program student will be able to:

1. Provide quality nursing care to lactating women
2. Devlop competency in supporting breast feeding
3. Educate lactating women regarding self care and well balanced diet, personal care etc.
4. Develop competency in records and reports
5. Encourage mother child bonding
6. Develop competency in preventing breast complications

### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

# SEXUALITY AND HEALTH

**PLACEMENT:** VII & VIII SEMESTER

**THEORY & PRACTICAL:** 1 Credit (20 hours)

THEORY: 16 hours

PRACTICAL: 4 hours

**DESCRIPTION:** Sexuality and Health is an elective module for nursing students who wish to make a future in sexual Health clinics/counseling. This module intends to train the nurses to help people to maintain sexual health.

**LEARNING OUTCOMES:** On completion of the module, the student will be able to

1. Identify the basic components of the human reproductive system and describe the basic functions of the various reproductive organs.
2. Describe the changes that occur during puberty and secondary sexual characteristics.
3. Examine and evaluate the risk factors associated with exposure to blood-borne diseases.
4. Determine 'safer' sex practices.
5. Develop strategies to reduce sexual risk.
6. Explain the role of trust and ways to establish trust in a relationship.
7. Evaluate implications and consequences of sexual assault on a victim.
8. Explain the legislations related to sexual assaults in India.
9. Provide health education on safer sex practices and prevent the sexually transmitted diseases/blood borne diseases.
10. Assess a victim of sexual abuse/assault/harassment/child abuse.

## CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|---|---|---|---|
| I    | 3            | Identify the basic components of the human reproductive system, and describe the basic functions of the various reproductive organs<br><br>Describe the changes that occur during puberty; secondary sexual characteristics | <b>Introduction to Sexuality -</b><br><ul style="list-style-type: none"> <li>• Anatomy of the human reproductive system and the basic functions; fertilization, conception.</li> <li>• Changes during puberty (physical, emotional and social)</li> <li>• Secondary sexual characteristics</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> </ul> |
| II   | 3            | Examine and evaluate the risk factors associated with exposure to blood-borne diseases  | <b>Risk factors associated with exposure to blood-borne diseases - HIV, AIDS, Hepatitis</b><br><ul style="list-style-type: none"> <li>• Sharing needles</li> <li>• Body piercing</li> <li>• Tattooing</li> <li>• Helping someone who is bleeding etc.</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Role play</li> <li>• Group Discussion</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> </ul> |

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|--|--|---|---|
| III  | 3            | Determine 'safer' sex practices<br><br>Develop strategies to reduce sexual risk<br><br>Explain the role of trust and ways to establish trust in a relationship | <b>'Safer' sex practices:</b><br><ul style="list-style-type: none"> <li>• Communicate with partner</li> <li>• Maintain abstinence</li> <li>• Limit partners</li> <li>• Access/use condoms/ contraceptives properly</li> </ul> <i>Strategies to reduce sexual risk:</i><br><ul style="list-style-type: none"> <li>• Abstain from drugs and alcohol, date in groups, use assertive behavior</li> <li>• Expectations &amp; commitments in a relationship</li> </ul> <ul style="list-style-type: none"> <li>• Role of trust and ways to establish trust in a relationship</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> </ul>                                 |
| IV   | 5            | Analyze the implications and consequences of sexual assault on a victim<br><br>Explain the legislations related to sexual assaults in India                    | <b>Sexual assault/abuse</b><br><i>Implications and consequences of sexual assault on a victim</i><br><ul style="list-style-type: none"> <li>• Child sexual abuse</li> <li>• Sexual assault of boys</li> <li>• Incest</li> <li>• Intimate partner sexual abuse</li> <li>• Rapes</li> </ul> <i>Legislation related to sexual assault in India</i><br><ul style="list-style-type: none"> <li>• Criminal Law amendment Act -2013</li> <li>• Sexual Harassment at workplace</li> <li>• Protection of children against sexual offences</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Case discussion</li> <li>• Guest lecture</li> <li>• Reading/written assignments</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> </ul>                                 |
| V    | 2            | Develop understanding and skills on sexual health education  | <b>Sexual Health Education</b><br><ul style="list-style-type: none"> <li>• Health education - principles and application</li> <li>• Health education on safer sex practices</li> <li>• Counselling the sexually assaulted/abused child/ adolescent/adults</li> </ul>   | <ul style="list-style-type: none"> <li>• Observe/practice at the education/ counseling clinic/ centre</li> </ul>  | <ul style="list-style-type: none"> <li>• Evaluation of the report</li> </ul>  |
| VI   | 4 (P)        | Develop skills in assessment of sexually abused victim and provide sexual health education   | <ul style="list-style-type: none"> <li>• Sexual health education - adolescents and young adults</li> <li>• Assessment of sexually abused victim - child/adolescent/adult</li> </ul>  | <ul style="list-style-type: none"> <li>• Clinical field</li> </ul>  | <ul style="list-style-type: none"> <li>• Assessment of sexually abused victim</li> <li>• Sexual health education</li> </ul> |

#### ASSESSMENT METHODS:

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks

# STRESS MANAGEMENT

**PLACEMENT:** VII & VIII SEMESTER

**THEORY & PRACTICAL:** 1 Credit (20 hours)

THEORY: 15 hours

PRACTICAL: 5 hours

**DESCRIPTION:** This module is designed to enhance the understanding of students about stress and its effects on human behavior and physiology. Further it discusses the techniques and implementation of stress management in personal and professional life.

**LEARNING OUTCOMES:**

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

1. Describe stress and stressors.
2. Identify the causes of unwanted stress.
3. Understand how stress works and its effects on human behavior and physiology.
4. Develop techniques to avoid stress affect the personal and professional life.
5. Utilize effective stress reduction techniques.
6. Develop a Personal Action Plan for Stress Management.

**CONTENT OUTLINE**

| Unit | Time (Hrs)     | Learning Outcomes   | Content  | Teaching Learning Activities  | Assessment Methods   |
|------|----------------|---|--|---|--|
| I    | 3 (T)<br>1 (P) | Describe stress and stressors.<br><br>Identify the causes of unwanted stress. | <b>Introduction</b><br><ul style="list-style-type: none"> <li>• Concept of stress, definition</li> <li>• Types of stress: positive, negative</li> <li>• Various sources of stress: environmental, social, physiological, psychological</li> <li>• Types of stressors: internal and external</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Practice session on identifying own stressors</li> </ul>   | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Objective test</li> <li>• Assessment of practice sessions</li> </ul> |
| II   | 5 (T)<br>1 (P) | Understand how stress works and its effects on human behavior and physiology  | <b>Stress and its effect on human physiology and behaviour</b><br><ul style="list-style-type: none"> <li>• Body's response to stress: Hans Selye's General Adaptation Syndrome</li> <li>• Stress Cycles: distress and wellness cycle</li> <li>• Cognitive appraisal of stressors</li> <li>• Stress symptoms: emotional, behavioural, physical</li> <li>• Stress and diseases: cancer, Gastric ulcer, Bronchial asthma, effect on endocrine glands, Psycho-sexual disease, Anxiety Neurosis</li> <li>• Assessing stress levels Holmes - Rahe - life change index</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Practice session assessment of stress level of self and peer group, scoring &amp; classifying the risk.</li> </ul> | <ul style="list-style-type: none"> <li>• Short answers</li> <li>• Essay types</li> <li>• Preparing stress assessment scale</li> </ul>  |
| III  | 5 (T)<br>1 (P) | Develop techniques to avoid stress affect the personal and professional life. | <b>Stress avoidance techniques</b><br><ul style="list-style-type: none"> <li>• Individual difference in resistance to stress: optimism &amp; pessimism</li> <li>• Strategies of stress prevention</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Practice session</li> <li>• Role play on Conflict</li> </ul>   | <ul style="list-style-type: none"> <li>• Assessment of the skills based on the check list</li> <li>• Short answers</li> </ul>          |

| Unit | Time (Hrs)     | Learning Outcomes   | Content   | Teaching Learning Activities   | Assessment Methods   |
|------|----------------|---|---|--|--|
|      |                |   | & management<br>○ Challenging stressful thinking/resilience and stress<br>○ Problem solving and time management<br>○ Physical methods of stress reduction<br>○ Preparing for occupational stress<br>○ Care of self: Nutrition & other lifestyle issues<br>○ Conflict management in relationship   | Management/<br>Use of problem - solving approach for professional problem  | <ul style="list-style-type: none"> <li>• Essay types</li> </ul>                                      |
| IV   | 2 (T)<br>2 (P) | Utilize effective stress reduction techniques<br><br>Develop a Personal Action Plan for Stress Management | <b>Stress reduction strategies</b> <ul style="list-style-type: none"> <li>• Utilizing stress reduction techniques</li> <li>• Relaxation techniques:               <ul style="list-style-type: none"> <li>• abdominal breathing</li> <li>• progressive relaxation,</li> <li>• massage</li> <li>• biofeedback</li> <li>• autogenic training-self hypnosis</li> <li>• visualization and mental imagery</li> </ul> </li> <li>• Enhance self esteem</li> <li>• Support groups</li> </ul> | <ul style="list-style-type: none"> <li>• Exercise on: Relaxation techniques: abdominal breathing, progressive relaxation.</li> <li>• Develop a Personal Action Plan for Stress Management</li> </ul> | <ul style="list-style-type: none"> <li>• Assessment of the skills based on the check list</li> </ul> |

**ASSESSMENT METHODS:**

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## JOB READINESS/EMPLOYABILITY IN HEALTH CARE

**PLACEMENT:** VII & VIII SEMESTER

**THEORY:** 1 Credit (20 hours)

**DESCRIPTION:** This module is designed to prepare the nursing students towards entering their profession in terms of clinical context, the complexity of care requirements, and utilization of resources available and in terms of soft skills.

**LEARNING OUTCOMES:** On completion of the module, the student will be able to

1. Demonstrate the employability skills required at different levels and in different roles across the health sector.
2. Identify the personal skills, qualities, values, attributes and behaviours needed at each career level.

### CONTENT OUTLINE

| Unit | Time (Hours) | Learning Outcomes  | Content  | Teaching/Learning Activities  | Assessment Methods  |
|------|--------------|--|--|---|---|
| I    | 2            | Explain about the Nursing career and various roles in nursing  | <b>Introduction</b> <ul style="list-style-type: none"> <li>• Nursing - A Career in Life</li> <li>• Roles and responsibilities of an employee</li> <li>• Adaptation towards working environment</li> <li>• Career Guidance - Employment opportunities in Nursing</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Essay on career opportunities</li> </ul> |
| II   | 5            | Describe the characteristics and values that an individual must have before they can do a job effectively. | <b>Employability Skill</b> <ul style="list-style-type: none"> <li>• Job-readiness attributes                             <ul style="list-style-type: none"> <li>○ Communication skill</li> <li>○ Technological skill</li> <li>○ Teamwork skill</li> <li>○ Interpersonal skill</li> <li>○ Critical thinking and Problem-solving skill</li> <li>○ Planning and organizing skill</li> <li>○ Conceptual and analytical skill</li> <li>○ Self confidence</li> <li>○ Inter profession practice</li> <li>○ Work psychology-positivity workplace attitude</li> <li>○ Stress awareness and management</li> </ul> </li> <li>• Soft skills</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Role playing</li> </ul>                            | <ul style="list-style-type: none"> <li>• Practical assessment</li> </ul>          |
| III  | 5            | Describe the safe care and skills required to manage the workforce environment                             | <b>Complexity of care</b> <ul style="list-style-type: none"> <li>• Safe Practice</li> <li>• Practice within scope of practice</li> <li>• Management of workload</li> <li>• Ability work effectively within the health care team</li> <li>• Legal and ethical boundaries</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Written assignment on scope of practice</li> </ul> | <ul style="list-style-type: none"> <li>• Assessment of assignment</li> </ul>      |
| IV   | 3            | Explain the importance of employability towards meeting  | <b>Autonomy and Supervision</b> <ul style="list-style-type: none"> <li>• Autonomy - Accountability, Responsibility, Recognition of scope of practice</li> <li>• Supervision/Delegation</li> </ul>  | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul>  | <ul style="list-style-type: none"> <li>• Quiz</li> </ul>                          |

| Unit | Time (Hours) | Learning Outcomes   | Content   | Teaching/Learning Activities   | Assessment Methods  |
|------|--------------|---|---|--|---|
|      |              | the organization goal.  |   |  |   |
| V    | 5            | Enumerate the subject knowledge required to provide quality care. | <b>Application of Knowledge</b> <ul style="list-style-type: none"> <li>• Generalist Nursing Knowledge</li> <li>• Knowledge on Quality Care</li> <li>• Knowledge on Ethical aspects</li> <li>• Knowledge on Legal aspects</li> <li>• Critical Appraisal</li> <li>• Knowledge seeking behaviours</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture cum discussion</li> </ul> | <ul style="list-style-type: none"> <li>• Self-discovery exercise</li> </ul> |

#### ASSESSMENT METHODS

- Test paper (Objective test, short answers and case scenario and questions) - 30 marks
- Assessment of assignments/skills - 20 marks


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**King George's Medical University**  
**KGMU College of Nursing**  
 B.Sc. Nursing  
 5<sup>th</sup> & 6<sup>th</sup> Semesters  
 Addiction Psychiatric Nursing

Date: 18 – 20<sup>th</sup> September 2024

**LEARNING OUTCOMES:**

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

1. Describe the Terminologies such as substance use disorders, addictive behaviours, addiction etc
2. Describe the classification of Psychoactive Substances
3. Describe various etiological factors of substance related disorders
4. Identify the psycho social issues of the individuals with substance use disorders.
5. Identify treatment related adverse effects and emergencies and manage them effectively
6. Demonstrate skill in managing patients with substance use disorders.
7. Apply nursing process in caring for patients with substance related disorders.
8. Utilize available support to rehabilitate needy individuals.

**Schedule:**

| Date       | Time              | Topic   | Resource person   |
|------------|-------------------|---|---|
| 18/09/2024 | 2:00 pm – 2:30 pm | Substance use disorders – Introduction & Terminologies          | Mrs. Sudha Mishra<br><i>Assistant Professor</i><br><i>KGMU College of Nursing</i> |
| 18/09/2024 | 2:30 pm – 3:00 pm | Classification of psychoactive substances                       | Mr. G. Srinivasan<br><i>Assistant Professor</i><br><i>KGMU College of Nursing</i> |
| 18/09/2024 | 3:00 pm – 3:30 pm | Etiology & Factors associated with of Substance use disorders   | Ms. Manisha Anand<br><i>Assistant Professor</i><br><i>KGMU College of Nursing</i> |
| 18/09/2024 | 3:30 pm – 4:00 pm | Rehabilitation & Nursing management of Substance abuse patients | Ms. Deblina Roy<br><i>Tutor</i><br><i>KGMU College of Nursing</i>                 |
| 19/09/2024 | 2:00 pm – 4:00 pm | Management of Technology & Behavioral addiction                 | Prof. Dr. Amit Arya<br><i>Professor</i><br><i>Dept. of Psychiatry</i>             |
| 20/09/2024 | 2:00 pm – 4:00 pm | Medical and Psychosocial Management of Substance use disorders  | Prof. Dr. Amit Singh<br><i>Associate Professor</i><br><i>Dept. of Psychiatry</i>  |

*[Signature]*  
Subject Coordinator

*[Signature]*  
Principal

*[Signature]*  
Class Coordinator

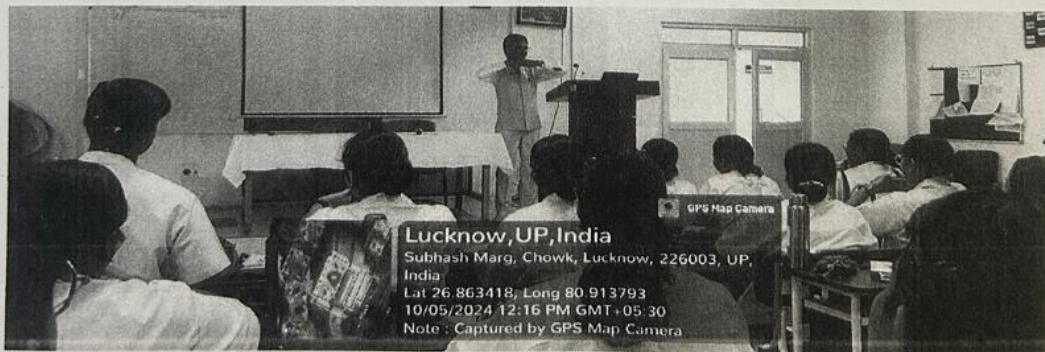
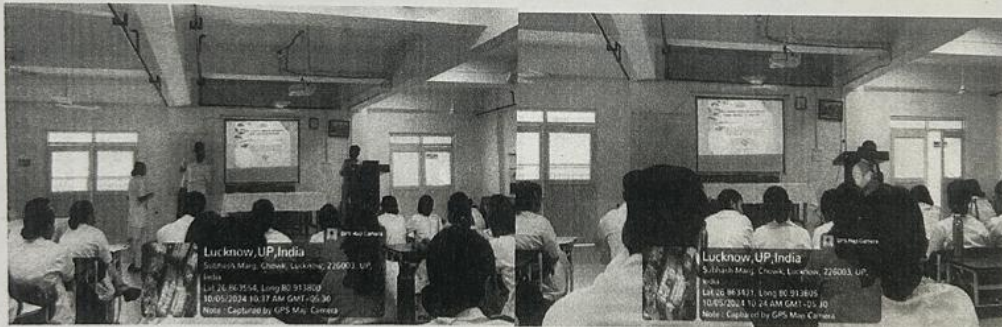
**KING GEORGE'S MEDICAL UNIVERSITY**  
**KGMU COLLEGE OF NURSING**  
B.Sc. Nursing Batch of 2022 (May to October)

*Report on Elective Module on "Human Values"*

Venue: KGMU College of Nursing (Room no. 502)  
Date: 05/10/2024

Time: 8am-1pm

On 5/10/2024, Saturday, elective module on "Human Values" was organized for B.Sc. Nursing IV<sup>th</sup> Semester as part of their curriculum requirement. The session was organized in-accordance with department of Geriatric Mental Health department. Session was started at 8am with the registration and discussion on the "The importance of human values in the field of Nursing" where students participated with their idea and thoughts. At 9am session was taken over by Dr. Bhupendra Singh, Additional Professor, Geriatric Mental Health department who elaborated on human values as the principles and moral standards that guide how individuals interact with others and make decision in the life. The entire session focused on 7 core human values that are knowledge, purity, peace, happiness, love, bliss and power. Students were divided into various groups for group discussion and role play. At 1pm session was ended with a vote of thanks by Ms. Sneha Solomon and feedback from the students.



  
Signature of Principal

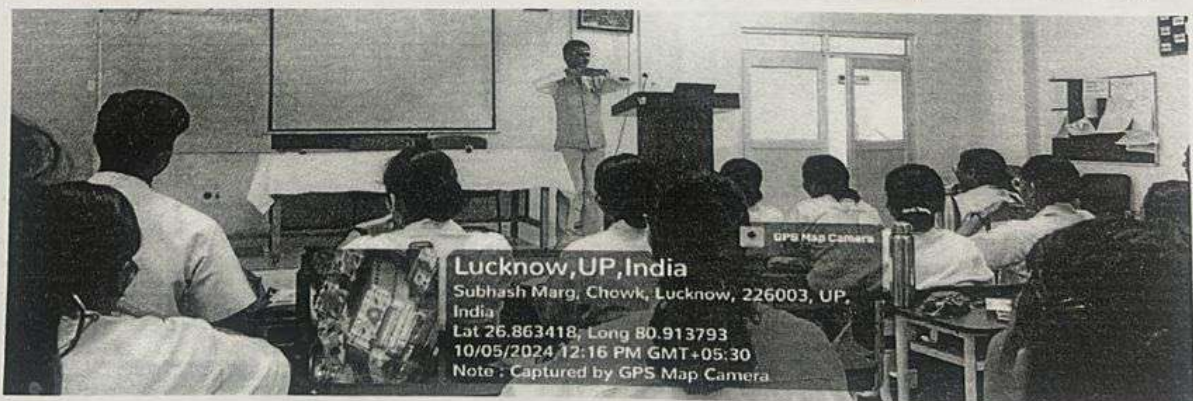
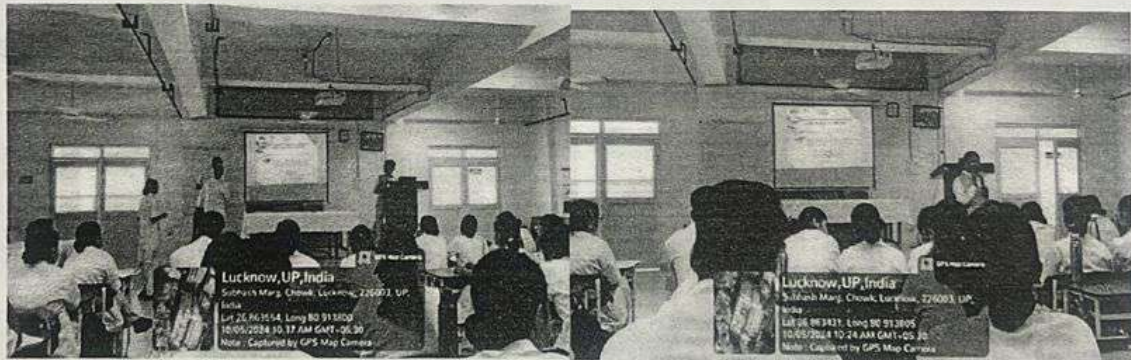
**KING GEORGE'S MEDICAL UNIVERSITY  
KGMU COLLEGE OF NURSING**  
B.Sc. Nursing Batch of 2022 (May to October)

*Report on Elective Module on "Human Values"*

Venue: KGMU College of Nursing (Room no. 502)  
Date: 05/10/2024

Time: 8am-1pm

On 5/10/2024, Saturday, elective module on "Human Values" was organized for B.Sc. Nursing IV<sup>th</sup> Semester as part of their curriculum requirement. The session was organized in accordance with department of Geriatric Mental Health department. Session was started at 8am with the registration and discussion on the "The importance of human values in the field of Nursing" where students participated with their idea and thoughts. At 9am session was taken over by Dr. Bhupendra Singh, Additional Professor, Geriatric Mental Health department who elaborated on human values as the principles and moral standards that guide how individuals interact with others and make decision in the life. The entire session focused on 7 core human values that are knowledge, purity, peace, happiness, love, bliss and power. Students were divided into various groups for group discussion and role play. At 1pm session was ended with a vote of thanks by Ms. Sneha Solomon and feedback from the students.



*[Handwritten Signature]*  
08/10/24  
Signature of Principal



**King George's Medical University**  
Uttar Pradesh, Lucknow - 226003, India

Prof. Uma Singh  
Dean Academics

# Dean- Academics/KGMU/2021/3789  
Dated:- 20/12/2021

**CIRCULAR**

A Letter from the office of Dean Academics, KGMU numbered 2021/3383, dated 15/09/2021 was circulated and following response in a common format from various departments offering Elective posting to Final phase MBBS students after completion of Part 1, Phase 3 (as per NMC Curriculum revision from Batch 2019) was received which is as follows:

| Serial no | Department                         | Name of Elective posting  | No. of students that can be accommodated/ batch for one month | Name of coordinating faculty                      |
|-----------|------------------------------------|---|---|---|
| 1.        | Radiation Oncology                 | Teletherapy machines/ Brachytherapy & its applications/Cancer Registries/Ward posting (Chemotherapy handling etc) | 25  | Dr Mranalini Verma                                |
| 2.        | Urology                            | OT/OPD for 15 days each in alteration with another clinical department  | ---   | ---   |
| 3.        | Pediatric Orthopedics              | Pediatric Orthopedics and Trauma  | 10  | Dr Najmul Huda                                    |
| 4.        | Pediatric Surgery                  | Ward round/OPD/Weekly teaching  | 5   | Dr Gurmeet Singh/Dr Piyush Kumar/Dr Archika Gupta |
| 5.        | Surgical Oncology                  | Surgical Oncology   | 20  | Dr Naseem Akhtar                                  |
| 6.        | Neurosurgery                       | Neurosurgery  | 10  | Dr Ankur Bajaj                                    |
| 7.        | Biochemistry                       | PCR/ HPLC Techniques  | 20  | Dr MK Ahmad/Dr GK Sonkar                          |
| 8.        | Plastic and Reconstructive Surgery | Plastic and Reconstructive Surgery  | 10  | Dr Veerendra Prasad                               |
| 9.        | Obstetrics & Gynecology            | Reproductive Medicine/GYnec Oncology/Fetal Medicine   | 5-10  | Dr anjoo Agarwal/Dr Nisha Singh/Dr Seema Mehrotra |
| 10.       | Community Medicine                 | Competency numbers CM<br>2.1,5.6,17.3,7.2,10.1,16.1,5.3,7.2,7.7, 8.2, 10.1  | 40-45 for two weeks each                                      | Dr Reema Kumari                                   |
| 11.       | CVTS                               | OT/ICU Procedures   | 5   | Dr Kumar Rahul/Dr Bhupendra Kumar                 |
| 12.       | Pharmacology                       | Experimental, Molecular, Clinical Pharmacology  | 25  | Dr Rishi Pal/Dr Rahul Kumar                       |
| 13.       | Pathology                          | Chemical/Histopathology/Cytopathology/Hematology/   | 30  | Dr Rashmi/Dr Atin/ Dr Wahid/ Dr Riddhi/ Shalini   |
| 14.       | Ophthalmology                      | Refraction  | 60  |   |

U.S.  
(Prof. Uma Singh)  
Dean-Academics  
20/12/21

## Topics & outcomes in Pre-clinical & Para-clinical subjects

| <b>Sr. No.</b> | <b>Subjects</b>                           | <b>Number of topics</b> | <b>Number of outcomes</b> |
|----------------|---|-------------------------|---------------------------|
| 1.             | <b>Human Anatomy</b>                      | 82                      | 409                       |
| 2.             | <b>Physiology</b>                         | 11                      | 137                       |
| 3.             | <b>Biochemistry</b>                       | 11                      | 89                        |
| 4.             | <b>Pharmacology</b>                       | 05                      | 85                        |
| 5.             | <b>Pathology</b>                          | 36                      | 182                       |
| 6.             | <b>Microbiology</b>                       | 08                      | 54                        |
| 7.             | <b>Forensic Medicine &amp; Toxicology</b> | 14                      | 162                       |
|                | <b>Total</b>                              | <b>167</b>              | <b>1118</b>               |

## **Topics & outcomes in Medicine and Allied subjects**

| <b>Sr. No.</b> | <b>Subjects</b>                               | <b>Number of topics</b> | <b>Number of outcomes</b> |
|----------------|---|-------------------------|---------------------------|
| <b>1.</b>      | <b>Community Medicine</b>                     | 20                      | 107                       |
| <b>2.</b>      | <b>General Medicine</b>                       | 26                      | 506                       |
| <b>3.</b>      | <b>Respiratory Medicine</b>                   | 02                      | 47                        |
| <b>4.</b>      | <b>Pediatrics</b>                             | 35                      | 406                       |
| <b>5.</b>      | <b>Psychiatry</b>                             | 19                      | 117                       |
| <b>6.</b>      | <b>Dermatology, Venereology &amp; Leprosy</b> | 18                      | 73                        |
| <b>7.</b>      | <b>Physical Medicine &amp; Rehabilitation</b> | 09                      | 43                        |
|                | <b>Total</b>                                  | <b>129</b>              | <b>1299</b>               |

## **Topics & outcomes in Surgery and Allied subjects**

| <b>Sr. No.</b> | <b>Subjects</b>                     | <b>Number of topics</b> | <b>Number of outcomes</b> |
|----------------|-------------------------------------|-------------------------|---------------------------|
| <b>1.</b>      | <b>General Surgery</b>              | <b>30</b>               | <b>133</b>                |
| <b>2.</b>      | <b>Ophthalmology</b>                | <b>09</b>               | <b>60</b>                 |
| <b>3.</b>      | <b>Otorhinolaryngology</b>          | <b>04</b>               | <b>76</b>                 |
| <b>4.</b>      | <b>Obstetrics &amp; Gynaecology</b> | <b>38</b>               | <b>126</b>                |
| <b>5.</b>      | <b>Orthopedics</b>                  | <b>14</b>               | <b>39</b>                 |
| <b>6.</b>      | <b>Anesthesiology</b>               | <b>10</b>               | <b>46</b>                 |
| <b>7.</b>      | <b>Radiodiagnosis</b>               | <b>01</b>               | <b>13</b>                 |
| <b>8.</b>      | <b>Radiotherapy</b>                 | <b>05</b>               | <b>16</b>                 |
| <b>9.</b>      | <b>Dentistry</b>                    | <b>05</b>               | <b>23</b>                 |
|                | <b>Total</b>                        | <b>116</b>              | <b>532</b>                |



# King George's Medical University

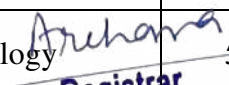
## Uttar Pradesh, Lucknow – 226003, India

### Office of the Dean-Academics

#### Elective Courses of MBBS students

#### Table of Content Elective Block-1

| Sr. No. | Elective Name  | Department                          | Number of seats |
|---------|--|-------------------------------------|-----------------|
| 1       | Cytogenetics   | Cytogenetic Lab, Department of CFAR | 10              |
| 2       | Genome Medicine  | Department of CFAR                  | 10              |
| 3       | Cell Biology   | Department of CFAR                  | 10              |
| 4       | Adult and Cancer stem cell characterization and uses in therapeutic                  | Department of CFAR                  | 10              |
| 5       | HPLC and it's application in estimating metabolites in different body fluids         | Department of Biochemistry          | 10              |
| 6       | PCR technique and it's application in diagnosis of disease                           | Department of Biochemistry          | 10              |
| 7       | Automation in clinical biochemistry laboratories: it's application and recent trends | Department of Biochemistry          | 10              |
| 8       | Sexually Transmitted Infections  | Department of Microbiology          | 7               |
| 9       | HIV Medicine; Laboratory Track   | Department of Microbiology          | 7               |
| 10      | Mycobacteriology   | Department of Microbiology          | 7               |
| 11      | Viral Hepatitis  | Department of Microbiology          | 7               |
| 12      | Dermatophyte (tinea) infections  | Department of Microbiology          | 5               |
| 13      | Pharmacovigilance  | Department of Pharmacology          | 10              |
| 14      | Pre-Clinical Research, Drug Discovery & Development                                  | Department of Pharmacology          | 15              |
| 15      | Diagnosis of microcytic hypochromic Anemia   | Department of Pathology             | 10              |
| 16      | Immunohistochemistry (IHC) in Cancer Diagnostics                                     | Department of Pathology             | 5               |
| 17      | Immunoassay Diagnostics in Endocrine Disorders                                       | Department of Pathology             | 5               |

  
**Registrar**  
 King George Medical University  
 Lucknow

|    |  |  |    |
|----|--|--|----|
| 18 | Electron Microscopy as specialized tool in interpretation of otherwise difficult to diagnose cases by light microscopy | Department of Pathology                          | 5  |
| 19 | Diagnostic Cytopathology   | Department of Pathology                          | 10 |
| 20 | Undergraduate Medical Student initiated research (Hands on experience on basic biomedical research)                    | Department of Psychiatry                         | 13 |
| 21 | Incorporating IPE in Medical Curriculum  | Department of Medical Education                  | 5  |
| 22 | Basic Course in Conventional Karyotyping   | Department of Anatomy                            | 10 |
| 23 | Sonographic Anatomy: Living Anatomy by Ultrasound  | Department of Anatomy                            | 15 |
| 24 | Medicolegal autopsy & crime scene investigation  | Department Forensic Medicine & Toxicology        | 10 |
| 25 | Clinical Toxicology  | Department Forensic Medicine & Toxicology        | 10 |
| 26 | Clinical Ethics  | Department of Forensic Medicine & Toxicology     | 10 |
| 27 | Medical Genetics   | Department of Obstetrics & Gynecology and CFAR   | 10 |
| 28 | Introduction to statistical software (epi info , SPSS)   | Department of Community Medicine & Public Health | 5  |

  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

**Elective Courses of MBBS students**

| <b>Electice Block-2</b> |   |  |                            |
|-------------------------|---|--|----------------------------|
| <b>Sr. No.</b>          | <b>Elective Name</b>  | <b>Department</b>                      | <b>Number of Electives</b> |
| 1                       | Benign and malignant breast diseases  | Department of Surgery                  | 15                         |
| 2                       | Benign and malignant thyroid diseases   | Department of Surgery                  | 15                         |
| 3                       | Basic of Minimal invasive Surgery   | Department of Surgery                  | 15                         |
| 4                       | Common Urologic Disease   | Department of Surgery                  | 15                         |
| 5                       | Common Thoracic Disease- Tuberculosis, Hydatid Cyst and Aspergillosis           | Department of Surgery                  | 15                         |
| 6                       | Venous Disease  | Department of Surgery                  | 15                         |
| 7                       | Benign Anorectal Disease  | Department of Surgery                  | 10                         |
| 8                       | Oral cavity and Salivary Gland neoplasms  | Department of Surgery                  | 10                         |
| 9                       | An approach to a case of Anorectal malformation (ARM)                           | Department of Pediatric Surgery        | 8                          |
| 10                      | Adult Psychiatry  | Department of Psychiatry               | 10                         |
| 11                      | Child and Adolescent Psychiatry   | Department of Psychiatry               | 10                         |
| 12                      | Addiction Psychiatry  | Department of Psychiatry               | 10                         |
| 13                      | Psychosexual disorders and women mental health                                  | Department of Psychiatry               | 10                         |
| 14                      | Neuromodulation   | Department of Psychiatry               | 10                         |
| 15                      | Psychological assessment and psychotherapeutic interventions done in psychiatry | Department of Psychiatry               | 10                         |
| 16                      | Reproductive medicine   | Department of Obstetrics & Gynaecology | 10                         |
| 17                      | Fetal Medicine  | Department of Obstetrics & Gynaecology | 10                         |
| 18                      | Gynae Oncology  | Department of Obstetrics & Gynaecology | 6                          |
| 19                      | BASIC ENDOSCOPY IN OBS AND GYNAE  | Department of Obstetrics & Gynaecology | 10                         |
| 20                      | Obstetric Critical Care   | Department of Obstetrics & Gynaecology | 10                         |

|    |   |  |    |
|----|---|--|----|
| 21 | Paediatric Head Injury                                | Department of Neurosurgery               | 6  |
| 22 | CVTS Operation Theatre Procedure                      | CVTS Department                          | 5  |
| 23 | CVTS ICU PROCEDURES                                   | CVTS Department                          | 5  |
| 24 | Hearing Assessment                                    | Department of ENT                        | 9  |
| 25 | Vertigo   | Department of ENT                        | 10 |
| 26 | Voice disorders                                       | Department of ENT                        | 10 |
| 27 | Evaluation of the patient with diabetes               | Department of Medicine<br>KGMU           | 20 |
| 28 | Hemodialysis  | Dept of Medicine,<br>KGMU, Lucknow       | 10 |
| 29 | GASTROINTESTINAL<br>ENDOSCOPIES                       | DEPARTMENT OF<br>MEDICINE                | 10 |
| 30 | Life Saving Emergency Skills                          | Department of<br>Emergency medicine      | 40 |
| 31 | Emergency Vascular Access                             | Department of<br>Emergency medicine      | 10 |
| 32 | Goiters: both benign and malignant                    | Department of<br>Endocrine Surgery       | 10 |
| 33 | Breast disorders- benign and malignant                | Department of<br>Endocrine Surgery       | 10 |
| 34 | Research Methodology                                  | Department of<br>Community medicine      | 5  |
| 35 | BUDDING PEDIATRIC<br>INTENSIVIST                      | Department of<br>Pediatrics              | 10 |
| 36 | Neonatology   | Department of<br>Pediatrics              | 10 |
| 37 | Growth and development module                         | Department of<br>Paediatrics             | 10 |
| 38 | Vision & Refraction                                   | Eye Dept (OPD/IPD)                       | 10 |
| 39 | Clubfoot – Diagnosis and management                   | Department of<br>Paediatric Orthopaedics | 10 |
| 40 | Interviewing skills for psychological<br>issues       | Dept of Geriatric<br>Mental Health       | 4  |
| 41 | Blood donor selection/screening for<br>blood donation | Department,<br>Transfusion Medicine      | 5  |
| 42 | Blood donation process                                | Department,<br>Transfusion Medicine      | 12 |
| 43 | Blood Component preparation                           | Department,<br>Transfusion Medicine      | 8  |

|    |  |   |    |
|----|--|---|----|
| 44 | Bed side Transfusion practices               | Department,<br>Transfusion Medicine             | 10 |
| 45 | Trauma care                                  | Department of<br>Traumatology and<br>Surgery    | 30 |
| 46 | Clinical Ethics                              | Department of Forensic<br>Medicine & Toxicology | 10 |
| 47 | INTRODUCTION TO LITHOTRIPSY &<br>URODYNAMICS | Department of Urology                           | 5  |

*Aradhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

# ELECTIVE COURSE BLOCK-1

*Arunima*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Center for Advance Research**

|  |   |
|--|---|
| Name of Block  | Block 1   |
| Name of Elective   | Cytogenetics  |
| Location of hospital Lab or research facility                | Cytogenetic Lab, Department of CFAR   |
| Name of internal preceptor(s)                                | Dr. Nitu Nigam  |
| Name of external preceptor (if applicable)                   | NA  |
| Learning objectives of elective                              | The training is focused to enable the students to gain insights into techniques like PCR, RFLP, karyotyping to identify and interpret chromosomal abnormalities associated with various genetic disorders, cancer, and prenatal diagnosis. This elective course will equip the participants with the knowledge and skills to confidently navigate the rapidly evolving field of medicine in cytogenetics, preparing them for a future in genetic counseling, clinical research, or personalized medicine. |
| Number of students that can be accommodated in this elective | 10  |
| Prerequisites for elective                                   | Participants should have willingness to learn advanced cytogenetics techniques and should have proactive approach towards the course  |
| List of activities of student participation                  | Lectures and Training (wet lab)   |
| Learning resources for students                              | In house laboratory protocols, text books, lab posting, educational videos  |
| Portfolio entries required                                   | Log book  |
| Logbook entry required                                       | Yes   |
| Assessment   | 80% attendance and weekly test (MCQ)  |
| Other comments   | To empower MBBS students with essential cytogenetics knowledge & skills, interpret chromosomal abnormalities, tackle ethical considerations, and inspire future careers in this captivating field.  |

### Elective Plan

| Week          | Activities   |
|---------------|--|
| <b>Week-1</b> |  |
| Day-1         | Introduction to Cytogenetics: Chromosomes, structure, banding patterns, nomenclature and basic laboratory skills i.e., micropipette handling.  |
| Day-2         | Introduction to karyotyping and its principles and applications. Practical introduction with sample preparation /solution /culture for karyotyping.  |
| Day-3         | Numerical Abnormalities and Structural Abnormalities including Trisomy, monosomy, polyploidy, deletions, duplications, translocations, inversions, their impact on health and associated syndromes.<br>Harvesting of karyotyping sample. |
| Day-4         | Introduction to Microscopy.<br>Slide preparation for karyotyping, Banding of karyotyping and microscopic observation of prepared slide.  |
| Day-5         | DNA/ RNA overview.<br>Training on DNA/ RNA isolation from blood/ serum samples.  |
| Day-6         | Nano drop reading /Gel electrophoresis presentation /<br>Gel electrophoresis practical   |
| <b>Week-2</b> |  |
| Day-1         | Overview of Polymerase chain reaction PCR and introduction to primer designing.<br>PCR practical demonstration.  |
| Day-2         | Overview of Restriction fragment length polymorphism (RFLP).<br>RFLP practical demonstration.  |
| Day-3         | Introduction to other advanced cytogenetic tools like FISH and microarray and its application in medical/ molecular cytogenetics.  |
| Day-4         | Introduction to Cancer Cytogenetics: Chromosomal rearrangements in cancer, tumor karyotypes, prognostic significance   |
| Day-5         | Importance of Genetic Counseling: Principles of genetic counseling, communication skills, addressing psychosocial aspects.   |
| Day-6         | Research in Cytogenetics: Current trends & advancements (lecture),<br>Career opportunities in the field.<br>Course Review & Exam: Recap key concepts & assess learning outcomes.   |

**Every Saturday test for 30 mins (10 MCQs) and discussion about last 5 days activities**

**Center for Advance Research**

|  |   |
|--|---|
| Name of Block  | Block 1   |
| Name of Elective   | Genome Medicine   |
| Location of hospital Lab or research facility                | Center for Advance Research   |
| Name of internal preceptor(s)                                | Dr. Ashutosh Shrivastava  |
| Name of external preceptor (if applicable)                   | NA  |
| Learning objectives of elective                              | <p>To provide important and advanced understanding in the application of Molecular Biology, genomics and multi-omics to understand, diagnose and treat disease.</p> <p>This elective aims to bridge the basic science and clinical research that include Genomics, Metabolomics, cancer genomics, and pharmacogenomics converging to precision and personalized medicine.</p> |
| Number of students that can be accommodated in this elective | 10  |
| Prerequisites for elective                                   | <p>Interest in Basic research and Molecular Biology</p> <p>Understanding of good laboratory practices</p>   |
| List of activities of student participation                  | Lectures and Teaching   |
| Learning resources for students                              | In house laboratory protocols   |
| Portfolio entries required                                   | Log book  |
| Logbook entry required                                       | yes   |
| Assessment   | 75% attendance Maintenance of Log Book  |
| Other comments   | NA  |

### Elective Plan

| Week          | Activities   |
|---------------|--|
| <b>Week-1</b> |  |
| Day-1         | Introduction to Genomics   |
| Day-2         | Introduction to laboratory instrumentation   |
| Day-3         | DNA extraction and RNA Extraction  |
| Day-4         | Conventional PCR   |
| Day-5         | Gel Electrophoresis  |
| Day-6         | Introduction to Transcriptomics  |
| <b>Week-2</b> |  |
| Day-1         | DNA/RNA sample preservation/Lyophilization   |
| Day-2         | Real Time PCR, Quantitative PCR data analysis  |
| Day-3         | Introduction to Metabolomics, Metabolomics in clinic                                   |
| Day-4         | Gas chromatography-Mass Spectrometry, GC-MS residue analysis                           |
| Day-5         | GC-MS metabolite analysis, Application of Precision Medicine in breast cancer patients |
| Day-6         | Mutation analysis using Real Time PCR, Data analysis of mutations.                     |

**Every Saturday test for 30 mints and discussion about last 5 days activities**

**Department of CFAR, KGMU**

|  |  |
|--|--|
| Name of Block  | Block 1  |
| Name of Elective   | Cell Biology   |
| Location of hospital Lab or research facility                | Centre for Advanced Research (adjacent to Dept. of Pharmacology), KGMU   |
| Name of internal preceptor(s)                                | Prof. (Dr.) Shailendra Saxena  |
| Name of external preceptor (if applicable)                   | NA   |
| Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. Cell culture and its application for multidisciplinary research.</li> <li>2. Technique and use of Western blotting for diagnosis.</li> <li>3. Technique and use of PCR in diagnostics</li> <li>4. Technique and use of AMNIS image flow cytometer</li> </ol> |
| Number of students that can be accommodated in this elective | 10   |
| Prerequisites for elective                                   | NA   |
| List of activities of student participation                  | <ol style="list-style-type: none"> <li>1. Preassessment and post assessment</li> </ol>   |
| Learning resources for students                              | Lectures, textbooks, PPT for cell biology  |
| Portfolio entries required                                   | Yes  |
| Logbook entry required                                       | Yes  |
| Assessment   | 80% attendance and weekly test (MCQ)   |
| Other comments   | None   |

### Elective Plan

| Week          | Activities  |
|---------------|---|
| <b>Week-1</b> |   |
| Day-1         | Introduction of Biosafety and biosecurity                                     |
| Day-2         | Introduction to equipments used in cell biology and their uses                |
| Day-3         | Methods of sterilization, Reagents, and cell culture media preparation        |
| Day-4         | Cell counting and methods to assay cell viability                             |
| Day-5         | Western blotting introduction, Cell lysate preparation, and SDS PAGE Run      |
| Day-6         | Blocking, probing, and blot development                                       |
| <b>Week-2</b> |   |
| Day-1         | Introduction of ELISA   |
| Day-2         | Measurement of TNF- $\alpha$ from cell culture supernatant                    |
| Day-3         | Introduction of PCR   |
| Day-4         | Gene expression analysis via PCR  |
| Day-5         | Introduction of AMNIS image flow cytometer                                    |
| Day-6         | Measurement of ROS (reactive oxygen species) using AMNIS image flow cytometer |

**Every Saturday test for 30 min (10 MCQs) and discussion about last 5 days activities**

**Center for Advance Research**

|  |  |
|--|--|
| Name of Block  | Block 1  |
| Name of Elective   | Adult and cancer stem cell characterization and uses in therapeutics   |
| Location of hospital Lab or research facility                | Stem Cell/ Cell Culture Lab, Center for Advance Research   |
| Name of internal preceptor(s)                                | Dr. Satyendra Kumar Singh  |
| Name of external preceptor (if applicable)                   | NA   |
| Learning objectives of elective                              | This training is focused to acquaint the participants with basics of cellular and molecular biology with special attention towards Adult Stem Cell (HSCs (Hematopoietic Stem Cell) and MSCs (Mesenchymal Stem Cells)) and Cancer stem cells maintenance in normal as well as disease conditions. |
| Number of students that can be accommodated in this elective | 10   |
| Prerequisites for elective                                   | Participants should have zeal to learn new technology, Stem Cell Research and enough time to dedicate for this course.   |
| List of activities of student participation                  | Lectures and Training (wet lab)  |
| Learning resources for students                              | In house laboratory protocols  |
| Portfolio entries required                                   | Log book   |
| Logbook entry required                                       | yes  |
| Assessment   | 80% attendance and weekly test (MCQ)   |
| Other comments   | NA   |

  
 \_\_\_\_\_  
**Registrar**  
 King George Medical University  
 Lucknow

### Elective Plan

| Week          | Activities   |
|---------------|--|
| <b>Week-1</b> |  |
| Day-1         | Introduction to Cell Biology,<br>Cell line preparation from solid tumor tissue and <i>in vitro</i> research                      |
| Day-2         | Details of applications of <i>in vitro</i> assays for various biological activities with lab visit for the wet lab experience.   |
| Day-3         | Introduction to Flowcytometry, Selection of antibodies for panel designing and sample preparation                                |
| Day-4         | Hypothesis designing and experimental planning, Discussion about how to plan an experiment and selection of appropriate controls |
| Day-5         | Measurement of ROS (reactive oxygen species) by various dyes and assays using flowcytometry (demonstration on flowcytometer)     |
| Day-6         | Hands on training for peripheral blood staining for T, B NK cells and acquisition by flowcytometry (individually)                |
| <b>Week-2</b> |  |
| Day-1         | Introduction of embryonic and adult stem cell (HSCs, MSCs etc),<br>Introduction of Stem cells differentiation                    |
| Day-2         | Characterization of Hematopoietic stem cells on flowcytometer and organoid culture   |
| Day-3         | Introduction of Cancer stem cells  |
| Day-4         | Characterization of Cancer stem cell on flowcytometer, and spheroid assay  |
| Day-5         | Introduction to various <i>in vitro</i> assays to monitor various biological activities  |
| Day-6         | Application of Adult Stem cell in regenerative medicine  |

**Every Saturday test for 30 mints (10 MCQs) and discussion about last 5 days activities**

**Department of Biochemistry**

|  |  |
|--|--|
| Name of block  | Block-I  |
| Name of Elective   | HPLC and its application in estimating metabolites in different body fluids  |
| Location   | Department of Biochemistry   |
| Name of Internal preceptor                               | Dr. Gyanendra Kumar Sonkar   |
| Name of External preceptor                               | NA   |
| Learning objectives                                      | <ul style="list-style-type: none"> <li>• Introduction of Chromatography its types, principal and applications.</li> <li>• To demonstrate the HPLC, its instrumentation and standardization.</li> <li>• Sample handling, preparation, and processing.</li> <li>• Result interpretation and report representation.</li> </ul>  |
| Number of students that can be accommodated              | 10   |
| Prerequisite for elective                                | Prior knowledge on universal precautions and Good Laboratory Practice  |
| Learning resources for students                          | <ul style="list-style-type: none"> <li>• Clinical Laboratory well equipped with Auto-analyzer, HPLC, Electrolyte analyzer, Hormone analyzer, etc.</li> <li>• Quality control manuals</li> <li>• Reference books in Library</li> <li>• Scheduled Seminars</li> <li>• Problem based Learning</li> <li>• SDL</li> </ul>   |
| List of activities in which the student will participate | <ul style="list-style-type: none"> <li>• Work under a supervisor starting from receiving of sample, separation of serum, processing of sample till dispatch of report.</li> <li>• Learn how to maintain the Quality Control</li> <li>• Collect 4 abnormal test results, correlate clinically and present to faculty</li> <li>• Will get an opportunity to manage the laboratory for one single day independently under supervision.</li> </ul> |
| Portfolios entries required                              | Assignments provided<br>Two worked up test reports that are to be presented<br>Documentation of SDL as summary and reflection  |
| Log book entry required                                  | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”   |
| Assessment   | Attendance >75%<br>Formative: Participation in seminars and case discussions<br>Presentation of worked up case reports<br>Documentation of attendance and require portfolio and log book entries.  |

## Activities

### Week 1

|       |  |
|-------|--|
| Day 1 | <ol style="list-style-type: none"><li>1. Introduction to Chromatography and its various types</li><li>2. Introduction to HPLC</li><li>3. Laboratory Visit</li><li>4. Introduce Instrument</li><li>5. HPLC Principal</li><li>6. Components of HPLC</li><li>7. Procedure</li></ol> |
| Day 2 | <ol style="list-style-type: none"><li>1. Separation mechanism in chromatograph</li><li>2. Uses of HPLC in Medical Field</li><li>3. HPLC Maintenance</li><li>4. Quality Control</li></ol>   |
| Day 3 | <ol style="list-style-type: none"><li>1. Ethical Approval</li><li>2. Make Criteria for Patient Selection</li></ol>   |
| Day 4 | <ol style="list-style-type: none"><li>1. Preparation of Questionnaire</li><li>2. Selection of Patient</li></ol>  |
| Day 5 | <ol style="list-style-type: none"><li>1. Filling of Consent Form</li><li>2. Methods of Sample Collection</li></ol>   |
| Day 6 | <ol style="list-style-type: none"><li>1. Sample Separation &amp; Storage</li></ol>   |

### Week 2

|       |  |
|-------|--|
| Day 1 | Sample Preparation & Standardisation of Protocol                     |
| Day 2 | Sample Run under Supervision   |
| Day 3 | Run Standards independently  |
| Day 4 | Run Samples Independently  |
| Day 5 | Identify of Peaks in HPLC chromatogram and interpretation of results |
| Day 6 | Assessment of candidates   |

**Department of Biochemistry**

|  |  |
|--|--|
| Name of block  | Block-I  |
| Name of Elective   | PCR technique and its application in the diagnosis of disease  |
| Location   | Department of Biochemistry   |
| Name of Internal preceptor                               | Dr. Mohammad Kaleem Ahmad  |
| Name of External preceptor                               | NA   |
| Learning objectives                                      | <ul style="list-style-type: none"> <li>• Gain knowledge of molecular biology techniques</li> <li>• Acquire skills to process blood samples to isolate DNA and perform PCR techniques, to interpret, evaluate and rationalize the data to predict the disease.</li> <li>• Develop communication skills in explaining effectively to patients about disease states</li> </ul>  |
| Number of students that can be accommodated              | 10   |
| Prerequisite for elective                                | Prior subjective knowledge of DNA, RNA, and PCR & its types as well as Good Laboratory Practice  |
| Learning resources for students                          | <ul style="list-style-type: none"> <li>• Molecular Cell Biology Laboratory well equipped with PCR, RT-PCR, Nanodrop, Gel Doc etc.</li> <li>• Standard operating manuals</li> <li>• Reference books in Library</li> <li>• Scheduled Seminars</li> <li>• Problem-based Learning</li> <li>• SDL</li> </ul>  |
| List of activities in which the student will participate | <ul style="list-style-type: none"> <li>• Work under a supervisor starting from</li> <li>• Isolation of DNA, performing PCR, and analyzing and interpreting the data.</li> <li>• Learn how to maintain and use the instrument.</li> <li>• Prepare the polymorphism sheet of wild and mutant genotypes and correlate it clinically.</li> <li>• Will get an opportunity to manage the laboratory for one single day independently under supervision.</li> </ul> |
| Portfolios entries required                              | Assignments provided<br>Two worked-up polymorphism sheet of wild and mutant genotypes and RT-PCR, to be presented<br>Documentation of SDL as summary and reflection  |

|                         |  |
|-------------------------|--|
| Log book entry required | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”   |
| Assessment              | Attendance >75%<br>Formative: Participation in seminars and case discussions<br>Presentation of worked-up case reports<br>Documentation of attendance requires a portfolio and log book entries. |

### Activities

#### Week 1

|         |   |
|---------|---|
| Day 1-2 | Orientation to the Molecular Biology Laboratory including the various instruments like PCR, RT-PCR, Nanodrop, GelDoc, and Electrophoresis apparatus along with their principles and application in health and medicine. |
| Day 3-4 | Preparation of reagents for manual DNA and RNA isolation.   |
| Day 5   | Isolation of DNA and RNA and their quantification by Nanodrop.  |
| Day 6   | Qualitative analysis of DNA and RNA by Gel electrophoresis  |

#### Week 2

|         |  |
|---------|--|
| Day 1-2 | Performing PCR-RFLP and analyzing the data                                   |
| Day 3-4 | Performing RNA to cDNA conversion and check the expression of gene by RT-PCR |
| Day 5   | Interpretation of results and its clinical importance                        |
| Day 5   | Validation and performing of PCR independently under supervision             |
| Day 6   | Assessment of candidates   |

  
 Registrar  
 King George Medical University  
 Lucknow

### Department of Biochemistry

|  |  |
|--|--|
| Name of block  | Block-I  |
| Name of Elective   | Automation in Clinical Biochemistry laboratories: its application & recent trends  |
| Location   | Department of Biochemistry   |
| Name of Internal preceptor                               | Dr. Dilutpal Sharma  |
| Name of External preceptor                               | NA   |
| Learning objectives                                      | <ul style="list-style-type: none"> <li>• Gain knowledge on the functioning of a Clinical Biochemistry Laboratory</li> <li>• Acquire skills to process test samples, interpret and evaluate the data and rationalize their application in clinical management along with maintaining the Quality Control of the Laboratory</li> <li>• Develop communication skills in explaining effectively to patients about disease states</li> </ul>        |
| Number of students that can be accommodated              | 10   |
| Prerequisite for elective                                | Prior knowledge on universal precautions and Good Laboratory Practice  |
| Learning resources for students                          | <ul style="list-style-type: none"> <li>• Clinical Laboratory well equipped with Auto-analyzer, HPLC, Electrolyte analyzer, Hormone analyzer, etc.</li> <li>• Quality control manuals</li> <li>• Reference books in Library</li> <li>• Scheduled Seminars</li> <li>• Problem based Learning</li> <li>• SDL</li> </ul>   |
| List of activities in which the student will participate | <ul style="list-style-type: none"> <li>• Work under a supervisor starting from receiving of sample, separation of serum, processing of sample till dispatch of report.</li> <li>• Learn how to maintain the Quality Control</li> <li>• Collect 4 abnormal test results, correlate clinically and present to faculty</li> <li>• Will get an opportunity to manage the laboratory for one single day independently under supervision.</li> </ul> |
| Portfolios entries required                              | Assignments provided<br>Two worked up test reports that are to be presented<br>Documentation of SDL as summary and reflection  |
| Log book entry required                                  | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”   |
| Assessment   | Attendance >75%<br>Formative: Participation in seminars and case discussions<br>Presentation of worked up case reports<br>Documentation of attendance and require portfolio and log book entries.  |

### Activities

#### Week 1

|           |  |
|-----------|--|
| Day 1-3   | Orientation to the Clinical Biochemistry Laboratory<br>Maintaining the Quality Control of the Laboratory |
| Day 4 & 5 | Preparation of the patient and collection of Blood sample  |
| Day 6     | Centrifugation and separation of serum/plasma from blood samples   |

#### Week 2

|         |   |
|---------|---|
| Day 1&2 | Processing of Serum/Plasma samples under supervision  |
| Day 3   | Processing of Serum/Plasma samples independently      |
| Day 4   | Validation of Test results under supervision          |
| Day 5   | Validation and dispatch of test results independently |
| Day 6   | Assessment of candidates                              |

*Arunima*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Microbiology

Description of the elective: Sexually transmitted infections (STI) and Reproductive Tract Infections (RTI) are important public health concerns worldwide. The advent of HIV/AIDS has brought about an increase in the occurrence of other STIs, such as gonorrhoea and syphilis. What makes matters worse, is the emergence of drug resistance in many STI pathogens such as *Neisseria gonorrhoeae* and *Mycoplasma genitalium*. The role of the laboratory in diagnosis of STI/RTIs is at an all-time high now, due to the atypical clinical presentations of STIs among high risk groups. To sensitize the under graduate students on the important STIs/RTIs in India, their causative organisms and relevant clinical features, with a note on drug resistance in STI pathogens, especially *Neisseria gonorrhoeae*.

To familiarize the participants on the various diagnostic methods for STI/RTIs.

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block 1  |
| 2 | Name of Elective   | Sexually transmitted infections  |
| 3 | Location of hospital Lab or research facility                | Hospital Laboratory, Department of Microbiology, KGMU  |
| 4 | Name of internal preceptor(s)                                | Prof. Raj Kumar Kalyan   |
| 5 | Name of external preceptor                                   | NA   |
| 6 | Learning objectives of elective                              | <p>By the end of the elective the student will be able to:</p> <ol style="list-style-type: none"> <li>1. To understand the global and Indian scenario of STIs/RTIs and their public health importance.</li> <li>2. To know the drug resistance in STI pathogens.</li> <li>3. To know recent advances in diagnosis of STIs in High Risk Groups (HRGs).</li> <li>4. To enumerate and demonstrate the various laboratory procedures available for the diagnosis of STIs.</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 6  |

|                                   |   |   |
|-----------------------------------|---|---|
| 8                                 | Prerequisites for elective  | <ul style="list-style-type: none"> <li>• Knowledge of universal precautions</li> <li>• Knowledge of Agents causing Sexually transmitted infections.</li> </ul>  |
| 9<br><br>9.1<br>9.2<br>9.3<br>9.4 | List of activities of students participation<br><br>Days-1 to 4<br>Days-5 to 6<br>Days-7 to 12<br>Days-13 to 15 | <p>Days-1 to 4:</p> <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Interactive sessions to deliver layout of elective postings and basics of STI, universal and special precautions</li> <li>• Demonstration of sample collection of different types</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Days-5 to 6:</p> <ul style="list-style-type: none"> <li>• Visit to sample collection sites skin and VD and Suraksha clinic center within KGMU</li> <li>• Observe counseling of patients before sample collection</li> <li>• Observe consent taking and measures taken to maintain patient confidentiality</li> <li>• Observe requirement of sample transportation</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Days-7 to 12:</p> <ul style="list-style-type: none"> <li>• Observe various methods of sample testing including microscopy, RPR, VDRL, TPHA, Gram staining, Giemsa staining, Dark Ground microscopy, AST</li> <li>• Understand the principles, techniques and quality control of these methods</li> <li>• Perform tests under supervision</li> <li>• Formative assessment and performance test</li> </ul> <p>Days-13 to 15:</p> <ul style="list-style-type: none"> <li>• Reading and interpretation of test results</li> <li>• Dispatch of results</li> <li>• Student presentation of interesting cases</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul> |

|    |                            |  |
|----|----------------------------|--|
| 10 | Learning Resources         | <ul style="list-style-type: none"> <li>• Laboratory SOPs</li> <li>• Guidelines for STI/RTI diagnosis by NACO</li> <li>• RTI/STI Laboratory Manual Textbooks of Microbiology available at the Departmental library</li> </ul>           |
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>• Lab notes and workbook entries</li> <li>• Presentations done</li> </ul>   |
| 12 | Log book entry required    | <ul style="list-style-type: none"> <li>• Satisfactory completion of posting authentication by preceptor</li> </ul>   |
| 13 | Assessment                 | <ul style="list-style-type: none"> <li>• Attendance</li> <li>• Successful verification of required portfolio entries</li> <li>• Successful completion of the posting as certified in the logbook with a “meets expectation”</li> </ul> |
| 14 | Other comments             |  |

Prof Amita Jain, Head, Department of Microbiology has gone through the content and approves of it.

*Aruhana*  
 Registrar  
 King George Medical University  
 Lucknow

## Department of Microbiology

**Description of the elective:** To control or eliminate infectious diseases of public health importance, the Government of India runs several national programs such as the National HIV Control Program, the National Tuberculosis Elimination Program, the Hepatitis Control Program etc. This elective aims at providing a holistic approach of functioning of such national programs to the undergraduate students. The learner will experience how development of the cognitive, psychomotor and affective domains is essential for working in especially sensitive areas like HIV. Training of doctors in the field of HIV is need of the hour looking at the alarming rise in the number of cases and new developments that are occurring. The learners may also develop interest in HIV to opt as a future career option.

|    |   |   |
|----|---|---|
| 1. | Name of Block                                       | 1   |
| 2. | Name of Elective:                                   | HIV Medicine; Laboratory Track  |
| 3. | Location of hospital, lab or Research Facility      | Hospital laboratory, Department of Microbiology, KGMU   |
| 4  | Name of internal preceptor(s)                       | Prof Vimala Venkatesh/ Dr Suruchi Shukla  |
| 5  | Name of external preceptor (Department of Medicine) | NA  |
| 6. | Learning Objectives of the Elective                 | <p>By the end of the elective the student will be able to</p> <ol style="list-style-type: none"> <li>a. describe the process of pre-test and post-test counselling in different risk groups of individuals</li> <li>b. discuss ethical principles in patient interaction, especially confidentiality and consent</li> <li>c. provide counselling to Standardised Patients/persons of various risk groups in a non-judgemental empathetic manner.</li> <li>d. demonstrate the processes for linkages for care and support under the NACO program</li> <li>e. demonstrate the steps of sample collection and transport for HIV testing, early infant diagnosis, CD4 T lymphocyte and HIV viral load testing</li> <li>f. perform and interpret HIV testing using the NACO strategy III, including doing quality control procedures</li> <li>g. perform and interpret CD4 T lymphocyte testing on an flow cytometry platform, including doing quality control procedures</li> <li>h. discuss early infant diagnosis</li> <li>i. discuss HIV viral load test procedure on a automated platform and interpret HIV viral load test results</li> <li>j. enumerate and discuss testing for opportunistic infections associated with</li> </ol> |

|     |  | HIV   |
|-----|--|---|
| 7.  | Number of students that can be accommodated in this Elective | 5   |
| 8.  | Pre-requisites of the Elective                               | <ol style="list-style-type: none"> <li>1. Knowledge Requirement: The student must have recall of theory of HIV in context of virology, natural history, laboratory tests and methods for HIV diagnosis and management</li> <li>2. Logbook</li> </ol>  |
| 9   | List of activities of student participation                  | <ol style="list-style-type: none"> <li>1. Pre and post test Counselling sessions with consent from clients</li> <li>2. HIV testing</li> <li>3. CD4 T lymphocyte testing</li> <li>4. Observation of viral load testing</li> <li>5. Quizzes as part of formative assessment</li> <li>6. Group discussions and role plays to demonstrate learning as part of formative assessment</li> <li>7. Participation in routine lab activities</li> <li>8. Presentation of interesting cases</li> <li>9. Elective logbook entries</li> <li>10. Final assessment –360 degree assessment</li> </ol> |
| 9.1 |  |   |
| 9.2 | Week-1   |   |
| 9.3 | Week-2   |   |
| 10. | Learning Resources   | <ol style="list-style-type: none"> <li>1. NACO guidelines for HIV testing July 2015 or later version</li> <li>2. National guidelines for enumeration of CD4</li> <li>3. DBS sample collection for Early Infant Diagnosis</li> <li>4. Laboratory SOP's</li> <li>5. Textbooks of the MBBS course</li> </ol>   |
| 11  | Portfolio entries required                                   | <ul style="list-style-type: none"> <li>• Lab notes and workbook entries</li> <li>• Presentations done</li> </ul>  |
| 12  | Log book entry required                                      | <ul style="list-style-type: none"> <li>• Satisfactory completion of posting authentication by preceptor</li> </ul>  |
| 13  | Assessment   | <ul style="list-style-type: none"> <li>• Attendance</li> <li>• Successful verification of required portfolio entries</li> <li>• Successful completion of the posting as certified in the logbook with a “meets expectation”</li> </ul>  |
| 14  | Other comments   |   |

## Department of Microbiology

**Description of the elective:** To control or eliminate infectious diseases of public health importance, the Government of India runs several national programs such as the National Tuberculosis Elimination Program, National HIV Control Program, the Hepatitis Control Program etc. This elective aims at providing a holistic approach of functioning of such national programs to the undergraduate students. The learner will experience how development of the cognitive, psychomotor and affective domains is essential for working in especially sensitive areas like Tuberculosis. Training of doctors in the field of TB is need of the hour looking at the target of TB elimination of the WHO by 2030 and of India by 2025. This elective will highlight the importance of inter-disciplinary coordination for diagnosis of infectious diseases including good sampling techniques, the laboratory component and appropriate correlation of laboratory results with the clinical scenario. This will also give an idea to the learners of how a Microbiology laboratory functions following good laboratory practices, the various techniques that are used in diagnosis of infectious diseases and the different platforms through which reports can be dispatched or accessed. The learners may also develop interest in TB to opt as a future career option.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | Block 1   |
| 2 | Name of Elective   | Mycobacteriology  |
| 3 | Location of hospital Lab or research facility                | Hospital Laboratory, Department of Microbiology, KGMU   |
| 4 | Name of internal preceptor(s)                                | Prof Amita Jain/ Dr Parul Jain  |
| 5 | Name of external preceptor                                   | NA  |
| 6 | Learning objectives of elective                              | <p>By the end of the elective the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the process of pre-test and post-test counseling in different risk groups</li> <li>2. Discuss ethical principles in patient interaction, especially confidentiality and consent</li> <li>3. Demonstrate the processes for linkages for care and support under the NTEP program</li> <li>4. Demonstrate the steps of collection, transportation and storage of different types of samples</li> <li>5. Perform and interpret microbiological tests for TB diagnosis</li> <li>6. Correlate laboratory and clinical findings</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 5   |
| 8 | Prerequisites for elective                                   | <ul style="list-style-type: none"> <li>• Knowledge of universal precautions</li> <li>• Knowledge of theory of</li> </ul>  |

|     |   | Mycobacteriology and basics of Microbiological tests for TB diagnosis  |
|-----|---|--|
| 9   | List of activities of student participation | <p>Days-1 to 4:</p> <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Interactive sessions to deliver layout of elective postings and basics of Mycobacteriology, universal and special precautions</li> <li>• Demonstration of sample collection of different types</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Days-5 to 6:</p> <ul style="list-style-type: none"> <li>• Visit to sample collection sites and DOTS center within KGMU</li> <li>• Observe counseling of patients before sample collection</li> <li>• Observe consent taking and measures taken to maintain patient confidentiality</li> <li>• Observe requirement of sample transportation</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Days-7 to 12:</p> <ul style="list-style-type: none"> <li>• Observe various methods of sample testing including microscopy, automated culture, DST, NAAT, Line probe assays for diagnosis of <i>M. tuberculosis</i></li> <li>• Understand the principles, techniques and quality control of these methods</li> <li>• Perform tests under supervision</li> <li>• Formative assessment and performance test</li> </ul> <p>Days-13 to 15:</p> <ul style="list-style-type: none"> <li>• Reading and interpretation of test results</li> <li>• Dispatch of results</li> <li>• Student presentation of interesting cases</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul> |
| 9.1 | Days-1 to 4                                 |  |
| 9.2 | Days-5 to 6                                 |  |
| 9.3 | Days-7 to 12                                |  |
| 9.4 | Days-13 to 15                               |  |

|    |                            |   |
|----|----------------------------|---|
| 10 | Learning Resources         | <ul style="list-style-type: none"> <li>• Laboratory SOPs</li> <li>• Guidelines for Programmatic Management of Drug resistant Tuberculosis in India, MoHFW, GoI (2021 or later version)</li> <li>• Mycobacteriology Laboratory Manual, Global laboratory Initiative, STOP TB Partnership (2014 or later version)</li> <li>• Textbooks of Microbiology available at the Departmental library</li> </ul> |
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>• Lab notes and workbook entries</li> <li>• Presentations done</li> </ul>  |
| 12 | Log book entry required    | <ul style="list-style-type: none"> <li>• Satisfactory completion of posting authentication by preceptor</li> </ul>  |
| 13 | Assessment                 | <ul style="list-style-type: none"> <li>• Attendance</li> <li>• Successful verification of required portfolio entries</li> <li>• Successful completion of the posting as certified in the logbook with a “meets expectation”</li> </ul>  |
| 14 | Other comments             |   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

| Week          | Activities   |
|---------------|--|
| Days-1 to 4   | <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Interactive sessions to deliver layout of elective postings and basics of Mycobacteriology, universal and special precautions</li> <li>• Demonstration of sample collection of different types, Participating in daily lab reporting activities and discussing interesting clinical cases</li> <li>• Formative assessment and reflection writing</li> </ul> |
| Days-5 to 6   | <ul style="list-style-type: none"> <li>• Visit to sample collection sites and DOTS center within KGMU</li> <li>• Observe counseling of patients before sample collection</li> <li>• Observe consent taking and measures taken to maintain patient confidentiality</li> <li>• Observe requirements of sample transportation and storage within the laboratory</li> <li>• Formative assessment and reflection writing</li> </ul>   |
| Days-7 to 12  | <ul style="list-style-type: none"> <li>• Observe various methods of sample testing including automated culture, DST, NAAT, Line probe assays for diagnosis of <i>M. tuberculosis</i></li> <li>• Understand the principles, techniques and quality control of these methods</li> <li>• Perform tests under supervision</li> <li>• Formative assessment and performance test</li> </ul>  |
| Days-13 to 15 | <ul style="list-style-type: none"> <li>• Demonstrating reading and interpretation of test results</li> <li>• Demonstrating dispatch of results</li> <li>• Student presentation of interesting cases</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul>  |

Prof Amita Jain, Head, Department of Microbiology has gone through the content and approves of it.

  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Microbiology

**Description of the elective:** To control or eliminate infectious diseases of public health importance, the Government of India runs several national programs such as the Hepatitis Control Program, the National Tuberculosis Elimination Program, National HIV Control Program, etc. This elective aims to provide a holistic approach of functioning of such national programs to the undergraduate students. The learner will experience how development of the cognitive, psychomotor and affective domains is essential for working in especially sensitive areas like viral Hepatitis. This elective will highlight the importance of inter-disciplinary coordination for diagnosis of infectious diseases including good sampling techniques, the laboratory component and appropriate correlation of laboratory results with the clinical scenario. This will also give an idea to the learners of how a Microbiology laboratory functions following good laboratory practices, the various techniques that are used in diagnosis of infectious diseases and the different platforms through which reports can be dispatched or accessed. The learners may also develop interest in Virology to opt as a future career option.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | Block 1   |
| 2 | Name of Elective   | Viral Hepatitis   |
| 3 | Location of hospital Lab or research facility                | Hospital Laboratory, Department of Microbiology, KGMU   |
| 4 | Name of internal preceptor(s)                                | Prof Amita Jain/ Dr Shruti Radera   |
| 5 | Name of external preceptor                                   | NA  |
| 6 | Learning objectives of elective                              | <p>By the end of the elective the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the process of pre-test and post-test counseling in different risk groups</li> <li>2. Discuss ethical principles in patient interaction, especially confidentiality and consent</li> <li>3. To obtain experience in the laboratory diagnosis of viral hepatitis.</li> <li>4. Demonstrate the steps of collection, transportation and storage of different types of samples</li> <li>5. Perform and interpret microbiological tests for TB diagnosis</li> <li>6. Correlate laboratory and clinical findings</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 5   |

|    |   |   |
|----|---|---|
| 8  | Prerequisites for elective                  | <ul style="list-style-type: none"> <li>• Knowledge of universal precautions, good laboratory practices</li> <li>• Knowledge of theory of Hepatitis and basics of Microbiological tests for viral hepatitis</li> </ul>   |
| 9  | List of activities of student participation | <p>Day 1 to 4:</p> <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Interactive sessions to deliver layout of elective postings and basics of viral hepatitis, universal and special precautions.</li> <li>• Demonstration of sample collection of different types</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Day 4 to 6:</p> <ul style="list-style-type: none"> <li>• Visit to sample collection sites and hepatitis treatment center within KGMU.</li> <li>• Observe counseling of patients before sample collection</li> <li>• Observe consent taking and measures taken to maintain patient confidentiality.</li> <li>• Observe requirement of sample transportation</li> <li>• Formative assessment and reflection writing</li> <li>• Seminar</li> </ul> <p>Day 7 to 12:</p> <ul style="list-style-type: none"> <li>• Observe various methods of sample testing including ELISA, RT-PCR, viral load assays and genotyping.</li> <li>• Understand the principles, techniques and quality control of these methods.</li> <li>• Perform tests under supervision.</li> <li>• Formative assessment and performance test</li> <li>• Seminar</li> </ul> <p>Day 13 to 15:</p> <ul style="list-style-type: none"> <li>• Reading and interpretation of test results</li> <li>• Dispatch of results</li> <li>• Write up the laboratory work up of two patients with viral hepatitis.</li> <li>• Present at least two cases in departmental academic forum</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul> |
| 10 | Learning Resources                          | <ul style="list-style-type: none"> <li>• Laboratory SOPs</li> <li>• National viral hepatitis control program, MoHFW, GoI (2018 or later version)</li> <li>• National guidelines for Diagnosis and management of viral Hepatitis (2019 or later</li> </ul>   |

|    |                            |  |
|----|----------------------------|--|
|    |                            | version)<br><ul style="list-style-type: none"> <li>• Textbooks of Microbiology available at the Departmental library</li> </ul>  |
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>• Lab notes and workbook entries</li> <li>• Presentations done</li> </ul>   |
| 12 | Logbook entry required     | <ul style="list-style-type: none"> <li>• Satisfactory completion of posting authentication by preceptor</li> </ul>   |
| 13 | Assessment                 | <ul style="list-style-type: none"> <li>• Attendance</li> <li>• Successful verification of required portfolio entries</li> <li>• Successful completion of the posting as certified in the logbook with a “meets expectation”</li> </ul> |
| 14 | Other comments             |  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

| Timeline     | Activities   |
|--------------|--|
| Day 1 to 4   | <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Interactive sessions to deliver layout of elective postings and basics of basics of viral hepatitis, universal and special precautions.</li> <li>• Demonstration of sample collection of different types, participating in daily lab reporting activities and discussing interesting clinical cases</li> <li>• Formative assessment and reflection writing</li> </ul> |
| Day 5 to 6   | <ul style="list-style-type: none"> <li>• Visit to sample collection sites and Hepatitis treatment center within KGMU</li> <li>• Observe counseling of patients before sample collection</li> <li>• Observe consent taking and measures taken to maintain patient confidentiality</li> <li>• Observe requirements of sample transportation and storage within the laboratory</li> <li>• Seminar presentation</li> <li>• Formative assessment and reflection writing</li> </ul>    |
| Day 7-12     | <ul style="list-style-type: none"> <li>• Observe various methods of sample testing including ELISA, RT-PCR, viral load assays and genotyping</li> <li>• Understand the principles, techniques and quality control of these methods.</li> <li>• Perform tests under supervision</li> <li>• Seminar presentation</li> <li>• Formative assessment and performance test</li> </ul>   |
| Day 13 to 15 | <ul style="list-style-type: none"> <li>• Demonstrating reading and interpretation of test results</li> <li>• Demonstrating dispatch of results</li> <li>• Write up the laboratory work up of two patients with viral hepatitis.</li> <li>• Present at least two cases in departmental academic forum</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul>   |

Prof Amita Jain, Head, Department of Microbiology has gone through the content and approves of it.

## Department of Microbiology

**Description of the elective:** Dermatophyte infections are common worldwide, and dermatophytes are the prevailing causes of fungal infection of the skin, hair, and nails. These infections lead to a variety of clinical manifestations, such as tinea pedis, tinea corporis, tinea cruris, tinea capitis, dermatophyte onychomycosis (tinea unguium), and Majocchi's granuloma. This elective is designed to give a hands-on experience to medical students to diagnose these infections, which will be of immense help during their clinical practice. This will highlight the importance of inter-disciplinary coordination for diagnosis of infectious diseases including good sampling techniques, the laboratory component and appropriate correlation of laboratory results with the clinical scenario. This will also give an idea to the learners of how a Microbiology laboratory functions following good laboratory practices, the various techniques that are used in diagnosis of infectious diseases and the different platforms through which reports can be dispatched or accessed. The learner may also develop an interest in Microbiology to choose later as a career option.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | Block 1   |
| 2 | Name of Elective   | <b>Dermatophyte (tinea) infections</b>  |
| 3 | Location of hospital Lab or research facility                              | Hospital Laboratory, Department of Microbiology, KGMU   |
| 4 | Name of internal preceptor(s)  | Prof Prashant Gupta/ Prof Gopa Banerjee   |
| 5 | Name of external preceptor (Department of Deramtolgy and Veneral Diseases) | Prof Swastika Suvirya (Department of Deramtolgy and Veneral Diseases KGMU)<br>Dr Parul Verma (Department of Dermatology and Veneral Diseases, KGMU)   |
| 6 | Learning objectives of elective  | By the end of the elective the student will be able to: <ol style="list-style-type: none"> <li>1. Describe the major clinical subtypes of dermatophyte infections</li> <li>2. Cutaneous dermatophyte infections may be strongly suspected based upon the physical examination. However, because the physical findings can overlap with other cutaneous disorders, therefore they need to know the laboratory diagnosis methods.</li> <li>3. Demonstrate the steps of sample collection, transportation and storage of samples</li> <li>4. Perform skin, hair or nail scrapings</li> <li>5. Perform cultures and KOH microscopy</li> </ol> |

|     |  |  |
|-----|--|--|
| 7   | Number of students that can be accommodated in this elective | 5  |
| 8   | Prerequisites for elective                                   | <ul style="list-style-type: none"> <li>• Knowledge of universal precautions</li> <li>• Knowledge of theory of dermatophyte, its classification and other fungi causing similar kind of infections</li> </ul>   |
| 9   | List of activities of student participation (15 Days)        | <p>Week- 1:</p> <ul style="list-style-type: none"> <li>• Orientation to laboratories of Microbiology department</li> <li>• Biosafety level of laboratories</li> <li>• Interactive sessions to deliver layout of elective postings and basics of Dermatophyte</li> <li>• Demonstration of sample collection, preparing KOH smears and types of culture media used to culture scrapings.</li> <li>• Formative assessment and reflection writing</li> </ul> <p>Week 2:</p> <ul style="list-style-type: none"> <li>• Doing KOH microscopy and culture on SDA/ DTM</li> <li>• Understand the principles, techniques and quality control of these methods</li> <li>• Formative assessment and reflection writing</li> <li>• Seminar</li> <li>• Observe colonies and learning various colony characteristics of different dermatophyte.</li> <li>• Identifying dermatophyte cultures by preparing LCB mounts.</li> <li>• Perform tests under supervision</li> <li>• Dispatch of results</li> <li>• Formative assessment and performance test</li> <li>• Student presentation of interesting cases</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul> |
| 9.1 | Week 1   |  |
| 9.2 | Week-2   |  |
| 10  | Learning Resources   | <ul style="list-style-type: none"> <li>• Laboratory SOPs</li> <li>• Textbooks of Microbiology available at the Departmental library</li> </ul>   |
| 11  | Portfolio entries required                                   | <ul style="list-style-type: none"> <li>• Lab notes and workbook entries</li> <li>• Presentations done</li> </ul>   |
| 12  | Log book entry required                                      | <ul style="list-style-type: none"> <li>• Satisfactory completion of posting authentication by preceptor</li> </ul>   |

|    |                |  |
|----|----------------|--|
| 13 | Assessment     | <ul style="list-style-type: none"><li>• Attendance</li><li>• Successful verification of required portfolio entries</li><li>• Successful completion of the posting as certified in the logbook with a “meets expectation”</li></ul> |
| 14 | Other comments |  |

*Arचना*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

| Week   | Activities  |
|--|---|
| <p><b>Week 1</b></p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p> <p>Day-6</p> | <p>Day-1: Orientation to laboratories of Microbiology department</p> <p>Day-2 and 3: Interactive sessions to deliver the layout of elective posting and basics of dermatophyte.</p> <p>Day-4 and 5: Demonstration of sample collection, Participating in daily lab reporting activities and discussing interesting clinical cases</p> <p>Day-6: Formative assessment and reflection writing</p>   |
| <p>Week 2</p>  | <ul style="list-style-type: none"> <li>• Visit to sample collection sites within KGMU</li> <li>• Learn sampling methods</li> <li>• Observe requirements of sample transportation and storage within the laboratory</li> <li>• Learn to prepare KOH mounts</li> <li>• Identify various fungal culture media</li> <li>• Learn to culture specimen on fungal culture media</li> <li>• Seminar presentation</li> <li>• Formative assessment and reflection writing</li> <li>• Hand on experience of sample testing including KOH microscopy, culture, antifungal susceptibility</li> <li>• Understand the principles, techniques and quality control of these methods</li> <li>• Perform tests under supervision</li> <li>• Seminar presentation</li> <li>• Formative assessment and performance test</li> <li>• Demonstrating reading and interpretation of test results</li> <li>• Demonstrating dispatch of results</li> <li>• Student presentation of interesting cases</li> <li>• Final assessment of all objectives and logbook entries.</li> </ul> |

## Department of Pharmacology

This elective module on Pharmacovigilance/Materiovigilance/ Haemovigilance seeks to encourage a culture of reporting ADRs among Undergraduate students. The Pharmacovigilance Program of India (PvPI) identifies and responds to drug safety issues. Its activities include receiving and reporting of adverse drug events and taking necessary action. PvPI assists the WHO in developing policy to promote drug safety.

|   |   |   |
|---|---|---|
| 1 | Name of Block                                 | Block -1  |
| 2 | Name of Elective                              | Pharmacovigilance   |
| 3 | Location of hospital Lab or research facility | Department of Pharmacology  |
| 4 | Name of internal preceptor(s)                 | <ol style="list-style-type: none"> <li>1. Prof. Anuradha Nischal,<br/>Dy. Co-ordinator, ADR monitoring Centre, Dept. of Pharmacology, KGMU</li> <li>2. Dr. Rahul Kumar,<br/>Additional Professor, Dept. of Pharmacology KGMU</li> <li>3. Dr. Narendra Kumar,<br/>Additional Professor, Dept. of Pharmacology KGMU</li> </ol>  |
| 5 | Name of external preceptor                    | <ol style="list-style-type: none"> <li>1. Mr Anoop Kumar,<br/>Senior Pharmacovigilance Associate, ADR Monitoring Centre, NCC-PvPI, IPC, Ghaziabad</li> </ol>  |
| 6 | Learning objectives of elective               | <p>At the end of Elective, students will</p> <ol style="list-style-type: none"> <li>1. Have knowledge of Pharmacovigilance program of India</li> <li>2. Have knowledge Materiovigilance program of India</li> <li>3. Have knowledge Haemovigilance program of India</li> <li>4. Be able to describe functioning of Pharmacovigilance/ Materiovigilance/ Haemovigilance program in India.</li> </ol> |

|     |  |   |
|-----|--|---|
|     |  | <ol style="list-style-type: none"> <li>5. Collect ADRs and fill ADRs reporting forms from different patients by visiting different wards of the University.</li> <li>6. Be able to enter the ADR data into Vigiflow software (in supervision)</li> <li>7. Be able to establish causality by WHO Causality assessment scale.</li> <li>8. Have knowledge of MedDRA</li> <li>9. Have knowledge of WHO drug dictionary</li> </ol> |
| 7   | Number of students that can be accommodated in this elective | 10  |
| 8   | Prerequisites for elective                                   | Student should have basic knowledge of frequent ADRs of common drugs and their Pharmacodynamics/<br>Pharmacokinetics.   |
| 9   | List of activities of student participation                  |   |
| 9.1 | Week-1   | <p>Week -1.</p> <ul style="list-style-type: none"> <li>• Students will attend lectures on ADRs, functioning of Pharmacovigilance/Materiovigilance/Haemovigilance program in India, filling of ADRs reporting form, Causality assessment of ADRs by WHO scale</li> <li>• Students will collect ADRs and</li> </ul>   |
| 9.2 | Week-2   | <p>Week -2.</p> <ul style="list-style-type: none"> <li>• Students will establish causality by WHO Causality assessment scale</li> <li>• Students will enter the ADR data into Vigiflow software</li> <li>• Assessment /feedback</li> </ul>  |
| 10  | Learning Resources   | <ul style="list-style-type: none"> <li>• Book by IPC – Pharmacovigilance Guidance Document</li> <li>• Book by IPC –Guidance Document for Spontaneous Adverse Drug Reaction Reporting</li> <li>• WHO vigiflow manual</li> </ul>  |

|    |                            |  |
|----|----------------------------|--|
| 11 | Portfolio entries required | Documentation of ADRs form, Certification of skill that learnt to enter ADR data in Vigiflow         |
| 12 | Log book entry required    | Completion of posting and day to day activities signed by preceptors                                 |
| 13 | Assessment                 | -Attendance<br>-Completion of at least one ADR reporting form<br>-Causality assessment skill of ADRs |
| 14 | Other comments             | --   |

| Week   | Activities   |
|--------|--|
| Week-1 | <ul style="list-style-type: none"> <li>Lectures on ADRs and functioning of Pharmacovigilance/ Materiovigilance/ Haemovigilance</li> <li>Lecture on Causality assessment of ADRs by WHO scale</li> <li>Students will be taught to fill ADRs reporting form</li> <li>Students will collect ADRs</li> </ul> |
| Week-2 | <ul style="list-style-type: none"> <li>Students will perform Causality assessment of ADRs (and presentation of Causality assessment)</li> <li>Students will enter data of ADR in Vigiflow software</li> <li>Assessment /feedback</li> </ul>  |

  
**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Pharmacology & Therapeutics**

|   |  |
|---|--|
| Name of Block   | <b>BLOCK-1</b>   |
| Name of Elective  | <b>Pre-Clinical Research, Drug Discovery &amp; Development</b>   |
| Location of hospital Lab or research facility                       | Animal House/ Department of Pharmacology Post Graduate Research Lab/Molecular Pharmacology Research Lab  |
| Name of internal preceptor(s)                                       | Professor Rishi Pal  |
| Name of external preceptor (if applicable)                          | N/A  |
| Learning objectives of elective                                     | <ol style="list-style-type: none"> <li>1. Imparting Knowledge of Drug Discovery &amp; Development concept.</li> <li>2. Significance of Pre-clinical research concept.</li> <li>3. Hands on training on animals used for pre-clinical research.</li> <li>4. In-vitro/In-vivo drug screening methods.</li> <li>5. Molecular Pharmacology research techniques.</li> <li>6. Phases of Clinical research trials.</li> </ol> |
| Number of students that can be accommodated in this elective        | 15   |
| Prerequisites for elective  | Basic knowledge of drug discovery and development.   |
| List of activities for student participation/learning<br><br>Week-1 | <p>Students will participate in teaching session on:</p> <ul style="list-style-type: none"> <li>• Drug Discovery Concept.</li> <li>• Pre-Clinical Research Concept.</li> <li>• Animal models for mimicking Human disease.</li> <li>• Drug Development Concept.</li> <li>• Phases of Drug Development.</li> <li>• Visit to Animal House, animal species used in</li> </ul>  |

|        |  |
|--------|--|
|        | Research diet and dose calculation, CPCSEA Guidelines.   |
| Week-2 | <ul style="list-style-type: none"> <li>• Routes of drug administration in research animals.</li> <li>• Blood collection techniques in experimental animals.</li> <li>• Bio-safety levels and Good Laboratory Practices.</li> <li>• In-vivo screening method for drugs of Analgesics, Antidepressant, Diabetes and Hypertension.</li> <li>• Visit to Post-Graduate Research Laboratory and Demonstration of Elevated plus Maze and Y-Maze tests for Anxiety and Memory assessment.</li> <li>• Visit to Departmental Molecular Pharmacology Laboratory.</li> <li>• Demonstration Technique like ELISA, PCR, Electrophoresis and Western blotting technique.</li> </ul> |

| WEEK   | DAY   | TOPIC   |
|--------|-------|---|
| WEEK 1 | Day 1 | Drug Discovery Concept.   |
|        | Day 2 | Pre-Clinical Research Concept.  |
|        | Day 3 | Animal models for mimicking Human disease.                                  |
|        | Day 4 | Drug Development Concept.   |
|        | Day 5 | Phases of Drug Development.   |
|        | Day 6 | Visit to Animal House, animal diet and dose calculation, CPCSEA Guidelines. |

|        |        |  |
|--------|--------|--|
| WEEK 2 | Day 7  | Routes of drug administration in research animals.   |
|        | Day 8  | Blood collection techniques in experimental animals, Bio-safety levels, Good laboratory practices.                                     |
|        | Day 9  | In-vivo screening method for drugs of Analgesics, Antidepressant, Diabetes and Hypertension.   |
|        | Day 10 | Visit to Post-Graduate Research Laboratory and Demonstration of Elevated plus Maze and Y-Maze tests for Anxiety and Memory assessment. |
|        | Day 11 | Visit to Departmental Molecular Pharmacology Laboratory.   |
|        | Day 12 | Demonstration ELISA, Demonstration of PCR, Electrophoresis Western blotting technique.   |

*Aradhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Pathology

|   |  |   |
|---|--|---|
| 1 | Name of Block  | 1   |
| 2 | Name of Elective   | <b>Leukemia Diagnosis</b>   |
| 3 | Location of hospital Lab or research facility                | Department of Pathology, KGMU   |
| 4 | Name of internal preceptor(s)                                | Dr Rashmi Kushwaha, Dr Mili Jain  |
| 5 | Name of external preceptor                                   | --  |
| 6 | Learning objectives of elective                              | <p>By the end of posting, learner opting for this elective will be able to</p> <ol style="list-style-type: none"> <li>a. Define and classify the leukemia</li> <li>b. Identify the etiology of leukemia</li> <li>c. Understand the signs and symptoms</li> <li>d. Should be able to identify the blast cells and other precursor cells in blood</li> <li>e. Understand the diagnostic modalities of leukemia</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 5   |
| 8 | Prerequisites for elective                                   | Learner must be vaccinated for Covid19 and hepatitis B<br>Universal precautions to be followed in labs  |

|     |   |   |
|-----|---|---|
| 9   | List of activities of student participation |   |
| 9.1 | Days 1-5                                    | 9.1: Familiarizing self with lab activities, staff, data entry, SOPs and observing peripheral smear making, CBC, Bone marrow procedure<br>9.2: Assisting in bone marrow and staining<br>9.3: Interpreting and correlating results with clinical diagnosis followed by viva for assessment |
| 9.2 | Days 6-10                                   |   |
| 9.3 | Days 11-15                                  |   |
| 10  | Learning Resources                          | 1. Robbins and Cotran Pathologic Basis of Disease<br>2. Bone marrow Pathology, Barbara Bain   |
| 11  | Portfolio entries required                  | Daily log of activity participated and techniques learnt  |
| 12  | Log book entry required                     | Satisfactory completion of posting as described above and endorsed by either of the preceptors with a “meets expectation” M grade   |
| 13  | Assessment                                  | Mandatory 75% attendance<br>Successful verification of required portfolio entries<br>Section staining<br>Viva voce  |
| 14  | Other comments                              | --  |

  
 Registrar  
 King George Medical University  
 Lucknow

| Days  | Activities  |
|-------|---|
| 1-5   | 1: Departmental tour with emphasis on Lymphoma Leukemia Lab<br>2. Interaction with preceptors to detailed plan of elective and observe working<br>3. Introduction to various lab procedures and lab etiquettes in use<br>4. Read the SOPs<br>5. Observe the technique |
| 6-10  | Observing, making entries, reading already stained slides by participating in reporting of cases; Assisting in Bone marrow aspiration , biopsy and staining; updating the logbook   |
| 11-15 | Interpreting and correlating results with clinical diagnosis; getting logbook checked<br><br>Viva voce  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Pathology**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | 1  |
| 2 | Name of Elective   | <b>Immunohistochemistry (IHC) in Cancer Diagnostics</b>  |
| 3 | Location of hospital Lab or research facility                | Department of Pathology, KGMU  |
| 4 | Name of internal preceptor(s)                                | Dr AK Singh, Dr M Sagar, Dr R Jaiswal  |
| 5 | Name of external preceptor                                   | --   |
| 6 | Learning objectives of elective                              | By the end of posting, learner opting for this elective will be able to<br>f. Enumerate and discuss the utility of IHC application in cancer diagnostics through interactive sessions<br>g. Rationalise use of IHC by participating in clinical reporting process<br>h. Assist in performing tissue processing and IHC technique by observation<br>i. Correlate results with histological and clinical diagnosis |
| 7 | Number of students that can be accommodated in this elective | 5  |
| 8 | Prerequisites for elective                                   | Learner must be vaccinated for Covid19 and hepatitis B<br>Universal precautions to be followed in labs   |

|     |   |  |
|-----|---|--|
| 9   | List of activities of student participation |  |
| 9.1 | Days 1-5                                    | 9.1: Familiarizing self with lab activities, staff, data entry, SOPs and observing tissue processing;  |
| 9.2 | Days 6-10                                   | Observing IHC technique  |
| 9.3 | Days 11-15                                  | 9.2: Assisting in IHC and HE staining<br>9.3: Interpreting and correlating results with clinical diagnosis followed by viva for assessment   |
| 10  | Learning Resources                          | <ul style="list-style-type: none"> <li>3. Diagnostic Histopathology of Tumors (2 volume set) 2020 edition by Christopher D M Fletcher</li> <li>4. Diagnostic Immunohistochemistry 6<sup>th</sup> Edition Elsevier by David Dabb</li> <li>5. Bancroft's Theory and Practice of Histological Techniques 8<sup>th</sup> Edition by Layton and Bancroft</li> </ul> |
| 11  | Portfolio entries required                  | Daily log of activity participated and techniques learnt   |
| 12  | Log book entry required                     | Satisfactory completion of posting as described above and endorsed by either of the preceptors with a "meets expectation" M grade  |
| 13  | Assessment                                  | Mandatory 75% attendance<br>Successful verification of required portfolio entries<br>Section staining<br>Viva voce   |
| 14  | Other comments                              | --   |

| Days  | Activities   |
|-------|--|
| 1-5   | 1: Departmental tour with emphasis on Histology and IHC laboratories<br>2. Interaction with preceptors to detailed plan of elective and observe working<br>3. Introduction to various instruments, chemicals, paraphernalia and lab etiquettes in use<br>4. Read the SOPs and techniques<br>5. Observe IHC technique |
| 6-10  | Observing, making entries, reading already stained slides by participating in reporting of cases; Assisting in IHC and HE staining; updating the logbook   |
| 11-15 | Interpreting and correlating results with clinical diagnosis; getting logbook checked<br>Independent staining<br>Viva voce   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Pathology

**Table 6: Example of a research learning experience in block 1**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block-1  |
| 2 | Name of Elective   | Immunoassay Diagnostics in Endocrine Disorders   |
| 3 | Location of hospital Lab or research facility                | Chemical Pathology Lab, Dept. of Pathology   |
| 4 | Name of internal preceptor(s)                                | Prof. U. S. Singh<br>Dr. Wahid Ali<br>Dr. Preeti Agarwal   |
| 5 | Name of external preceptor                                   | NA   |
| 6 | Learning objectives of elective                              | By the end of one month, learner opting for this elective will be able to <ol style="list-style-type: none"> <li>1. To enumerate various lab diagnostic tests in endocrine disorders.</li> <li>2. To observe/demonstrate/perform the correct method of specimens collection for immunoassays.</li> <li>3. To observe/assist/perform different types of ELISA methods used in immunoassay markers.</li> <li>4. To observe, assist/perform chemiluminescence micro particle assay in assaying special immunoassay markers.</li> <li>5. To correlate results of immunoassay markers in clinical diagnosis.</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 10   |

|    |   |   |
|----|---|---|
| 8  | Prerequisites for elective                  | Learner must be vaccinated for Covid19 and hepatitis B<br>Universal precautions to be followed in labs  |
| 9  | List of activities of student participation | <p><b>Week-1 (Day 1-6)</b> Orientation with lab activities, staff, data entry, Lab information system, SOPs of various tests methods and observing sample collection/phlebotomy and knowledge of different types of specimen collection vials/ vacutainers/ requisition form and observing online entry of patients data and observing validation of tests and reports printing and/or online report delivery.</p> <p><b>Week-2 (Day 7-15)</b> Observing/ assist in different types of ELISA for various immunoassays. e.g. Direct, Indirect, Sandwich and Competitive ELISA procedure</p> <ol style="list-style-type: none"> <li>1. Observing/assist in Calibration, programming of automated immunoassay analyzers (Chemiluminiscence micro particle Assay), discussion on test principle and methods for different immunoassay markers, interpretation of test results. Interpretation of IQC and EQAS results</li> <li>2. Interpreting tests results in clinical diagnosis of various endocrine disorders on the basis of clinical history and laboratory findings. Solving particular given Clinical case exercises related to endocrine disorders.</li> </ol> |
| 10 | Learning Resources                          | Laboratory Manual of Chemical Path Lab, Quality Manual/ Sample Collection Manual and SOPs of Immunoassays by ELISA and Chemiluminiscence analyzer. Text book of Henry's Clinical Diagnosis and Management by Laboratory Methods 22nd Edition, Harrison's Principles of Internal Medicine 19 <sup>th</sup> edition.  |
| 11 | Portfolio entries required                  | Daily record keeping of day to day activity in log book. Immunoassay test methods, clinical case exercises, QC Charts,  |

|    |                         |  |
|----|-------------------------|--|
| 12 | Log book entry required | Day today activity by learner to be recorded in log book and signed by either of preceptors.   |
| 13 | Assessment              | Mandatory attendance of 75% Satisfactory Verification log book entries, portfolios, Clinical case exercises completion, presentation of clinical case in departmental seminars/ academic activities. |
| 14 | Other comments          | Learner to be encouraged to write short abstract/article/ case reports /commentaries for publication in peer reviewed journals.  |

| Week   | Activities  |
|--|---|
| <b>Week-1</b><br>Day-1<br>Day-2<br>Day-3<br>Day-4<br>Day-5 | Day 1- Orientation of lab, interaction with staff and residents in laboratory area.<br>Day 2- learner will interact with preceptors in detailed plan of elective and observe various activities.<br>Day 3- Learn about various instruments, test principles, read SOPs, chemicals, reagents calibrators and controls materials used.<br>Day 4- observe sample collection area, patients data entry on LIS software, phlebotomy, types of vials vacutainers used for collecting blood specimens for different immunoassays.<br>Day 5- observing calibration curve, control charts, observing performing immunoassays by ELISA, and Chemiluminescence, observing validation of tests results. Observing how to print reports. |
| (Day 6 to Day 10)  | Observing and assisting patient's entry on LIMS, serum separation, Observing and assisting in doing different types of ELISA i. e. Direct, Indirect, Sandwich and Competitive for various immunoassays. Interpretation of Calibration curve in ELISA, demonstration of doing serial dilution, hook's effect, demonstration of linearity check.  |
| Day 11-13  | Observing and assisting in calibration, programming of tests parameters on  |

|           |   |
|-----------|---|
|           | Chemiluminescence immunoassay analysers for special test analytes in endocrine disorders. Interpretation of IQC LeveyJenning's chart application of Westgard rules in IQC interpretation. Results interpretation of clinical specimens requested for investigation. |
| Day 14-15 | Interpreting and correlating tests results with the clinical history of patients, solving clinical case exercises based of day to day activity, writing/presenting interesting case reports if any noted during these three weeks.                                  |

*Archan*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Pathology

|     |  |   |
|-----|--|---|
| 1.  | Name of Block  | Block 1   |
| 2.  | Name of Elective   | Electron Microscopy as specialized tool in interpretation otherwise difficult to diagnose cases by light microscopy   |
| 3.  | Location of hospital Lab or research facility                | Electron Microscopy Lab,<br>Department of Pathology, KGMU   |
| 4.  | Name of internal preceptor(s)                                | Prof. Atin Singhai<br>Prof. US Singh<br>Prof. Suresh Babu   |
| 5.  | Name of External preceptor                                   | -   |
| 6.  | Learning objectives of elective                              | At the end of posting, student should be versed with: <ol style="list-style-type: none"> <li>1. When need of electron microscopy arises during routine interpretation by light microscopy</li> <li>2. What are the principal and types of electron microscopy</li> <li>3. How to choose the types of electron microscopy for a particular sample</li> <li>4. How the sample processing and electron microscopy is done</li> <li>5. How to interpret the electron microscopy finding in context of clinical and light microscopy findings</li> <li>6. Demonstration of a case of synovial fluid crystallopathy / and other relevant case.</li> </ol> |
| 7.  | Number of Students that can be accommodated in this elective | 8   |
| 8.  | Prerequisites for elective                                   | Necessary Immunizations<br>Universal Precautions to be followed in labs   |
| 9.  | List of activities of student participation                  |   |
| 9.1 | Day 1-2  | Department round<br>Exposure to difficult to diagnose cases by light microscopy<br>Lecture on principal & types of electron microscopy  |
| 9.2 | Day 3-7  | Basics of sample processing<br>Demonstration of handling of transmission EM<br>Demonstration of handling of Scanning EM   |
| 9.3 | Day 8-13   | Demonstration of normal ultrastructure in control cases<br>Demonstration of abnormal ultrastructure in diseases<br>Comparing above two to understand disease pathology  |
| 9.4 | Day 14-15  | Work up of at least two cases by student on his/ her  |

|     |                            |  |
|-----|----------------------------|--|
|     |                            | own under supervision of internal preceptor  |
| 10. | Learning Resources         | Laboratory manuals and handouts<br>Robbins textbook of Pathology<br>Standard operation Protocols booklets  |
| 11. | Portfolio entries required | Daily logbook maintenance for <ol style="list-style-type: none"> <li>1. Lectures attended</li> <li>2. Cases seen</li> <li>3. Techniques learnt</li> <li>4. Documentation of worked up cases on own</li> <li>5. Documentation of presentation done</li> </ol> |
| 12. | Log book entry required    | As described above and endorsed by preceptor with a meets exception “ M grade  |
| 13. | Assessment                 | <ul style="list-style-type: none"> <li>• Mandatory 75% attendance atleast</li> <li>• Day to day participation in departmental activity</li> <li>• Performance of assigned tasks</li> <li>• Presentation of worked up cases</li> </ul>                        |
| 14. | Other comments             | Learner to be encouraged to write short abstract/article/case report/commentary for publication in any reputed pee reviewed journal  |

| Days  | Activites  |
|-------|--|
| 1-2   | Day 1 : Departmental round with exposure to all units<br>Day 2 : Exposure to few routinely encountered simple easy histopathology cases<br>Day 3 : Exposure to few difficult to diagnose histopathology cases<br>Day 4 : Day 3 activity continued plus interviewing students to asses knowledge<br>Day 5 :Detailed visit to electron microscopy lab & demonstration to work flow there |
| 3-7   | Student will learn basics of sample preservation, fixation and further handling to be ready for visualization by electron microscopy. Further student would be demonstrated handling of both scanning and transmission electron microscopes.   |
| 8-13  | Student would be demonstrated both normal and diseased ultrastructure to have a better understanding of the disease pathology. Further he/she will be exposed to archived cases for wider exposure.  |
| 14-15 | Student in expected to work up atleast 2 cases on his own under supervision of internal preceptor. Further a short viva based assessment would be done to identify lacuna in knowledge gained and cover them up accordingly.   |

**Dept. of Pathology.**

**Elective: Diagnostic cytopathology**

**Place of Elective: Dept. of Pathology.**

**No of students: 10**

**Duration: Fifteen days**

**Description:**

**Diagnostic cytopathology** is an art and science of interpretation of cells of human body that either exfoliate (desquamate) freely from the epithelial surfaces or are removed from tissue sources by various procedures. Cytological diagnosis is a more difficult as compared to histologic diagnosis as it is based on synthesis of the entire evidence available and knowledge of normal cells of a given source is essential. It is a field of rapid, simple and economical method of providing information prior to histological diagnosis and in triaging patients. In the early times it was essentially used as a cervical screening programme, later for exfoliative cytology of fluids but increasing diagnostic use of Fine Needle aspiration has led to its emergence as an important tool to better patient management.

|   |   |  |
|---|---|--|
| 1 | Name of Block                                 | I  |
| 2 | Name of Elective                              | Diagnostic Cytopathology   |
| 3 | Location of hospital Lab or research facility | Department of Pathology  |
| 4 | Name of internal preceptor(s)                 | Dr. Madhu Kumar, Dr. Malti Kumari Maurya and Dr. Shalini Bhalla  |
| 5 | Name of external preceptor                    | None   |
| 6 | Learning objectives of elective               | <p>By the end of fifteen days elective the third year student should be able to</p> <ol style="list-style-type: none"> <li>1. Define and understand the various terminologies in cytology and explain the different procedures used in routine cytopathology</li> <li>2. Observe and Demonstrate the basic procedure of FNA and processing of fluids in a supervised environment</li> <li>3. Elicit, document and present relevant history and do physical examination required before FNA</li> <li>4. Develop an understanding of cervical screening programs</li> <li>5. Observe Liquid based cytology processing and</li> </ol> |

|                 |   |  |
|-----------------|---|--|
|                 |   | understand the basic interpretation of PAP smear   |
| 7               | Number of students that can be accommodated in this elective    | 10   |
| 8               | Prerequisites for elective                                      | Required immunizations to be taken<br>Universal safety precautions<br>Good laboratory practices  |
| 9<br>9.1<br>9.2 | List of activities of student participation<br>Week-1<br>Week-2 | <p><b>Week 1:</b> Orientation to work flow in cytopathology. Introduction to terms and procedures and activities. Sample receiving with relevant history taking, other investigations and processing of different fluid samples. Observe and perform under supervision one fluid sample. Observe interpretation, entry of reports and validation.</p> <p>Vist to OPD and participate / assist in history taking, examination and assist in FNA. Observe processing in the laboratory.<br/>Write one case history, examination and procedure observed</p> <p><b>Week 2:</b> Learn and discuss importance of cervical cancer screening programme. Observe processing of Liquid based cytology samples. Write the importance and interpretation of PAP smears in cervical screening.</p> <p>Laboratory accreditation: importance and use. Relevance of Internal quality and External quality programs. Observe the art of interpretation from cells instead of tissue biopsy.</p> |

|    |                            |  |
|----|----------------------------|--|
| 10 | Learning Resources         | Fine Needle Aspiration Cytology, 5 <sup>th</sup> Ed. By Orell & Sterrett, Diagnostic cytology by Dr. P. Dey, The Bethesda System for Reporting Cervical cytology 3 <sup>rd</sup> Ed. |
| 11 | Portfolio entries required | Different aspects of Diagnostic cytopathology, Laboratory procedures observed and Case presentation done   |
| 12 | Log book entry required    | Satisfactory completion of all activities and signed by preceptor  |
| 13 | Assessment                 | Attendance<br>Successful verification of required portfolio entries<br>Successful completion of the posting as certified in the log book with a “meets expectation ‘M’ grade”        |
| 14 | Other comments             |  |

*Arचना*  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Psychiatry

|  |   |
|--|---|
| Name of Block  | <b>Block 1(15DAYS)</b>  |
| Name of Elective   | Undergraduate Medical students initiated research (Hands on experience on Basic Research Methodology)     |
| Location of hospital Lab or research facility                | Department of Psychiatry  |
| Name of internal preceptor(s)                                | Dr. Sujit Kumar Kar   |
| Name of external preceptor(s) if applicable                  | -   |
| Learning objectives of elective                              |   |
| Number of students that can be accommodated in this elective | 13  |
| Prerequisites for elective                                   | Basic knowledge of scientific research methodology  |
| List of activities of student participation                  |   |
| Learning resources for students                              |   |
| Portfolio entries required                                   | Assignments provided<br>-<br>Documentation of self-directed learning as summary and reflection.           |
| Logbook entries required                                     | Satisfactory Completion of posting by a preceptor with a "meets expectation" of grade M                   |
| Assessment   | Attendance 75%<br>Documentation of attendance and required portfolio and log book entries<br>Presentation |
| Other comments   |   |

### Department of Medical Education

|  |  |
|--|--|
| Name of Block  | I (One)  |
| Name of Elective   | Training Young Minds for Collaborative Practice (previously Incorporating IPE in Medical Curriculum)   |
| Location of hospital Lab or research facility                | Department of Medical Education  |
| Name of internal preceptor(s)                                | Dr. Suyog Sindhu   |
| Name of external preceptor                                   | None   |
| Learning objectives of elective                              | <p>At the end of the elective course, Phase 3 medical students should be able to:</p> <ol style="list-style-type: none"> <li>1. Define interprofessional collaborative education and practice</li> <li>2. Recognize cross cutting social problems which can be addressed by interprofessional teams</li> <li>3. Visualize an interprofessional education/collaborative care model in their setting</li> <li>4. Identify the connection between interprofessional practice and education</li> </ol> |
| Number of students that can be accommodated in this elective | 5  |
| Prerequisites for elective                                   | Motivation to learn with, from and about   |

|  |  |
|--|--|
| <p>List of activities of student participation</p> <p>Week-1</p> <p>Week-2</p> | <p><b>Week-1</b></p> <p>I. Interactive Sessions regarding:</p> <ol style="list-style-type: none"> <li>1. Changing Paradigms in Health Professions Education</li> <li>2. Introduction to Interprofessional Education(IP)</li> <li>3. IP Teamwork</li> <li>4. IP Communication</li> <li>5. IP Ethics</li> </ol> <p>II. Short Projects Allotted to students</p> <p>III. Case-based Sessions</p> <p><b>Week-2</b></p> <p>I. Project Discussions &amp; Completion</p> <p>II. Writing Reflections</p> <p>III. Debriefing</p> |
| <p>Learning Resources</p>  | <p>Reference of relevant books, journals and videos will be shared with the students.</p>  |
| <p>Portfolio entries required</p>  | <p>Projects made will be submitted.</p>  |
| <p>Log book entry required</p>   | <p>Completion of Elective Course signed by preceptor with a “meets expectation ‘(M)’ grade”</p>  |
| <p>Assessment</p>  | <p>Project Submission</p>  |
| <p>Other comments</p>  |  |

## Department of Anatomy

### Description of the Elective:

Chromosomal abnormalities are a major cause of human genetic diseases. **Karyotyping** is a conventional cytogenetic method which is used for the identification of structural and numerical chromosomal abnormalities with a resolution of 5-10 Mb. In the present era, several new molecular cytogenetic techniques are evolved such as **Fluorescence In Situ Hybridization (FISH)**, **Spectral Karyotyping (SKY)**, **Array Comparative Genomic Hybridization (a-CGH)**, **Multiplex Ligation-Dependent Probe Amplification (MLPA)** and **Next Generation Sequencing (NGS)** which delineate the chromosomal aberrations to the base-pair level.

Karyotyping is the process of pairing and ordering all the chromosomes of an organism, thus providing a genome-wide snapshot of an individual's chromosomes. In the analysis of karyograms, we can detect chromosomal deletions, duplications, translocations, and inversions. Karyotyping technique is a diagnostic tool for some birth defects, genetic disorders, and even cancers.

Cytogenetic techniques have clinical applications in the field of prenatal diagnosis also. Molecular cytogenetic techniques have paved way for advanced molecular diagnosis, which now plays a significant role in both diagnostics and clinical research. These advances have led to the increased knowledge of the possible molecular mechanism involved in the chromosomal rearrangements and the genotype-phenotype correlation thus helping the patients towards better diagnosis and genetic counselling.

|   |                                 |   |
|---|---------------------------------|---|
| 1 | Name of Block                   | Block I   |
| 2 | Name of Elective                | <b>Basic Course in Karyotyping</b>  |
| 3 | Location of research facility   | Cytogeneticslab- Department of Anatomy  |
| 4 | Name of internal preceptor(s)   | Dr Rakesh Kumar Verma, Professor<br>Dr Sushma Tomar, Additional Professor<br>Dr. Navneet Kumar, Professor & Head<br>Dr. Archana Rani, Professor   |
| 5 | Name of external preceptor      | Brijesh Kumar, Head of Department Genetics, Advanced Genomics Institute and Laboratory Medicine, New Delhi.   |
| 6 | Learning objectives of elective | At the end of this block, the 3 <sup>rd</sup> year MBBS students opting for this elective should be able to: <ul style="list-style-type: none"> <li>• Describe the structure of chromosome</li> <li>• Elaborate the classification of chromosomes</li> <li>• Describe the structural aberrations of chromosomes</li> <li>• Describe the numerical aberrations of chromosomes</li> <li>• Describe the procedure of metaphase chromosome preparations from peripheral venous blood</li> </ul> |

|                 |   |  |
|-----------------|---|--|
|                 |   | <ul style="list-style-type: none"> <li>Analyze the slide under a microscope</li> <li>Identify the good metaphase spreads for analysis</li> <li>Count the chromosomes in a metaphase</li> <li>Identify all the chromosomes in a metaphase</li> <li>Perform chromosomal analysis and prepare karyogram with the help of cytovision software</li> </ul>   |
| 7               | Number of students that can be accommodated in this elective    | 10   |
| 8               | Prerequisites for elective                                      | General Lab Rules for Cytogenetics(to maintain aseptic condition and biomedical waste management)  |
| 9<br>9.1<br>9.2 | List of activities of student participation<br>Week-1<br>Week-2 | <p><b>Week- 1:</b></p> <ul style="list-style-type: none"> <li>Participation in lectures on Introduction of cytogenetics, structure of chromosome, principles and methodology of karyotyping. Reflection: writing and formative assessment</li> <li>Participation in laboratory sessions: Culture initiation, harvesting, metaphase chromosome preparation on a slide, Aging of slides, GTG-banding, Slide mounting.Reflection: writing and formative assessment</li> </ul> <p><b>Week- 2:</b></p> <ul style="list-style-type: none"> <li>Participation in lectures and laboratory sessions on identification of chromosomes, normal and abnormal karyogram. Reflection: writing and formative assessment</li> <li>Participation in lectures and laboratory sessions on microscopy, introduction of cytovision software.Reflection: writing and formative assessment</li> </ul> |

|    |                            |   |
|----|----------------------------|---|
| 10 | Learning Resources         | Essential of cytogenetics and molecular Cytogenetics laboratory testing by Usha Dutta.<br>Medical Genetics by G.P. Pal.<br>Principles of Clinical Genetics by Yogesh Ashok Sontakke |
| 11 | Portfolio entries required | Yes<br>Records of normal and abnormal karyogram   |
| 12 | Log book entry required    | Satisfactory completion of posting by the preceptor with a 'Meets expectation M Grade'  |
| 13 | Assessment                 | Atleast 75% attendance<br>Formative: Day to day participation and performance of assignments  |
| 14 | Other comments             |   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Anatomy

### Description of the Elective:

Ultrasonography is used as a common technique to visualize anatomic structures for diagnosis and to guide procedures. Ultrasound machines are widely available, they serve as a fast bedside screening tool which is noninvasive, highly sensitive and specific. The modern ultrasound scanner is becoming an essential diagnostic apparatus that facilitates in extracting pictures of anatomical structures in precise detail helping to enhance a students' understanding of anatomy or "living anatomy" from different perspectives.

Ultrasound has only been incorporated into undergraduate medical student curricula to a limited degree. Formal ultrasound training is usually accomplished during residency and this has not been implemented as a curricular course to be learned by every student in undergraduate medical teaching. It must be realized that ultrasound is an operator dependent technique and to positively affect patient care sufficiently trained individuals having practical experience should perform it.

This rotation is a specialized opportunity for interested students for learning the basics of sonographic appearance of anatomical structures. An exposure of ultrasound education to medical students via an elective module will allow students to gain individual skills in imaging various human organs, creating an individual foundation for further medical practice.

This may help to serve as a motivation to inspire them to explore it further to foster physical examination skills. This elective will also help to provide a foundation in basics of ultrasound for students planning to train in any medical specialty.

|   |   |  |
|---|---|--|
| 1 | Name of Block                                 | Block I  |
| 2 | Name of Elective                              | <b>Sonographic Anatomy: Living Anatomy by Ultrasound</b>   |
| 3 | Location of hospital Lab or research facility | Ultrasonography lab- Department of Anatomy   |
| 4 | Name of internal preceptor(s)                 | Dr Garima Sehgal   |
| 5 | Name of external preceptor                    | ----   |
| 6 | Learning objectives of elective               | At the end of this block, 3 <sup>rd</sup> year MBBS students taking this elective should be able to: <ul style="list-style-type: none"> <li>• demonstrate knowledge of basic working principle of ultrasound, transducer types, knobology and sonographic terminologies</li> <li>• recognize image orientation and image appearance</li> </ul> |

|     |  |  |
|-----|--|--|
|     |  | <p>on ultrasound screen and ultrasound scans</p> <ul style="list-style-type: none"> <li>• recognize surface landmarks for appropriate transducer positioning to perform sonographic examinations</li> <li>• recognize appropriate scan planes on the ultrasound screen</li> <li>• differentiate ultrasound appearance of muscle, fat, tendon, nerve, blood vessel, and bone</li> <li>• identify the liver lobes, the IVC, portal vein, hepatic veins hepatic artery and aorta on ultrasound screen</li> <li>• identify and demonstrate the gall bladder body and neck in long and short axis on the ultrasound screen</li> <li>• identify the long and short axis of each kidney and the sonographic appearance of capsule, cortex, renal pyramid, pelvis of the kidney</li> </ul>   |
| 7   | Number of students that can be accommodated in this elective | 15   |
| 8   | Prerequisites for elective                                   | Knowledge and understanding of normal gross and sectional anatomy relative to sonographic imaging.   |
| 9   | List of activities of student participation                  | <p><b>Week-1</b></p> <ul style="list-style-type: none"> <li>• Participation in Interactive session and demonstration on working principle of ultrasound, sonographic terminologies transducer types knobology, image orientation, and image appearance</li> <li>• Participation in interactive session and laboratory demonstration to recognize surface landmarks for appropriate transducer positioning, to recognize appropriate scan planes on the ultrasound screen</li> <li>• Participation in Interactive lecture and laboratory session to recognize and differentiate ultrasound appearance of muscle, fat, tendon, nerve, blood vessel, and bone.</li> <li>• Reflections and Assessment</li> </ul> <p><b>Week-2</b></p> <ul style="list-style-type: none"> <li>• Participation in Interactive Lecture and laboratory sessions to recognize surface landmarks for appropriate transducer positioning, to identify the liver lobes, IVC, portal vein, hepatic veins hepatic artery abdominal aorta and gall bladder body and neck in long and short axis</li> <li>• Participation in Interactive Lecture and laboratory</li> </ul> |
| 9.1 | Week-1   |  |
| 9.2 | Week-2   |  |

|    |                            |  |
|----|----------------------------|--|
|    |                            | <p>sessions to recognize surface landmarks for appropriate transducer positioning, to identify the long and short axis of each kidney and the sonographic appearance of capsule, cortex, renal pyramid, pelvis</p> <ul style="list-style-type: none"> <li>• Participation Independent learning sessions and small group discussion.</li> <li>• Reflections and Assessment</li> </ul> |
| 10 | Learning Resources         | <ul style="list-style-type: none"> <li>• Surface &amp; Radiological Anatomy by A Halim</li> <li>• Atlas of Sectional anatomy</li> <li>• WHO Manual of diagnostic ultrasound</li> <li>• Diagnostic Ultrasound, Rumack Carol M</li> <li>• Online resources</li> </ul>  |
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>• Yes</li> <li>• Records of ultrasound images and videos</li> <li>• Records of assignments</li> <li>• Documentation of self-directed learning</li> <li>• Reflections on learning experience</li> </ul>  |
| 12 | Log book entry required    | Satisfactory completion of posting by the preceptor with a <b>‘Meets expectation M Grade’</b>  |
| 13 | Assessment                 | <p>Atleast 75% attendance<br/>Formative: Day to day participation and performance of assignments</p>   |
| 14 | Other comments             |  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

| Week   | Activities   |
|--|--|
| <p><b><u>Week-1</u></b></p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p> | <p><b>Day 1-</b></p> <ul style="list-style-type: none"> <li>• Interactive Lecture - working principle of ultrasound, transducer types, sonographic terminologies and knobology</li> <li>• Interactive session on transducer types and knobology and lab demonstration of transducer types and knobology</li> </ul> <p><b>Day 2-</b></p> <ul style="list-style-type: none"> <li>• Group discussion - revisiting gross anatomy</li> <li>• Interactive session – gross anatomy surface landmarks</li> </ul> <p><b>Day 3-</b></p> <ul style="list-style-type: none"> <li>• Interactive Lecture</li> <li>• Laboratory demonstration - image orientation, image appearance and using sonographic terminologies</li> <li>• Lab activity- recognizing surface landmarks for appropriate transducer positioning, recognizing appropriate scan planes</li> </ul> <p><b>Day 4-</b></p> <ul style="list-style-type: none"> <li>• Interactive Lecture</li> <li>• Laboratory session - recognizing and differentiating ultrasound appearance of muscle, fat, tendon, nerve, blood vessel, and bone.</li> </ul> <p><b>Day 5 – Reflection writing and formative assessment</b></p> |
| <p><b><u>Week-2</u></b></p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p> | <p><b>Day 1-</b></p> <ul style="list-style-type: none"> <li>• Interactive lecture</li> <li>• Laboratory session to localize &amp; identify ultrasound appearance liver lobes and segments, IVC, portal vein, hepatic veins, hepatic artery, abdominal aorta.</li> </ul> <p><b>Day 2-</b></p> <ul style="list-style-type: none"> <li>• Interactive lecture</li> <li>• Laboratory session to localize &amp; identify ultrasound appearance gall bladder body and neck in long and short axis</li> </ul> <p><b>Day 3-</b></p> <ul style="list-style-type: none"> <li>• Interactive Lecture</li> <li>• Laboratory session to localize and identify long and short axis of kidney and the sonographic appearance of capsule, cortex, pyramid &amp; renal pelvis</li> </ul> <p><b>Day 4-</b></p> <ul style="list-style-type: none"> <li>• Independent learning sessions and group discussions</li> </ul> <p><b>Day 5 –</b></p> <ul style="list-style-type: none"> <li>• Reflection writing and formative assessment</li> </ul>   |

## Department of Forensic Medicine & Toxicology

### Elective: Medicolegal autopsy & crime scene investigation

This 15 days elective is open to Phase 3.1 students seeking to complement the curriculum in Autopsy & crime scene investigation addressed in the undergraduate medical education program and will provide a comprehensive introduction to Autopsy procedure & crime scene investigation. This elective is designed to provide an advanced level of active clinical learning in forensic death investigation. Students will have responsibilities in and death certification, autopsy pathology and specialty (i.e. cardiac, neonatal, neuropathology), injury mechanism and public health / hospital quality assurance of autopsy studies.

|     |   |   |
|-----|---|---|
| 1.  | Name of block   | Block 1   |
| 2.  | Name of Electives   | Medicolegal autopsy & crime scene investigation   |
| 3.  | Location of hospital Lab or research facility               | Mortuary of Forensic Medicine & Toxicology department   |
| 4.  | Name of internal preceptor(s)                               | Dr Anoop K Verma<br><a href="mailto:vermakgmc@gmail.com">vermakgmc@gmail.com</a><br><br>Dr Mousami Singh<br><a href="mailto:mousamisingh6@gmail.com">mousamisingh6@gmail.com</a><br><br>Dr Anshu Priya<br><a href="mailto:anshupriya@kgmcindia.edu">anshupriya@kgmcindia.edu</a>  |
| 5.  | Name of external preceptor's                                | NA  |
| 6.  | Learning objectives of electives                            | By the end of 2 week the student of phase 3.1 MBBS will be able to demonstrate under faculty supervision- <ul style="list-style-type: none"> <li>• Basic steps of medico-Legal autopsy</li> <li>• Basic mechanism of crime scene investigation</li> <li>• Physical &amp; trace evidence collection &amp; preservation</li> <li>• Able to determine cause &amp; manner of death as per ICD10 through autopsy findings</li> </ul> |
| 7.  | Name of students that can be accommodated in this electives | 10  |
| 8.  | Prerequisites for electives                                 | Immunised for necessary immunisation  |
| 9.  | List of activities of student participation                 |   |
| 9.1 | Week-1  | Analysis of important autopsy documents & Basic steps of autopsy procedure  |
| 9.2 | Week-2  | Basic crime scene Investigation in a simulated environment & trace evidence collection  |
| 10. | Learning resources  | <ul style="list-style-type: none"> <li>• Autopsy &amp; crime scene video demonstration</li> <li>• Essentials of autopsy practise by Guy</li> </ul>  |

|     |                            |  |
|-----|----------------------------|--|
|     |                            | N.Rutty ,Publisher is Springer,1 <sup>st</sup> edition   |
| 11. | Portfolio entries required | <ul style="list-style-type: none"> <li>• Record of evidence collection from simulated crime scene</li> <li>• At least one autopsy performance under supervision</li> <li>• Seminars</li> </ul>   |
| 12. | Log book entry required    | Completion of posting signed by preceptor's with a "Meets expectation '(M)' grade"   |
| 13. | Assessment                 | Formative assessment- <ul style="list-style-type: none"> <li>• attendance</li> <li>• day-to-day participation in departmental activity</li> <li>• Identification of autopsy instruments(MCQ's,OSCE)</li> <li>• Presentation of worked up autopsy case in department</li> <li>• Problem solving case scenarios</li> </ul> |
| 14. | Other comments             | None   |

### Elective - Clinical Toxicology

Medical toxicologists care for patients suffering from intentional or inadvertent exposure to pharmaceuticals, drugs of abuse, industrial and hazardous materials, environmental chemicals, plant toxins, and animal venoms. Phase 3.1 medical students on the 15 days Clinical Toxicology Elective learn to assess clinical problems relating to the toxic effects of drugs and poisons. Students participate in case discussions of poisonings and drug overdoses and perform reference calls on hospitalized patients. The goals and objectives above will be accomplished during this 15 day rotation by working directly with the toxicology faculty physician and residents. This includes, doing bedside consults, participating in rounds and lectures, and preparing toxicology presentations.

|   |  |   |
|---|--|---|
| 1 | <b>Name of Block</b>                                 | Block 1   |
| 2 | <b>Name of Elective</b>                              | Clinical Toxicology   |
| 3 | <b>Location of hospital Lab or research facility</b> | Department of Forensic Medicine & Toxicology & Department of Medicine   |
| 4 | <b>Name of internal preceptor(s)</b>                 | Dr Shiuli<br>Dr A K Verma   |
| 5 | <b>Name of external preceptor</b>                    | Dr Himanshu,<br>Department of Medicine, KGMU  |
| 6 | <b>Learning objectives of elective</b>               | <p>After attending this elective a Phase 3.1 student will be able to</p> <ol style="list-style-type: none"> <li>1. Demonstrate appropriate knowledge and skills in recognizing typical presentations of common and life threatening toxicologic problems.</li> <li>2. demonstrate appropriate knowledge and skills in differential diagnoses of toxic syndromes</li> <li>3. compare various decontamination techniques and identify scenarios in which they will be useful</li> <li>4. demonstrate appropriate knowledge and skills in ordering diagnostic &amp; therapeutic procedures on poisoned patients</li> <li>5. demonstrate appropriate knowledge &amp; understanding of antidotes used in the management of poisonings</li> </ol> |

|     |  |   |
|-----|--|---|
| 7   | Number of students that can be accommodated in this elective | 5   |
| 8   | Prerequisites for elective                                   | NA  |
| 9   | List of activities of student participation                  | <ul style="list-style-type: none"> <li>• Introduction to Toxidromes and basics management of toxicological emergencies</li> <li>• Participating in analytical toxicological lab and understanding basic bedside colour tests</li> <li>• Observing and assisting toxicological references with a supervisor</li> <li>• Presentation of articles for Journal club once</li> </ul> |
| 9.1 | Week-1   |   |
| 9.2 | Week-2   |   |
| 10  | Learning Resources   | Goldfrank's Textbook of Medical Emergencies   |
| 11  | Portfolio entries required                                   | <ul style="list-style-type: none"> <li>• At least two case presentation in department</li> <li>• Presentation of article in Journal club</li> </ul>   |
| 12  | Log book entry required                                      | Satisfactory completion of posting authentication by preceptor  |
| 13  | Assessment   | Attendance<br>Successful demonstration of bedside clinical test   |
| 14  | Other comments   | None  |

## Department of Forensic Medicine & Toxicology

### Elective – Clinical Ethics

This 15 days elective is open to Phase 3.1 students seeking to complement the curriculum in ethics and law addressed in the undergraduate medical education program and will provide a comprehensive introduction to clinical ethics. By the end of the course participants will be able to identify and articulate ethical issues in clinical scenarios, and discuss these with reference to ethical principles and theories using different frameworks. Participants will leave with a greater understanding of the complexities of determining best interests and a clear understanding of their own obligations in relation to General Data Protection Rules and confidentiality. They will also have an appreciation of the processes of clinical ethics decision-making and better sense of how the different perspectives of those involved can be reconciled. Principal goal of this elective is to improve the quality of patient care, the elective will focus on development of cognitive skill, behavioral skill & character developmental skill. Ethics is inherent & inseparable part of good clinical medicine. It will improve learners awareness, attitude , knowledge, moral reasoning & confidence

|   |   |  |
|---|---|--|
| 1 | Name of Block                                 | Block 2  |
| 2 | Name of Elective                              | Clinical Ethics  |
| 3 | Location of hospital Lab or research facility | Department of Forensic Medicine & Toxicology   |
| 4 | Name of internal preceptor(s)                 | Dr Anoop K.Verma<br><a href="mailto:vermakgmc@gmail.com">vermakgmc@gmail.com</a><br><br>Dr Shiuli<br><a href="mailto:drshiuli@gmail.com">drshiuli@gmail.com</a><br><br>Dr Sangeeta<br><a href="mailto:Dr.sangeeta.sahni@gmail.com">Dr.sangeeta.sahni@gmail.com</a>                                     |
| 5 | Name of external preceptor                    | N/A  |
| 6 | Learning objectives of elective               | Phase 3.1 student will be able to-<br>6. Understand the role of ethics in medicine<br>7. Identify, analyze & resolve ethical issues arising in medical practice<br>8. Understand the ethical dimensions of patient care<br>9. Develop competence in core ethical behavior (obtaining informed consent, |

|     |  |  |
|-----|--|--|
|     |  | <p>assessing decision making capacity, discussing resuscitation status, effective communication etc)</p> <p>10. To recognize medical issues (dilemma) when they arise in practice</p> <p>11. To deal with medical issues in a systemic manner in a more accountable &amp; transparent way for the benefit of patient</p> <p>12. Appreciate cultural diversity &amp; its impact on ethics</p> |
| 7   | Number of students that can be accommodated in this elective | 10   |
| 8   | Prerequisites for elective                                   | N/A  |
| 9   | List of activities of student participation                  |  |
| 9.1 | Week-1   | <ul style="list-style-type: none"> <li>▪ Structured interviews about Common ethical issues with clinicians in specific clinical practice</li> <li>▪ Engaging in simulated clinical ethics scenario</li> </ul>  |
| 9.2 | Week-2   | <ul style="list-style-type: none"> <li>▪ Producing short film on ethical issues/short play</li> <li>▪ Role play-Ethical dilemmas</li> <li>▪ Ethics workup- working in teams</li> </ul>   |
| 10  | Learning Resources   | <ul style="list-style-type: none"> <li>▪ Medical ethics a very short introduction, by Tony Hope, Oxford university press</li> <li>▪ Pre-recorded sessions</li> </ul>   |

|    |                            |   |
|----|----------------------------|---|
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>▪ At least 2 case scenario on ethical issues workup</li> <li>▪ Seminars</li> </ul> |
| 12 | Log book entry required    | Satisfactory completion of posting authentication by preceptor with a “meets expectation ‘(M)’ grade”                     |
| 13 | Assessment                 | Attendance<br>Viva voce<br>OSPE<br>Simulated cases  |
|    | Other comments             | None  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Obstetrics & Gynaecology**

|   |   |   |
|---|---|---|
| 1 | Name of Block                                 | Block 1   |
| 2 | Name of Elective                              | <p>Medical Genetics</p> <p>This elective will give students an insight of basics of genetics &amp; genomics. The student will get an opportunity to learn and discuss about the patterns of inheritance of various Genetic diseases from esteemed international faculty. They would get a chance to learn how to take genetic history, draw a pedigree and determine the nature of inheritance of a genetic disorder. They will also get a chance to learn the details of providing Genetic counselling under supervised settings. In the last week they will be able to observe DNA extraction, Karyotyping and running a PCR.</p> |
| 3 | Location of hospital Lab or research facility | KGMU, Lucknow   |
| 4 | Name of internal preceptor(s)                 | <p>Dr Amita Pandey, Deptt of Ob/Gyn</p> <p>Dr Renu Singh, Deptt of Ob/Gyn</p> <p>Dr Neetu Nigam, Deptt of CFAR</p>  |
| 5 | Name of external preceptor                    | <p>Prof Dhavendra Kumar, Bart's and The London School of Medicine and Dentistry, Queen Mary University of London, UK</p>  |
|   |   |   |

|   |  |   |
|---|--|---|
| 6 | Learning objectives of elective                              | <p><b>Week 1</b></p> <p>1) To discuss the basics of</p> <ul style="list-style-type: none"> <li>- Gene structure</li> <li>- Organization of Genome</li> <li>- DNA structure</li> <li>- RNA structure</li> <li>- Mitochondrial structure &amp; function</li> </ul> <p>2) To discuss the inheritance patterns of Genetic &amp; genomic diseases</p> <ul style="list-style-type: none"> <li>- Mendelian (Monogenic) inheritance</li> <li>- Complex polygenic inheritance</li> <li>- Chromosomal inheritance</li> <li>- Non-traditional modes of inheritance</li> </ul> <p>3) To draw a Pedigree</p> <p>4) To present a genetic history and determine the nature of inheritance of a given condition</p> <p><b>Week 2</b></p> <ol style="list-style-type: none"> <li>1. To perform Genetic Counselling</li> <li>2. To observe Extraction of DNA from human blood</li> <li>3. To observe running a PCR</li> <li>4. To observe performing a karyotype</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 10  |
| 8 | Prerequisites for elective                                   | Interest in the field   |

|     |   |  |
|-----|---|--|
| 9   | List of activities of student participation | <b>Week 1</b><br>1) To participate in online and offline learning sessions and discussions about the basics of genetics<br>2) To participate in online and offline learning sessions and discussions about the inheritance patterns of Genetic & genomic diseases<br>3) To participate in history taking in case with a genetic basis<br>4) To participate in drawing a pedigree<br>5) To identify the inheritance pattern according to the genetic history<br><br><b>Week 2</b><br>6) To participate in Genetic counselling sessions in supervised setting<br>7) To observe extraction of DNA from Human blood<br>8) To observe running a PCR<br>9) To observe performing a Karyotype |
| 9.1 | Week-1                                      |  |
| 9.2 | Week-2                                      |  |
| 10  | Learning Resources                          | 1) Handouts provided by the faculty<br>2) Standard reference books for Genetic disorders   |
| 11  | Portfolio entries required                  | Assignments provided<br>Four worked up case records that have been presented<br>Documentation of self-directed learning as summary and reflection  |
| 12  | Log book entry required                     | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”   |
| 13  | Assessment                                  | Attendance :75%<br>Formative: Participation in counselling of couple and team activities<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries   |
| 14  | Other comments                              |  |

### Department of Community Medicine

| Name of Block  | Block 1  |
|--|--|
| Name of elective   | Introduction to statistical software (epi info , SPSS)   |
| Location of hospital lab or research facility                | Department of Community Medicine & Public Health, KGMU UP, Lucknow   |
| Name of Internal preceptor(s)                                | Dr Monika Agarwal / Dr Prashant Kr Bajpai  |
| Name of external preceptor (if applicable)                   | -  |
| Learning objectives of elective                              | To orient and sensitise To apply the software in Data analysis Introduction to epidemiology Introduction to SPSS Hands on training on above software |
| Number of students that can be accommodated in this elective | 5  |
| Prerequisites for elective                                   | All undergraduates having basic Knowledge of statistics  |
| List of activities of student participation                  | Hands-on training on epidemiology and SPSS   |
| Learning resources for students                              | Mahajan & Gupta textbook of social and preventive medicine   |
| Portfolio entries required                                   | YES  |
| Logbook entry required                                       | YES  |
| Assessment   | Multiple Choice questions, exercise on related software  |
| Other comments   | None   |

# ELECTIVE COURSE BLOCK-2

*Aruhana*  
Registrar  
King George Medical University  
Lucknow

**Department of General Surgery**

|     |  |  |
|-----|--|--|
| 1.  | <b>Name of Block</b>   | Block II   |
| 2.  | <b>Name of Elective</b>  | Benign and Malignant Breast diseases   |
| 3.  | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 4.  | <b>Name of Internal Preceptor(s)</b>                                   | Dr Surender Kumar, Professor<br>Dr Gitika Nanda Singh, Additional Professor<br>Dr Kushagra Gaurav, Associate Professor   |
| 5.  | <b>Name of External Preceptor(s)</b>                                   | Prof Gaurav Agarwal, SGPGIMS<br>Dr Sabaratenem, SGPGIMS  |
| 6.  | <b>Learning Objectives of Elective</b>                                 | a. Know the components of a thorough breast examination, including examination of the nodal basins.<br>b. Aetiology and management of Benign breast diseases<br>c. Describe the surgical options for the treatment of breast cancer in both the breast and the axilla.<br>d. Understand the treatment of breast cancer by stage.<br>e. Describe how to manage a patient with an imaging abnormality. |
| 7.  | <b>Number of students that can be accommodated in this elective</b>    | 15   |
| 8.  | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of Breast anatomy  |
| 9.  | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching   |
| 10. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 11. | <b>Portfolio Entries required</b>                                      | Yes  |
| 12. | <b>Log Book entry required</b>   | Yes  |
| 13. | <b>Assessment</b>  | Yes  |
| 14. | <b>Other comments</b>  | NA   |

| <b>Week</b> | <b>Activities</b>  |
|-------------|--|
| Week 1      |  |
| Day 1       | Introduction to breast anatomy   |
| Day 2       | Benign Breast Diseases – Etiology and Management   |
| Day 3       | Breast Oncology I – Etiopathogenesis, Assessment and Staging                               |
| Day 4       | Breast Oncology II – Management  |
| Day 5       | Breast Oncology III – Survival and Quality of Life issues                                  |
| Week 2      | Observation of Operative procedures in operation theatres, Operative videos-based teaching |

**Department of General Surgery**

|     |  |  |
|-----|--|--|
| 15. | <b>Name of Block</b>   | Block II   |
| 16. | <b>Name of Elective</b>  | Benign and Malignant thyroid diseases  |
| 17. | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 18. | <b>Name of Internal Preceptor(s)</b>                                   | Dr Surender Kumar, Professor<br>Dr Gitika Nanda Singh, Additional Professor<br>Dr Kushagra Gaurav, Associate Professor   |
| 19. | <b>Name of External Preceptor(s)</b>                                   | Prof Gaurav Agarwal, SGPGIMS<br>Dr Sabaratenem, SGPGIMS  |
| 20. | <b>Learning Objectives of Elective</b>                                 | f. Know the components of a thorough breast examination, including examination of the nodal basins.<br>g. Aetiology and management of Benign breast diseases<br>h. Describe the surgical options for the treatment of breast cancer in both the breast and the axilla.<br>i. Understand the treatment of breast cancer by stage.<br>j. Describe how to manage a patient with an imaging abnormality. |
| 21. | <b>Number of students that can be accommodated in this elective</b>    | 15   |
| 22. | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of Thyroid anatomy   |
| 23. | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching   |
| 24. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 25. | <b>Portfolio Entries required</b>                                      | Yes  |
| 26. | <b>Log Book entry required</b>   | Yes  |
| 27. | <b>Assessment</b>  | Yes  |
| 28. | <b>Other comments</b>  | NA   |

| <b>Week</b> | <b>Activities</b>  |
|-------------|--|
| Week 1      |  |
| Day 1       | Introduction to breast anatomy   |
| Day 2       | Benign Thyroid Diseases – Etiology and Management  |
| Day 3       | Thyroid Oncology I – Etiopathogenesis, Assessment and Staging                              |
| Day 4       | Thyroid Oncology II – Management   |
| Day 5       | Thyroid Oncology III – Survival and Quality of Life issues                                 |
| Week 2      | Observation of Operative procedures in operation theatres, Operative videos-based teaching |

**Department of General Surgery**

|     |  |  |
|-----|--|--|
| 1.  | <b>Name of Block</b>   | Block II   |
| 2.  | <b>Name of Elective</b>  | Basics of Minimal Invasive Surgery   |
| 3.  | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 4.  | <b>Name of Internal Preceptor(s)</b>                                   | Dr Awanish Kumar, Professor<br>Dr Faraz Ahmad, Additional Professor<br>Dr Akshay Anand, Additional Professor<br>Dr Ajay K Pal, Additional Professor  |
| 5.  | <b>Name of External Preceptor(s)</b>                                   | Dr Rohit Srivastava, RMLIMS  |
| 6.  | <b>Learning Objectives of Elective</b>                                 | a. Demonstrate an understanding of the applications and risks of minimal access surgery (MAS).<br>b. To learn the indications, contraindications and limitations of MAS.<br>c. To demonstrate an understanding of the technical and physiologic principles of minimal access surgical techniques.<br>d. An understanding of the particular requirements of day case surgery.<br>e. A knowledge of basic and advanced laparoscopic procedures |
| 7.  | <b>Number of students that can be accommodated in this elective</b>    | 15   |
| 8.  | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery   |
| 9.  | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching   |
| 10. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 11. | <b>Portfolio Entries required</b>                                      | Yes  |
| 12. | <b>Log Book entry required</b>   | Yes  |
| 13. | <b>Assessment</b>  | Yes  |
| 14. | <b>Other comments</b>  | NA   |

| <b>Week</b> | <b>Activities</b>  |
|-------------|--|
| Week 1      |  |
| Day 1       | Introduction to Laparoscopic Surgery, Instrumentation, Ergonomics                          |
| Day 2       | Operative Laparoscopic Surgeries I – Cholecystectomy, Appendicectomy                       |
| Day 3       | Operative Laparoscopic Surgeries II – Inguinal and Incisional Hernia Surgery               |
| Day 4       | Operative Laparoscopic Surgeries III – Advanced Lap procedures – Hellers, Splenectomy etc  |
| Day 5       | Operative Laparoscopic Surgeries III – Bariatric Surgery, SILS, NOTES, Robotics            |
| Week 2      | Observation of Operative procedures in operation theatres, Operative videos-based teaching |

**Department of General Surgery**

|     |  |   |
|-----|--|---|
| 1.  | <b>Name of Block</b>   | Block II  |
| 2.  | <b>Name of Elective</b>  | Common Urologic Diseases  |
| 3.  | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU  |
| 4.  | <b>Name of Internal Preceptor(s)</b>                                   | Dr H S Pahwa, Professor<br>Dr Manish Agarwal, Associate Professor   |
| 5.  | <b>Name of External Preceptor(s)</b>                                   | Dr Apul Goel, Head of Urology, KGMU   |
| 6.  | <b>Learning Objectives of Elective</b>                                 | <ul style="list-style-type: none"> <li>a. To learn to take a urologic history and perform a focused urologic physical examination</li> <li>b. To observe the performance of basic urologic procedures, possibly even to include cystoscopy</li> <li>c. To become familiar with the proper evaluation and treatment of common urologic diseases such as prostate cancer, bladder cancer, benign prostatic hyperplasia, and urolithiasis</li> <li>d. To develop expertise in the role and interpretation of a wide array of imaging studies utilized in urology.</li> </ul> |
| 7.  | <b>Number of students that can be accommodated in this elective</b>    | 15  |
| 8.  | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery  |
| 9.  | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching  |
| 10. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed  |
| 11. | <b>Portfolio Entries required</b>                                      | Yes   |
| 12. | <b>Log Book entry required</b>   | Yes   |
| 13. | <b>Assessment</b>  | Yes   |
| 14. | <b>Other comments</b>  | NA  |

| <b>Week</b> | <b>Activities</b>   |
|-------------|---|
| Week 1      |   |
| Day 1       | Urology History Taking and Examination  |
| Day 2       | Imaging Modalities in Urology   |
| Day 3       | Urology I - proper evaluation and treatment of prostate cancer and benign prostatic hyperplasia<br>Urology II - proper evaluation and treatment of urolithiasis |
| Day 4       | Urology III - proper evaluation and treatment of bladder cancer and penile disorders  |
| Day 5       |   |
| Week 2      | Observation of Operative procedures in operation theatres, Operative videos-based teaching  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of General Surgery

|     |  |  |
|-----|--|--|
| 1.  | <b>Name of Block</b>   | Block II   |
| 2.  | <b>Name of Elective</b>  | Common Thoracic Diseases – Tuberculosis, Hydatid Cyst and Aspergillosis  |
| 3.  | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 4.  | <b>Name of Internal Preceptor(s)</b>                                   | Dr Suresh Kumar, Professor<br>Dr Pankaj Singh, Associate Professor   |
| 5.  | <b>Name of External Preceptor(s)</b>                                   | Dr Santosh Kumar, Respiratory Medicine, KGMU<br>Dr Rajiv Garg, Respiratory Medicine, KGMU<br>Dr Ajay K Verma, Respiratory Medicine, KGMU   |
| 6.  | <b>Learning Objectives of Elective</b>                                 | The goal of the elective is for students to develop cognitive skills and competency to evaluate patients with pulmonary diseases.  |
| 7.  | <b>Number of students that can be accommodated in this elective</b>    | 15   |
| 8.  | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery   |
| 9.  | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching |
| 10. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 11. | <b>Portfolio Entries required</b>                                      | Yes  |
| 12. | <b>Log Book entry required</b>   | Yes  |
| 13. | <b>Assessment</b>  | Yes  |
| 14. | <b>Other comments</b>  | NA   |

| Week   | Activities  |
|--------|---|
| Week 1 |   |
| Day 1  | <ul style="list-style-type: none"> <li>To enable students to carry out a more accurate and better-focused history and physical in patients with complaints referable to the respiratory system.</li> </ul>  |
| Day 2  | <ul style="list-style-type: none"> <li>To teach students the proper interpretation of pulmonary function tests and arterial blood gases and the principles of assisted mechanical ventilation.</li> </ul>   |
| Day 3  | <ul style="list-style-type: none"> <li>To make students familiar with the diagnostic and therapeutic modalities applicable to patients with common respiratory disorders.</li> </ul>  |
| Day 4  | <ul style="list-style-type: none"> <li>To make students familiar with the clinical and radiologic features of common respiratory disorders: pulmonary tuberculosis, Aspergillosis Lung, Lung Hydatid cyst, chronic obstructive airway disease, acute respiratory failure, sleep apnea, pulmonary hypertension, carcinoma of the lung, etc.</li> </ul> |
| Day 5  | <ul style="list-style-type: none"> <li>To enable the student to formulate a problem list and a diagnostic and management plan for patients with complaints referable to the respiratory system.</li> </ul>  |
| Week 2 | Observation of Operative procedures in operation theatres, Operative videos-based teaching  |

### Department of General Surgery

|     |  |  |
|-----|--|--|
| 15. | <b>Name of Block</b>   | Block II   |
| 16. | <b>Name of Elective</b>  | Venous Diseases  |
| 17. | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 18. | <b>Name of Internal Preceptor(s)</b>                                   | Dr J K Kushwaha, Professor<br>Dr Saumya Singh, Additional Professor  |
| 19. | <b>Name of External Preceptor(s)</b>                                   | Dr Ambrish Kumar, Vascular Surgery KGMU  |
| 20. | <b>Learning Objectives of Elective</b>                                 | The goal of the elective is for students to develop cognitive skills and competency to evaluate patients with venous diseases.   |
| 21. | <b>Number of students that can be accommodated in this elective</b>    | 10   |
| 22. | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery   |
| 23. | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching |
| 24. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 25. | <b>Portfolio Entries required</b>                                      | Yes  |
| 26. | <b>Log Book entry required</b>   | Yes  |
| 27. | <b>Assessment</b>  | Yes  |
| 28. | <b>Other comments</b>  | NA   |

| Week           | Activities  |
|----------------|---|
| Week 1         | <ul style="list-style-type: none"> <li>• To enable students to carry out a more accurate and better-focused history and physical in patients with complaints referable to the venous system.</li> <li>• To teach students the proper interpretation of Doppler ultrasound.</li> <li>• To make students familiar with the diagnostic and therapeutic modalities applicable to patients with common venous diseases.</li> <li>• To make students familiar with the clinical and radiologic features of common venous disorders: varicose veins and DVT.</li> <li>• To enable the student to formulate a problem list and a diagnostic and management plan for patients with complaints referable to the venous system.</li> </ul> |
| Day 1          |   |
| Day 2          |   |
| Day 3          |   |
| Day 4<br>Day 5 |   |
| Week 2         | Observation of Operative procedures in operation theatres, Operative videos-based teaching  |

**Department of General Surgery**

|     |  |  |
|-----|--|--|
| 29. | <b>Name of Block</b>   | Block II   |
| 30. | <b>Name of Elective</b>  | Benign Anorectal Diseases  |
| 31. | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 32. | <b>Name of Internal Preceptor(s)</b>                                   | Dr KK Singh, Professor<br>Dr Sanjeev Kumar, Additional Professor<br>Dr Pankaj Kumar, Associate Professor<br>Dr Amit Karnik, Assistant Professor  |
| 33. | <b>Name of External Preceptor(s)</b>                                   | Dr Ashish Singh, SGPGIMS   |
| 34. | <b>Learning Objectives of Elective</b>                                 | The goal of the elective is for students to develop cognitive skills and competency to evaluate patients with benign anorectal diseases.   |
| 35. | <b>Number of students that can be accommodated in this elective</b>    | 10   |
| 36. | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery   |
| 37. | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching |
| 38. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 39. | <b>Portfolio Entries required</b>                                      | Yes  |
| 40. | <b>Log Book entry required</b>   | Yes  |
| 41. | <b>Assessment</b>  | Yes  |
| 42. | <b>Other comments</b>  | NA   |

| <b>Week</b>   | <b>Activities</b>   |
|---|---|
| Week 1<br>Day 1<br>Day 2<br>Day 3<br>Day 4<br>Day 5 | <ul style="list-style-type: none"> <li>To enable students to carry out a more accurate and better-focused history and physical in patients with complaints referable to the anorectal region.</li> <li>To teach students the proper interpretation of DRE and other common investigations.</li> <li>To make students familiar with the diagnostic and therapeutic modalities applicable to patients with common benign anorectal diseases.</li> <li>To make students familiar with the clinical and radiologic features of common anorectal disorders: Fissures, Fistula, and Hemorrhoids.</li> <li>To enable the student to formulate a problem list and a diagnostic and management plan for patients with complaints referable to the anorectal region.</li> </ul> |
| Week 2  | Observation of Operative procedures in operation theatres, Operative videos-based teaching  |

**Department of General Surgery**

|     |  |  |
|-----|--|--|
| 43. | <b>Name of Block</b>   | Block II   |
| 44. | <b>Name of Elective</b>  | Oral cavity and Salivary gland neoplasms   |
| 45. | <b>Local of Hospital Lab or Research Facility</b>                      | Department of Surgery (General) KGMU   |
| 46. | <b>Name of Internal Preceptor(s)</b>                                   | Dr Abhinav Arun Sonkar, Professor and Head<br>Dr Parijat Suryavanshi, Additional Professor<br>Dr Nizamuddin Ansari, Assistant Professor  |
| 47. | <b>Name of External Preceptor(s)</b>                                   | Dr Sunil Kumar, ENT KGMU   |
| 48. | <b>Learning Objectives of Elective</b>                                 | The goal of the elective is for students to develop cognitive skills and competency to evaluate patients with Oral cavity and Salivary gland neoplasms.                                    |
| 49. | <b>Number of students that can be accommodated in this elective</b>    | 10   |
| 50. | <b>Prerequisites of the Elective</b>                                   | Basic knowledge of General Surgery   |
| 51. | <b>List of activities of student participation</b><br>Week 1<br>Week 2 | Week 1 – Didactic lectures, short group discussions, and Student-led presentations.<br>Week 2 – Observation of Operative procedures in operation theatres, Operative videos-based teaching |
| 52. | <b>Learning Resources</b>  | Bailey & Love's Short Practice Of Surgery, 27Th Ed<br>Zollinger's Atlas of Surgical Operations, 11ed   |
| 53. | <b>Portfolio Entries required</b>                                      | Yes  |
| 54. | <b>Log Book entry required</b>   | Yes  |
| 55. | <b>Assessment</b>  | Yes  |
| 56. | <b>Other comments</b>  | NA   |

| <b>Week</b>   | <b>Activities</b>  |
|---|--|
| Week 1<br>Day 1<br>Day 2<br>Day 3<br>Day 4<br>Day 5 | <ul style="list-style-type: none"> <li>To enable students to carry out a more accurate and better-focused history and physical in patients with complaints referable to the Oral cavity and Salivary gland neoplasms.</li> <li>To teach students the proper interpretation of DL/IDL and other common investigations.</li> <li>To make students familiar with the diagnostic and therapeutic modalities applicable to patients with common Oral cavity and Salivary gland neoplasms.</li> <li>To make students familiar with the clinical and radiologic features of Oral cavity and Salivary gland neoplasms</li> <li>To enable the student to formulate a problem list and a diagnostic and management plan for patients with Oral cavity and Salivary gland neoplasms.</li> </ul> |
| Week 2  | Observation of Operative procedures in operation theatres, Operative videos-based teaching   |

  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Pediatric Surgery

|    |  |  |
|----|--|--|
| 1  | Name of Block  | Block- 2   |
| 2  | Name of Elective   | An approach to a case of Anorectal Malformation (ARM)  |
| 3  | Location of hospital Lab or research facility                | Department of Pediatric Surgery, KGMU Lucknow UP   |
| 4  | Name of internal preceptor(s)                                | <ol style="list-style-type: none"> <li>1. Prof. J.D. Rawat</li> <li>2. Prof(Jr) Nitin Pant</li> <li>3. Dr Piyush Kumar</li> <li>4. Dr Gurmeet Singh</li> </ol>   |
| 5  | Name of external preceptors (if applicable)                  | None   |
| 6  | Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. To identify a case of ARM &amp; differentiate between a High &amp; a Low ARM.</li> <li>2. To know about the basic management plan according to the type of ARM.</li> </ol>   |
| 7  | Number of students that can be accommodated in this elective | 8  |
| 8  | Prerequisites for elective                                   | <ul style="list-style-type: none"> <li>• A basic knowledge of the embryology of the Gastrointestinal tract.</li> </ul>   |
| 9  | List of activities of student participation                  | <p>Week-1</p> <ul style="list-style-type: none"> <li>• To observe the management of a neonate with ARM received in the emergency.</li> <li>• To observe and learn how to make a diagnosis of ARM clinically and learn the difference in management based on the type of ARM.</li> </ul> <p>Assessment for week 1 activity-</p> <ul style="list-style-type: none"> <li>• To make a clinical diagnosis of ARM.</li> <li>• To participate in the management process of a neonate with ARM.</li> </ul> <p>Week 2</p> <ul style="list-style-type: none"> <li>• To learn the interim management of patients planned for staged repair.</li> <li>• Learn to study a pressure-augmented distal cologram</li> <li>• To learn stoma care and anal dilatation in these patients.</li> <li>• Assessment for week 2 activity<br/>Ogbook entry and demonstration of week 2 activity.<br/>Discussion on a short case of ARM.</li> </ul> |
| 10 | Learning resources   | Bailey and Love textbook of Surgery<br>IAPS Textbook of Pediatric Surgery  |

|    |                            |   |
|----|----------------------------|---|
| 11 | Portfolio entries required | A daily log of patients and activities participated Case presentation at the end of week 2. |
| 12 | Logbook entry required     | Satisfactory completion of posting with a “meets expectation’ ‘(M)’ grade”                  |
| 13 | Assessment                 | Attendance<br>Log Book entry<br>Assessment of objectives on the last day of each week.      |
| 14 | Other comments             |   |

*Arचना*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Psychiatry

|     |  |  |
|-----|--|--|
| 1.  | Name of Block  | Block 2  |
| 2   | Name of Elective   | <b>Adult Psychiatry</b>  |
| 3.  | Location of hospital Lab or research facility                | Adult psychiatry O.P.D. at Department of Psychiatry  |
| 4.  | Name of Internal preceptor(s)                                | Dr. Anil Nischal<br>Dr. Bandna Gupta<br>Dr. Adarsh Tripathi  |
| 5.  | Name of External preceptor                                   | NA   |
| 6.  | Learning objectives of Elective.                             | <p><b>Week 1</b></p> <ol style="list-style-type: none"> <li>1) To take history of patients attending Adult Psychiatry O.P.D.</li> <li>2) To conduct Mental Status Examination of patients attending Adult Psychiatry O.P.D.</li> </ol> <p><b>Week 2</b></p> <ol style="list-style-type: none"> <li>3) To be able to enumerate and apply various screening tools and diagnostic criteria's for Adult psychiatric disorders.</li> <li>4) To be able to describe the management of Adult psychiatric disorders based on clinical assessment and psychological tests.</li> </ol> |
| 7   | Number of students that can be accommodated in this elective | 10   |
| 8   | Prerequisites for elective                                   | Reading the chapter of Adult Psychiatry- history taking from Kaplan and Sadock's Synopsis of Psychiatry  |
| 9   | List of activities of student Participation                  | <ol style="list-style-type: none"> <li>1. Taking history of patients attending Adult Psychiatry O.P.D.</li> <li>2. Conducting Mental Status Examination of patients attending Adult Psychiatry O.P.D.</li> <li>3. Applying various screening tools and diagnostic criteria's for Adult psychiatric disorders.</li> <li>4. Describing the management of Adult psychiatric disorders based on clinical assessment and psychological tests.</li> </ol>  |
| 9.1 | Week-1   |  |
| 9.2 | Week-2   |  |
| 10  | Learning Resources   | <ol style="list-style-type: none"> <li>1. Kaplan &amp; Sadock's Synopsis of Psychiatry</li> <li>2. ICD-10</li> </ol>   |
| 11  | Portfolio entries required                                   | Assignments provided<br>Four worked up case records that have been presented.<br>Documentation of self-directed learning as summary and reflection.  |
| 12  | Log book entry required                                      | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"   |
| 13  | Assessment   | Attendance :75%<br>Presentation of worked up cases _____   |

|  |  |   |
|--|--|---|
|  |  | Documentation of attendance and required portfolio and log book entries |
|--|--|---|

| Week   |  |
|--------|--|
| Week-1 | Taking history and conducting Mental Status Examination In Adult OPD                               |
| Day-1  | Taking history and conducting Mental Status Examination in a case of Depression                    |
| Day-2  | Taking history and conducting Mental Status Examination in a case of Mania                         |
| Day-3  | Taking history and conducting Mental Status Examination in a case of Psychosis                     |
| Day-4  | Taking history and conducting Mental Status Examination in a case of OCD                           |
| Day-5  | Taking history and conducting Mental Status Examination in a case of Anxiety                       |
| Week-2 | Applying Screening Tools and diagnostic criteria and describing management In adult OPD            |
| Day-1  | Applying Screening Tools and diagnostic criteria and describing management In a case of Depression |
| Day-2  | Applying Screening Tools and diagnostic criteria and describing management In a case of Mania      |
| Day-3  | Applying Screening Tools and diagnostic criteria and describing management In a case of Psychosis  |
| Day-4  | Applying Screening Tools and diagnostic criteria and describing management In a case of OCD        |
| Day-5  | Applying Screening Tools and diagnostic criteria and describing management In a case of Anxiety    |

  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Psychiatry

|     |  |  |
|-----|--|--|
| 1.  | Name of Block  | Block 2  |
| 2   | Name of Elective   | <b>Child and Adolescent Psychiatry</b>   |
| 3.  | Location of hospital Lab or research facility                | Child Psychiatry O.P.D. and Department of Psychiatry   |
| 4.  | Name of Internal preceptor(s)                                | Dr. Vivek Agrawal<br>Dr. Amit Arya<br>Dr. Pawan Kumar Gupta  |
| 5.  | Name of External preceptor                                   | NA   |
| 6.  | Learning objectives of Elective.                             | <p><b>Week 1</b></p> <p>5) To take history of patients attending child Psychiatry O.P.D.</p> <p>6) To conduct Mental Status Examination of patients attending child Psychiatry O.P.D.</p> <p><b>Week 2</b></p> <p>7) To be able to enumerate and apply various screening tools and diagnostic criteria's for child psychiatric disorders.</p> <p>8) To be able to describe the management of child psychiatric disorders based on clinical assessment and psychological tests.</p> |
| 7   | Number of students that can be accommodated in this elective | 10   |
| 8   | Prerequisites for elective                                   | Reading the chapter of Child and Adolescent Psychiatry- history taking from Kaplan and Sadock's Synopsis of Psychiatry   |
| 9   | List of activities of student Participation                  | 5. Taking history of patients attending child Psychiatry O.P.D.  |
| 9.1 | Week-1   | 6. Conducting Mental Status Examination of patients attending child Psychiatry O.P.D.  |
| 9.2 | Week-2   | 7. Applying various screening tools and diagnostic criteria's for child psychiatric disorders.   |
|     |  | 8. Describing the management of child psychiatric disorders based on clinical assessment and psychological tests.  |
| 10  | Learning Resources   | 3. Kaplan & Sadock's Synopsis of Psychiatry<br>4. ICD-10   |
| 11  | Portfolio entries required                                   | Assignments provided<br>Four worked up case records that have been presented.<br>Documentation of self-directed learning as summary and reflection.  |
| 12  | Log book entry required                                      | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"   |
| 13  | Assessment   | Attendance :75%<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book  |

|  |         |
|--|---------|
|  | entries |
|--|---------|

| Week   |  |
|--------|--|
| Week-1 | Taking History and conducting Mental Status Examination in Child OPD   |
| Day-1  | Taking History and conducting Mental Status Examination in a case of ADHD  |
| Day-2  | Taking History and conducting Mental Status Examination in a case of Autism Spectrum Disorder                    |
| Day-3  | Taking History and conducting Mental Status Examination in a case of Dissociative Disorder                       |
| Day-4  | Taking History and conducting Mental Status Examination in a case of Intellectual Disability                     |
| Day-5  | Taking History and conducting Mental Status Examination in a case of Disruptive Behavior                         |
| Week-2 | Applying Screening tools and diagnostic criteria and describing management in Child OPD                          |
| Day-1  | Applying Screening tools and diagnostic criteria and describing management in a case of ADHD                     |
| Day-2  | Applying Screening tools and diagnostic criteria and describing management in a case of autism spectrum disorder |
| Day-3  | Applying Screening tools and diagnostic criteria and describing management in a case of Dissociative Disorder    |
| Day-4  | Applying Screening tools and diagnostic criteria and describing management in a case of Intellectual Disability  |
| Day-5  | Applying Screening tools and diagnostic criteria and describing management in a case of Disruptive Behavior      |

*Archana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Psychiatry

|     |  |   |
|-----|--|---|
| 1   | Name of Block  | Block II  |
| 2   | Name of Elective   | <b>Addiction Psychiatry</b>   |
| 3   | Location of hospital Lab or Research facility                | Adult and Addiction psychiatry O.P.D. and Department of Psychiatry  |
| 4   | Name of internal preceptor(s)                                | Prof. Anil Nischal, MD<br>Dr. Amit Singh, DM  |
| 5   | Name of external preceptor                                   | NA  |
| 6   | Learning objectives of elective                              | <p><b>Week 1</b></p> <p>9) To take history of patients attending De-addiction Psychiatry O.P.D.</p> <p>10) To conduct Mental Status Examination of patients attending De-addiction Psychiatry O.P.D.</p> <p><b>Week 2</b></p> <p>11) To be able to enumerate and apply various screening tools and diagnostic criteria's for Substance use disorders.</p> <p>12) To be able to describe the management of Substance use disorders based on clinical assessment and psychological tests.</p> |
| 7   | Number of students that can be accommodated in this elective | 10  |
| 8   | Prerequisites for elective                                   | Reading the chapter of Substance use disorders from ICD-10  |
| 9   | List of activities of student Participation                  | <p>1. Learning history taking of patients attending De-addiction Psychiatry O.P.D.</p> <p>2. Learning to conduct Mental Status Examination of patients attending De-addiction Psychiatry OPD.</p> <p>3. Learning to apply various screening tools and diagnostic criteria's for Substance use disorders.</p> <p>4. Learning the management of Substance use disorders based on clinical assessment and psychological tests.</p>   |
| 9.1 | Week-1   |   |
| 9.2 | Week-2   |   |
| 10  | Learning Resources   | <p>5. Kaplan &amp; Sadock's Synopsis of Psychiatry</p> <p>6. ICD-10</p>   |
| 11  | Portfolio entries required                                   | <p>Assignments provided</p> <p>Four worked up case records that have been presented.</p> <p>Documentation of self-directed learning as summary and reflection.</p>  |
| 12  | Log book entry required                                      | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"  |
| 13  | Assessment   | <p>Attendance :75%</p> <p>Presentation of worked up cases</p> <p>Documentation of attendance and required portfolio and log book entries</p>  |

|        |   |
|--------|---|
| Week   |   |
| Week-1 | History taking and conducting Mental Status Examination in substance use disorder   |
| Day-1  | Taking History in a case of Alcohol Use Disorder  |
| Day-2  | Conducting Mental Status Examination in a case of Alcohol Use Disorder  |
| Day-3  | Taking History in a case of Opioid Use Disorder   |
| Day-4  | Conducting Mental Status Examination in a case of Opioid Use Disorder   |
| Day-5  | Taking history and conducting Mental Status Examination in a case of Sedative Hypnotic use disorder   |
| Week-2 | Applying Screening tools and diagnostic criteria in a case of Substance Use Disorders   |
| Day-1  | Applying Screening tools and diagnostic criteria in a case of Alcohol Use Disorder<br>Describing management in a case of Alcohol Use Disorder |
| Day-2  | Applying Screening tools and diagnostic criteria in a case of Opioid Use Disorder   |
| Day-3  | Describing management in a case of Opioid Use Disorder  |
| Day-4  | Applying Screening tools and diagnostic criteria and Describing management in a case of Sedative Hypnotic use disorder                        |
| Day-5  |   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Psychiatry

|     |  |  |
|-----|--|--|
| 1.  | Name of Block  | Block 2  |
| 2.  | Name of Elective   | <b>Psychosexual disorders and women mental health.</b>   |
| 3.  | Location of hospital Lab or research facility                | Adult psychiatry O.P.D. and Department of Psychiatry   |
| 4.  | Name of Internal preceptor(s)                                | Prof. Bandna Gupta<br>Prof. Adarsh Tripathi  |
| 5.  | Name of External preceptor                                   | NA   |
| 6.  | Learning objectives of Elective.                             | <p><b>Week 1</b></p> <ol style="list-style-type: none"> <li>1) To take history of patients attending Psycho-sexual O.P.D. and assess women having perinatal and post-partum psychiatric disorders.</li> <li>2) To conduct Mental Status Examination of patients attending Psycho-sexual O.P.D. and women having perinatal and post-partum psychiatric disorders.</li> </ol> <p><b>Week 2</b></p> <ol style="list-style-type: none"> <li>3) To be able to enumerate and apply various screening tools and diagnostic criteria's for Psycho-sexual disorders and perinatal and post-partum psychiatric disorders.</li> <li>4) To be able to describe the management based on clinical assessment and psychological tests.</li> </ol> |
| 7.  | Number of students that can be accommodated in this elective | 10   |
| 8.  | Prerequisites for elective                                   | Reading the chapters of Sexual Dysfunction from ICD-10   |
| 9   | List of activities of student Participation                  | <ol style="list-style-type: none"> <li>1) History taking of patients attending Psycho-sexual O.P.D. and assessment of women having perinatal and post-partum psychiatric disorders.</li> <li>2) Conducting Mental Status Examination of patients attending Psycho-sexual O.P.D. and women having perinatal and post-partum psychiatric disorders.</li> <li>3) Application of various screening tools and diagnostic criteria's for Psycho-sexual disorders and perinatal and post-partum psychiatric disorders.</li> <li>4) Formulating a management plan based on clinical assessment and psychological tests.</li> </ol>   |
| 9.1 | Week-1   |  |
| 9.2 | Week-2   |  |

|     |                            |   |
|-----|----------------------------|---|
|     |                            |   |
| 10  | Learning Resources         | 1. Kaplan & Sadock's Synopsis of Psychiatry<br>2.ICD-10   |
| 11  | Portfolio entries required | Assignments provided<br>Four worked up case records that have been presented.<br>Documentation of self-directed learning as summary and reflection. |
| 12  | Log book entry required    | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade   |
| 13. | Assessment                 | Attendance :75%<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries                       |

| Week   |   |
|--------|---|
| Week-1 | History taking and assessing a case in Psycho-sexual OPD  |
| Day-1  | Assessing a case of Dhat Syndrome   |
| Day-2  | Assessing a case of Erectile Dysfunction  |
| Day-3  | Assessing a case of Gender Dysphoria  |
| Day-4  | Assessing a case of Female Sexual Complaint   |
| Day-5  | Assessing a case of Premenstrual Exacerbation   |
| Week-2 | Applying Screening Tools and diagnostic criteria and describing management a case of Psycho-Sexual disorder       |
| Day-1  | Applying Screening Tools and diagnostic criteria and describing management In a case of Dhat Syndrome             |
| Day-2  | Applying Screening Tools and diagnostic criteria and describing management In a case of Erectile Dysfunction      |
| Day-3  | Applying Screening Tools and diagnostic criteria and describing management In a case of Gender Dysphoria          |
| Day-4  | Applying Screening Tools and diagnostic criteria and describing management In a case of Female Sexual Complaints  |
| Day-5  | Applying Screening Tools and diagnostic criteria and describing management In a case of Premenstrual Exacerbation |
|        |   |

## Department of Psychiatry

|    |  |  |
|----|--|--|
| 1  | Name of Block  | Block II   |
| 2  | Name of Elective   | <b>Neuromodulation</b>   |
| 3  | Location of hospital Lab or Research facility                  | Neuromodulation Lab. In the Department of Psychiatry   |
| 4  | Name of internal preceptor(s)                                  | Dr. Sujit Kumar Kar  |
| 5  | Name of external preceptor                                     | NA   |
| 6  | Learning objectives of elective                                | <p><b>Week 1.</b></p> <ol style="list-style-type: none"> <li>1. To learn various neuromodulation therapies used for psychiatric disorders.</li> <li>2. To be able to understand indications for neuromodulation in psychiatry.</li> </ol> <p><b>Week 2</b></p> <ol style="list-style-type: none"> <li>3. To be able to understand application of these therapies and their safety and efficacy.</li> <li>4. To learn application of various neuromodulation therapies used for psychiatric disorders.</li> </ol> |
| 7  | Number of students that can be accommodated in this elective   | 10   |
| 8  | Prerequisites for elective                                     | Read the chapter on Neuromodulation from Kaplan and Sadock's   |
| 9  | List of activities of student participation<br>Week 1<br>Week2 | <p>Learning procedures of neuromodulation and to applying checklist for various neuromodulation techniques like rTMS, tDCS, ECT</p> <p>Effectively applying these neuromodulation techniques to treat various neuropsychiatric disorders.</p>  |
| 10 | Learning Resources   | Kaplan and Sadock's Synopsis of Psychiatry   |
| 11 | Portfolio Entries required                                     | <p>Assignments provided</p> <p>Four worked up case records that have been presented.</p> <p>Documentation of self-directed learning as summary and reflection.</p>   |
| 12 | Log book entry required  | Satisfactory Completion of posting by a preceptor with a "meets expectation" of grade M  |
| 13 | Assessment   | <p>Attendance 75%</p> <p>Documentation of attendance and required portfolio and log book entries</p> <p>Presentation</p>   |

|        |   |
|--------|---|
| Week   |   |
| Week-1 | To learn and understand indications for various neuromodulation techniques  |
| Day-1  | To learn Mechanisms for ECT   |
| Day-2  | To learn Indications for ECT  |
| Day-3  | To learn Mechanisms for rTMS  |
| Day-4  | To learn Indications for rTMS   |
| Day-5  | To learn Mechanisms and indications for TDCS  |
| Week-2 | To understand application of neuromodulation techniques and their safety and efficacy<br>To understand Application of ECT |
| Day-1  | To understand about Safety and Efficacy of ECT  |
| Day-2  | To understand Application of rTMS   |
| Day-3  | To understand about Safety and Efficacy of rTMS   |
| Day-4  | To understand application and safety and efficacy of TDCS   |
| Day-5  |   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Psychiatry

|    |   |  |
|----|---|--|
| 1. | Name of Block                                 | Block 2  |
| 2. | Name of Elective                              | <b>Psychological assessment and psychotherapeutic interventions done in psychiatry.</b>  |
| 3. | Location of hospital Lab or research facility | Psychology Lab. In the Department of Psychiatry  |
| 4. | Name of Internal preceptor(s)                 | Dr. Shweta Singh<br>Dr. Pooja Mahour   |
| 5. | Name of External preceptor                    | NA   |
| 6. | Learning objectives of Elective.              | <p><b>Week 1</b><br/>To be able to enumerate and apply various screening tools and psychological tests (I.Q. Assessment, Rorschach, Thematic apperception Test etc.) used for psychiatric disorders.</p> <p><b>Week 2</b><br/>To be able to describe various psychotherapeutic intervention (Cognitive Behavioural Therapy, Dialectical Behavioral Therapy etc.) used for the management of psychiatric disorders.</p>         |
| 8. | Prerequisites for elective                    | <p>1. Reading various chapters regarding psychology from Kaplan &amp; Sadock's Synopsis of Psychiatry and Introduction to Psychology- Clifford Morgan.</p> <p>2.</p>   |
| 9  | List of activities of student Participation   | <p><b>Week 1</b></p> <p>1. Learning to enumerate and apply various screening tools and psychological tests (I.Q. Assessment, Rorschach, Thematic apperception Test etc.) used for psychiatric disorders.</p> <p><b>Week 2</b></p> <p>2. Learning to describe various psychotherapeutic intervention (Cognitive Behavioural Therapy, Dialectical Behavioral Therapy etc.) used for the management of psychiatric disorders.</p> |
| 10 | Learning Resources                            | <p>2. Introduction to Psychology- Clifford Morgan</p> <p>3. Kaplan &amp; Sadock's Synopsis of Psychiatry</p>   |
| 11 | Portfolio entries required                    | <p>Assignments provided</p> <p>Four worked up case records that have been presented.</p> <p>Documentation of self-directed learning as summary and reflection.</p>   |
| 12 | Log Book entries required                     | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"   |

|    |            |   |
|----|------------|---|
| 13 | Assessment | Attendance :75%<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries |
|----|------------|---|

| Week   |  |
|--------|--|
| Week-1 | To enumerate and apply screening tools and psychological tests |
| Day-1  | To enumerate and apply IQ tests like Weschlers test            |
| Day-2  | To enumerate and apply Adaptive functioning tests like VSMS    |
| Day-3  | To know about Projective tests of personality assessment       |
| Day-4  | To know about Rorschach test                                   |
| Day-5  | To know about objective tests for personality                  |
| Week-2 | To describe various Psychotherapeutic interventions            |
| Day-1  | To know about Behavioral Therapies                             |
| Day-2  | To know about Exposure Response Prevention therapy             |
| Day-3  | To know about Cognitive Behavioral Therapy                     |
| Day-4  | To know about Dialectical Behavioral Therapy                   |
| Day-5  | To know about Supportive therapies                             |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Obst. & Gynecology

|    |  |   |
|----|--|---|
| 1  | Name of Block  | Block 2   |
| s2 | Name of Elective   | Reproductive medicine- This elective will give students an insight on management of infertile couples. The student will get an opportunity to directly interact with patients under supervision, also to perform some basic lab procedures. Procedures on patients will be observed. Practice will be provided on models. The variety of patients will be exciting. Regular discussions will help clarify all doubts. |
| 3  | Location of hospital Lab or research facility                | Dept of Obs & Gyn KGMU, Lucknow   |
| 4  | Name of internal preceptor(s)                                | Dr Anjoo Agarwal<br>Dr Amita Pandey<br>Dr Mona Asnani<br>Dr Monica Agarwal  |
| 5  | Name of external preceptor                                   | NA  |
| 6  | Learning objectives of elective                              | 1 To take history of couples presenting with infertility<br>2 To enumerate different investigations for an infertile couple<br>3 To function effectively as a team member in planning management of infertile couples<br>4 To counsel infertile couples about management choices and prognosis in a supervised environment  |
| 7  | Number of students that can be accommodated in this elective | 10  |
| 8  | Prerequisites for elective                                   | Read the chapter on physiology of ovulation and conception in Shaws Textbook of Gynaecology 17 <sup>th</sup> ed   |

|     |   |   |
|-----|---|---|
| 9   | List of activities of student participation |   |
| 9.1 | Week-1                                      | 1 Participate in work up of infertile couples<br>2 Participate in afternoon teaching sessions in the department<br>3 Present, discuss and follow up 1 case every week<br>4 Participate in record keeping with team<br>5 Participate in counselling sessions with team |
| 9.2 | Week-2                                      |   |
| 10  | Learning Resources                          | Chapter on Reproductive physiology (Chapter 7) and on infertility (chapter 36) in Novak's Gynaecology 16th ed Speroff's Clinical Gynaecologic Endocrinology and Infertility 9th ed as a reference book  |
| 11  | Portfolio entries required                  | Assignments provided<br>Four worked up case records that have been presented<br>Documentation of self-directed learning as summary and reflection   |
| 12  | Log book entry required                     | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"  |
| 13  | Assessment                                  | Attendance<br>Formative: Participation in infertility couple care and team activities<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries   |
| 14  | Other comments                              |   |

| Week  | Activities   |
|---|--|
| <b>Week-1</b><br>Day-1<br>Day-2<br>Day-3<br>Day-4<br>Day-5<br>Day-6 | 1 History taking of infertile couple<br>2 Planning investigations and management with team<br>3 Semen analysis of husband - observe<br>4 Follicular monitoring of wife - observe<br>5 Intrauterine insemination - observe and perform on model<br>6 Semen preparation for intrauterine insemination - observe<br>7 Record keeping - assist<br>8 Counseling of couple - observe and perform under supervision<br>9 Feedback and reflection on day 6                                   |
| <b>Week-2</b>   | 1 History taking of infertile couple<br>2 Planning investigations and management with team<br>3 Semen analysis of husband - observe<br>4 Follicular monitoring of wife - observe<br>5 Intrauterine insemination - observe and perform on model<br>6 Semen preparation for intrauterine insemination - observe<br>7 Record keeping - assist<br>8 Counseling of couple - observe and perform under supervision<br>9 Observe tubal patency tests<br>10 Feedback and reflection on day 6 |

### Department of Obst. & Gynecology

|   |  |   |
|---|--|---|
| 1 | Name of Block  | Block 2   |
| 2 | Name of Elective   | Fetal Medicine  |
| 3 | Location of hospital Lab or research facility                | Dept of Obs& Gyn KGMU, Lucknow  |
| 4 | Name of internal preceptor(s)                                | Dr Seema Mehrotra<br>Dr Renu Singh<br>Dr Manjulata Verma<br>Dr Namrata  |
| 5 | Name of external preceptor                                   | NA  |
| 6 | Learning objectives of elective                              | <p><b>Week 1</b></p> <p>1) To counsel couple with Bad obstetric history in a supervised environment</p> <p>2) To counsel couple with various fetal problems in current pregnancy in a supervised environment</p> <p>3) To be able to enumerate various available screening tests and diagnostic tests in early pregnancy</p> <p>4) To be able to interpret various available screening tests and diagnostic tests in early pregnancy</p> <p><b>Week 2</b></p> <p>5) To discuss elements of PCPNDT act</p> <p>6) To be able to describe the management based on the results of diagnostic test</p> <p>7)Observe various obstetric scans -Early pregnancy , anomaly and growth scan ,Doppler</p> <p>8)Observe simple fetal interventions like amniocentesis ,chorionic villous sampling ,amnioreduction</p> |
| 7 | Number of students that can be accommodated in this elective | 10  |

|     |   |  |
|-----|---|--|
| 8   | Prerequisites for elective                  | Interest in the field  |
| 9   | List of activities of student participation | <p><b>Week 1</b></p> <ol style="list-style-type: none"> <li>1) To participate in history taking in case with BOH and various fetal problems</li> <li>2) Participate in counseling sessions in OPD in supervised setting</li> <li>3) Observe Obstetric scans daily</li> <li>4) Participate in various teaching sessions in the department</li> <li>5) To be able to enumerate various screening and diagnostic test in early pregnancy</li> <li>6) To be able to interpret various available screening tests and diagnostic tests in early pregnancy</li> <li>7) To discuss elements of PCPNDT act</li> </ol> <p><b>Week 2</b></p> <ol style="list-style-type: none"> <li>1) Participate in the planning of management based on the diagnostic test</li> <li>2) Observe Obstetric scans daily</li> <li>3) Participate in record keeping and filling various PCPNDT forms under supervision</li> <li>4) Participate in lectures provided by the faculty</li> <li>5) Participate in perinatal mortality meetings</li> <li>6) Observe simple fetal interventions like amniocentesis ,chorionic villous sampling ,amnioreduction</li> </ol> |
| 9.1 | Week-1                                      |  |
| 9.2 | Week-2                                      |  |
| 10  | Learning Resources                          | <ol style="list-style-type: none"> <li>1) Obstetric and Gynaecological ultrasound made easy by Norman C Smith and A.Pat M.Smith</li> <li>2) Ultrasound Guided Invasive Prenatal Diagnostic Techniques Simplified by Raju R Saheyta</li> </ol>  |
| 11  | Portfolio entries required                  | <p>Assignments provided</p> <p>Two worked up case records that have been presented</p> <p>Documentation of self-directed learning as summary and reflection</p>  |
| 12  | Log book entry required                     | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”   |

|    |                |  |
|----|----------------|--|
| 13 | Assessment     | Attendance :75%<br>Formative: Participation in counselling of couple and team activities<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries |
| 14 | Other comments |  |

*Aradhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

| Week   | Activities  |
|--|---|
| <b>Week-1</b><br>Day-1<br>Day-2<br>Day-3<br>Day-4<br>Day-5 | 1 Learning history taking and examination in a case with history of chromosomal abnormality/congenital malformation, stillborn baby ,Rh negative pregnancy, Congenital infections, hydrops<br>2) Planning investigations and management of such cases<br>3) Counseling of such couples<br>4) Learning making Pedigree<br>5) Learning various screening protocols in pregnancy<br>6) Observing obstetric scans daily<br>7) Observing simple procedures like amniocentesis /CVS<br>8) Filling PCPNDT forms under supervision and record keeping |
| Week-2   |   |
| Week-3   |   |
| Week04   |   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Obst. & Gynaecology

We are proposing this elective Module in subspecialty of Gynae Oncology. Posting in this elective module will help students to learn about various Gynecological malignancies their Diagnosis & Management and importantly they will learn about various preventive & surveillance strategies that can be adopted to curb the menace of deadly disease. This will also create interest in student in field of gynae Oncology and will also help in creating awareness about this important public health issue.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | 2   |
| 2 | Name of Elective   | Gynae Oncology  |
| 3 | Location of hospital lab or research facility                | Department of Obstetrics & Gynaecology, KGMU.   |
| 4 | Name of internal preceptor (s)                               | <b>Prof. Nisha Singh</b><br><b>Dr. Shuchi Agrawal</b><br><b>Dr. Shilpa Singh</b>  |
| 5 | Name of external preceptor                                   | None  |
| 6 | Learning objective of elective                               | <ol style="list-style-type: none"><li>1. To learn about epidemiology of Gynecological cancers in Indian women.</li><li>2. To learn to create awareness about Genital cancers.</li><li>3. To be able to screen women for cervical cancer.</li><li>4. To gain knowledge about Diagnosis &amp; Treatment of Preinvasive lesions of cervix.</li><li>5. To learn to diagnose Endometrial Cancer through clinical evaluation &amp; Endometrial biopsy</li><li>6. To learn to diagnose &amp; investigate Ovarian Tumors.</li><li>7. To learn basics of Chemotherapy in Ovarian Cancer.</li><li>8. To learn Diagnosis of GTN</li><li>9. To Learn Surveillance protocols for all Gynecological Cancers</li></ol> |
| 7 | Number of students that can be accommodated in this elective | Six (6)   |
| 8 | Prerequisites for elective                                   | To have knowledge about Anatomy & Physiology of female genital system and Pathology of gynecological cancers.   |

|     |   |   |
|-----|---|---|
| 9   | List of activities of student participation | <p><b>Week-1</b><br/> <b>Day 1</b> - Introduction to Gynecological cancers and Prevention of cervical Cancer<br/> <b>Day 2</b> - Visit Gyne cancer clinic - learn HPV Vaccination, LBC and HPV test.<br/> <b>Day 3</b> - Visit Minor OT - Observe cervical and Endometrial biopsy, colposcopy, Cryotherapy &amp; Thermal ablation<br/> <b>Day 4</b> - Visit genital cancer ward - Case discussion on cervical cancer<br/> <b>Day 5</b> - Visit Major OT - Observe gyne cancer surgeries<br/> <b>Day6</b> - Visit Hereditary cancer clinic and case discussion on Endometrial Cancer</p> <p><b>Week-2</b><br/> <b>Day 1</b> - Visit genital cancer ward - case discussion on Ca Ovary<br/> <b>Day2</b> - Visit Gyne cancer clinic - learn pre op workup and surveillance of all gyne cancers<br/> <b>Day3</b> - Visit genital cancer ward - Observe Chemotherapy administration<br/> <b>Day4</b> - Visit genital cancer ward - Case discussion on Gestational trophoblastic neoplasia<br/> <b>Day5</b> - Visit Major OT – Observe gyne cancers surgeries<br/> <b>Day6</b> - Question answer session, Assessment and Feedback</p> |
| 9.1 | Week-1                                      |   |
| 9.2 | Week-2                                      |   |
| 9.3 | Week-3                                      |   |
| 9.4 | Week-4                                      |   |
| 10  | Learning Resources                          | Shaw's Text book of Gynaecology, Robbins Pathology  |
| 11  | Portfolio entries required                  | Daily learning reflections  |
| 12  | Log book entry required                     | -Number of lectures attended<br>-Cases seen in GOPD, Minor OT, GCCU Ward, Gynae Ward, Gynae OT,<br>Minimum 2 casess at each site weekly   |
| 13  | Assessment                                  | Formative assessment for knowledge and skills   |
| 14  | Other Comments                              | -   |

**DEPARTMENT OBSTETRICS AND GYNAECOLOGY**

|   |   |  |
|---|---|--|
| 1 | NAME OF BLOCK                             | BLOCK B  |
| 2 | NAME OF ELECTIVE                          | BASIC ENDOSCOPY IN OBS AND GYNAE : This elective will give an insight on basic endoscopy performed in the patient .The student will get the opportunity to directly interact with patient under supervision . Procedures on patient will be observed .Practise will be provided on models . The variety of patients will be exciting. Regular discussions will help clarify all doubts |
| 3 | LOCATION OF HOSPITAL OR RESEARCH FACILITY | Department of Obstetrics and Gynaecology KGMU, Lucknow   |
| 4 | NAME OF INTERNAL PRECEPTOR                | PROF. PL SHAKHWAR , DR MONIKA AGARWAL, DR MANJULATA VERMA ,DR NAMRATA KUMAR , DR VANDANA SOLANKI   |

|                 |   |  |
|-----------------|---|--|
| 5               | LEARNING OBJECTIVES OF ELECTIVE             | <ol style="list-style-type: none"> <li>1. Student should know basics of laparoscopy and hysteroscopy in obs and gynae cases .</li> <li>2. They should know common Indications of minimally invasive surgery.</li> <li>3. They should know about basic operative instruemnts and port placements and its argonomics.</li> </ol>   |
|                 |   | <ol style="list-style-type: none"> <li>4. Preop preparation ad choice of Anesthesia.</li> <li>4. Steps of common diagnostic procedures like diagnostic laparoscopy,hysreoscopy, cystoscopy , polypectomy, chromopertubation.</li> <li>5. Lap ligation in females .</li> <li>6. Complications of hysteroscopy /laparoscopy and their management</li> <li>7. Do's and Don't's of laparoscopy and hysteroscopy</li> </ol> |
| 6               | NAME OF EXTERNAL PERCEPTOR                  | NA   |
| 7               | NUMBER OF STUDENTS THAT CAN BE ACCOMODATED  | 10   |
| 8               | PREREQUISITES FOR ELECTIVE                  | Read the chapter on endoscopy and laparoscopy in Shaw's textbook of Gyanecology 17 th ed   |
| 9<br>9.1<br>9.2 | LIST OF ACTIVITIES OF STUDENT PARTICIPATION | WEEK 1 ACTIVITIES AND CASE REPORT<br>WEEK 2 ACTIVITIES AND CASE REPORT   |

|    |                            |  |
|----|----------------------------|--|
| 10 | PORTFOLIO ENTRIES REQUIRED | Assignments provided<br>Four worked up case records that have been presented<br>Documentation of self selfdirected learning as summary and reflection .            |
| 11 | LEARNING RESOURCES         | TEXT BOOK – SHAW’S GYNAECOLOGY<br>REFERENCE – TELINDE’S OPERATIVE GYNAECOLOGY  |
| 12 | LOG BOOK ENTRY REQUIRED    | Satisfactory completion of posting by a preceptor with a “meets expectation of ‘M’ grade”  |
| 13 | ASSESSMENT                 | Attendance<br>Formative- participation in procedures<br>Presentation of worked up cases<br>Documentation of attendance and required portfolio and log book entries |
| 14 | OTHER COMMENTS             | -  |

| WEEK   | ACTIVITIES   |
|--------|--|
| WEEK 1 | <ol style="list-style-type: none"> <li>1. Introduction and indication of laparoscopy and hysteroscopy.</li> <li>2. Anaesthesia and Pre-op preparation in cases of laparoscopy and hysteroscopy.</li> <li>3. Diagnostic laparoscopy and hysteroscopy.</li> <li>4. Demonstration of Laparoscopy and Hysteroscopy cases.</li> <li>5. Complications of laparoscopic surgery.</li> <li>6. Hands- on on pelvi –trainer (skill lab).</li> </ol> |
| WEEK 2 | <ol style="list-style-type: none"> <li>7. Evaluation and steps of TLH cases.</li> <li>8. Lap ligation – indications /steps/complications of lap ligation.</li> <li>9. Demonstration /observation of laparoscopy or hysteroscopy.</li> <li>10. Complications of hysteroscopic surgery.</li> <li>11. Case discussion –Ovarian cyst, intrauterine mass.</li> <li>12. Formative assessment of students and log book sign.</li> </ol>         |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Obstetrics & Gynaecology**

|     |   |  |
|-----|---|--|
| 1.  | Name of Block                               | Block 2  |
| 2.  | Name of Elective                            | Obstetric Critical Care: The purpose of this elective is to give insight on management of critically ill obstetric patients. The students can directly interact with patients under supervision. Practice will also be provided on models.   |
| 3.  | Location                                    | Obstetric ICU, department of Obstetrics & Gynecology, KGMU   |
| 4.  | Name of internal Preceptor                  | Dr Rekha Sachan, Dr R S Gangwar  |
| 5.  | Name of external Preceptor                  | NA   |
| 6.  | Learning Objectives                         | <ol style="list-style-type: none"> <li>1. Physiological Changes &amp; early recognition (Lecture)</li> <li>2. Maternal collapse &amp; resuscitation (Lecture &amp; Demonstration)</li> <li>3. Hemorrhagic Shock (Lecture &amp; Demonstration)</li> <li>4. Distributive Shock (Lecture &amp; Demonstration)</li> <li>5. Obstructive Shock (Lecture &amp; Demonstration)</li> <li>6. Cardio-pulmonary resuscitation (Demonstration)</li> <li>7. Automated External Defibrillator (Demonstration)</li> <li>8. Intubation &amp; Airway management (Demonstration)</li> <li>9. Hand Hygiene</li> <li>10. Central line insertion (Demonstration)</li> <li>11. Positive pressure ventilation (Lecture &amp; Demonstration)</li> <li>12. Arterial Blood Gas analysis (Lecture &amp; Demonstration)</li> <li>13. Emergency drugs &amp; Vasopressors (Lecture &amp; Demonstration)</li> <li>14. Insertion of Foley's catheter, Ryle's tube (Demonstration)</li> <li>15. Insertion of I.V. Line, Arterial line (Demonstration)</li> </ol> |
| 7.  | Number of Students accomodated              | 10   |
| 8.  | Prerequisite for elective                   | Read book of FCCS in Obstetric patients  |
| 9.  | List of activities of student participation | <ol style="list-style-type: none"> <li>1. Participation of students during round in ICU</li> <li>2. Observing and monitoring patients in ICU</li> <li>3. Taking participation in teaching session in afternoon</li> <li>4. One case presentation &amp; discussion every day after round.</li> <li>5. participation in counselling the patient relatives</li> </ol>   |
| 9.1 | Week-1                                      |  |
| 9.2 | Week-2                                      |  |
| 10. | Learning Resource                           | Book- FCCS in Obstetric, Washington Manual, Internet   |

|     |                    |   |
|-----|--------------------|---|
| 11. | Portfolio enteries | Record of four cases presented<br>Record of interventions & procedures done                                       |
| 12. | Log Book Entry     | Expectation of satisfactory completion of Posting recoded.  |
| 13. | Assessment         | Formative: Based on –<br>Participation In activities in ICU,<br>Case Presentation,<br>Interventions<br>Attendance |
| 14. | Research           |   |

| <b>Week</b>    | <b>Activities</b>  |
|----------------|--|
| <b>Week 1.</b> |  |
| Day 1.         | Hand Hygiene & orientation<br>Introduction to Emergency drugs, Instruments in ICU          |
| Day 2          | Observing various activities and monitoring the patients<br>History taking and Counselling |
| Day 3          | Recognition of critically ill patients<br>I.V. cannulation                                 |
| Day 4          | Arterial cannulation<br>Ryle's tube & Foleys Catheter Insertion                            |
| Day 5.         | Observing Intubation, Central Line Insertion   |
| Day 6          | Observing CPR & Defibrillation<br>Feedback   |
| <b>Week 2.</b> |  |
| Day 1.         | Hand Hygiene & orientation<br>Introduction to Emergency drugs, Instruments in ICU          |
| Day 2          | Observing various activities and monitoring the patients<br>History taking and Counselling |
| Day 3          | Recognition of critically ill patients<br>I.V. cannulation                                 |
| Day 4          | Arterial cannulation<br>Ryle's tube & Foleys Catheter Insertion                            |
| Day 5.         | Observing Intubation, Central Line Insertion   |
| Day 6          | Observing CPR & Defibrillation<br>Feedback   |

**Department of Neurosurgery**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | <b>Block 2</b>   |
| 2 | Name of Elective   | <b>Pediatric Head Injury</b>   |
| 3 | Location of hospital Lab or research facility                | <b>Department of Neurosurgery, King George's Medical University, Lucknow</b>   |
| 4 | Name of internal preceptor(s)                                | <b>Dr Ankur Bajaj</b>  |
| 5 | Name of external preceptor                                   | <b>Dr. Nishant Verma ( Department of Paediatrics, KGMU)</b>  |
| 6 | Learning objectives of elective                              | <p>To develop the competency of evaluating, managing and counseling a case of Paediatric head injury.<br/>           Following will be the objectives:<br/>           At the end of 2 weeks the MBBS phase 3 part 2 student should be accurately (based on checklist) able to:</p> <ol style="list-style-type: none"> <li>1. Examine a case of paediatric head injury.</li> <li>2. Interpret Non Contrast Computer Tomography Scan of a case of paediatric head injury</li> <li>3. Provide care for patient with paediatric head injury in a supervised environment.</li> <li>4. To function effectively as a team member in managing paediatric head injury</li> <li>5. Provide counseling for the case of paediatric head injury.</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | <b>6</b>   |
| 8 | Prerequisites for elective                                   | Must have received at least Hep B vaccine  |

|     |   |  |
|-----|---|--|
| 9   | List of activities of student participation | <p>Week 1:</p> <ul style="list-style-type: none"> <li>Lecture and bed side teaching session for understanding history, Examination, interpretation of NCCT head, counseling and overall management of a case of pediatric head injury.</li> <li>Case Presentation</li> </ul> <p>Week 2:</p> <ul style="list-style-type: none"> <li>Case presentation,</li> <li>Providing care for patient with pediatric head injury in a supervised environment.</li> <li>function effectively as a team member in managing pediatric head injury</li> <li>Providing counseling for the case of pediatric head injury</li> <li>Observe at least 1 pediatric head injury surgery in operation theater for better understanding of the subject</li> </ul> |
| 9.1 | Week-1                                      |  |
| 9.2 | Week-2                                      |  |
| 9.3 | Week-3                                      |  |
| 9.4 | Week-4                                      |  |
| 10  | Learning Resources                          | Video links and journal articles related to pediatric head injury will be shared   |
| 11  | Portfolio entries required                  | <p>Assignments provided</p> <ul style="list-style-type: none"> <li>Two worked up case records that have been presented</li> <li>Documentation of self-directed learning as summary and reflection</li> </ul>   |
| 12  | Log book entry required                     | Satisfactory completion (S) of posting by a preceptor  |
| 13  | Assessment                                  | <p>Attendance Formative:</p> <ul style="list-style-type: none"> <li>Participation in rounds and team activities,</li> <li>Presentation of worked up cases,</li> <li>Documentation of attendance and required portfolio and log book entries</li> </ul>   |
| 14  | Other comments                              |  |

| Week  | Activities  |
|---|---|
| <p><b>Week-1</b></p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p> | <p>Lecture and bed side teaching session of pediatric head injury patient for:</p> <ul style="list-style-type: none"> <li>• Understanding history and examination,</li> <li>• Interpretation of NCCT head,</li> <li>• Counseling and overall management.</li> </ul> <p>Case presentation,</p>   |
| <p>Week-2</p>   | <ul style="list-style-type: none"> <li>• Case presentation,</li> <li>• Providing care for patient with pediatric head injury in a supervised environment.</li> <li>• function effectively as a team member in managing pediatric head injury</li> <li>• Providing counseling for the case of pediatric head injury</li> <li>• Observe at least 1 pediatric head injury surgery in operation theater of KGMU for better understanding of the subject.</li> </ul> |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of CVTS Heart Surgery Centre

|    |  |   |
|----|--|---|
| 1  | Name of Block  | BLOCK-2   |
| 2  | Name of Elective   | <b>CVTS Operation Theatre Procedure</b>   |
| 3  | Location of hospital Lab or research facility                | CVTS Department, KGMU   |
| 4  | Name of internal preceptor (s)                               | Dr. Bhupendra, Dr. Kumar Rahul, Dr. Vivek Tewarson,<br>Dr. Sarvesh Kumar  |
| 5  | Name of external preceptor                                   |   |
| 6  | Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. To provide brief description of cardiac patients</li> <li>2. To provide brief description of cardiac OTs.</li> <li>3. To provide brief description of equipments and drugs used in cardiac OTs.</li> <li>4. To provide scrub techniques of OT staffs</li> <li>5. To provide brief description of valvular heart surgeries.</li> <li>6. To provide brief description of coronary artery bypass grafting</li> </ol> |
| 7  | Number of students that can be accommodated in this elective | 5   |
| 8  | Prerequisites for elective                                   | Basic knowledge of Anatomy, physiology of the hearts and basic knowledge of drugs used in cardiac OTs.  |
| 9  | List of activities of student participation                  | <p>Week1- Brief introduction of general observation Of cardiac OTs. and equipments used in Cardiac OTs<br/>Eg. CPB, IABP, Pacemaker, Defibrillator.</p> <p>Week 2- Brief description of valvular heart surgeries- indications, methods, steps, types of Surgeries and valve &amp; Cardiac bypass surgeries</p>  |
| 10 | Learning Resources   | Manual of perioperative care in adult cardiac surgery-<br>ROBERT BOJAR.<br>KIRKLIN-text book of cardiac surgery   |
| 11 | Portfolio entries required                                   | Assignments provided<br>Worked up cases posted for surgery  |

|    |                         |   |
|----|-------------------------|---|
| 12 | Log book entry required | Details of procedure observed and clinical knowledge attained by students   |
| 13 | Assessment              | Attendance<br>Participation in OTs<br>Presentation of worked up cases, documentation of attendance and required portfolio and log book entries. |
| 14 | Other comments          |   |

| Week          | Activities   |
|---------------|--|
| <b>Week-1</b> |  |
| Day-1         | - How to scrub   |
| Day-2         | - Which type of surgeries doing in CVTS OT             |
| Day-3         | - How to drape patient                                 |
| Day-4         |  |
| Day-5         | - Which instruments used during surgeries              |
|               | - What are the responsibilities of surgeon's assistant |
| Week-2        | - How to assist during cardiac surgery                 |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of CVTS Heart Surgery Centre**

|     |  |   |
|-----|--|---|
| 1   | Name of Block  | - BLOCK-2   |
| 2   | Name of Elective   | - <b>CVTS ICU PROCEDURES</b>  |
| 3   | Location of hospital Lab or research facility                | - DEPT. OF CVTS, HEART SURGERY CENTRE, KGMU   |
| 4   | Name of internal preceptor (s)                               | - DR. KUMAR RAHUL, DR VIVEK T, DR BHUPENDRA K, DR SARVESH K   |
| 5   | Name of external preceptor                                   |   |
| 6   | Learning objectives of elective                              | <ul style="list-style-type: none"> <li>- ABLE TO PROVIDE BRIEF INTRODUCTION OF CVTS PATIENTS.</li> <li>- ABLE TO FUNCTION EFFECTIVELY AS A TEAM MEMBER IN A MULTIDISCIPLINARY CVTS TEAM</li> <li>- SHOULD KNOW BRIEF ABOUT ACADEMIC AS WELL AS CLINICAL PERSPECTIVE OF CVTS PTS INCLUDING (CVTS OT AND CVTS ICU)</li> <li>- STUDENTS SHOULD IDENTIFY COMMON CVTS PTS</li> </ul> |
| 7   | Number of students that can be accommodated in this elective | - 5   |
| 8   | Pre requisites for elective                                  | - BASIC KNOWLEDGE OF MEDICAL ANATOMY AND HEART.   |
| 9   | List of activities of student participation                  | <ul style="list-style-type: none"> <li>- BRIEF INTRODUCTION OF CVTS PATIENTS (PRE AND POST OP) AND MEDICATIONS/DRUGS USED IN CVTS ICU</li> <li>- MONITORS AND INVASIVE LINES (RADIAL AND FEMORAL LINES, CVP LINES, VITAL MONITORING, INPUT/OUTPUT MONITORING) AND VENTILATORS AND VENTILATORY SETTINGS.</li> </ul>  |
| 9.1 | Week-1   |   |
| 9.2 | Week-2   |   |
| 9.3 |  |   |
| 9.4 |  |   |
| 10  | Learning Resources   | - <b>Manual of Perioperative Care in Adult Cardiac Surgery- ROBERT BOJAR</b>  |
| 11  | Portfolio entries required                                   | - ASSIGNMENTS PROVIDED (DOCUMENTATION OF SELF-DIRECTED LEARNING AS SUMMARY AND  |

|    |                         |   |
|----|-------------------------|---|
|    |                         | REFLECTION)   |
| 12 | Log book entry required | - DETAILS INCLUDING PROCEDURES OBSERVED AND CLINICAL KNOWLEDGE ATTAINED BY STUDENT                    |
| 13 | Assessment              | - ATTENDANCE<br>- BRIEF PRESENTATION OF THE ELECTIVE POSTINGS (PPT PRESENTATIONS)<br>- LOG BOOK ENTRY |
| 14 | Other comments          |   |

| Week          | Activities  |
|---------------|---|
| <b>Week-1</b> | - BRIEF INTRODUCTION OF CVTS PATIENTS (PRE AND POST OP/ NEED FOR ICU?) AND MEDICATION & DRUGS USED IN CVTS ICU.   |
| Day-1         | - MEDICATIONS/DRUGS USED IN CVTS ICU  |
| Day-2         | - MONITORS AND INVASIVE LINES (RADIAL AND FEMORAL LINES, CVP LINES, VITAL MONITORING, INPUT/OUTPUT MONITORING)  |
| Day-3         |   |
| Day-4         | - VENTILATORS AND VENTILATORY SETTINGS.   |
| Week-2        | - MONITORS AND INVASIVE LINES (RADIAL AND FEMORAL LINES, CVP LINES, VITAL MONITORING, INPUT/OUTPUT MONITORING)<br>- VENTILATORS AND VENTILATORY SETTINGS. |

**Department of ENT**

|  |  |
|--|--|
| Name of Block  | Block 2  |
| Name of Elective   | Hearing Assessment   |
| Location of hospital Lab or research facility                | Department of Otorhinolaryngology & Head Neck Surgery  |
| Name of internal preceptor(s)                                | Dr. H. P. Singh<br>Dr. Anupam Mishra<br>Dr. Veerendra Verma<br>Dr. Sunil Kumar<br>Dr. Manish Chandra<br>Dr. Abhishek Bahadur Singh<br>Dr. Rajat Jain   |
| Name of external preceptor if applicable                     | N/A  |
| Learning objectives of elective                              | At the end of four weeks, students opting for this elective will be able<br><br>1. To take detailed history of patients with hearing loss coming to ENT department appropriately<br><br>2. To perform and interpret Tuning fork tests and Pure Tone Audiometry<br><br>3. To perform and interpret Tympanometry<br><br>4. To perform and interpret speech audiometry<br><br>5. To counsel patients about prevention and management of hearing loss appropriately  |
| Number of students that can be accommodated in this elective | 10   |
| Prerequisites for elective                                   | Must have received necessary immunizations, Basic Life Support training  |
| List of activities of student participation                  | 1. Participate in daily OPD<br>2. Participate in daily ward rounds<br>3. Participate in academic programs of the department<br>4. Present at least 2 cases that are fully worked up in the department<br>5. Participate in patient education and management<br><br>All posted students will go to ENT OPD. Every student will take detailed history of at least 2 patients with hearing loss. Students will be allocated into 2 groups of 5 students each.<br><br>Group One students will go for TFTs and Pure tone Audiometry. Group Two students will go for Impedance Audiometry and Speech Audiometry. |
| Week 1   |  |
| Week 2   | Group Two will go for TFTs and Pure tone Audiometry. Group one students will go for Impedance Audiometry and Speech Audiometry.  |

|                            |   |
|----------------------------|---|
| Learning Resources         | P. L. Dhingra's Textbook of Ear, Nose and Throat<br>Mohan Bansal's textbook of Ear, nose and Throat<br><a href="https://www.youtube.com/watch?v=yfpGOI913Hw">https://www.youtube.com/watch?v=yfpGOI913Hw</a><br><a href="https://www.youtube.com/watch?v=K2uDW5CoGNY">https://www.youtube.com/watch?v=K2uDW5CoGNY</a> |
| Portfolio entries required | Case record of at least two patients<br>Records of patient counseling session   |
| Log book entry required    | History of patient taken<br>Number of audiological tests done with patient's name, date.<br>Interpretation of tests done<br>Cases presented   |
| Assessment                 | Seventy five percent attendance.<br>Formative assessment will be done by preceptors on the basis of day-to-day activities of the student.   |

**Endorsement by Head of the Department:** I have gone through the elective posting work sheet of **Hearing Assessment**. I approve it to be included in the MBBS electives schedule. It will be beneficial to the students in understanding the working and interpretation of various clinical audiological tests.

**Elective posting on Hearing Assessment:**

This elective is proposed by the Department of Otorhinolaryngology and Head Neck Surgery. At present MBBS students only learn about theoretical aspects of hearing assessment process. By doing this elective, they will be able to better understand the procedure and interpretation of some of the audiological tests, which will be helpful to them in their future career.

### Department of ENT

The module on Vertigo has been developed with an objective to develop a systemic approach to a patient suffering from vertigo. During this period the medical graduate will be exposed to patients suffering from vertigo. Graduates will be observing history taking, examination, medical management and rehabilitative procedure in vertigo patients. By the end of the module completion the medical graduate will be able to take appropriate history, perform ENT and basic vestibular examination independently.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | BLOCK 2   |
| 2 | Name of Elective   | Vertigo   |
| 3 | Location of hospital Lab or research facility                | Department of ENT<br>KGMU<br>Lucknow  |
| 4 | Name of internal preceptor(s)                                | Prof Anupam Mishra<br>Prof Veerendra Verma<br>Dr. H P Singh<br>Dr. Sunil Kumar<br>Dr. Manish Chandra<br>Dr. A B Singh<br>Dr. Rajat Jain   |
| 5 | Name of external preceptor                                   | NA  |
| 6 | Learning objectives of elective                              | <ol style="list-style-type: none"><li>1. Take detailed history of a patient with vertigo appropriately.</li><li>2. Perform general and ENT examination of a patient with vertigo correctly.</li><li>3. Perform and interpret Vestibular Examinations and pure tone audiometry correctly.</li><li>4. To demonstrate rehabilitation exercises for vertigo patients.</li></ol> |
| 7 | Number of students that can be accommodated in this elective | Max. 10   |

|     |   |   |
|-----|---|---|
| 8   | Prerequisites for elective                  | 1. Must have received necessary immunization  |
| 9   | List of activities of student participation | <ol style="list-style-type: none"> <li>1. Work daily with supervisor in OPD/IPD.</li> <li>2. Observe supervisor in performing General, ENT and Vestibular examination of vertigo patient.</li> <li>3. Participate in departmental educational activities.</li> <li>4. Present at least two case of vertigo by student as a case workup.</li> <li>5. Under supervisor guidance, should be able to counsel and guide rehabilitative exercises to patients.</li> </ol> |
| 9.1 | Week-1                                      |   |
| 9.2 | Week-2                                      |   |
| 10  | Learning Resources                          | P L Dhingra text book of ENT  |
| 11  | Portfolio entries required                  | <ol style="list-style-type: none"> <li>1. Documentation of case presentation</li> <li>2. Documentation of patients observed in ward</li> </ol>  |
| 12  | Log book entry required                     | Satisfactory completion of posting by a preceptor with a “meets expectation” grade  |
| 13  | Assessment                                  | Attendance.<br>Participation in OPD/IPD rounds.<br>Case presentation.<br>OSCE<br>Documentation of attendance and log book entries.  |
| 14  | Other comments                              |   |

**Endorsement by Head of the Department:** - I have gone through the elective module on ‘Vertigo’ for the students of MBBS who have completed first phase of final professional examination. It will be beneficial for them in understanding and developing a clinical approach for vertigo patients.

**Department of ENT**

|  |   |
|--|---|
| Name of Block  | Block 2   |
| Name of Elective   | Voice disorders   |
| Location of hospital Lab or research facility                | Department of ENT, King George's Medical University   |
| Name of internal preceptor(s)                                | Dr A B Singh, Dr Veerendra Verma  |
| Name of external preceptor if applicable                     | N/A   |
| Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. To take detailed history of patients with voice disorder appropriately</li> <li>2. To perform indirect laryngoscopy correctly</li> <li>3. To perform speech assessment accurately</li> <li>4. To function effectively as a team member with speech therapist for voice assessment</li> </ol>  |
| Number of students that can be accommodated in this elective | 10  |
| Prerequisites for elective                                   | Must have received necessary immunizations, Basic Life Support training   |
| List of activities of student participation:                 |   |
| Week 1   | <ol style="list-style-type: none"> <li>1. Participate in daily OPD for patient evaluation with voice disorders</li> <li>2. Participate in performing indirect laryngoscopy test in OPD&amp; IPD</li> </ol>  |
| Week 2   | <ol style="list-style-type: none"> <li>3. Present at least two cases and perform Indirect laryngoscopy that are fully worked up in the teaching session</li> <li>4. Participate in counselling, treatment and rehabilitation planning of patient with voice disorder</li> </ol> <p>Students will go to ENT OPD and will take detailed history of patients with voice disorders<br/>Student will perform indirect laryngoscopy test in OPD &amp; IPD patient examination place</p> |

|                    |  |
|--------------------|--|
|                    | Students will present two cases to preceptors in detailed<br>Students will participate in complete counselling and treatment of patients |
| Learning Resources | Logan Turner`s Diseases of the Nose Throat and Ear<br>P L Dhingra ENT Textbook   |

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Medicine**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block 2  |
| 2 | Name of Elective   | Evaluation of the patient with Diabetes  |
| 3 | Location of hospital Lab or research facility                | Department of Medicine, KGMU, Lucknow  |
| 4 | Name of internal preceptor(s)                                | Dr. Virendra Atam, Professor and Head of Department<br>Dr. Kauser Usman, Professor<br>Dr. Satish Kumar, Assistant Professor  |
| 5 | Name of external preceptor                                   | None   |
| 6 | Learning objectives of elective                              | At the end of 15 days student should <ol style="list-style-type: none"> <li>1. Know path physiology and clinical features of Diabetes</li> <li>2. Know the Diagnostic criteria and Classification of diabetes</li> <li>3. Know the history and physical examination of a patient with diabetes</li> <li>4. Know the relevant investigations and screening criteria of a patient with diabetes</li> <li>5. Know the management of diabetes and its complications</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 20   |
| 8 | Prerequisites for elective                                   | Basic Life Support training<br>Immunization  |

|    |   |   |
|----|---|---|
| 9  | List of activities of student participation | <ol style="list-style-type: none"> <li>1. Participate in OP and IP rounds</li> <li>2. Participate in afternoon teaching sessions of the department</li> <li>3. Present at least two cases that are fully worked up in the teaching session</li> <li>4. Participate in patient education, consent, history taking and multidisciplinary team meetings</li> </ol> |
| 10 | Learning Resources                          | <ul style="list-style-type: none"> <li>• Davidson’s Textbook of Medicine</li> <li>• Harrison’s Text book of Internal medicine</li> </ul>  |
| 11 | Portfolio entries required                  | Two worked up case records that have been presented   |
| 12 | Log book entry required                     | Satisfactory completion of posting by a preceptor with a “meets expectation ‘M’ grade”  |
| 13 | Assessment                                  | Attendance at least 75%<br>Formative: Participation in OP & IP rounds and team activities,<br>Presentation of worked up cases,<br>Documentation of attendance and required portfolio and log book entries   |
| 14 | Other comments                              |   |

| Week                 | Learning Objective                                       | Days | Activities  |
|----------------------|--|------|---|
| Week-1<br>(Days 1-6) | Know patho- physiology and clinical features of Diabetes |      | <b>Day-1</b> -Introduction and History of diabetes<br><b>Day-2</b> -Clinical features of diabetes<br><b>Day-3</b> - <u>IPD rounds</u> |

|                        |  |  |
|------------------------|--|--|
| Week-2-<br>(Days 7-12) | Know the Diagnostic criteria and Classification of diabetes                        | <p><b>Day-4</b>-ADA criteria of Fasting, Post Prandial Blood sugar and HbA1C, Screening criteria of DM</p> <p><b>Day-5</b>-OP rounds</p> <p><b>Day-6</b>-IGT, IFG, <u>Type 1DM, Type 2DM, Gestational diabetes mellitus and other specific type of diabetes</u></p>  |
|                        | Know the history and physical examination of a patient with diabetes               | <p><b>Day-7</b>-History of diabetes</p> <p><b>Day-8</b>-Anthropometric measurements, Blood pressure, Thyroid examinations, Skin examination for markers of insulin resistance, dilated retinal examinations.</p> <p>Inspection, palpation of pedal pulses, elicitation of ankle reflexes, determination of vibration sense, monofilament testing</p> |
|                        | Know the relevant investigations and screening criteria of a patient with diabetes | <p><b>Day-9</b>-Follow up visits and investigations required- Fasting and post prandial sugars, HbA1C, Fasting lipid profile, Kidney function test, Liver function test, ECG, CXR, TSH, <u>Echocardiogram, Urine R/M, C/S</u></p>  |
|                        | Know the management of diabetes and its complications                              | <p><b>Day-10</b>-Management of diabetes (Diet and life style management, Drug treatment (OHA and injectable non –insulins drugs) <u>Insulins</u>)</p> <p><b>Day-11</b>-Microvascular Complications of diabetes and their management</p> <p><b>Day-12</b>-Macrovascular complications of diabetes and their management</p>                            |
| Day-15                 | Evaluation   |  |
| Holiday                | 2 days   |  |

**Department of Medicine**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block 2  |
| 2 | Name of Elective   | Haemodialysis  |
| 3 | Location of hospital Lab or research facility                | Dialysis Unit, Department of Medicine, KGMU, Lucknow<br>Shatabdi Dialysis Unit,<br>KGMU, Lucknow   |
| 4 | Name of internal preceptor(s)                                | Dr. Mahak Lamba, Assistant Professor<br>Dr. Medhavi Gautam, Associate Professor<br>Dr. Munna Lal Patel, Additional Professor<br>Dr. Satyendra Kumar Sonkar, Professor<br>Dr. Durgesh Pushkar, Assistant Professor  |
| 5 | Name of external preceptor                                   | None   |
| 6 | Learning objectives of elective                              | At the end of 15 days student should <ol style="list-style-type: none"> <li>6. Know basic principles of hemodialysis</li> <li>7. Know the indications and contraindications of hemodialysis</li> <li>8. Know the goals of hemodialysis</li> <li>9. Know the complications of hemodialysis and their management</li> <li>10. Know the mechanism of hemodialysis machine and RO plant</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 10   |
| 8 | Prerequisites for elective                                   | Basic Life Support training<br>Immunization  |

|    |   |   |
|----|---|---|
| 9  | List of activities of student participation | <ol style="list-style-type: none"> <li>5. Participate in OP and IP rounds</li> <li>6. Participate in afternoon teaching sessions of the department</li> <li>7. Present at least two cases that are fully worked up in the teaching session</li> <li>8. Participate in patient education, consent, history taking and multidisciplinary team meetings</li> </ol> |
| 10 | Learning Resources                          | <ul style="list-style-type: none"> <li>• Davidson's Textbook of Medicine</li> <li>• Daugirdas's Handbook of dialysis</li> </ul>   |
| 11 | Portfolio entries required                  | Two worked up case records that have been presented   |
| 12 | Log book entry required                     | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"  |
| 13 | Assessment                                  | Attendance at least 75%<br>Formative: Participation in OP & IP rounds and team activities,<br>Presentation of worked up cases,<br>Documentation of attendance and required portfolio and log book entries   |
| 14 | Other comments                              |   |

| Week   | Learning Objective   | Days                             | Activities                                   |
|--------|--|----------------------------------|--|
| Week-1 | Know basic principles of hemodialysis                      | Day-1                            | Introduction about the hemodialysis machine  |
|        |  |                                  | Types of hemodialysis and It's prerequisites |
|        | Day-2  | Dialysis access and Hemodynamics |  |
|        | Know the indications and contraindications of hemodialysis | Day-3                            | Uremic symptoms, Oliguria and Anuria         |
|        |  | Day-4                            | Metabolic acidosis and Hyperkalemia          |

|         |   |        |  |
|---------|---|--------|--|
|         |   |        | Fluid overload signs and symptoms                          |
| Week-2  | Know the goals of hemodialysis                              | Day-5  | Resolution of uremic symptoms and Euvolemia                |
|         |   | Day-6  | Correction of metabolic acidosis and electrolyte imbalance |
|         |   | Day-7  | Assessment of hemodynamics                                 |
|         | Know the complications of hemodialysis and their management | Day-8  | Hemodynamic instability and Shock                          |
|         |   | Day-9  | Catheter associated Infections and Coagulopathy            |
|         |   | Day-10 | Cardiovascular complications and Anaphylactoid reactions   |
|         | Know the mechanism of hemodialysis                          | Day-11 | Diffusion, Convection and Ultrafiltration                  |
|         |   | Day-12 | Dialyzer and Dialysate                                     |
|         | Day-15  |        |  |
| Holiday |   |        | 2 days   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Medicine**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block 2  |
| 2 | Name of Elective   | Gastrointestinal Endoscopies   |
| 3 | Location of hospital Lab or research facility                | Department of Medicine<br>KGMU   |
| 4 | Name of internal preceptor(s)                                | Dr Vivek Kumar<br>Dr. Ajay Kumar Patwa<br>Dr. Deepak Bhagchandani<br>Dr. Satish Kumar  |
| 5 | Name of external preceptor                                   | Dr. Sumit Rungta (Department of Medical Gastroenterology, KGMU)  |
| 6 | Learning objectives of elective                              | Students will know about the following :<br><br><ul style="list-style-type: none"> <li>➤ Types of GI endoscopies and their disinfection and handling</li> <li>➤ Common indications in which it is done</li> <li>➤ Complications of the procedure</li> <li>➤ Therapeutics in common conditions</li> </ul> |
| 7 | Number of students that can be accommodated in this elective | 6  |
| 8 | Prerequisites for elective                                   | <ul style="list-style-type: none"> <li>➤ Basic life support training</li> <li>➤ Immunisation</li> </ul>  |

|    |   |   |
|----|---|---|
| 9  | List of activities of student participation | <ol style="list-style-type: none"> <li>1. Participate in OP and IP rounds</li> <li>2. Participate in afternoon teaching sessions of the department</li> <li>3. Present at least two cases that are fully worked up in the teaching session</li> <li>4. Participate in patient education, consent, history taking and multidisciplinary team meetings</li> </ol> |
| 10 | Learning Resources                          | <ul style="list-style-type: none"> <li>➤ Gastrointestinal Endoscopy. Wallace, Fockens and Sung. Theme. 2018.</li> <li>➤ Harrison's textbook of Medicine</li> <li>➤ Sleisenger textbook of Gastroenterology</li> </ul>   |
| 11 | Portfolio entries required                  | 2 worked up case records  |
| 12 | Log book entry required                     | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"  |
| 13 | Assessment                                  | Attendance of at least 75 %<br>Formative: Participation in OP & IP rounds and team activities,<br>Presentation of worked up cases,<br>Documentation of attendance and required portfolio and log book entries   |
| 14 | Other comments                              |   |

| Week   | Activities   |
|--------|--|
| Week 1 | <ul style="list-style-type: none"> <li>➤ Types of GI endoscopies, disinfection and handling</li> <li>➤ Common indications in which it is done</li> </ul> |
| Week 2 | <ul style="list-style-type: none"> <li>➤ Complications of the procedure</li> <li>➤ Therapeutics in common conditions</li> <li>➤ Assessment</li> </ul>    |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Emergency Medicine**

|          |   |   |
|----------|---|---|
| <b>1</b> | <b>Name of Block</b>  | Block 2   |
| <b>2</b> | <b>Name of Elective</b>   | <b>“Life Saving Emergency Skills”</b> in the Department of Emergency Medicine, KGMU   |
| <b>3</b> | <b>Location of hospital Lab or research facility</b>                | Department of Emergency medicine<br>KGMU  |
| <b>4</b> | <b>Name of internal preceptor(s)</b>                                | Prof Haider Abbas<br>Department of Emergency medicine<br>KGMU   |
| <b>5</b> | <b>Name of external preceptor</b>                                   | None  |
| <b>6</b> | <b>Learning objectives of elective</b>                              | By the end of the elective students shall be able to:<br>1.Perform a complaint directed history and examination of emergency patients and triaging.<br>2.Perform a case-specific differential diagnosis.<br>3.Demonstrate an understanding of the use and interpretation of diagnostic tests ordered.<br>4.Developing and assisting with implementation of appropriate case management plan.<br>5.Demonstrating proficiency with resuscitation and basic procedural skills.<br>6.To counsel patients about disease acuity, prognostication and understanding forward flow and disposition from Emergency.<br>7.To function effectively as a team member in a multidisciplinary team managing emergencies. |
| <b>7</b> | <b>Number of students that can be accommodated in this elective</b> | 40  |
| <b>8</b> | <b>Prerequisites for elective</b>                                   | Must have received necessary<br>Immunisations, Basic Life Support training  |

|            |  |  |
|------------|--|--|
|            |  |  |
| <b>9</b>   | <b>List of activities of student participation</b> | <b>Attached Below</b>  |
| <b>9.1</b> | <b>Week-1</b>                                      |  |
| <b>9.2</b> | <b>Week-2</b>                                      |  |
| <b>10</b>  | <b>Learning Resources</b>                          | Tintinalli's textbook of Emergency Medicine<br>Oxford handbook of Emergency Medicine   |
| <b>11</b>  | <b>Portfolio entries required</b>                  | Assignments provided<br>Two worked up case records that have been presented<br>Documentation of self-directed learning as summary and reflection   |
| <b>12</b>  | <b>Log book entry required</b>                     | Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"   |
| <b>13</b>  | <b>Assessment</b>                                  | Attendance<br>Formative: Participation in emergency rounds and team activities,<br>Presentation of worked up cases,<br>Documentation of attendance and required portfolio and log book entries |
| <b>14</b>  | <b>Other comments</b>                              |  |

| Week   | Activities  |
|--------|---|
| Week-1 | <p><b>Theory Lectures :</b> Introduction to emergency medicine – it’s scope, first aid, pre- hospital care, CNS , Respiratory and Cardiac emergencies.</p> <p><b>Practical Skills:</b> Initial assessment and documentation, Resuscitative Emergency Medicine, Triage, demonstrate crash cart components and consent taking, Oxygen therapy, ABG assessment, Vacular access, Airway management, HFNC, NIV, Invasive ventilation, ECG skills, chest tube insertion, lumbar puncture, ascitic tapping, pleural tapping, Demonstrate application of hard collar and Philadelphia collar.</p> |
| Week-2 | <p><b>Theory Lectures :</b> Infectious, Gastro-intestinal, Pediatric and Urogenital emergencies, Toxicology, Psychiatric and Dermatological emergencies.</p> <p><b>Practical Skills:</b> FAST, e-FAST, Defibrillation and cardioversion, 2D ECHO cardiography, Demonstrate writing a death certificate examples, counselling of bereaved attendants, physical and pharmacological restraining for an agitated patient.</p>  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Emergency Medicine**

|          |   |  |
|----------|---|--|
| <b>1</b> | <b>Name of Block</b>  | Block 2  |
| <b>2</b> | <b>Name of Elective</b>   | <b>Emergency Vascular Access</b>   |
| <b>3</b> | <b>Location of hospital Lab or research facility</b>                | Department of Emergency medicine<br>KGMU   |
| <b>4</b> | <b>Name of internal preceptor(s)</b>                                | Prof Haider Abbas<br>Department of Emergency medicine<br>KGMU  |
| <b>5</b> | <b>Name of external preceptor</b>                                   |  |
| <b>6</b> | <b>Learning objectives of elective</b>                              | By the end of the elective students shall be able to: <ol style="list-style-type: none"> <li>1. Theoretical knowledge <ul style="list-style-type: none"> <li>• Identify Clinical Situations</li> <li>• Anatomy and Physiology with understanding of hemodynamic principals guiding vascular access placement.</li> <li>• Device selection and function</li> </ul> </li> <li>2. Practical Skills <ul style="list-style-type: none"> <li>• Peripheral intravenous access</li> <li>• Intraosseous access</li> <li>• Central Venous access</li> </ul> </li> <li>3. Clinical application <ul style="list-style-type: none"> <li>• Prioritization and decision making</li> <li>• Emergency Scenarios</li> <li>• Disaster and Mass casualty Management</li> </ul> </li> <li>4. Complication Management</li> <li>5. Interpersonal and communication skills <ul style="list-style-type: none"> <li>• Patient interaction</li> <li>• Team Collaboration</li> </ul> </li> </ol> |
| <b>7</b> | <b>Number of students that can be accommodated in this elective</b> | 10   |

|            |  |   |
|------------|--|---|
|            |  |   |
| <b>8</b>   | <b>Prerequisites for elective</b>                  |   |
| <b>9</b>   | <b>List of activities of student participation</b> | <b>Attached Below</b>   |
| <b>9.1</b> | <b>Week-1</b>                                      |   |
| <b>9.2</b> | <b>Week-2</b>                                      |   |
| <b>10</b>  | <b>Learning Resources</b>                          |   |
| <b>11</b>  | <b>Portfolio entries required</b>                  |   |
| <b>12</b>  | <b>Log book entry required</b>                     |   |
| <b>13</b>  | <b>Assessment</b>                                  | Attendance<br>Formative: Participation in emergency rounds and team activities, bedside teaching, presentation of worked up cases, documentation of attendance and required portfolio and log book entries. |
| <b>14</b>  | <b>Other comments</b>                              |   |

| Week                 | Activities  |
|----------------------|---|
| <p><b>Week-1</b></p> | <p><b>Theory Lectures :</b> Introduction to Vascular access, Anatomy of Peripheral veins Common sites and selection criteria, Role of Ultrasound in difficult venous access Indication, contraindications, and sites in intraosseous access, Introduction of central venous access, Sterile techniques and complication management in central venous access.</p> <p><b>Practical Skills:</b> IV cannulation using mannequins, Insertion of IO devices, Central line insertion, Peripheral Venous access with vein viewer.</p> |
| <p><b>Week-2</b></p> | <p><b>Theory Lectures :</b> Access prioritization during resuscitation, Strategies for patients with collapsed veins (e.g., Burns, Shock), Complications of Vascular Access (e.g., Pneumothorax, infection), Indication for central venous access, Vascular access in mass casualty incidents.</p> <p><b>Practical Skills:</b><br/>Setting up IV/IO lines during shock state, removing malfunctioning central lines and troubleshooting, practicing central venous line insertion and cannula care.</p>                       |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Endocrine Surgery

|  |  |
|--|--|
| Name of Block  | 2  |
| Name of Elective   | Goiters: both benign and malignant   |
| Location of hospital lab or research facility  | 7 <sup>th</sup> Floor, Shatabdi Phase 2 building<br>Endocrine Surgery Department and ward<br>2 <sup>nd</sup> floor Shatabdi phase 1 building- OT<br>2 <sup>nd</sup> floor Room no 222, New OPD Complex,<br>Endocrine Surgery OPD ( 9am to 2pm Mon-Sat)   |
| Name of the internal preceptor(s)  | <ol style="list-style-type: none"> <li>1. Prof Anand Kumar Mishra: Head of the Department.</li> <li>2. Prof Pooja Ramakant: Additional Professor, Endocrine Surgery dept.</li> <li>3. Dr Kul Ranjan Singh: Additional Professor, Endocrine Surgery dept.</li> </ol>  |
| Name of external preceptor (if any)  |  |
| Learning objectives of the elective<br>3 <sup>rd</sup> year MBBS student after passing part 1 should be able to: | <ol style="list-style-type: none"> <li>1. To learn to take a detailed history and clinical examination of goiter</li> <li>2. To learn to do a complete workup for patients with thyroid disorders.</li> <li>3. To assist in surgeries for thyroid diseases.</li> <li>4. To learn scrubbing in OT, wearing gloves and hand washing</li> </ol> |
| Number of students that can be accommodated in this elective   | 10   |
| Prerequisites for the elective   | Read history taking and clinical examination of thyroid from surgery book.<br>Universal precautions.<br>Hand hygiene   |
| Learning resources for students  | Bailey and Love book latest edition<br>S Das book  |
| List of activities in which the student will Participate for 4 weeks   | <ol style="list-style-type: none"> <li>1. Ward rounds</li> <li>2. OPD</li> <li>3. OT as 2<sup>nd</sup> Assistants- at least 5</li> <li>4. Seminars- at least 1</li> <li>5. Case presentations- at least 2</li> <li>6. Quiz-1</li> <li>7. Role Plays- 1</li> <li>8. OSCE-1</li> <li>9. Poster presentation- 1</li> </ol>                      |
| Portfolio entries required   | Yes, at least 4 case records and reflections   |
| Log book entry required  | Yes, needs to be filled and signed at the end by the internal Preceptors with grades   |

|                |   |
|----------------|---|
|                | mentioning adequacy of performance.   |
| Assessment     | Formative and summative.<br>Formative: attendance; day-to-day participation in the departmental activity; performance of assigned tasks and presentation of the worked-up case in the department<br>OSCE, Quiz, MCqs.   |
| Other comments | Activities each week<br>Mon to Friday 9am to 4pm<br>3 students- in OPD, 2 in OT, 2 in the ward<br>Rotation will happen after 1 week<br><br>Day 6 : Saturday 9am to 1pm : Formative assessment, reflections, log book entry checking, Seminars, project discussions. |

*Aradhana*  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Endocrine Surgery

|  |  |
|--|--|
| Name of Block  | 2  |
| Name of Elective   | Breast disorders- benign and malignant   |
| Location of hospital lab or research facility                | 7 <sup>th</sup> Floor, Shatabdi Phase 2 building<br>Endocrine Surgery Department and ward<br>2 <sup>nd</sup> floor Shatabdi phase 1 building- OT<br>2 <sup>nd</sup> floor Room no 222, New OPD Complex,<br>Endocrine Surgery OPD ( 9am to 2pm Mon-Sat)   |
| Name of the internal preceptor(s)                            | <ol style="list-style-type: none"> <li>4. Prof Anand Kumar Mishra: Head of the Department.</li> <li>5. Prof Pooja Ramakant: Additional Professor, Endocrine Surgery dept.</li> <li>6. Dr Kul Ranjan Singh: Additional Professor, Endocrine Surgery dept.</li> </ol>  |
| Name of external preceptor (if any)                          |  |
| Learning objectives of the elective                          | <ol style="list-style-type: none"> <li>5. To learn to take a detailed history and clinical examination of breast (benign and malignant) lumps.</li> <li>6. To learn to do a complete workup for patients with breast disorders.</li> <li>7. To assist in surgeries for breast cancer and benign breast diseases.</li> <li>8. To learn breast self-examination skills.</li> </ol> |
| Number of students that can be accommodated in this elective | 10   |
| Prerequisites for the elective                               | Read history taking and clinical examination of breast from surgery book.  |
| Learning resources for students                              | Bailey and Love book<br>S Das book   |
| List of activities in which the student will participate     | <ol style="list-style-type: none"> <li>10. Ward rounds</li> <li>11. OPD</li> <li>12. OT as 2<sup>nd</sup> Assistants- at least 4</li> <li>13. Seminars- at least 1</li> <li>14. Case presentations- at least 2</li> <li>15. Quiz-1</li> <li>16. Role Plays- 1</li> <li>17. OSCE-1</li> <li>18. Poster presentation- 1</li> </ol>   |
| Portfolio entries required                                   | Yes, at least 4 case records and reflections   |
| Log book entry required                                      | Yes, needs to be filled and signed at the end by the internal Preceptors with grades mentioning adequacy of performance.   |

|                |   |
|----------------|---|
| Assessment     | Formative and summative.<br>Formative: attendance; day-to-day participation in the departmental activity; performance of assigned tasks and presentation of the worked-up case in the department  |
| Other comments | Activities each week<br>Mon to Friday 9am to 4pm<br>3 students- in OPD, 2 in OT, 2 in the ward<br>Rotation will happen after 1 week<br><br>Day 6 : Saturday 9am to 1pm : Formative assessment, reflections, log book entry checking, Seminars, project discussions. |

*Archana*  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

### Department of Community Medicine

|           | Name of Block  | Block II   |
|-----------|--|--|
| 2         | Name of elective   | Research Methodology   |
| 3         | Location of hospital lab or research facility                  | Department of Community Medicine & Public Health, KGMU UP, Lucknow   |
| 4         | Name of internal preceptor(s)                                  | Dr Abhishek Singh  |
| 5         | Name of external preceptor (if applicable)                     | -  |
| 6         | LEARNING OBJECTIVES OF ELECTIVE<br>•                           | 1. To understand various study designs 2. To learn sample size estimation 3. To explore data collection tools 4. To understand basics of scientific literature |
| 7         | Number of students that can be accommodated in this elective   | 5  |
| 8         | Prerequisites for elective                                     | Keen interest in exploring research methodology  |
| 9 9.1 9.2 | List of activities of student participation Week -1<br>Week -2 |  |
| 10        | Learning resources   | Textbook of Community Medicine, Basic Course in Biomedical Research (by ICMR), Basic Methods of Medical Research (Abhaya Indrayan)                             |
| 11        | Portfolio entries required                                     | Daily log of activities participated (complete details of at least 02 research papers studied)   |
| 12        | Logbook entry required   | Satisfactory completion signed by institutional preceptor  |
| 13        | Assessment   | Attendance, successful verification of required portfolio entries and completion of the posting as certified in the log book                                   |
| 14        | Other comments   | None   |

| Week  | Activities   |
|---|--|
| <p>Week-1</p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p>  | <p>Introduction to biomedical research, types of study, study designs Rationale of sampling, types of sampling technique Sample size estimation</p> <p>Ethical consideration for biomedical research, consent from development</p> <p>Formative assessment</p> |
| <p>Week -2</p> <p>Day-1</p> <p>Day-2</p> <p>Day-3</p> <p>Day-4</p> <p>Day-5</p> | <p>Data collection tools, brief introduction to questionnaire development, data management Learning how to use scientific literature search engines Introduction to SPSS</p> <p>Exercises on SPSS</p> <p>Formative assessment</p>                              |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Pediatrics**

|   |  |  |
|---|--|--|
| 1 | Name of Block  | BLOCK 2  |
| 2 | Name of Elective   | BUDDING PEDIATRIC INTENSIVIST  |
| 3 | Location of hospital Lab or research facility                | PICU, Department of Pediatrics KGMU  |
| 4 | Name of internal preceptor(s)                                | Dr Sarika Gupta<br>Dr Nishant Verma<br>Dr Neeraj Anand   |
| 5 | Name of external preceptor                                   | None   |
| 6 | Learning objectives of elective                              | At the end of elective posting, selected students will be able to <ol style="list-style-type: none"> <li>1. Describe indication for PICU admission</li> <li>2. Provide supportive care in PICU</li> <li>3. Analyze and provide nutrition support in critically ill children in PICU</li> <li>4. Analyze hospital care associated infection (HCAI) in PICU</li> <li>5. Interpret bed side ECHO and ultrasound findings</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 10   |
| 8 | Prerequisites for elective                                   | Universal Precaution Practice<br>BLS training certified  |

|     |   |   |
|-----|---|---|
| 9   | List of activities of student participation | <ul style="list-style-type: none"> <li>• 2 week; 6 days per week; 8 hours per day=96 hours</li> <li>• Interactive sessions</li> <li>• Participation in clinical rounds</li> <li>• Provide supportive care to patients under supervision</li> <li>• Observe and analyze abnormal clinical parameters and multipara monitor parameters</li> <li>• Record vitals of at least 2 patients per day</li> <li>• Assist in team work in PICU under supervision</li> <li>• Participation in academic activity of PICU</li> <li>• Participation in record activity (investigation reports, critical care bundle)</li> <li>• Presentation of at least 2 cases</li> <li>• Counsel the parents/attendants for Informed consent/assent</li> <li>• Counsel the parents/attendants for prevention of HCAI</li> <li>• Counsel the parents/attendants for nutritional support</li> <li>• Reflection writing</li> </ul> |
| 9.1 | Week-1                                      |   |
| 9.2 | Week-2                                      |   |
| 10  | Learning Resources                          | AIIMS PICU Protocol, <a href="http://www.uptodate.com">www.uptodate.com</a>   |
| 11  | Portfolio entries required                  | Daily log of patients seen, daily log of ultrasound and ECHO seen, daily log of activities done, documentation of case presented  |
| 12  | Log book entry required                     | YES Satisfactory completion of posting by preceptor   |
| 13  | Assessment                                  | Formative assessment at the end of each week:<br>Attendance, Successful completion of objectives and log book entry, Reflection writing   |
| 14  | Other comments                              | None  |

| Week          | Activities  |
|---------------|---|
| <b>Week 1</b> | <p><b>Day1</b></p> <ul style="list-style-type: none"> <li>• To be familiar with PICU structure, faculty, residents, staffs</li> <li>• To be familiar with different kind of record entry forms</li> <li>• To be familiar with different instruments, equipment available in PICU</li> <li>• To read the SOPs followed in PICU</li> <li>• To observe the activities done in PICU</li> <li>• To observe inform consent/assent taking activity</li> <li>• To observe counselling session done by SRs</li> <li>• Write day 1 reflection</li> <li>• Interactive session with faculty/SR on normal vital parameters value in different age groups of Pediatrics</li> <li>• Interactive session with faculty/SR on Rapid assessment of a sick child</li> <li>• Interactive session with faculty/SR on interpretation of multipara monitors figures</li> <li>• At the end of day should be able to do examination for vital parameters (HR, RR, BP, level of consciousness), should be able to assess emergency signs and prioritize and should be able to recognize signs of severe respiratory distress correctly</li> <li>• At the end of day student should be able to assess the patients for PICU admission indication under supervision</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 2</b></p> <ul style="list-style-type: none"> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> <li>• Interactive session with faculty/SR on supportive care of a critically ill children</li> <li>• Observation of activities of residents and PICU staff in supportive care of a critically ill children</li> <li>• Assist in supportive care of a critically ill children</li> <li>• Documentation of different components of supportive care of at least 2 critically ill children</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> <li>•</li> </ul> <p><b>Day 3</b></p> <ul style="list-style-type: none"> <li>• Assist in supportive care of a critically ill children</li> <li>• Critique the supportive care of a critically ill children</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Observe and assist in management of patients under supervision</li> </ul> |

|               |  |
|---------------|--|
|               | <ul style="list-style-type: none"> <li>• Counsel the parents about supportive care</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 4</b></p> <ul style="list-style-type: none"> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Interactive session with faculty/SR on nutrition in critically ill children</li> <li>• Observe the nutrition support strategy in critically ill children</li> <li>• Recording the activity in log book</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Interactive session with faculty/SR on nutrition in critically ill children</li> <li>• Assessment of nutritional status in at least 2 patients</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 5</b></p> <ul style="list-style-type: none"> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Assessment of nutritional status in at least 2 critically ill children</li> <li>• Planning the feeding strategy in at least 2 critically ill children</li> <li>• Counsel the parents for nutrition requirement</li> <li>• Interactive session with faculty/SR on HCAI in PICU</li> <li>• Identify HCAI in at least 2 critically ill children</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Assessment and planning of nutritional status in one critically ill children</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 6</b></p> <ul style="list-style-type: none"> <li>• Interactive session with faculty/SR on HCAI in PICU</li> <li>• Identify HCAI in at least 2 critically ill children</li> <li>• Describe HCAI preventive strategy in at least 2 critically ill children</li> <li>• Counsel the parents for HCAI preventive strategy in at least 2 critically ill children</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> <li>• FA: MCQs/DOAP/logbook verification</li> </ul> |
| <b>Week 2</b> | <p><b>Day1</b></p> <ul style="list-style-type: none"> <li>• Observe and assist in management of patients under supervision</li> </ul>  |

- Record vital signs of at least 2 patients
- Participate in clinical rounds
- Apply and document HCAI prevention practices in at least 2 critically ill children
- Assessment and planning of nutritional status in one critically ill children
- Observe and assist in management of patients under supervision
- Record vital signs of at least 2 patients
- Participate in clinical rounds
- Interactive session with faculty/SR on antibiotic stewardship in PICU
- Assessment of nutritional status in at least 2 patients
- Recording the activity in log book
- Reflection writing

### **Day 2**

- Observe and assist in management of patients under supervision
- Record vital signs of at least 2 patients
- Participate in clinical rounds
- Apply and document HCAI prevention practices in one critically ill children
- Assessment and planning of nutritional status in one critically ill children
- Interpret antibiotic resistance pattern in PICU
- Integrate clinical and lab parameters to diagnose HCAI in at least 2 critically ill children
- Interactive session with faculty/SR on ABG analysis and interpretation
- Analyze ABG report in at least 2 critically ill children
- Observe and assist in management of patients under supervision
- Record vital signs of at least 2 patients
- Participate in clinical rounds
- Integrate clinical and lab parameters to diagnose HCAI in at least 2 critically ill children
- Reflection writing

### **Day 3**

- Analyze ABG report in at least 5 critically ill children
- Integrate clinical and lab parameters to diagnose HCAI in at least 2 critically ill children
- Counsel the parents for HCAI preventive strategy in at least 2 critically ill children
- Observe and assist in management of patients under supervision
- Record vital signs of at least 2 patients
- Participate in clinical rounds

### **Day 4**

- Interactive session with faculty/SR on Point of care ultrasound
- Observe and assist in management of patients under supervision
- Observe and document applicability of POCUS in at least 2 critically ill children
- Record vital signs of at least 2 patients

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Participate in clinical rounds</li> <li>• Interactive session with faculty/SR on application of echocardiography</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Observe and document applicability of POCUS in at least 2 critically ill children</li> <li>• Observe and document applicability of echocardiography in at least 1 critically ill children</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 5</b></p> <ul style="list-style-type: none"> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Observe and document applicability of POCUS in at least 2 critically ill children</li> <li>• Observe and document applicability of echocardiography in at least 1 critically ill children</li> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> </ul> <p><b>Day 6</b></p> <ul style="list-style-type: none"> <li>• Observe and assist in management of patients under supervision</li> <li>• Record vital signs of at least 2 patients</li> <li>• Participate in clinical rounds</li> <li>• Observe and document applicability of POCUS in at least 2 critically ill children</li> <li>• Observe and document applicability of echocardiography in at least 1 critically ill children</li> <li>• Recording the activity in log book</li> <li>• Reflection writing</li> <li>• FA: MCQs/DOAP/logbook verification</li> </ul> |
|--|---|


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Pediatric**

|   |   |  |
|---|---|--|
| 1 | Name of Block                                 | II   |
| 2 | Name of Elective                              | Neonatology  |
| 3 | Location of hospital Lab or research facility | NNU Queen Marry Hospital and NICU, fourth floor trauma center  |
| 4 | Name of internal preceptor(s)                 | Dr Mala Kumar<br>Dr SN Singh<br>DrShaliniTripathi  |
| 5 | Name of external preceptor                    | -  |
| 6 | Learning objectives of elective               | <p>Week1-</p> <ol style="list-style-type: none"> <li>At the end of the first week third year medical student should be able to perform bag and mask ventilation on mannequin effectively</li> <li>At the end of the first week third year medical student should observe Neonatal resuscitation in QMH</li> <li>At the end of the first week third year medical student is able to provide essential newborn care to well babies at birth</li> <li>At the end of the first week third year medical student Is able to counsel and assist for breast feeding and rectify breast feeding related problems</li> </ol> <p>Week 2</p> <ol style="list-style-type: none"> <li>At the end of the second week third year medical student Is able to demonstrate KMC and it,s benefit to mothers</li> <li>At the end of the second week third year medical student Is able to identify preterm low birth weight neonate and problem related to them</li> <li>At the end of the second week third year medical student Is able to identify and prevent hypothermia in newborn and know about the feeding of LBW</li> </ol> |

|     |  |  |
|-----|--|--|
|     |  | babies<br>8. At the end of the fourth week third year medical student Is able to TRIAGE new born   |
| 7   | Number of students that can be accommodated in this elective | Maximum 10   |
| 8   | Prerequisites for elective                                   | 1.Hepatitis B vaccination<br>2. Learner should know all universal measures of asepsis while entering in new born units esp Hand hygiene<br>3. Student should read Neonatology section of Ghai textbook of Pediatrics, 10 th ed |
| 9   | List of activities of student participation                  |  |
| 9.1 | Week-1   | Week1- Students will perform BMV on mannequin and will be taken to labor room<br>Week1-Post natal ward round with faculty<br>They will be shown breast feeding videos<br>Visit to Milk bank esp for counseling demonstration   |
| 9.2 | Week-2   | Week2-Temperature recording in KMC ward<br>Week2- TABC assessment of at least 2 sick babies in reception area of neonatal unit   |
| 10  | Learning Resources   | New born stabilization unit participants manual soft copy (2022), Piyush Gupta text book 3 rd edition- Neonatology section   |
| 11  | Portfolio entries required                                   | Document -No of new born resuscitation and routine care observed<br>Document No of mothers counselled for breast feeding and Kangaroo mother care  |
| 12  | Log book entry required                                      | Daily signature of the faculty<br>Minimum 75 % attendance required   |
| 13  | Assessment   | Week1-<br>Perform BMV on mannequin- (skill assessment)<br>Enumerate the points of good position and attachment of breast feeding (Written)<br>Week2<br>Explain the mother how to keep baby warm at home (VIVA)                 |

|    |                |   |
|----|----------------|---|
|    |                | Enumerate the danger sign to differentiate healthy and sick newborn (Written)<br>Explain the feeding of preterm neonates (VIVA) |
| 14 | Other comments | -   |

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Pediatric

|     |  |  |
|-----|--|--|
| 1   | Name of Block  | II   |
| 2   | Name of Elective   | Growth and development module  |
| 3   | Location of hospital lab or research facility                | Pediatrics OPD and indoor  |
| 4   | Name of internal preceptor                                   | Dr Arpita Bhriuvanshi<br>Prof Shally Awasthi<br>Prof Chandrakanta<br>Dr Shalini Tripathi   |
| 5   | Name of external preceptor                                   | NA   |
| 6   | Learning objective of elective                               | By the end of one month, learner opting for this elective will be able to <ol style="list-style-type: none"> <li>1. To know about the domains of growth and development as well as the developmental milestones.</li> <li>2. To assess the growth of the child and identify a child with abnormal growth pattern using different growth charts (e.g. - microcephaly, macrocephaly, short stature, obesity, growth abnormalities).</li> <li>3. To identify failure to thrive or overweight/obesity in a child or adolescent and outline the differential diagnosis and evaluation.</li> <li>4. To identify a child with developmental delay and do preliminary assessment and management.</li> <li>5. Counselling in the child with growth failure and developmental delay</li> </ol> |
| 7   | Number of students that can be accommodated in this elective | 10   |
| 8   | Prerequisites for elective                                   | Should read chapter "Growth and development" from OP Ghai  |
| 9   | List of activities of student participation                  |  |
| 9.1 | Week 1<br>Day 1  | Orientation with Pediatrics indoor and outdoor set-up<br>Learner will interact with preceptor in detailed plan of elective and various activities<br><br>Observing and assisting in anthropometric measurement of children in OPD<br><br>Perform anthropometric measurement of 5 children in the OPD and assess their development  |
|     | Day 2  | Assess the developmental milestones of 5 children in the pediatrics OPD<br>Present and discuss the observations of Day 1 and 2 with the preceptor<br><br>To attend the Pediatric endocrinology OPD with the preceptor  |
|     | Day 3  | To examine and present 2 cases with growth failure and identify signs and symptoms pointing towards system involvement.<br><br>To be able to differentiate between nutritional and pathological causes of growth failure on the basis growth chart interpretation.   |

|         |  |  |
|---------|--|--|
| 9.2     | Day 4  | Assist and Perform sexual maturity staging by Tanner in 2 male and 2 female children   |
|         | Day 5  | Assist and calculate the bone age of 5 children with growth failure.   |
|         | Day 6  | Observe / Counsel parents about nutritional management of children with growth failure   |
|         | Week 2   | To attend Pediatric neurology clinic and understand the approach to a child with developmental delay.  |
|         | Day 1  | To be able to present 2 cases of developmental delay   |
|         | Day 2  | Understand the interpretation of CT and MRI findings of children with developmental delay.   |
|         | Day 3  | To counsel parents for adherence to physiotherapy and explain the prognosis  |
| Day 4-6 | To attend the Neonatology clinic and assist and perform the neurological examination of neonates by Hammersmith infant neurological examination<br><br>Counseling of parents of a neonate with history of perinatal asphyxia |  |
| 10      | Learning Resources   | Pediatric Endocrine Disorders Textbook by- Meena P. Desai, P.S.N. Menon, Vijayalakshmi Bhatia – 3 <sup>rd</sup> edition<br><br>The development of the infant and young child- Normal & Abnormal – MKC Nair, Paul Russell – 10 <sup>th</sup> edition<br><br>Hutchinson clinical examination – 24 <sup>th</sup> edition<br><br>Nelson textbook of Pediatrics - 21 <sup>st</sup> edition<br><br>WHO and IAP Growth Charts |
| 11      | Portfolio entries required   | Daily record keeping of day to day activity in log book. Case presentations and discussions, growth charts and neurological assessment charts  |
| 12      | Log book entry required  | Day today activity by learner to be recorded in log book and signed by either of preceptors  |
| 13      | Assessment   | Mandatory attendance of 75% Satisfactory<br>Verification of log book entries, portfolios, Clinical case presentations completion   |
| 14      | Other comments   | Learner to be encouraged to write short abstract/ article/ case reports/ commentaries for publication in peer reviewed journals.   |



## Department of Ophthalmology

Refractive errors is a global eye health problem and is the single most important cause of preventable/avoidable blindness in India. Measures like establishment of vision centres by the government to combat blindness require adequately trained professionals to discharge its objectives. With the ever increasing gap between the patient needs and availability of trained health professional, an elective course in 'Vision & Refraction' for MBBS students could prove vital in bridging this gap. The department of Ophthalmology is pleased to offer and invite applications for an elective course in 'Vision & Refraction' (in accordance with the Choice based Credit System) for MBBS students of King George's Medical University. The details of the program are attached.

|   |  |   |
|---|--|---|
| 1 | Name of Block  | 2   |
| 2 | Name of Elective   | Vision & Refraction   |
| 3 | Location of hospital Lab or research facility                | Ophthalmology Department  |
| 4 | Name of internal preceptor(s)                                | Prof SK Bhaskar<br>Dr Rajat Mohan Srivastava<br>Dr Nibha Mishra   |
| 5 | Name of external preceptor                                   | Not required  |
| 6 | Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. Measure Visual Acuity of an adult accurately</li> <li>2. Identify fundal glow on Retinoscopy in a dilated patient under supervision</li> <li>3. Neutralise the fundal glow with lenses and estimate the refractive error under supervision</li> </ol> |
| 7 | Number of students that can be accommodated in this elective | 10  |
| 8 | Prerequisites for elective                                   | Knowledge of normal vision, vision charts, optics of refraction<br>Should have own Retinoscope/Retinoscopy mirror   |

|    |   |   |
|----|---|---|
| 9  | List of activities of student participation | Mentioned separately in Program Details   |
| 10 | Learning Resources                          | <ol style="list-style-type: none"> <li>1. Optics and Refraction, Duke &amp; Elder.</li> <li>2. Clinical Optics, Elkington Andrew.</li> <li>3. Parsons Diseases of the Eye,</li> </ol> |
| 11 | Portfolio entries required                  | Yes   |
| 12 | Log book entry required                     | Yes   |
| 13 | Assessment                                  | <p>75% attendance<br/> Completed log book<br/> Formative assessment (MCQ, Viva)</p>   |
| 14 | Other comments                              | It will be mandatory for enrolled students to bring along torch and retinoscopy mirror for the elective posting.  |

**Program Details**

Name of Elective: Vision & Refraction

Duration: 2 weeks

Maximum Students: 10

| Week 1        | Activity (3 hours)   | Methodology & Venue    |
|---------------|--|------------------------|
| Day 1         | Physiology of Vision, Laws of Refraction & Concept of Reduced Eye          | Lecture (seminar hall) |
| Day 2         | Visual Acuity Assessment   | DOAP session (OPD)     |
| Day 3         | Visual Acuity Assessment   | DOAP session (OPD)     |
| Day 4         | Refractive Errors: Hypermetropia, Myopia and Astigmatism                   | Lecture (seminar hall) |
| Day 5         | Principles of Retinoscopy and prescription of glasses                      | Lecture (seminar hall) |
| <b>Week 2</b> |  |                        |
| Day 1         | Hands on Retinoscopy & prescription of glasses (Myopia)                    | DOAP session (OPD)     |
| Day 2         | Hands on Retinoscopy & prescription of glasses (Hypermetropia and Fogging) | DOAP session (OPD)     |
| Day 3         | Hands on Retinoscopy & prescription of glasses. (Astigmatism)              | DOAP session (OPD)     |
| Day 4         | Log Book Completion  | IPD                    |
| Day 5         | Final Day Assessment   | IPD                    |

## Department of Pediatric Orthopedic

Clubfoot is the most common congenital orthopaedic anomaly. The child is born with one or both feet twisted downwards and turned inwards. It may be idiopathic, neurogenic or syndromic. The underlying deformity has four components which can be easily memorized

using the mnemonic CAVE. These components are: Cavus, Adductus, Varus, and Equinus. The Cavus and Adductus deformities occur in the midfoot, while the Varus and Equinus deformities occur in the hindfoot. The severity of clubfoot is assessed using Pirani score. If clubfoot is not treated timely and adequately, it can progress to a severe deformity causing lifelong impairment affecting participation in activities of daily living. Prognosis and choice of treatment depends on the time at which the treatment is started. Ponseti method of treatment is the mainstay of treatment. It is divided into two phases namely corrective phase (which includes Plaster cast application) and maintenance phase (which includes Brace application). The successful outcome of Clubfoot treatment depends on teamwork involving doctors, counsellors and parents.

|  |   |
|--|---|
| Name of Block  | Block 2   |
| Name of Elective   | Clubfoot – Diagnosis and Management   |
| Location of hospital Lab or research facility                | Department of Paediatric Orthopaedics   |
| Name of internal preceptor(s)                                | Dr Vikas Verma<br>Dr Suresh Chand<br>Dr Syed Faisal Afaque  |
| Name of external preceptor if applicable                     | NA  |
| Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. To take a detailed history in a case of clubfoot appropriately</li> <li>2. To perform relevant clinical examination and assess Pirani score for severity of clubfoot correctly</li> <li>3. To enumerate the treatment options for clubfoot</li> <li>4. To counsel patient/attendant regarding management and outcome of clubfoot</li> </ol> |
| Number of students that can be accommodated in this elective | Maximum 10  |
| Prerequisites for elective                                   | Necessary immunisation  |
| List of activities of student participation                  | <ol style="list-style-type: none"> <li>1. Participate in inpatient rounds and outpatient clinics</li> <li>2. Group discussion</li> <li>3. To witness the counselling of parents of a case of clubfoot</li> </ol>  |
| Learning Resources   | <ol style="list-style-type: none"> <li>1. Textbook of Orthopaedics by John Ebnezar and Rakesh John.</li> <li>2. Dr Ignacio Ponseti, <i>Congenital Clubfoot. Fundamentals of Treatment</i> (Oxford University Press), 1996</li> </ol>  |
| Portfolio entries required                                   | <ol style="list-style-type: none"> <li>1. Daily log of cases seen</li> <li>2. Documentation of cases presented</li> </ol>   |
| Log Book entry required                                      | Satisfactory completion of posting with a “meets expectation ‘(M)’ grade” by the preceptor  |
| Assessment   | <ul style="list-style-type: none"> <li>• Formative assessment during OPD clinics and IPD rounds</li> <li>• Case presentation</li> <li>• Completion of Log book entry</li> </ul>   |

|                |                            |
|----------------|----------------------------|
| Other comments | As per institutional norms |
|----------------|----------------------------|

| Week   | Activities   |
|--------|--|
| Week-1 | <p>Day 1 – Discussion with the supervisor – History taking in a case of club foot<br/> Attend a session of history taking by the supervisor during ward rounds<br/> Practice history taking in OPD/IPD club foot patients<br/> Group discussion on histories of cases taken the students</p> <p>Day 2 – Attend a session of history taking by the supervisor in the OPD/IPD<br/> Practice history taking in OPD/IPD clubfoot patients<br/> Group discussion on histories taken by the students</p> <p>Day 3 – Discussion with the supervisor – Clinical examination in a case of clubfoot<br/> Attend a session of clinical examination and Pirani scoring by the supervisor during ward round<br/> Practice clinical examination in OPD/IPD club foot patients<br/> Group discussion on clinical examinations and Pirani scoring done by the students</p> <p>Day 4 – Attend a session of clinical examination and Pirani scoring by the supervisor in the OPD<br/> Practice clinical examination and Pirani scoring in OPD/IPD clubfoot patients<br/> Group discussion on clinical examinations and Pirani scoring done by the students</p> <p>Day 5 – Practice history taking and examination in IPD/OPD club foot patients<br/> Group discussion on history/Examination of cases taken by the students</p> <p>Day 6 – Completion of logbook, reflection writing and improvement</p> |
| Week-2 | <p>Day 1 - Discussion with the supervisor – Treatment of Clubfoot<br/> Attend a session of supervisor explaining treatment to the patient/attendant<br/> Practice choosing treatment in IPD club foot patients<br/> Group discussion on treatment chosen by the students</p> <p>Day 2 - Attend a session of supervisor explaining the treatment to the patient/attendant<br/> Practice choosing a treatment in OPD club foot patients<br/> Attending corrective cast application<br/> Group discussion on treatment chosen by the</p>  |

|  |  |
|--|--|
|  | <p>students</p> <p>Day 3 –Discussion with the supervisor – Counseling regarding management and treatment of Clubfoot<br/> Attend a session of supervisor counseling an IPD patient/attendant regarding management and Outcome of clubfoot<br/> Counsel patient/attendant (under supervision) regarding the management and outcome of IPD club foot patient<br/> Group discussion on counseling done by the students</p> <p>Day 4 – Attend a session of supervisor counseling an IPD patient/attendant regarding management and outcome of clubfoot<br/> Counsel patient/attendant (under supervision) regarding the management and outcome of IPD club foot patient<br/> Group discussion on counseling done by the students</p> <p>Day 5 – Practice Examination and choosing treatment in IPD club foot patients<br/> Counsel patient/attendant (under supervision) regarding the management and outcome of IPD club foot patient<br/> Group discussion on treatment chosen and counselling done by the students</p> <p>Day 6 – Completion of logbook, reflection writing and improvement</p> |
|--|--|

*Arunima*  


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**Department of Geriatric Mental Health**

|  |  |
|--|--|
| Name of Block  | 2  |
| Name of Elective   | Interviewing skills for psychological issues   |
| Location of hospital Lab or Research Facility                | Geriatric Mental Health OPD, ward, and emergency   |
| Name of internal preceptor(s)                                | Dr. Shrikant Srivastava<br>Dr. Akanksha Sonal  |
| Name of external preceptor if applicable                     | Nil  |
| Learning objectives of elective                              | <ol style="list-style-type: none"> <li>1. To be able to understand the effect of aging on drug therapy</li> <li>2. To be able to understand effect of drugs on ageing body</li> <li>3. To be able to understand “polypharmacy” and how to avoid it (the concept of deprescribing).</li> <li>4. To be able to understand the concept of ‘inappropriate medication’ in ageing and ways to address and avoid it</li> <li>5. To be able to write an age friendly prescription</li> </ol> |
| Number of students that can be accommodated in this elective | 4  |
| Prerequisites for elective                                   | 1. Completed training in pharmacology  |
| List of activities of student participation                  | <ol style="list-style-type: none"> <li>1. Accompany the preceptor's in OPD and on ward rounds</li> <li>2. Join Patient care discussions on ward rounds.</li> <li>3. Attend academics, case conferences, seminars and journal clubs</li> <li>4. Present a detailed weekly review of one case every week in departmental review meeting</li> <li>5. Attend Patients in OPD and wards under supervision.</li> </ol>   |
| Learning Resources   | <ol style="list-style-type: none"> <li>1. The American Psychiatric Association Publishing Textbook of Geriatric Psychiatry</li> <li>2. The Oxford Textbook of Old Age Psychiatry</li> </ol> <p>Other reference material will be provided to the students</p>   |

|                            |   |
|----------------------------|---|
| Portfolio entries required | <ol style="list-style-type: none"> <li>1. Students should complete and present case summaries of at least one patient every week (Total 2) describing the detailed history, mental status examination, physical examination, scales for assessment, and management plan with a focus on the prescription pattern.</li> <li>2. Sequence of events playing a positive/negative role in the patient's holistic care plan.</li> </ol> |
| Log book entry required    | <ol style="list-style-type: none"> <li>1. Details to at least 2 patients against each of the learning objectives described.</li> <li>2. Satisfactory performance grade for each of the learning objectives</li> </ol>   |
| Assessment                 | Attendance 75% and Above<br>Successful completion of research specific learning objectives and log book entry   |
| Other                      | Nil   |

|  |  |
|--|--|
| Name of Block                              | 2  |
| Name of Elective                           | Geriatric Mental Health  |
| Location of hospital Lab Research Facility | Geriatric Mental Health OPD, ward, and emergency   |
| Name of internal preceptor(s)              | Dr. Shrikant Srivastava<br>Dr. Bhupendra Singh<br>Dr. Shailendra Mohan Tripathi<br>Dr. Akanksha Sonal<br>Dr. Rakesh Kumar Tripathi<br>Dr. Nish Mani Pandey   |
| Name of external preceptor if applicable   | Nil  |
| Learning objectives of elective            | <ol style="list-style-type: none"> <li>1. To develop an understanding of the Special Geriatric Mental health needs.</li> <li>2. To be able to discuss the bio-psycho-social effect of aging in disease causation and management in Geriatric Mental Health conditions</li> <li>3. To develop the ability to work in a team for effective understanding of the steps in the management of subjects with geriatric mental health needs.</li> <li>4. Be perceptive to the special mental health needs of older adults.</li> </ol> |

|  |  |
|--|--|
| Number of students that can be accommodated in this elective | 2  |
| Prerequisites for elective                                   | 1. Completed Posting in psychiatry   |
| List of activities of student participation                  | <ol style="list-style-type: none"> <li>1. Accompany the preceptor's in OPD and on ward rounds</li> <li>2. Join Patient care discussions on ward rounds.</li> <li>3. Attend academics, case conferences, seminars and journal clubs</li> <li>4. Present a detailed weekly review of one case every week in departmental review meeting</li> <li>5. Attend Patients in OPD and wards under supervision.</li> </ol> |
| Learning Resources   | <ol style="list-style-type: none"> <li>1. The American Psychiatric Association Publishing Textbook of Geriatric Psychiatry</li> <li>2. The Oxford Textbook of Old Age Psychiatry</li> </ol> <p>Other reference material will be provided to the students</p>   |
| Portfolio entries required                                   | <ol style="list-style-type: none"> <li>1. Students should complete and present case summaries of at least one patient every week (Total 2) describing the detailed history, mental status examination, physical examination, scales for assessment and management plan.</li> <li>2. Sequence of events playing a positive/negative role in the patient's holistic care plan.</li> </ol>                          |
| Log book entry required                                      | <ol style="list-style-type: none"> <li>1. Details to at least 2 patients against each of the learning objectives described.</li> <li>2. Satisfactory performance grade for each of the learning objectives</li> </ol>  |
| Assessment   | Attendance 75% and Above<br>Successful completion of research specific learning objectives and log book entry  |
| Other  | Nil  |

**Department of Transfusion Medicine**

|    |  |   |
|----|--|---|
| 1  | Name of Block  | Block- II   |
| 2  | Name of Elective   | Blood donor selection/screening for blood donation  |
| 3  | Location of hospital Lab or research facility                | Dept. of Transfusion Medicine, K.G.M.U., Lucknow.   |
| 4  | Name of internal preceptor(s)                                | Dr. Archana Solanki   |
| 5  | Name of external preceptor                                   |   |
| 6  | Learning objectives of elective                              | Students able to select the blood donor as per Drug and Cosmetic act  |
| 7  | Number of students that can be accommodated in this elective | 5   |
| 8  | Prerequisites for elective                                   | Lab apron, stethoscope, note book and student id card   |
| 9  | List of activities of student participation                  | Observation of selection process selection of donors by the students  |
| 10 | Learning Resources   | <ul style="list-style-type: none"> <li>• Transfusion Medicine Technical manual, R.K. Saran.</li> <li>• Drugs and Cosmetic Act 1940</li> <li>• NACO Standards for Blood Banks</li> <li>• NABH standards for Blood Banks</li> </ul> |
| 11 | Portfolio entries required                                   | NA  |
| 12 | Log book entry required                                      | NA  |
| 13 | Assessment   | Objective assessment after completion of elective (2 weeks)   |

**Department of Transfusion Medicine**

|    |  |   |
|----|--|---|
| 1  | Name of Block  | Block- II   |
| 2  | Name of Elective   | Blood donation process  |
| 3  | Location of hospital Lab or research facility                | Dept. of Transfusion Medicine, K.G.M.U., Lucknow.   |
| 4  | Name of internal preceptor(s)                                | Dr. Ashutosh Singh  |
| 5  | Name of external preceptor                                   | NA  |
| 6  | Learning objectives of elective                              | Students will learn the process of blood donation   |
| 7  | Number of students that can be accommodated in this elective | 12  |
| 8  | Prerequisites for elective                                   | Lab apron, gloves, note book and student id card  |
| 9  | List of activities of student participation                  | Observation of blood donation process Arm preparation and donor phlebotomy  |
| 10 | Learning Resources   | <ul style="list-style-type: none"> <li>• Transfusion Medicine Technical manual, R.K. Saran.</li> <li>• Drugs and Cosmetic Act 1940</li> <li>• NACO Standards for Blood Banks</li> <li>• NABH standards for Blood Banks</li> </ul> |
| 11 | Portfolio entries required                                   | NA  |
| 12 | Log book entry required                                      | NA  |
| 13 | Assessment   | Objective assessment after completion of elective (2 weeks)   |
| 14 | Other comments   | -   |

**Department of Transfusion Medicine**

|    |   |   |
|----|---|---|
| 1  | Name of Block   | Block- II   |
| 2  | Name of Elective  | Blood Component preparation   |
| 3  | Location of hospital Lab or research facility                           | Dept. of Transfusion Medicine, K.G.M.U., Lucknow.   |
| 4  | Name of internal preceptor(s)   | Dr. Tulika Chandra  |
| 5  | Name of external preceptor  | NA  |
| 6  | Learning objectives of elective   | Student will learn the process of Blood Component preparation   |
| 7  | Number of students that can be accommodated in this elective            | 8   |
| 8  | Prerequisites for elective  | Lab apron, gloves, note book and student id card  |
| 9  | List of activities of student participation<br>9.1 Week-1<br>9.2 Week-2 | Observation of blood component preparation process blood component preparation by students  |
| 10 | Learning Resources  | <ul style="list-style-type: none"> <li>• Transfusion Medicine Technical manual, R.K. Saran.</li> <li>• Drugs and Cosmetic Act 1940</li> <li>• NACO Standards for Blood Banks</li> <li>• NABH standards for Blood Banks</li> </ul> |
| 11 | Portfolio entries required  | NA  |
| 12 | Log book entry required   | NA  |
| 13 | Assessment  | Objective assessment after completion of elective (2 weeks)   |
| 14 | Other comments  | -   |

**Department of Transfusion Medicine**

|     |  |   |
|-----|--|---|
| 1   | Name of Block  | Block- II   |
| 2   | Name of Elective   | Bed side Transfusion practices  |
| 3   | Location of hospital Lab or research facility                | Dept. of Transfusion Medicine, K.G.M.U., Lucknow.   |
| 4   | Name of internal preceptor(s)                                | Dr. Tulika Chandra  |
| 5   | Name of external preceptor                                   | Dr. Anjoo Agarwal   |
| 6   | Learning objectives of elective                              | Student will learn Bed side Transfusion practices   |
| 7   | Number of students that can be accommodated in this elective | 10  |
| 8   | Prerequisites for elective                                   | Lab apron, gloves, note book and student id card  |
| 9   | List of activities of student participation                  | Observation of bed side Transfusion practices   |
| 9.1 | Week-1   |   |
| 9.2 | Week-2   |   |
| 10  | Learning Resources   | <ul style="list-style-type: none"> <li>• Transfusion Medicine Technical manual, R.K. Saran.</li> <li>• Drugs and Cosmetic Act 1940</li> <li>• NACO Standards for Blood Banks</li> <li>• NABH standards for Blood Banks</li> </ul> |
| 11  | Portfolio entries required                                   | NA  |
| 12  | Log book entry required                                      | NA  |
| 13  | Assessment   | Objective assessment after completion of elective (2 weeks)   |
| 14  | Other comments   | -   |

### Department of Trauma Surgery

|   |  |  |
|---|--|--|
| 1 | Name of Block  | Block -II  |
| 2 | Name of Elective   | Trauma Care  |
| 3 | Location of hospital<br>Lab or research facility                   | Department of Traumatology and Surgery, KGMU<br>Trauma Centre -TSW   |
| 4 | Name of internal<br>preceptor(s)                                   | Dr. Vipin, ,Dr.Ankur Bajaj, Prof. Sandeep Tiwari, Prof. Samir Misra, Dr. Anita Singh,<br>Dr. Narendra Kumar, Dr. Yadvendra Dheer, Dr. Vaibhav Jaiswal  |
| 5 | Name of external<br>preceptor                                      | Dr. Zia Arshad (Anaesthesia and critical care)   |
| 6 | Learning objectives of<br>elective                                 | At the end of four week posting, student should be able to<br>a) Demonstrate and performed primary and secondary survey in trauma patients as per ATLS protocols in supervised environment<br>b) Assessment of patients of chest trauma under supervision<br>c) Diagnose and manage circulatory and neurogenic shock in trauma patients under guidance of residents and consultant.<br>d) Assess patient of head injury under supervision<br>e) Apply GCS scoring in head trauma patient<br>f) To function as team member in a multidisciplinary team managing Trauma patients |
| 7 | Number of students that<br>can be accommodated<br>in this elective | 30   |
| 8 | Prerequisites for<br>elective                                      | BLS  |

|                                |  |   |
|--------------------------------|--|---|
| <p>9</p> <p>9.1</p> <p>9.2</p> | <p>List of activities of student participation</p> <p>Week-1</p> <p>Week-2</p> | <p>Participate in casualty, ward round and attend OR</p> <p>Participate in afternoon teaching</p> <p>Presentation of case</p> <p>Participate in audit meeting</p> <p>Week 1</p> <ul style="list-style-type: none"> <li>• Primary survey and airway management <ul style="list-style-type: none"> <li>○ Will show how to assess airway</li> <li>○ Will show how to remove helmet</li> <li>○ Will show how to apply C- spine collar</li> <li>○ Will show how to do log roll</li> <li>○ Able to demonstrate bag mask ventilation and intubation</li> </ul> </li> <li>• Breathing and ventilation <ul style="list-style-type: none"> <li>○ Will able to assess patient of hemothorax and tension pneumothorax</li> <li>○ Will innumerate six life threatening injuries of chest trauma</li> <li>○ Will able to do needle chest decompression</li> <li>○</li> </ul> </li> </ul> <p>Week-2</p> <ul style="list-style-type: none"> <li>• Circulation and shock</li> <li>• Will assess various types of shock in trauma patient</li> <li>• Will demonstrate to put IV lines, RT, catheterizations splintage of limbs and control of hemorrhage</li> </ul> <ul style="list-style-type: none"> <li>• Disability and GCS scoring <ul style="list-style-type: none"> <li>○ Will able to demonstrate GCS scoring in trauma patients</li> <li>○ Will able to demonstrate pupillary reactions</li> <li>○ And lateralizing signs</li> </ul> </li> </ul> |
| <p>10</p>                      | <p>Learning Resources</p>  | <p>ATLS</p>   |
| <p>11</p>                      | <p>Portfolio entries required</p>  | <p>Two worked up cases</p> <p>Documentation of manikin based training</p> <p>Documentation of self-directed learning and summary</p>  |

|    |                         |   |
|----|-------------------------|---|
| 12 | Log book entry required | Satisfactory completion of posting<br>Operative record  |
| 13 | Assessment              | At the end of Week 2<br><br>Attendance<br><br>Causality and IP round activity<br><br>Case presentation<br><br>Scenario based problem assessment<br><br>Log book entries |
| 14 | Other comments          |   |

*Archeana*  
 \_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Forensic Medicine

This 15 days elective is open to Phase 3.1 students seeking to complement the curriculum in ethics and law addressed in the undergraduate medical education program and will provide a comprehensive introduction to clinical ethics. By the end of the course participants will be able to identify and articulate ethical issues in clinical scenarios, and discuss these with reference to ethical principles and theories using different frameworks. Participants will leave with a greater understanding of the complexities of determining best interests and a clear understanding of their own obligations in relation to General Data Protection Rules and confidentiality. They will also have an appreciation of the processes of clinical ethics decision-making and better sense of how the different perspectives of those involved can be reconciled. Principal goal of this elective is to improve the quality of patient care, the elective will focus on development of cognitive skill, behavioral skill & character developmental skill. Ethics is inherent & inseparable part of good clinical medicine. It will improve learners awareness, attitude, knowledge, moral reasoning & confidence

|   |   |  |
|---|---|--|
| 1 | Name of Block                                 | Block 2  |
| 2 | Name of Elective                              | Clinical Ethics  |
| 3 | Location of hospital Lab or research facility | Department of Forensic Medicine & Toxicology   |
| 4 | Name of internal preceptor(s)                 | Dr Anoop K.Verma<br><a href="mailto:vermakgmc@gmail.com">vermakgmc@gmail.com</a><br><br>Dr Shiuli<br><a href="mailto:drshiuli@gmail.com">drshiuli@gmail.com</a><br><br>Dr Sangeeta<br><a href="mailto:Dr.sangeeta.sahni@gmail.com">Dr.sangeeta.sahni@gmail.com</a>   |
| 5 | Name of external preceptor                    | N/A  |
| 6 | Learning objectives of elective               | Phase 3.1 student will be able to-<br>13. Understand the role of ethics in medicine<br>14. Identify, analyze & resolve ethical issues arising in medical practice<br>15. Understand the ethical dimensions of patient care<br>16. Develop competence in core ethical behavior (obtaining informed consent, |

|     |  |  |
|-----|--|--|
|     |  | <p>assessing decision making capacity, discussing resuscitation status, effective communication etc)</p> <p>17. To recognize medical issues (dilemma) when they arise in practice</p> <p>18. To deal with medical issues in a systemic manner in a more accountable &amp; transparent way for the benefit of patient</p> <p>19. Appreciate cultural diversity &amp; its impact on ethics</p> |
| 7   | Number of students that can be accommodated in this elective | 10   |
| 8   | Prerequisites for elective                                   | N/A  |
| 9   | List of activities of student participation                  |  |
| 9.1 | Week-1   | <ul style="list-style-type: none"> <li>▪ Structured interviews about Common ethical issues with clinicians in specific clinical practice</li> <li>▪ Engaging in simulated clinical ethics scenario</li> </ul>  |
| 9.2 | Week-2   | <ul style="list-style-type: none"> <li>▪ Producing short film on ethical issues/short play</li> <li>▪ Role play-Ethical dilemmas</li> <li>▪ Ethics workup- working in teams</li> </ul>   |
| 10  | Learning Resources   | <ul style="list-style-type: none"> <li>▪ Medical ethics a very short introduction, by Tony Hope, Oxford university press</li> <li>▪ Pre-recorded sessions</li> </ul>   |

|    |                            |   |
|----|----------------------------|---|
| 11 | Portfolio entries required | <ul style="list-style-type: none"> <li>▪ At least 2 case scenario on ethical issues workup</li> <li>▪ Seminars</li> </ul> |
| 12 | Log book entry required    | Satisfactory completion of posting authentication by preceptor with a “meets expectation ‘(M)’ grade”                     |
| 13 | Assessment                 | Attendance<br>Viva voce<br>OSPE<br>Simulated cases  |
|    | Other comments             | None  |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

## Department of Urology

|     |  |   |
|-----|--|---|
| 1   | Name of Block  | BLOCK -II   |
| 2   | Name of Elective   | INTRODUCTION TO LITHOTRIPSY & URODYNAMICS   |
| 3   | Location of hospital Lab or research facility                | DEPARTMENT OF UROLOGY, KGMU.  |
| 4   | Name of internal preceptor(s)                                | PROF. APUL GOEL   |
| 5   | Name of external preceptor                                   | -   |
| 6   | Learning objectives of elective                              | Indications of lithotripsy,<br>Procedure of LITHOTRIPSY,<br>Follow-up<br>Physiology of urodynamics<br>Interpretation of urodynamics |
| 7   | Number of students that can be accommodated in this elective | Five  |
| 8   | Prerequisites for elective                                   | NONE  |
| 9   | List of activities of student participation                  | 1- HANDS-ON OF LITHOTRIPSY<br>2- HANDS-ON OF URODYNAMICS  |
| 9.1 | Week-1   | LECTURES/PRESENTATIONS;<br>1- UROLITHASIS<br>2- VOIDING DYSFUNCTION   |
| 9.2 | Week-2   |   |
| 10  | Learning resources   | Urology books   |
| 11  | Portfolio entries required                                   | NO  |
| 12  | Log Book Entry Required                                      | YES   |
| 13  | Assessment   | Formative and summative: SHORT- ANSWER TYPE   |
| 14  | Other Comments   | -   |

| Week   | ACTIVITIES   |
|--|--|
| <b>Week-1</b><br>Day-1<br>Day-2<br>Day-3<br>Day-4<br>Day-5 | <ol style="list-style-type: none"> <li>1. Introduction to Lithotripsy machine</li> <li>2. Introduction to Urodynamic machine</li> <li>3. Understanding the indications and contraindications of lithotripsy</li> <li>4. How to focus the stone</li> <li>5. Lithotripsy procedure</li> <li>6. Introduction to urodynamic machine</li> <li>7. Types of urodynamic procedures</li> <li>8. Understanding the physiology of urinary bladder based on urodynamics</li> <li>9. Understanding bladder function</li> <li>10. Understanding bladder functional abnormalities based on urodynamics</li> </ol> |
| Week-2   | Hands-on of lithotripsy<br>Hands-on of urodynamics   |


---

**Registrar**  
**King George Medical University**  
**Lucknow**

**PREFACE****TO****BDS COURSE REGULATIONS 2007****(Modified: 25.07.2007)**

Framed by the Dental Council of India and approved by the Central Government under the Dentists Act, 1948 – vide Government of India, Ministry of Health & Family Welfare (Deptt. of Health's) letter No.V.12012/3/2006-DE dated 25.07.2007.

*Arunima*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

On completion of such study, they shall have to appear in the University Examination and only after passing University Examination successfully, they shall be allowed to do six months Paid Rotating Internship Programme in all the Departments for the duration indicated against each Department as under:-

| Departments                        | Period of Postings |
|------------------------------------|--------------------|
| 1. Oral Medicine & Radiology       | 20 days            |
| 2. Oral && Maxillofacial Surgery   | 30 days            |
| 3. Prosthodontics                  | 30 days            |
| 4. Periodontics                    | 15 days            |
| 5. Concervative Dentist            | 10 days            |
| 6. Pedodontics                     | 15 days            |
| 7. Oral Pathology & Microbiology   | 10 days            |
| 8. Orthodontics                    | 10 days            |
| 9. Community Dentist/Rural Service | 30 days            |
| 10. Elective                       | 10 days            |
| <b>Total</b>                       | <b>180 days</b>    |

*Arunima*  
 Registrar  
 King George Medical University  
 Lucknow

## Department of Public Health Dentistry

| PHD UG  | S N | Essential   |            | Elective                                     | Optional                                |
|---|-----|---|------------|--|---|
| IV yr<br>56 essential L +<br>4 electives<br>= (28+2/se<br>mester) | 1.  | MODULE 1 Introduction to dentistry, public Health & Public health dentistry 4L                        | 10<br>MCQ  | MODULE 16- Behavioral and social sciences 2L | Occupational hazards, infection control |
|   | 2.  | MODULE 2- General Epidemiology & Epidemiology (Dental caries, Periodontal diseases & Malocclusion) 8L | 25<br>MCQ  |  | Forensic dentistry                      |
|   | 3   | MODULE 3- Oral cancer, Tobacco control and habit cessation 3L   | 15<br>MCQ  |  | Mobile dental clinics                   |
|   | 4   | MODULE 4- Preventive Dentistry (Fluorides) 5L   | 25<br>MCQ  |  |   |
|   | 5   | MODULE 5- Nutrition & Oral Health and Plaque control 3L   | 10<br>MCQ  |  |   |
|   | 6   | MODULE 6 – Health care delivery & Health agencies around the world 4L                                 | 10<br>MCQ  |  |   |
|   | 7   | MODULE 7- school dental health programme & Dental Auxiliary 5L  | 10<br>MCQ  |  |   |
|   | 8   | MODULE 8- Research methodology and Biostatistics, Basic knowledge of computers 5L                     | 25<br>MCQ  |  |   |
|   | 9   | MODULE 9- Practice management and administration, Hospital administration 3L                          | 10<br>MCQ  |  |   |
|   | 10  | MODULE 10- Finance in Dental care 2L  | 10<br>MCQ  |  |   |
|   | 11  | MODULE 11- Ethics and Jurisprudence in Dentistry, consumer protection Act 3L                          | 10<br>MCQ  |  |   |
|   | 12  | MODULE 12- Pit and fissure sealants, Atraumatic restorative treatment 2L                              | 10<br>MCQ  |  |   |
|   | 13  | MODULE 13- Health education, Environment and Health 4L  | 10<br>MCQ  |  |   |
|   | 14  | MODULE 14- Indices in Dentistry 4L  | 10<br>MCQ  |  |   |
|   | 15  | MODULE 15- Survey Procedures in dentistry & Planning and evaluation 3L                                | 10<br>MCQ  |  |   |
|   |     | 60 L  | 200<br>MCQ |  |   |

**IV YR: 60 L/18 =3.3 credit hour**  
**200 (CH)/36 =5.6 Credit hours**

*Aruchana*  
 Registrar  
 King George Medical University  
 Lucknow

# MODULE 1

## Introduction to dentistry, public Health & Public health dentistry.

Dr Vinay Kr Gupta 4 L, 0.22 credit hours

| Expected outcome:  | Intended learning objectives  | Teaching learning Methods   | Assessment tools   |
|--|---|---|--|
| *Introduction and history to dentistry, public health & dental public health.<br>*Changing concepts of health<br>*Concepts of causation<br>*Changing concepts in public health<br>*Primary health care<br>*<br>*Concept of prevention<br>*Characteristics and Tools of dental public health<br>*Duties of public health dentist<br>*Public health problem<br>*procedural steps in dental public health<br>*Private practice and public health dentistry<br>*Constitution and composition of DCI<br>*Dentists (amendment) Act 1993<br>* Indian Dental Association | <b>MUST KNOW</b><br>- Population based strategy for prevention<br>-Intersectorial strategy for health promotion<br>-Application of evidence based dentistry at community level<br><br><b>MAY KNOW:</b><br>*Landmark committees in the history of public health in India | - Attend lectures / seminars within the department<br><br>-Independent study<br><br>-Web based e-learning sources | -Written examination<br><br>- Multiple choice question (MCQ)<br><br>-OSCE & OSPE |


---

**Registrar**  
 King George Medical University  
 Lucknow

## MODULE 2

# General Epidemiology, Epidemiology (Dental caries, Periodontal diseases & Malocclusion)

followed by assessment by Dr sumit Kumar 8 L, 0.44 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods  | Assessment tools  |
|--|--|--|---|
| *Introduction and history<br>*Aims and principles of epidemiology<br>*Tools of measurement<br>*Epidemiological methods<br>*Uses of epidemiology<br>*Association of causation<br>* Epidemiology of Dental caries<br>*Theories of etiology<br>* Etiological factors<br>*Prevention<br>* Caries risk assessment<br>*Caries vaccine<br>*Caries activity tests<br>* Epidemiology classification, etiology & prevention of periodontal disease<br>* Epidemiology classification, etiology & prevention of Malocclusion | <b>MUST KNOW</b><br>-Size and distribution of disease problems in human populations<br>- Provision of Data essential for Planning implementation and evaluation of health services<br>- Identify etiological factors in pathogenesis of disease<br>- Understand Etiology, epidemiology and prevention about Dental caries, periodontal diseases and Malocclusion<br><br><b>MAY KNOW:</b><br>*Current trends in caries experience<br>*Dietary studies on controlled human populations<br>*Cariogram | -Attend lectures / seminars within the department<br>-Independent study<br>-clinical posting.<br>- Demonstration and training in clinic<br>-Web based e-learning sources | -Written examination<br><br>-Workplace based assessment<br><br>- Multiple choice question (MCQ)<br><br>-OSCE & OSPE |

  
 Registrar  
 King George Medical University  
 Lucknow

# MODULE 3

## Oral cancer, Tobacco control and habit cessation

3 L followed by assessment by Dr Vinay Kr Gupta 0.17 credit hours

| Expected outcome  | Intended learning objectives   | Teaching learning Methods  | Assessment tools   |
|---|--|--|--|
| * Epidemiology & etiology of oral cancer<br>*Potentially malignant disorders<br>*Squamous cell carcinoma<br>*TNM system of tumor staging<br>*Prevention, control<br>*Counselling for tobacco cessation (5A's)<br>*Nicotine replacement therapies<br>* Counselling for those willing to quit<br>* Fagerstom test | <b>MUST KNOW</b><br>*Etiology and risk factors<br><br><b>MAY KNOW:</b><br>*cancer registration in India<br>*National tobacco control programme.<br>* Global initiatives in prevention of oral cancer like: The CRETE Declaration, FCTC, Bloomberg initiative | - Attend lectures / seminars within the department<br>- Independent study<br><br>-Web based e-learning sources | -Written examination<br>-Objective Structured Clinical Examination& OSPE<br>-Workplace based assessment<br>-Multiple choice question (MCQ) |

  
 \_\_\_\_\_  
**Registrar**  
 King George Medical University  
 Lucknow

## MODULE 4

### Preventive Dentistry (Fluorides)

5 L followed by assessment by Dr Vinay Kr Gupta 0.27 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods  | Assessment tools  |
|--|--|--|---|
| *Introduction and historical evolution of fluorides.<br>*Fluoride in the environment<br>*Sources of fluorides<br>* Metabolism of fluoride<br>*Estimation of fluoride concentration<br>*Mechanism of action of fluoride<br>*fluoride delivery methods<br>*Toxicity of fluoride<br>* fluorosis<br>*Defluoridation of water | <b>MUST KNOW</b><br>-Understand knowledge of Fluoride delivery methods: systemic and topical<br>* Understand and Identify various types of fluoride toxicity<br>*Nalgonda Technique<br><br><b>MAY KNOW:</b><br><br>* Controlled water fluoridation studies | - Attend lectures / seminars within the department<br>- Independent study<br>-Web based e-learning sources | -Written examination<br>-Objective Structured Clinical Examination & OSPE<br>-Workplace based assessment<br>-Multiple choice question (MCQ) |

*Aradhana*  
\_\_\_\_\_  
**Registrar**  
**King George Medical University**  
**Lucknow**

## MODULE 5

### Nutrition & Oral Health and Plaque control

3 L followed by assessment by Dr Sumit Kumar 0.17 credit

| Expected outcome   | Intended learning objectives   | Teaching learning Methods   | Assessment tools  |
|--|--|---|---|
| *Introduction and Classification of foods<br>*Nutrients<br>*Balanced diet<br>*Effect of nutrition on oral tissues<br>.Nutrition in the elderly<br>.Preventive & social measures<br>. Composition of dentifrices<br>.Tooth brushing and Flossing techniques | <b>MUST KNOW</b><br>-Understand effect of nutrition on Dental caries, malocclusion, periodontal disease and oral cancer<br>* Preventive and social measures at Family level, community level, national level and international level<br>*Disclosing agents and its uses<br>*Mechanical and chemical Plaque control aids<br>*Toothbrush – types, ADA specification and techniques<br>*Composition of dentifrices and flossing.<br><b>MAY KNOW:</b><br>*Nutrition in elderly | -Attend lectures / seminars within the department<br>- Independent study<br>-Web based e-learning sources | -Written examination<br>-OSCE & OSPE<br>-Workplace based assessment<br>- Multiple choice question (MCQ) |

  
 Registrar  
 King George Medical University  
 Lucknow

## MODULE 6

### Health care delivery & Health agencies around the world,

4L followed by assessment by Dr Gaurav Mishra 0.22 credit hours

| Expected outcome  | Intended learning objectives   | Teaching learning Methods   | Assessment tools  |
|---|--|---|---|
| *Evolution of health systems<br>*Levels of health care in India<br>*Health system administration in India<br>*Health care sectors in India<br>*The national oral health policy<br>*Health agencies around the world | <b>MUST KNOW</b><br>-Understand the health systems administration in India at center, state and district level<br><br><b>MAY KNOW:</b><br>*Five year plans | -Attend lectures / seminars within the department<br><br>-Independent study<br><br>· Web based e-learning sources | - Written examination<br><br>- Objective Structured Clinical Examination<br><br>-Workplace based assessment<br><br>- Multiple choice question (MCQ)<br>-OSCE & OSPE |

*Archana*  
\_\_\_\_\_  
**Registrar**  
King George Medical University  
Lucknow

# MODULE 7

## School Dental Health Programme & Dental

**Auxiliary** 5 L followed by assessment by Dr Vinay Kr Gupta 0.28 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods   | Assessment tools   |
|--|--|---|--|
| *Aspects of school health programs<br>*Objectives and ideal requirements<br>*advantages<br>*Elements/ components<br>*Some school oral health programs<br>*Who global school health initiates<br>*Incremental care<br>*Comprehensive care<br>*Definition and classification by WHO and revised classification<br>*Description and duties of all types of dental auxiliaries | <b>MUST KNOW</b> -<br>Understand the importance of healthy mouth, relationship of dental health to general health and appearance of school child<br>-To understand about dental auxiliary for facilitating the provision of dental services<br><b>MAY KNOW:</b><br>*Dental manpower in India | -Attend lectures / seminars within the department<br>-Independent study<br>· Web based e-learning sources | -Written examination<br>-Objective Structured Clinical Examination<br>-Workplace based assessment<br>-Multiple choice question (MCQ) |

*Aradhana*  
Registrar  
King George Medical University  
Lucknow

# MODULE 8

## Research methodology and Biostatistics, Basic knowledge of computers,

5 L followed by assessment by Dr. Gaurav Mishra 0.28 credit

| Expected outcome   | Intended learning objectives  | Teaching learning Methods   | Assessment tools  |
|--|---|---|---|
| *Introduction and categories of research<br>*Scientific method<br>- Problem formulation<br>-Hypothesis formulation<br>-Writing a protocol<br>-sampling and sample designs<br>- collection of data<br>-presentation of data: types of tables , charts and diagrams<br>-Analysis and interpretation: measures of central tendency, dispersion, standard deviation, Normal curve & tests of significance<br>-Writing a report | <b>MUST KNOW</b><br>-how to contribute new knowledge or reevaluate current knowledge to improve all phases of oral health<br>-To improve techniques of identifying, preventing and treating oral diseases in individuals and groups<br>- to develop and test theories related to oral health care<br>- To test real and chance occurrence<br>- to correlation between attributes in same population<br>- measurement of mortality and morbidity<br>-to evaluate achievements of public health programs and fix priorities<br>-to fix priorities in public health programmes<br>-Microsoft word, Excel and Powerpoint<br><b>MAY KNOW:</b><br>Citation and reference styles | -- Attend lectures / seminars within the department<br>- Independent study<br>-Web based e-learning sources | - Written examination<br>- Objective Structured Clinical Examination & OSPE<br>-Workplace based assessment<br>-Multiple choice question (MCQ) |

  
 Registrar  
 King George Medical University  
 Lucknow

# MODULE: 9

## Practice management and administration, Hospital administration :

3 L followed by assessment by Dr. Gaurav Mishra 0.17 credit hours

| Expected outcome  | Intended learning objectives   | Teaching learning Methods   | Assessment tools  |
|---|--|---|---|
| <ul style="list-style-type: none"> <li>-Biological Hazards</li> <li>-Chemical Hazards</li> <li>-Physical Hazards</li> <li>-Psychological Hazards</li> <li>-categories of task in relation to risk</li> <li>-personal barrier techniques</li> <li>-Vaccines for dental health-care workers</li> <li>-use and care of sharp instruments</li> <li>-sterilization and disinfection of instruments</li> <li>-cleaning and disinfection of dental unit and environmental surfaces</li> <li>-use and care of handpieces</li> <li>-handling of biopsy specimens</li> <li>-goals of practice management</li> <li>-Dental office setting</li> <li>-Management of the dental office</li> <li>-Financial aspects of a dental practice</li> <li>-Decision on the need for a mobile dental clinic</li> <li>-Goals, objectives and target populations for mobile dental services</li> <li>-Specifications, advantages and disadvantages of a mobile dental clinic</li> </ul> | <p><b>MUST KNOW -</b><br/>Understand the key to prevent occupational exposure and identify the hazards and determine appropriate controls</p> <ul style="list-style-type: none"> <li>- Understand inflectional control strategies for health care delivery settings</li> <li>- Understand “universal precautions”</li> <li>-to develop business management skills that enable dentist to enjoy good dentistry with a harmonious staff resulting in satisfied patients and a good income.</li> <li>- Understand need to provide oral health care to populations that have difficulty gaining access to the traditional dental care delivery system</li> </ul> <p><b>MAY KNOW:</b><br/>-Types of economic evaluation: Cost minimization analysis, cost effectiveness analysis, cost benefit analysis, cost utility analysis.</p> | <ul style="list-style-type: none"> <li>-- Attend lectures / seminars within the department</li> <li>- Independent study</li> <li>-Web based e-learning sources</li> </ul> | <ul style="list-style-type: none"> <li>- Written examination</li> <li>- Objective Structured Clinical Examination &amp; OSPE</li> <li>-Workplace based assessment</li> <li>-Multiple choice question (MCQ)</li> </ul> |

  
**Registrar**  
 King George Medical University  
 Lucknow

# MODULE 10

## Finance in Dental care

2 L followed by assessment by Dr. Sumit Kumar 0.11 credit hours

| Expected outcome  | Intended learning objectives  | Teaching learning Methods  | Assessment tools   |
|---|---|--|--|
| <ul style="list-style-type: none"><li>-Private fee for service</li><li>- Post payment plans</li><li>-Private third party prepayment plans:<ul style="list-style-type: none"><li>1.commercial insurance companies</li><li>2.Non- profit :Delta dental plans, Blue cross/ Blue shield</li><li>3. Prepaid group practice</li><li>4.Capitation plans</li></ul></li><li>-Salary</li><li>-Public programs: Medicare, Medicaid, National health insurance.</li></ul> | <p><b>MUST KNOW –</b><br/>Understand methods to ease cost either by legislation or by development of a variety of funding approaches</p> <p><b>MAY KNOW:</b><br/>-Mechanism of payment for dental care</p> <p><b>MAY KNOW:</b><br/>-Financing dental health services in India</p> | <ul style="list-style-type: none"><li>- Attend seminars / tutorials</li><li>-Independent study</li><li>-Web based e learning</li><li>-</li></ul> | <ul style="list-style-type: none"><li>-Workplace based assessment</li><li>-Written exam</li><li>- OSCE</li><li>- MCQ</li></ul> |

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
King George Medical University  
Lucknow

# MODULE 11

## Ethics and Jurisprudence in Dentistry, 3 L

followed by assessment by Dr. Gaurav Mishra 0.17 credit hours

| Expected outcome  | Intended learning objectives   | Teaching learning Methods  | Assessment tools   |
|---|--|--|--|
| <ul style="list-style-type: none"> <li>-Hippocratic oath</li> <li>-Ethical principles</li> <li>-Ethical rules for dentists</li> <li>-The Nuremberg code</li> <li>-Declaration of Geneva</li> <li>-World medical association</li> <li>-Declaration of Helsinki</li> <li>-Doctor patient contract</li> <li>-Consent</li> <li>-Professional negligence</li> <li>-consumer protection act</li> <li>-Do'and Don'ts for health professionals</li> </ul> | <p><b>MUST KNOW</b><br/>           Know about ethics/ moral duties and obligations of the dentist towards his patients, professional colleagues and to the society</p> <ul style="list-style-type: none"> <li>-to understand autonomy and self-determination, protect the vulnerable and promote the welfare and equality of human beings</li> <li>-To understand jurisprudence as study and theory of law</li> </ul> <p><b>MAY KNOW:</b></p> <ul style="list-style-type: none"> <li>-international code of medical ethics</li> <li>-Other legal avenues for aggrieved patients</li> </ul> | <ul style="list-style-type: none"> <li>-Attend seminars / tutorials</li> <li>-Independent study</li> <li>- Web based e-learning Sources</li> </ul> | <ul style="list-style-type: none"> <li>- Workplace based assessment</li> <li>-Written exam</li> <li>- OSCE</li> <li>- MCQ</li> </ul> |


---

**Registrar**  
 King George Medical University  
 Lucknow

## MODULE 12

Pit and fissure sealants, Atraumatic restorative treatment, 2L followed by assessment by Dr Vinay Kr Gupta 0.11 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods   | Assessment tools  |
|--|--|---|---|
| <ul style="list-style-type: none"> <li>-Morphology of pits and fissures</li> <li>-Types of sealants</li> <li>-Materials used as sealants</li> <li>-Indications and contraindications of sealants</li> <li>-Procedure of sealant application</li> <li>-Factors affecting sealant retention</li> <li>-Cost effectiveness</li> <li>-Preventive resin restorations</li> <li>- Principle, indications, contraindications and advantage of Atraumatic restorative treatment</li> <li>-Essential instruments and materials (ART)</li> <li>- Procedure of ART</li> <li>Failed /defective restorations</li> </ul> | <p><b>MUST KNOW</b></p> <ul style="list-style-type: none"> <li>-understand cariostatic properties of sealants that are attributed to the physical obstruction of pits and fissures</li> <li>- understand the cost effectiveness and treatment modalities of sealants</li> <li>Use of sealants on teeth of children at high risk for dental caries</li> <li>-to understand modern knowledge about minimal intervention, minimal invasion and minimal cavity preparation for carious lesions</li> <li>-Understand ART as minimally invasive care approach in preventing dental caries and stopping its further progression.</li> </ul> <p><b>SHOULD KNOW</b></p> <ul style="list-style-type: none"> <li>Use of sealant application and as routine preventive measure for pits and fissures and educating parents on the importance of dental sealants</li> </ul> | <ul style="list-style-type: none"> <li>-Attend seminars / tutorials</li> <li>- Independent study</li> <li>- Web based e-learning Sources</li> </ul> | <ul style="list-style-type: none"> <li>- Workplace based assessment</li> <li>-Written exam</li> <li>-OSCE, OSPE</li> <li>- MCQ</li> </ul> |

  
 Registrar  
 King George Medical University  
 Lucknow

## MODULE 13

### Health education, Environment and Health

4 L followed by assessment by Dr.Gaurav Mishra 0.22 credit

| Expected outcome  | Intended learning objectives   | Teaching learning Methods   | Assessment tools  |
|---|--|---|---|
| <ul style="list-style-type: none"><li>-Introduction and objectives of health education</li><li>-Approaches to achieve health</li><li>-Models of health education</li><li>-Principles and contents of health education</li><li>-Stages in the adoption of new ideas and practices</li><li>-Health education and propaganda</li><li>-Communication</li><li>-Educational aids used in health education</li><li>-Methods in health education</li><li>- Health promotion</li><li>-Water and its uses</li><li>-Sources of water</li><li>-Guidelines for drinking water quality</li><li>-Purification of water</li><li>-Waste management</li><li>-Disposal of solid waste</li><li>-Disposal of health care waste</li></ul> | <p><b>MUST KNOW</b></p> <ul style="list-style-type: none"><li>-Understand the objectives of health education regarding, how to inform people, motivate people and guiding in to action.</li><br/><li>-understand control of air pollution, radiation control, noise control and solid waste management</li></ul> | <ul style="list-style-type: none"><li>- Attend lectures / seminars within the department</li><br/><li>- Independent study</li><br/><li>- Web based e-learning sources</li></ul> | <ul style="list-style-type: none"><li>-Written examination</li><br/><li>-Workplace based assessment</li><br/><li>- Multiple choice question (MCQ)</li><br/><li>-OSCE &amp; OSPE</li></ul> |

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
King George Medical University  
Lucknow

# MODULE 14

## Indices in Dentistry

4 L followed by assessment by Dr. Sumit Kumar 0.22 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods  | Assessment tools  |
|--|--|--|---|
| -Ideal requisites of Index<br>-Criteria for selecting an index<br>Classification of index<br>Uses of index<br><br>- OHI-S index<br>-DMFT & DMFS Index<br>-LOE and SILLNESS index<br>-SILLNESS and LOE index<br>-CPI index<br>-Dean's Fluorosis index | <b>MUST KNOW</b><br>-Understand Indices to quantitate clinical conditions on a graduated scale, facilitating comparison among populations examined by the same criteria and methods<br>-Understand indices used for assessing oral hygiene and plaque, gingival and periodontal diseases, dental caries, dental fluorosis, malocclusion and learn proforma for recording indices<br><b>MAY KNOW:</b><br>-Russel's index<br>-CPITN index<br>-Dental aesthetic index | - Attend seminars / tutorials<br><br>- Independent study<br><br>- Web based e learning Sources | - Workplace based assessment<br><br>-Written exam<br><br>- OSCE, OSPE<br><br>-MCQ |

  
 Registrar  
 King George Medical University  
 Lucknow

# MODULE 15

## Survey Procedures in dentistry & Planning and evaluation,

3 L followed by assessment by Dr. Sumit Kumar 0.17 credit hours

| <b>Expected outcome</b>  | <b>Intended learning objectives</b>  | <b>Teaching learning Methods</b>  | <b>Assessment tools</b>   |
|--|--|---|---|
| Types of survey<br>-Uses of survey<br>-Methods of data collection<br>-Steps in surveying<br>-WHO Oral Health Survey methods 1997<br><br>- Uses of planning<br>-Types of health planning<br>-Steps in planning process<br>-Evaluation | Understand monitoring trends in oral health and disease, policy development, program evaluation, assessment of dental needs and providing visibility for dental issues with the help of surveying<br><br>-Understand planning to match limited resources with many problems<br>- How to eliminate wasteful expenditure.<br>-How to develop the best course of action to accomplish a defined objective | -Attend lectures / tutorials<br>-Independent study<br>-Web based e learning | - Workplace based assessment<br><br>- Written exam<br><br>-OSCE, OSPE<br><br>-MCQ |

*Aradhana*  
Registrar  
King George Medical University  
Lucknow

# MODULE 16

## Behavioral and social sciences,

2 L followed by assessment by Dr. Gaurav Mishra 0.11 credit hours

| Expected outcome   | Intended learning objectives   | Teaching learning Methods   | Assessment tools   |
|--|--|---|--|
| -Social sciences<br>-Health behavior and life style<br>-Theories of behavior change<br>-Lifestyle and oral health<br>-Social stratification and oral health<br>-risk behaviour<br>-Utilization of dental services. | <b>MUST KNOW</b><br>-Understand social environment as the physical and biological environment in relation to health and disease in man<br>-understand cultural values, customs, habits, beliefs, attitudes, morals, religion, education, income, occupation, standard of living, community life and the social and political organization.<br><b>MAY KNOW:</b><br>-Behaviour of child in dental office<br>-sociology, Anthropology and psychology and their relevance in dental practice and community | - Attend seminars / tutorials<br>- Independent study<br>- Web based e-learning Sources<br><br><i>Integrated teaching with Pedodontics</i> | -Workplace based assessment<br>- Written exam<br>- OSCE, OSPE<br>- MCQ |

*Aruhana*  
\_\_\_\_\_  
**Registrar**  
King George Medical University  
Lucknow