Odisha University of Health Sciences
Dhanwantari Bhavan, Bhubaneswar, Odisha

LOG BOOK
For
POST GRADUATE STUDENTS

Department of: BIOCHEMISTRY

Name of the Institution:

_____

Prepared by:
Log book Committee (Broad Specialties) 2023
OUHS, Bhubaneswar

ODISHA UNIVERSITY OF HEALTH SCIENCES, DHANWANTARI BHAVAN, BHUBANESWAR.

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INDEX

CERTIFICATE

This is to certify that, this logbook contains bonafide work of **Dr.** _____, a Post-Graduate student of the Department of **BIOCHEMISTRY** of _____, Odisha for the session _____.

Date:

Post Graduate Guide **Head of the Department**

Dean & Principal

GENERAL INSTRUCTIONS:

This log book is intended to be a record of all activities of Post-graduate students, as they perform and participate in the course, including training.

1. It shall solely be the responsibility of student to ensure that the scanned copy of relevant document is kept in his folder in the department.
2. Monthly back up of the same folder is to be maintained in the form of CD and kept with the student.
3. All the activities of the Post-Graduate student should be recorded in the e-Logbook on day to day basis using the appropriate appraisal sheets(s)
4. Each student shall enter his leave record in the concern section immediately after returning from the leaves.
5. The learners feedback form should be filled up before submitting the log book for the University Examination. It is expected that students give their feedback with all seriousness and help the university in improving and strengthening the Postgraduate education.
6. Submission of Logbook: The log book shall be submitted Bonded (no spiral binding) in hardcover to the department before the commencement of final University Theory examination.
7. INSTRUCTIONS FOR FILLING THE LOG BOOK:

Please Note: All assessments would be in Likert's 5-point scale / score:	
Score	**Interpretation**
0	Poor
1	Below average
2	Average
3	Good
4	Very good

   a. All entries should be filled up properly entered and duly signed from the Supervisor / Unit In charges / Guide / HOD, as required.
   b. Under Instructions from Head of Department, suitable corrections can be incorporated.
   c. Research participation pertaining to Conferences, Poster / Oral presentation and publication shall be entered directly in Consolidated Term ending appraisal research sheet.
   d. At the end of training, it's mandatory to fill up the feedback form and submit to Postgraduate Office.
   e. It is an integral part of practical evaluation in the University examination.
   f. After the practical examination it shall be returned back to the student.
   g. It shall be responsibility of HOD to ensure all students maintain their log books in orderly manner.
   h. There would be periodic evaluation regarding maintenance of log book by Postgraduate education office, and in case of any deficiency, the student would be responsible and suitable action may be taken against them for the same.

PERSONAL PROFILE OF THE STUDENT:

Name:		**Paste your PP size Photograph**
Address:		
E-mail ID:		
Phone No.:		
DOB (dd/mm/yy):		
Blood group:		
Vaccination status:		

Registration Number:	**Name of the Medical Council:**	**Valid up to:**

Qualification Details	**College**	**University**	**Month & Year of completion**
MBBS			

Experience before joining:

Designation	**Department**	**Institution**	**From**	**To**

Date: **Signature of the PG student**

COURSE DETAILS:

Degree / Diploma			
Date of Joining		Date of completion	

Details of Postings [as per Curriculum by NMC]:

Unit / Specialty / Section	Year of PGT	From	To	Duration

PARTICIPATION IN RESEARCH METHODOLOGY TRAINING:

Name of the Institution	From	To	Signature of the Guide / HOD

BCBR COURSE

Name of the institute	Date of registration	Date the examination	Date of publication of result	Signature of the HOD

PARTICIPATION IN BCME TRAINING:

Name of the Institution	From	To	Signature of the HOD

PARTICIPATION IN BLCS / ACLS TRAINING:

Name of the Institution	From	To	Signature of the HOD

LEAVE RECORD:

Term	From	To	Reason:	Signature of the Unit Head

Total No. of Leaves				

Signature & Seal of the Head of Department

DETAILS OF PARTICIPATION IN ACADEMIC PROGRAMS:						
SI. No.	**Date**	**Name of the Academic Program**	**International / National / State / Institutional Event**	**Organized by**	**Nature of participation [Delegate / Presentation if any]**	**Initials of the HOD**

PUBLICATIONs	
Title:	
Authors:	
Name of the journal:	
Indexed in [NMC approved agency only]:	
Status of publication:	
Citation if published:	
Title:	
Authors:	
Name of the journal:	

Indexed in [NMC approved agency only]:	
Status of publication:	
Citation if published:	
Title:	
Authors:	
Name of the journal:	
Indexed in [NMC approved agency only]:	
Status of publication:	
Citation if published:	

Internal Assessment Results:

Year		**Theory [100]**	**Practical/Clinical/Oral [100]**	**Total out of 200 [%]**
1ST	I			
	II			
	III			
2ND	I			
	II			
	III			
3RD	I			
	Prelims			

Date:

Signature & Seal of the Head of Department

DETAILS OF THE DRP SCHEDULE [AS PER CURRICULUM BY NMC]:

Name of the Institution	Year of PGT	From	To	Duration

Sl. No.	Day / Date	Place of work	Nature of work	Activity learn [Should include: 1. Patient care / Diagnostic services as per the subject. 2. Health care Management activities both HR & Logistics. 3. Team work	Level of participation [Observation / Performs under observation / Performs independently]	Signature of the DRPC

REFLECTIONS

CERTIFICATE OF COMPLETION OF DISTRICT RESIDENCY PROGRAM

It is certified that Dr. _____ has satisfactorily completed the District Residency program w.e.f. _____ to _____. During his/her District Residency Program training at _____ District, his / her performance has been reported to be _____.

Department:
Date:
Place:

Signature of Guide / Mentor **Signature of Head of Department**

Signature of District Residency Program Coordinator

Signature of Medical Superintendent

Signature of Dean and Principal

STRUCTURED TRAINING PROGRAM:

Teaching learning methods:

1. Lectures: at least 10 per year.
2. Journal club: once in 1 – 2 weeks.
3. Student Seminar [Topic]: once in 1 – 2 weeks.
4. Laboratory work / Bedside Clinic: once in 1 – 2 weeks.
5. Student symposium: once in 3 months.
6. Interdepartmental colloquium [other department/s on topics of current/common interest]: once monthly.
7. Rotational clinical / community / institutional postings:

Sl. No.	Section / Subject	Duration in months
1	Medicine including Endocrinology, Pediatrics & ICU	1
2	Hematology	1/2
3	Immunohematology & Blood transfusion	1/2
4	Microbiology	1
5	MEU	one week/shall attend a specific workshop or a training course
	Total	**3**

8. UG Teaching:

Evaluation of STUDENTS SEMINAR PRESENTATION:	
Guidelines for evaluation of Seminar Presentation	
SI. No.	**Points to be considered**
1	Whether other relevant publications consulted
2	Whether cross references have been consulted
3	Completeness of preparation
4	Clarity of Presentation
5	Understanding of subject
6	Ability to answer questions
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

SI. No.	**Date**	**Seminar Topic**	**Presented / Participated**	**Average Grade***	**Name of the Moderator**	**Initials of the Moderator**

Evaluation of JOURNAL REVIEW PRESENTATION:	
Guidelines for evaluation of Journal Review Presentation	
SI. No.	**Points to be considered**
1	Article chosen is relevant and appropriate
2	Extent of understanding of scope & objectives of the paper by the candidate
3	Whether understood the Material, Methods, Observation and statistical analysis
4	Whether cross references have been consulted
5	Ability to respond to questions on the paper / subject

6	Ability to analyse the paper and co-relate with the existing knowledge
7	Ability to defend the paper
8	Clarity of presentation

Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.

SI. No.	Date	Journal Topic	Presented / Participated	Average Grade*	Name of the Moderator	Initials of the Moderator

Evaluation of LABORATORY WORK / BEDSIDE CLINIC:	
Guidelines for evaluation of Laboratory work / Interactive slide & gross seminar	
SI. No.	**Points to be considered**
1	Clarity of Presentation
2	Completeness of history
3	Ability to arrive at a differential diagnosis & diagnosis
4	Ability to defend the diagnosis
5	Ability to answer questions
6	Understanding of subject
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

SI. No.	**Date**	**Topic**	**Presented / Participated**	**Average Grade***	**Name of the Moderator**	**Initials of the Moderator**

Evaluation of STUDENTS SYMPOSIUM:	
Guidelines for evaluation of Students symposium	
SI. No.	**Points to be considered**
1	Whether other relevant publications consulted
2	Whether cross references have been consulted
3	Completeness of preparation
4	Clarity of Presentation
5	Understanding of subject
6	Ability to answer questions
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

SI. No.	**Date**	**Topic**	**Presented / Participated**	**Average Grade***	**Name of the Moderator**	**Initials of the Moderator**

Evaluation of INTERDEPARTMENTAL COLLOQUIUM:

Guidelines for evaluation:	
SI. No.	**Points to be considered**
1	Completeness of history
2	Clarity of presentation
3	Logical order
4	Accuracy of general physical examination
5	Diagnosis
6	Ability to defend diagnosis
7	Ability to justify differential diagnosis
8	Ability to plan management of the case
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

SI. No.	Date	Case History	Diagnosis	Presentation / Participation	Initial of the Guide / HOD

Evaluation of UG Teaching Skills:	
Guidelines for evaluation of UG Teaching skills:	
SI. No.	**Points to be considered**
1	Communication of the purpose of the talk
2	Evokes the interest of audience in the subject
3	Introduction & Sequence of ideas
4	Speaking style [enjoyable / monotonous etc., specify]
5	Attempts audience participation
6	Answer the questions asked by the audience
7	Summary of the main points at the end
8	Rapport of speaker with his audience
9	Effectiveness of the talk

10	Use of AV aids appropriately

Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.

SI. No.	Date	Topic of teaching	Class / Practical / Clincs / Demos	Average Grade*	Name of the Supervising faculty	Initials of Guide/ Faculty

THESIS

(To be submitted be for registration of the demonstration topic within six months from the date of joining into the course.)

Title of the Topic:

Name of the Guide:

Name of the Co-guide(s) if any:

Guidelines for evaluation of Thesis [Synopsis]	
SI. No.	**Points to be considered**
1	Interest shown in selecting a topic
2	Appropriate review of literature
3	Discussion with guide and other faculty
4	Quality of protocol
5	Preparation of proforma
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

Evaluation of Thesis [Synopsis]:

SI. No.	Date	Average Grade*	Name of the Faculty & Designation	Initials of the Faculty

THESIS WORK

(To be filled before submitting the dissertation to the University & retained in this book)

Name of the Topic:

Name of the Guide:

Date of Allotment:

Date of Registration of Thesis Topic:

Date of 1st review:

Date of 2nd review:

Date of 3rd review:

Date of 4th review:

Date of approval of the Thesis:

Date of Submission of Thesis:

Signature of the Candidate: **Signature of the Guide:**

PERIODIC EVALUATION OF THESIS WORK

Guidelines for periodic evaluation of Thesis	
SI. No.	**Points to be considered**
1	Periodic consultation with guide / co-guide
2	Regular collection of case material
3	Depth of analysis / discussion
4	Departmental presentation of findings
5	Quality of final output
6	Others
Corollary Grading in all checklists: Poor-0, Satisfactory-1, Average-2, Good-3, Very Good-4.	

Evaluation of Thesis:

Date of the review	**Average Grade***	**Name of the members of the review committee**	**Initials of the Guide**
12th month			
18th month			
24th month			
30th month			

COMPETENCIES TO BE LEARNT:		
Sl. No.	**Competency**	**Perform under supervision / perform Independently/ Observation only**
1.	Demonstrate the use of all the routine glassware/equipment used in UG teaching-learning in Biochemistry (as per MSR) and advanced instruments used in the clinical laboratory attached to the respective hospital for patient care.	Independently
2.	Preparation of buffers, normal laboratory solutions like molar/molal/normal and reagents with validation.	Independently
3.	Perform all the undergraduate practicals as per the new competency-based medical education prescribed by NMC.	Independently
4.	Perform experiments to study selected reactions of carbohydrates, amino acids and proteins, and lipids.	Observation
5.	Perform experiments to demonstrate constituents of milk.	Independently
6.	Perform experiments to demonstrate normal and abnormal constituents of urine.	Independently
7.	Perform Paper chromatography for separation of amino acids.	Independently
8.	Determination of enzyme activity and study of enzyme kinetics, using any two suitable enzymes (e.g., alkaline phosphatase from any liver tissue or acid phosphatase from potatoes).	Independently
9.	Plot standard curve for different estimations.	Independently
10.	Estimate (including calibration) and interpret clinical analysis as detailed below: ° Blood glucose, glycated hemoglobin, the performance of glucose tolerance test and glucose challenge test ° Total protein, albumin, and A:G ratio ° Electrolytes, arterial blood gas analysis ° Cholesterol, triglycerides, free fatty acids, low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), phospholipids, Lp(a), and calculated parameters under lipid profile ° Amylase, lipase ° Urea, creatinine, uric acid, urinary microalbumin ° Parameters of liver function tests (bilirubin, hepato-biliary enzymes such as AST, ALT, ALP, GGT, serum proteins/albumin and prothrombin time, CRP) ° Calcium, magnesium, phosphorus, copper (and ceruloplasmin), serum iron, TIBC, and ferritin ° Markers of myocardial damage (CK, CK-MB, troponins, LDH) ° Vitamin D, B12, and folate ° Point-of-care testing (POCT)	Independently
11.	Electrophoresis of serum proteins**,** lipoproteins	Independently

12.	Separation and molecular weight determination of proteins by SDS-PAGE	Independently
13.	Electrophoretic separation of LDH isozymes or any other isoenzymes Hb electrophoresis Renal clearance tests CSF and other body fluid analysis stone analysis Thyroid function tests, Tumor markers, and relevant hormone assays by ELISA/RIA/Chemiluminescence	Independently
14.	**Clinical Laboratory** ° Demonstrate familiarity with the essentials of a clinical laboratory setup, the working of autoanalyzer, data transfer, statistical considerations, authorizing and reporting results in an advanced clinical laboratory with an ability to enlist the possible sources of errors (pre-analytical, analytical and post-analytical), perform root cause analysis, and undertake corrective actions, and preventive actions (CAPA). ° Perform and demonstrate activities under total quality management (TQM) of the Laboratory: ° Specimen collection, handling, processing, and storage of the sample. ° Methods of standardization & calibration. ° Methods of quality control, quality assurance, CAPA & assessment. ° Demonstrate ability to prepare and interpret a Levy-Jennings chart and plot inter-assay and intra-assay variation for any analyte estimated in the laboratory. ° Implementation and interpretation of Westgard rules followed by their CAPA, as required. ° Determination of reference values for any one parameter for the clinical laboratory. ° Perform inter-instrumental comparison for at least four parameters. ° Perform in-house calibration of pipettes, centrifuge, hot-air oven, thermometer, and thermo-hygrometer. ° Student should undergo internal auditor training as per ISO 15189:2012, NABL (optional). ° Able to prepare a lab quality manual and frame relevant Standard Operating Procedure (SOP) and Work Desk Instructions (WDI), for every procedure followed in a clinical lab.	Independently

15.	**Molecular laboratory techniques** ° Isolation of RNA, synthesis of cDNA by reverse transcription ° PCR and Reverse transcriptase PCR (both conventional and real-time) ° Primer designing ° Blotting techniques ° Basic techniques and principles of protein/enzyme purification and determining homogeneity	Independently
16.	**By the end of the course, the postgraduate student should be able to perform under supervision or, demonstrate familiarity with, as the case may be, the following procedures (at least any five):** ° Separation of peripheral blood leukocytes using relevant isolation technique ° Subcellular fractionation/marker enzymes for organelles to demonstrate fractionation and purity of the fraction ° Ultracentrifugation ° Isolation of plasmids ° Basic techniques and essentials in cell culture and establishing different cell culture facilities ° High-performance liquid chromatography (HPLC)/GC-MS/LC-MS ° Restriction fragment length polymorphism (RFLP) ° Fluorescent in-situ hybridization (FISH) ° DNA fingerprinting ° Immunodiffusion techniques ° Immuno-electrophoresis ° Therapeutic drug monitoring ° Flow cytometryNephelometry ° HLA typing	Under supervision

Sl. No.	Competency addressed	Nature of Activity	Level of competency achieved			Signature of the Faculty
			O	PS	PI	
O – Observed, PUS – Performed under supervision, PI – Performed independently						

FEEDBACK BY THE STUDENT

(To be filled up at the time of filling of exam. Forms and in a sealed envelope addressed to Director Medical Education and Training, Bhubaneswar. It will be opened only after you have passed.)

Name of Student:
Department:
Period of study: From to

Due date of examination: Winter/Summer

Date of submission of
Thesis/Topic:

Name of Guide:

Name of H.O.D.:

i. Do you think that your goal of post-graduate education in your subject achieved. Yes/No

ii. Do you think that you have been trained adequately by the department in

   a. Professional experience Yes/No
   b. Academic teaching Yes/No
   c. Recent advances Yes/No
   d. Exposure to specialist from outside the institution Yes/No
   e. Interaction with patient. Yes/No
   f. Interaction with colleagues Yes/No
   g. Interaction with seniors Yes/No
   h. Thesis/Reserach Yes/No
   i. Article preparation Yes/No
   j. Workshop Yes/No
   k. Conferences Yes/No
   l. C M E Yes/No

iii. Do you think that you have been trained as fairly competent consultant. Yes/No

iv. Were you harassed by guide during the training: Yes/No, if yes Name &Type:

v. What was attitude of HOD:

vi. What was attitude of other staff members:

vii. Were you forced for anything by anybody: Money/Tuition/Gifts/Other/None, if yes then by Whom:

viii. Any comment about interaction with other depts./colleague: Staff from:

ix. Reflection about non-teaching staff.

a. Department

b. Dean's office

c. Accounts Section

d. Others

x. Hostel:

xi. Extra-curricular activity

a. Sports

b. Cultural

xii. Teaching aids:

xiii. Library:

a. Central

b. Department

xiv. Deficiencies you would like to point out particularly:

xv. Brief comments:

Student appraisal form for MD in Biochemistry											
	Elements	**Less than Satisfactory**			**Satisfactory**			**More than satisfactory**			**Comments**
		1	2	3	4	5	6	7	8	9	
1	**Scholastic aptitude and learning**										

1.1	Has knowledge appropriate for level of training										
1.2	Participation and contribution to learning activity (e.g., Journal Club, Seminars, CME etc)										
1.3	Conduct of research and other scholarly activity assigned (e.g Posters, publications etc)										
1.4	Documentation of acquisition of competence (eg Log book)										
1.5	Performance in work based assessments										
1.6	Self-directed Learning										
2	**Work related to training**										
2.1	Practical skills that are appropriate for the level of training										
2.2	Respect for processes and procedures in the work space										
2.3	Ability to work with other members of the team										
2.4	Participation and compliance with the quality										
	improvement process at the work environment										

2.5	Ability to record and document work accurately and appropriate for level of training										
3	**Professional attributes**										
3.1	Responsibility and accountability										
3.2	Contribution to growth of learning of the team										
3.3	Conduct that is ethically appropriate and respectful at all times										
4	**Space for additional comments**										
5	**Disposition**										
	Has this assessment pattern been discussed with the trainee?	Yes	No								
	If not explain.										
	Name and Signature of the assesse										
	Name and Signature of the assessor										
	Date										