Faculty of Medicine

JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

JSS Academy of Higher Education & Research
(Deemed to be University)
Accredited "A" Grade by NAAC
Sri Shivarathreeshwara Nagar, Mysuru – 570 015

Regulation & Syllabus

Post Graduate Degree & Diploma Programs

OBSTETRICS AND GYNECOLOGY 2016

MS/PG Dip

Regulation & Syllabus

MS OBSTETRICS & GYNECOLOGY

2016

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REGULATION AND SYLLABUS FOR
POST GRADUATE DEGREE PROGRAMS 2016

MS & DIPLOMA
OBSTETRICS & GYNAECOLOGY

CONTENTS

CHAPTER I

REGULATION FOR POST GRADUATE DEGREE AND DIPLOMA COURSES

1. Branch of study

Post graduate degree courses

Doctor of Medicine

a) Anaesthesiology
b) Anatomy
c) Biochemistry
d) Community medicine
e) Dermatology, venereology and leprosy
f) Emergency medicine
g) Forensic medicine
h) General medicine
i) Hospital administration
j) Microbiology
k) Pathology
l) Paediatrics
m) Pharmacology
n) Physiology
o) Psychiatry
p) Tuberculosis and Respiratory Medicine
q) Radio Diagnosis

Master of Surgery

a) General surgery
b) Obstetrics and gynaecology
c) Ophthalmology
d) Orthopaedics
e) Otorhinolaryngology

Post graduate diploma courses

a) Anaesthesiology (DA)
b) Child Health (DCH)
c) Clinical Pathology (DCP)
d) Dermatology, Venereology & Leprosy (DDVL)
e) Medical Radio Diagnosis (DMRD)
f) Obstetrics & Gynaecology (DGO)
g) Ophthalmology (DO)
h) Orthopaedics (D Ortho)
i) Otolaryngology (DLO)
j) Psychiatric Medicine (DPM)

2. Eligibility for admission

MD / MS Degree and Diploma courses: A candidate who has passed final year MBBS examination after pursuing a study in a medical college recognized by the Medical Council of India and has completed one year compulsory rotating internship in a teaching institution or other institution recognized by the Medical Council of India, and has obtained permanent registration of any State Medical Council, shall be eligible for admission.

3. Admission

A candidate desirous of admission to Post Graduate Medical Programmes MD/ MS / PG Diploma Courses is required to complete the application form and submit to the Deemed to be University along with prescribed documents on or before the scheduled date. Eligibility criteria, application form and details of documents to be submitted are available in the Deemed to be University website: www.jssuni.edu.in.

4. Registration

A candidate who has been admitted to postgraduate course shall register in the Deemed to be University within a month of admission after paying the registration fee.

5. Intake of students

The intake of students to each course shall be in accordance with the MCI.

6. Duration of study

MD, MS Degree Courses: The course of study shall be 3 completed years including the period of examination.

Provided that incase of students having a recognized 2 years postgraduate diploma course in the same subject, the period of training including the period of examination shall be 2 years.

Diploma courses: The course of study shall be 2 completed years including the examination period.

7. Methodology of training

The training of postgraduate for degree/diploma shall be residency pattern, with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate shall participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

8. Attendance, progress and conduct

A candidate pursuing degree/diploma course, shall work in the concerned department of the institution for the full period as full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course, nor can he/she work in a nursing home or other hospitals/

clinic/laboratory while studying postgraduate course.
Each year shall be taken as a unit for the purpose of calculating attendance.

Every student shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

Every candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. Provided, further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% attendance of training period every year.

Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the Deemed to be University Examinations.

9. Monitoring progress of study

Work diary / Log Book: Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention shall be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any, conducted by the candidate. The work diary shall be scrutinized and certified by the Head of the Department and Head of the Institution, and presented in the Deemed to be University practical/clinical examination.

Periodic tests: In case of degree courses of three years duration (MD/MS), the concerned departments shall conduct three tests, two of them be annual tests, one at the end of first year and the other at the end of the second year. The third test shall be held three months before the final examination. The tests shall include written papers, practical / clinical and viva voce. Records and marks obtained in such tests shall be maintained by the Head of the Department and sent to the Deemed to be University, when called for.

In case of diploma courses of two years duration, the concerned departments shall conduct two tests, one of them at the end of first year and the other in the second year, three months before the final examination. The tests shall include written papers, practical / clinical and viva voce.

Records: Records and marks obtained in tests shall be maintained by the Head of the Department and shall be made available to the Deemed to be University or MCI.

10. Dissertation

Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

Every candidate shall submit to the Controller of Examinations of the Deemed to be University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course, on or before the dates notified by the Deemed to be University. The synopsis shall be sent through proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the Deemed to be University. No change in the dissertation topic or guide shall be made without prior approval of the Deemed to be University.

The dissertation should be written under the following headings:

a) Introduction
b) Aims or Objectives of study
c) Review of Literature
d) Material and Methods
e) Results
f) Discussion
g) Conclusion
h) Summary
i) References
j) Tables
k) Annexure
l) Proof of Paper presentation and publication

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

Four copies of dissertation thus prepared shall be submitted to the Controller of Examinations, six months before final examination, on or before the dates notified by the Deemed to be University.

The dissertation shall be valued by examiners appointed by the Deemed to be University. Approval of dissertation work is an essential precondition for a candidate to appear in the Deemed to be University examination.

Guide: The academic qualification and teaching experience required for recognition as a guide for dissertation work is as per MCI Minimum Qualifications for Teachers in Postgraduate Medical Education Regulations, 2000. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as Assistant Professor gained after obtaining post graduate degree shall be recognised as post graduate teachers.

Co Guide: A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognised for teaching/training by JSS Deemed to be University / Medical Council of India.

Change of guide: In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the Deemed to be University.

A postgraduate student is required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

11. Schedule of examination

The examination for MD / MS courses shall be held at the end of three academic years (six academic terms). The examination for the diploma courses shall be held at the end of two academic years.

For students who have already passed Post Graduate Diploma and appearing for MD examination, the examination shall be conducted after two academic years including submission of dissertation The Deemed to be University shall conduct two examinations in a year at an interval of four to six months between the two examination. Not more than two examinations shall be conducted in an academic year.

12. Scheme of examination

MD/MS

Dissertation: Every candidate shall carryout work and submit a dissertation as indicated in Sl. No. 10. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

Written Examination (Theory): A written examination shall consist of four question papers, each of three hours duration. Each paper shall carry 100 marks. Out of the four papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences. Recent advances may be asked in any or all the papers. In basic medical subjects and para-clinical subjects, questions on applied clinical aspects shall also be asked.

Pattern of Theory Examination Question Paper:

Each paper shall consist of two long essay questions each carrying 20 marks, 3 short essay questions each carrying 10 marks and 6 short answer questions each carrying 5 marks. Total marks for each paper shall be 100.

Practical/Clinical Examination: In case of Practical examination for the subjects in Basic Medical Sciences Practical Examination shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental/Laboratory studies and his ability to perform such studies as are relevant to his subject.

Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and two short cases.

The total marks for Practical / clinical examination shall be 200.

Viva Voce: Viva Voce shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

The total marks shall be 100 and the distribution of marks shall be as under:

i)	For examination of all components of syllabus	80
ii)	For Pedagogy	20

If there is skills evaluation, 10 marks shall be reserved for Pedagogy and 10 marks for skill evaluation.

Examiners. There shall be at least four examiners in each subject. Out of

them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for declaring as pass in Deemed to be University Examination: A candidate shall pass theory and practical including clinical and viva-voce examination separately and shall obtain 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers for post graduate degree examination to be declared as pass.

A candidate obtaining less than 40% marks in any paper and obtaining less than 50% of marks cumulatively in all the four papers for postgraduate degree examination shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of class: A successful candidate passing the Deemed to be University examination in first attempt and secures grand total aggregate 75% of marks or more will be declared to have passed the examination with distinction, 65% but below 75% declared as First Class and 50% but below 65% declared as Second Class.

A candidate passing the Deemed to be University examination in more than one attempt shall be declared as Pass Class irrespective of the percentage of marks.

Post Graduate Diploma Examinations

Diploma examination in any subject shall consist of theory (written papers), Practical / Clinical and Viva - Voce.

Theory: There shall be three written question papers each carrying 100 marks. Each paper will be of three hours duration. In clinical subjects one paper out of this shall be on basic medical sciences. In basic medical subjects and Para-clinical subjects, questions on applied clinical aspects shall also be asked.

Pattern of Theory Examination Question Paper:

Each paper shall consist of two long essay questions each carrying 20 marks, 3 short essay questions each carrying
10 marks and 6 short answer questions each carrying 5 marks. Total marks for each paper shall be 100.

Practical Clinical Examination: In case of practical examination it shall be aimed at assessing competence, skills related to laboratory procedures as well as testing students ability to make relevant and valid observations, interpretation of laboratory or experimental work relevant to his/her subject.

In case of clinical examination, it shall aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate shall examine at least one long case and two short cases.

The maximum marks for Practical / Clinical shall be 150.

Viva Voce Examination: Viva Voce examination shall be thorough and shall aim at assessing the candidate's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which shall from a part of the examination. The total marks shall be 50.

Examiners. There shall be at least four examiners in each subject. Out of

them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for declaring as pass in Deemed to be University Examination: A candidate shall pass theory and practical including clinical and viva-voce examination separately and shall obtain 40% marks in each theory paper and not less than 50% marks cumulatively in all the three papers for post graduate diploma examination to be declared as pass.

A candidate obtaining less than 40% marks in any paper and obtaining less than 50% of marks cumulatively in all the three papers for post graduate diploma examination shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of class: A successful candidate passing the Deemed to be University examination in first attempt and secures grand total aggregate 75% of marks or more will be declared to have passed the examination with distinction, 65% but below 75% declared as First Class and 50% but below 65% declared as Second Class.

A candidate passing the Deemed to be University examination in more than one attempt shall be declared as Pass Class irrespective of the percentage of marks.

13. Number of candidates per day

The maximum number of candidates to be examined in Clinical/ practical and Oral on any day shall not exceed eight for M.D./M.S. degree, eight for diploma.

CHAPTER II

GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL EDUCATION PROGRAM

GOAL

The goal of postgraduate medical education shall be to produce competent specialists and/or medical teachers:

1. Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
2. Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
3. Who shall be aware of the contemporary advance and developments in the discipline concerned.
4. Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology and
5. Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

GENERAL OBJECTIVES

At the end of the postgraduate training in the discipline concerned the student shall be able to:

1. Recognize the importance to the concerned speciality in the context of the health needs of the community and the national priorities in the health section.
2. Practice the specialist concerned ethically and in step with the principles of primary health care.
3. Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
4. Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive and primitive measure/strategies.
5. Diagnose and manage majority of the conditions in the speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
6. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
7. Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
8. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
9. Play the assigned role in the implementation of national health programme, effectively and responsibly.

10. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.

11. Develop skills as a self-directed learner, recognize continuing education needs; select and use appropriate learning resources.

12. Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature.

13. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.

14. Function as an effective leader of a health team engaged in health care, research or training.

STATEMENT OF THE COMPETENCIES: Keeping in view the general objectives of postgraduate training, each discipline shall aim at development of specific competencies which shall be defined and spelt out in clear terms. Each department shall produce a statement and bring it to the notice of the trainees in the beginning of the programme so that he or she can direct the efforts towards the attainment of these competencies.

COMPONENTS OF THE POSTGRADUATE CURRICULUM:

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Dissertation skills.
- Attitudes including communication skills.
- Training in Research Methodology, Medical Ethics and Medicolegal aspects.

(Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000)

CHAPTER III

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring shall be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Model checklists are given in this chapter which may be copied and used.

The learning out comes to be assessed should include:

1. Personal Attitudes.
2. Acquisition of Knowledge.
3. Clinical and operative skills and
4. Teaching skills.

1. Personal Attitudes: The essential items are:

a) Caring attitude.

b) Initiative.

c) Organisational ability.

d) Potential to cope with stressful situations and undertake responsibility.

e) Trust worthiness and reliability.

f) To understand and communicate intelligibly with patients and others.

g) To behave in a manner that establishesprofessional relationships with patients and colleagues.

h) Ability to work in a team.

i) A critical enquiring approach to the acquisition of knowledge.

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. Acquisition of Knowledge: The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

a) **Journal Review Meeting (Journal Club).** The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see Model Checklist – I, Chapter III)

b) **Seminars / Symposia.** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist (see Model Checklist-II, Chapter III)

c) **Clinico-pathological conferences.** This should be a multidisciplinary study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

d) **Medical Audit.** Periodic morbidity and mortality meeting shall be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

3. Clinical skills:

a. **Day to Day work:** Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see Model Checklist III, Chapter III).

b. **Clinical meetings:** Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter III).

c. **Clinical and Procedural skills:** The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No.3, Chapter III).

4. Teaching skills: Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist V, Chapter III).

5. Periodic tests: In case of degree courses of three years duration, the department may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. In case of diploma courses of two year duration, the departments may conduct two tests. One of them at the end of first year and the other in the second year, three months before the final examination. The tests may include written papers, practical / clinical and viva voce.

6. Work diary: Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

7. Records: Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Deemed to be University or MCI.

8. Log book: The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate. Format for the log book for the different activities is given in Tables 1, 2 and 3 of Chapter
III. Copies may be made and used by the institutions.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set him or herself right.

Format of Model Check Lists

Check List-I

MODEL CHECK-LIST FOR EVALUATION OF JOURNAL REVIEW PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Article chosen was					
2.	Extent of understanding of scope & objectives of the paper by the candi-date					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications con-sulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio-visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score					

Check List – II

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether otherrelevant 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					
7.	Time scheduling					
8.	Appropriate use of Audio-Visual aids					
9.	Overall Performance					
10.	Any other observation					
	Total Score					

Check List - III

MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN WARD / OPD

(To be completed once a month by respective Unit Heads, including posting in other departments)

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl No	**Points to be considered**	**Poor 0**	**Below Average 1**	**Average 2**	**Good 3**	**Very Good 4**
1.	Regularity of attendance					
2.	Punctuality					
3.	Interaction with colleagues and supportive staff					
4.	Maintenance of case records					
5.	Presentation of cases during rounds					
6.	Investigations work up					
7.	Beside manners					
8.	Rapport with patients					
9.	Counseling patient's relatives for blood donation or Postmortem and Case follow up.					
10.	Overall quality of ward work					
	Total Score					

Check List - IV

EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the Student:

Name of the Faculty:

Date:

Sl No	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness of history					
2.	Whether all relevant points elicited					
3.	Clarity of Presentation					
4.	Logical order					
5.	Mentioned all positive and negative points of importance					
6.	Accuracy of general physical examination					
7.	Whether all physical signs elicited correctly					
8.	Whether any major signs missed or misinterpreted					
9.	Diagnosis: Whether it follows follows logically from history and findings					
10.	Investigations required • Complete list • Relevant order • Interpretation of investigations					
11.	Ability to react to questioning Whether it follows logically from history and findings					
12.	Ability to defend diagnosis					
13.	Ability to justify differential diagnosis					
14.	Others					
	Total Score					

Check List - V

MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

Sl No		Strong Point	Weak Point
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and/or illustrations		
6.	Speaking style (enjoyable, monotonous, etc., specify)		
7.	Attempts audience participation		
8.	Summary of the main points at the end		
9.	Asks questions		
10.	Answers questions asked by the audience		
11.	Rapport of speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses AV aids appropriately		

Check List - VI

MODEL CHECK LIST FOR DISSERTATION PRESENTATION

Name of the Student:

Name of the Faculty:

Date:

Sl No	Points to be considered divine	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Discussion with guide & other faculty					
4.	Quality of Protocol					
5.	Preparation of proforma					
	Total Score					

Check List - VII

CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO GUIDE

Name of the Student:

Name of the Faculty:

Date:

Sl No	Items for observation during presentations	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
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					
	Total Score					

LOG BOOK

Table 1: Academic activities attended

Name: Admission Year:

Date	**Type of Activity Specify Seminar, Journal Club, Presentation, UG teaching**	**Particulars**

LOG BOOK

Table 2: Academic presentations made by the student

Name: Admission year:

Date	Topic	Type of Presentation Specify Seminar, Journal Club, Presentation, UG teaching

LOG BOOK

Table 3: Diagnostic and Operative procedures performed

Name: Admission year:

College:

Date	Name	ID No.	Procedure	Category O, A, PA, PI*

*** Key:**

O **-** Washed up and observed

A - Assisted a more senior Surgeon

PA - Performed procedure under the direct supervision of a senior Surgeon PI - Performed independently

Model Overall Assessment Sheet

Sl No	Faculty Member & Others	Name of Student and Mean Score*									
		A	B	C	D	E	F	G	H	I	J
1.	**Journal Review Presentations**										
2.	**Seminars**										
3.	**Clinical work in wards**										
4.	**Clinical presentation**										
5.	**Teaching skill practice**										
	Total Score										

Note: Use separate sheet for each year.

Signature of HOD ***Signature of Principal***

The above overall assessment sheet used along with the logbook should form the basis for certifying satisfactory completion of course of study, in addition to the attendance requirement.

* KEY:

Mean score *:* Is the sum of all the scores of checklists 1 to 7.

A, B, ... Name of the trainees.

Chapter IV

Medical Ethics Sensitisation and Practice

Introduction

There is now a shift from the traditional individual patient- doctor relationship and medical care. With the advances in science and technology and the needs of patients, their families and the community, there is an increased concern with the health of society. There is a shift to greater accountability to the society. Doctors and health professionals are confronted with many ethical problems. It is, therefore necessary to be prepared to deal with these problems. To accomplish the Goal and General Objective stated in Chapter II and develop human values it is urged that ethical sensitisation be achieved by lectures or discussion on ethical issues, clinical discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentation, bedside rounds and academic postgraduate programmes.

Course Contents

1. **Introduction to Medical Ethics**
   - What is Ethics?
   - What are values and norms?
   - Relationship between being ethical and human fulfillment.
   - How to form a value system in one's personal and professional life.
   - Heteronomous Ethics and Autonomous Ethics.
   - Freedom and personal Responsibility.
2. **Definition of Medical Ethics**
   - Difference between medical ethics and bio-ethics
   - Major Principles of Medical Ethics
     - Beneficence = fraternity
     - Justice = equality
     - Self determination (autonomy) = liberty
3. **Perspective of Medical Ethics**
   - The Hippocratic Oath.
   - The Declaration of Helsinki.
   - The WHO Declaration of Geneva.
   - International code of Medical Ethics. (1993)
   - Medical Council of India Code of Ethics.
4. **Ethics of the Individual**
   - The patient as a person.
   - The Right to be respected.
   - Truth and Confidentiality.
   - The autonomy of decision.
   - The concept of disease, health and healing.
   - The Right to health.
   - Ethics of Behaviour modification.
   - The Physician – Patient relationship.
   - Organ donation.
5. **The Ethics of Human life**
   - What is human life?
   - Criteria for distinguishing the human and the non-human.

- Reasons for respecting human life.
- The beginning of human life.
- Conception, contraception.
- Abortion.
- Prenatal sex-determination.
- In vitro fertilization (IVF).
- Artificial Insemination by Husband (AIH).
- Artificial Insemination by Donor (AID).
- Surrogate motherhood.
- Semen Intra-fallopian Transfer (SIFT).
- Gamete Intra-fallopian Transfer (GIFT).
- Zygote Intra-fallopian Transfer (ZIFT).
- Genetic Engineering.

6. The Family and Society in Medical Ethics

- The Ethics of human sexuality.
- Family Planning perspectives.
- Prolongation of life.
- Advanced life directives – The Living Will
- Euthanasia
- Cancer and Terminal Care

7. Profession Ethics

- Code of conduct.
- Contract and confidentiality.
- Charging of fees, Fee-splitting.
- Prescription of drugs.
- Over-investigating the patient.
- Low – Cost drugs, vitamins and tonics.
- Allocation of resources in health care.
- Malpractice and Negligence.

8. Research Ethics

- Animal and experimental research / humaneness.
- Human experimentation.
- Human volunteer research — Informed Consent Drug trials.

9. Ethical workshop of cases

- Gathering all scientific factors.
- Gathering all human factors.
- Gathering all value factors.
- Identifying areas of value — conflict, setting of priorities
- Working out criteria towards decisions.

Recommended Reading

1. Francis C.M., Medical Ethics, 1 Ed, 1993, Jaypee Brothers, New Delhi.
2. Good Clinical Practices:GOI Guidelines for clinical trials on Pharmaceutical Products in India (www.cdsco.nic.in)
3. INSA Guidelines for care and use of Animals in Research – 2000.
4. CPCSEA Guidelines 2001 (www.cpcsea.org.)
5. Ethical Guidelines for Biomedical Research on Human Subjects, 2000, ICMR, New Delhi.
6. ICMR Guidelines on animal use 2001, ICMR, New Delhi.

CHAPTER V - SYLLABUS

M S OBSTETRICS & GYNAECOLOGY

GOALS

The goals of postgraduate training in OBG would be to produce a competent specialist and/or medical teacher:

- Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy
- Who shall have mastered most of the competencies pertaining to OBG that are required to be practiced at the secondary and tertiary levels of the health care delivery system
- Who shall be aware of the contemporary advances and developments in OBG
- Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology
- Who shall have acquired the basic skills in teaching of medical and paramedical professionals
- To practice with empathy and the highest ethical standards of the profession.
- To teach by sharing knowledge and skills with colleagues.

OBJECTIVES

The objectives to be fulfilled at the completion of the course are as follows: At the end of 3 years, the student should be able to proficient in:

Knowledge:

1. To acquire in depth knowledge of female reproductive tract: Anatomy, Physiology as applicable to obstetrics &gynecology.
2. To understand the normal pregnancy right from conception till delivery.
3. To learn efficiently Antenatal care, Intrapartum& Post-partum care
4. To understand all the abnormal conditions of pregnancy and delivery.
5. To understand all the Maternal and Child Health Programs of our country
6. To have in depth knowledge of the diseases of female genital tract and all gynecological procedures and surgeries.
7. To practice with empathy and highest ethical standards of the profession.
8. To continue to strive for excellence by Continuing Medical Education in OBG throughout her/ his professional career.
9. To teach undergraduate students by sharing knowledge and skills in obstetrics & gynecology.
10. To involve in Research activities & find solutions to challenges in obstetrics & gynecology.

Skills:

- Elicit an appropriate clinical history.
- Demonstrate appropriate clinical physical examination skills on women.
- Plan, decide upon and interpret appropriate cost-effective investigations.
- Perform essential procedures both diagnostic and therapeutic.
- Manage, resuscitate and stabilize critically ill pregnant women and women with gynaec emergencies.

Communication and attitudes:

- Communicate appropriately with the patient and her relatives, assisting in her health care decision making.
- Practice women health care at the highest ethical level, protecting the women's health care at all costs.
- Respect patient's (and their guardian's) rights and professional relationships (doctor-doctor, doctor-nurse, doctor-patient, doctor-society)

SYLLABUS(Course Contents):

PAPER I:BASIC SCIENCES

a. Normal development, structure and function (female and male) of urogenital system and female breast.

b. Applied Anatomy of Genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).

c. Physiology of spermatogenesis and Oogenesis.

d. Endocrinology related to male and female reproduction.

e. Anatomy and physiology of urinary and lower GI (Rectum / anal canal) tract.

f. Development, structure and function of placenta, umbilical cord and amniotic fluid.

g. Anatomical and physiological changes in female genital tract during pregnancy.

h. Diagnosis of pregnancy

i. Anatomy of foetus, foetal skull, foetal growth and development, foetal physiology and foetal circulation.

j. Physiological and neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.

k. Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, haematological, renal, hepatic, renal, hepatic and other systems.

l. Biophysical and biochemical changes in uterus and cervix during pregnancy and labour.

m. Physiology and mechanism of normal labour

n. Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer of the drugs across the placenta, effect of the drugs (used) on labour, on foetus, their excretion through breast milk.

o. Mechanism of action, excretion, metabolism of identified drugs used in the management of Gynaecological disorder.

p. Role of hormones in Obstetrics and Gynaecology.

q. Humoral and cellular immunology in Obstetrics & Gynaecology.

r. Gametogenesis, fertilization, implantation and early development of embryo.

s. Normal Pregnancy, physiological changes during pregnancy, labour andpuerperium.

t. Immunology of pregnancy.

u. Lactation.

PAPER II : OBSTETRICS

1. **Antenatal care:** Preconceptional care and counselling, prenatal care of normal pregnancy including examination, nutrition, immunization and follow up.

2. **Foetal aspects:** foetal imaging, amniotic fluid, teratology, teratogens and fetotoxic agents, genetics, prenatal diagnosis, foetal disorders, foetal therapy

3. **Antenatal assessment of foetal well-being:** Foetal movement, foetal breathing, contraction stress test, non-stress test, acoustic stimulation test, biophysical profile, amniotic fluid volume, Doppler velocimetry, assessment of foetal pulmonary maturation, current antenatal testing recommendations

4. **Co**ntracted pelvis & CPD

5. **Intra-partum care:**
   a. Normal labour - mechanism and management.
   b. Partographic monitoring of labour progress, recognition of abnormal labour and its appropriate management.
   c. Identification and conduct of abnormal labour and complicated delivery –episiotomy, breech, forceps delivery, caesarean section, destructive operations, symphysiotomy.
   d. Induction and augmentation of labour.
   e. Management of abnormal labour - Abnormal pelvis, soft tissue abnormalities of birth canal, mal-presentation, mal-positions of foetus, abnormal uterine action, obstructed labour and other dystocia, cord prolapse.
   f. Analgesia and anaesthesia in labour.
   g. Maternal and foetal monitoring in normal and abnormal labour (including electronic foetal monitoring).
   h. Identification and management of intrapartum complications, Cord presentation

6. **New Born**
   a. Care of new born: Normal and high risk new born (including NICU care).
   b. Asphyxia and neonatal resuscitation.
   c. Meconium aspiration syndrome

d. Neonatal sepsis - prevention, detection and management.

e. Neonatal hyper - bilirubinaemia - investigation and management.

f. Birth trauma - Detection and management.

g. Detection and management of foetal/neonatal malformation.

h. Management of common neonatal problems.

7. Post-Partum

a. Complication of 3rd stage of labour retained placenta, inversion of uterus, post-partum haemorrhage, rupture of uterus, Management of primary and secondary post-partum haemorrhage, retained placenta, uterine inversion. Post-partum collapse, amniotic fluid embolism

b. Identification and management of genital tract trauma - perineal tear, cervical/vaginal tear, episiotomy complications, rupture uterus.

c. Management of critically ill woman.

d. Postpartum shock, sepsis and psychosis.

e. Postpartum contraception.

f. Breast feeding practice; counselling and importance of breast-feeding. Problems in breast-feeding and their management, Baby friendly practices.

g. Normal and abnormal purpureum - sepsis, thrombophlebitis, mastitis, psychosis.

8. Critical care and trauma

Obstetrical intensive care, acute pulmonary oedema, acute respiratory distress syndrome, sepsis syndrome, trauma, thermal injury, cardiopulmonary resuscitation, fluid balance,shock(septic shock, haemorrhagic shock), perimortem caesarean section, use of blood components.

9. High-risk pregnancy:

a. Hypertensive disorders: Terminology and diagnosis, incidence and risk factors, etiopathogenesis, pathophysiology, prediction and prevention, management, long term consequences

b. Haematological disorders: Iron deficiency anaemia, megaloblastic anaemia, haemolytic anaemia. Anaemia associated with chronic disease, aplastic and hypoplastic anaemia, polycythaemia, hemoglobinopathies, thalassemia syndromes, platelet disorders, inherited coagulation defects, Von Willebrand disease

c. Diabetes: Types of diabetes, pathophysiology, pre-gestational and gestational diabetes, screening, diagnosis, foetal effects, maternal effects, counselling, management, post-partum follow up

d. Cardiovascular disorders: Physiological considerations in pregnancy, diagnosis of heart disease, peripartum management considerations, surgically corrected heart disease, valvular heart disease, congenital heart disease, pulmonary hypertension, cardiomyopathies, heart failure, infective endocarditis, arrthymias, Diseases of the aorta, ischemic heart disease.

e. Pulmonary disorders: asthma, acute bronchitis, pneumonia, tuberculosis, restrictive lung disease.

f. Thromboembolic disorders: pathophysiology, thrombophilia, thrombophilia screening, deep vein thrombosis, labour and delivery, superficial venous thrombophlebitis, pulmonary embolism, thromboprophylaxis, foetalsurveillance in VTE.

g. Renal & urinary tract disorders: pregnancy induced urinary tract changes, urinary tract infections, nephrolithiasis, glomerular diseases, chronic renal disease, acute kidney injury, lower renal tract lesions, dialysis in pregnancy, pregnancy after renal transplantation, polycystic kidney disease.

h. Endocrine disorders: thyroid physiology & pregnancy, thyroid disorders in pregnancy, foetal& neonatal hypothyroidism, post-partum thyroid disease, parathyroid diseases, adrenal gland disorders, pituitary diseases.

i. Hepatic, biliary & pancreatic disorders: diagnosis of liver disease, liver disorders unique to pregnancy (intrahepatic cholestasis of pregnancy, acute fatty liver of pregnancy, preeclampsia & HELLP syndrome, liver rupture & infarction), maternal disorders coincidental to pregnancy (viral hepatitis A,B C D E G, other hepatic viruses, HIV) , chronic liver disease in pregnancy(chronic non-viral hepatitis, primary sclerosing cholangitis, Wilsons disease, portal hypertension, budd Chiari syndrome, cirrhosis), acute liver failure in pregnancy, liver transplantation in pregnancy, gall bladder disease, pancreatitis.

j. Gastrointestinal disorders: diagnostic techniques used in pregnancy, laparotomy & laparoscopy, hyperemesis gravidarum, gastroesophageal reflux disease, hiatal hernia, diaphragmatic hernia, peptic ulcer, upper GI bleed, acute diarrhoea, inflammatory bowel disease, intestinal obstruction, appendicitis, irritable bowel syndrome, constipation, haemorrhoids, bariatric surgery.

k. Connective tissue diseases: SLE, rheumatoid arthritis, APLA, systemic sclerosis-scleroderma, vasculitis syndromes, inflammatory myopathies, hereditary connective tissue disorders.

l. Neurological disorders: CNS imaging, headache, seizure disorders, cerebrovascular diseases, demyelinating/degenerative diseases, neuropathies, spinal cord injury, idiopathic intracranial hypertension, maternal ventricular shunts, maternal brain death, tetanus, movement disorders.

m. Psychiatric disorders: identifying psychiatric illness during pregnancy & puerperium, prenatal evaluation, treatment considerations, depressive disorders, bipolar & related disorders, anxiety disorders, schizophrenia spectrum disorders, feeding & eating disorders, personality disorders.

n. Dermatological disorders: pregnancy specific dermatosis (pruritis gravidarum, pruritic urticarial papules & plaques of pregnancy, atopic eruption of pregnancy, pemphigoid gestationis), dermatological conditions not specific to pregnancy(acne, erythema nodosum, atopic dermatitis).

o. Infectious diseases: viral infections(varicella zoster, influenza,

mumps, measles, rubella, cytomegalovirus, bacterial infections (group B streptococcus, group A streptococcus, Methicillin resistant staphylococcus aureus, listeriosis, shigellosis, salmonellosis, Hansen's disease, Lyme disease), protozoal infections(toxoplasma, malaria, amoebiasis), emerging infections(west Nile, corona virus), travel precaution during pregnancy, sexually transmitted infections(syphilis, gonorrhoea, chlamydia, herpes simplex, chancroid, HPV, vaginitis, HIV)

p. Obesity: general considerations, morbidity & mortality associated with obesity in pregnancy, management, pregnancy after bariatric surgery.

q. Benign & malignant gynaecological conditions in pregnancy, other neoplasms: leiomyoma, endocervical polyp, CIN, benign ovarian tumours, adnexal masses, prolapse, retroverted gravid uterus, carcinoma cervix, carcinoma ovary, breast carcinoma, squamous cell carcinoma of vulva, thyroid cancer, lymphoid cell malignancies, malignant melanoma, colorectal cancer.

10. Obstetrical complications

a. Early pregnancy complications: abortion (nomenclature, incidence, causes & management of 1st& 2nd trimester miscarriage, threatened abortion, inevitable abortion, incomplete abortion, complete abortion, missed abortion, septic abortion, recurrent miscarriage,MTP), ectopic pregnancy (tubal, interstitial, abdominal, ovarian, cervical, caesarean scar-clinical manifestation, diagnosis & management), gestational trophoblastic disease (epidemiology & risk factors, pathogenesis, diagnosis, & treatment of hydatidiform mole).

b. Post term pregnancy: definition, incidence, risk factors, perinatal morbidity& mortality, pathophysiology, antenatal & intrapartum management

c. Preterm labour: definitions & incidence, causes, diagnosis, prevention, morbidity, management of PPROM, preterm labour with intact membranes.

d. Multifetal pregnancy: mechanism of multifetal gestation, diagnosis, maternal adaptations to multifetal pregnancy, pregnancy complications, unique foetal complications, discordant growth of twin foetuses, single foetal demise, prenatal care & antepartum management, preterm birth, labour& delivery, triplet & higher order gestation, selective reduction/ termination

e. Foetal growth disorders: foetal growth, foetal growth restriction, foetal overgrowth.

f. Obstetrical haemorrhage: general considerations, causes, uterine atony, uterine inversion, injuries to birth canal, puerperal hematoma, rupture uterus, placental abruption, placenta praevia, placenta accreta syndromes, consumptive coagulopathy, management of haemorrhage

g. Embryonic &foetal demise: embryonic losses, causes of foetal loss, management of foetal& embryonic loss.

h. Abnormalities of placenta and cord

i. Pregnancy with previous caesarean section

j. Elderly primigravida, grand multipara

PAPER III:GYNAECOLOGY

1. Benign diseases of female reproductive tract

a. Fibroid uterus
b. Endometriosis and adenomyosis
c. Pelvic pain and dysmenorrhea
d. Abnormal uterine bleeding
e. Pelvic mass
f. Breast disease
g. Malformations of female generative organs
h. Sexual development and development disorders
i. Sexually transmitted diseases
j. Inflammation of the cervix and uterus
k. Pelvic inflammatory disease
l. Injuries of the female genital tract
m. Displacements of uterus
n. Diseases of vulva and vagina
o. Benign tumours of the ovary
p. Gestational trophoblastic disease

2. Endocrinology

a. Contraception (general aspects including counselling, world population demography, sexual and reproductive health and risks, demographic changes, socio economic trends and family welfare programmes in India, natural methods of contraception, lactational amenorrhea method, barrier contraceptives, intrauterine devices, oral contraceptives, non-oral hormonal contraceptives, emergency contraception, male and female sterilization, menstrual regulation, reversal of female sterilization, male contraception, vaccines for fertility control, HIV and AIDS)
b. Amenorrhea (differential diagnosis of amenorrhea of all types, galactorrhoea, pituitary adenoma)
c. Chronic anovulation and PCOS
d. Hirsutism
e. Menopause and peri menopausal transition and post-menopausal hormone therapy
f. Obesity
g. Reproduction and the thyroid
h. Normal and abnormal sexual development
i. Normal and abnormal growth and pubertal development (normal pubertal events, precocious puberty, delayed puberty, growth problems in normal adolescents)

j. Infertility (male and female infertility, induction of ovulation, assisted reproductive technologies)

3. Gynaecological oncology

a. Preinvasive lesions of the lower genital tract
b. Cervical cancer
c. Invasive cancer of vulva
d. Vaginal cancer
e. Endometrial cancer
f. Uterine sarcoma
g. Epithelial ovarian cancer
h. Ovarian germ cell and sex cord stromal tumours
i. Gestational trophoblastic neoplasia
j. Principles of chemotherapy and radiotherapy

4. Urogynaecology and pelvic reconstructive surgery

a. Lower urinary tract disorders
b. Pelvic organ prolapse
c. Anorectal dysfunction

5. Imaging in Gynaecology

Ultrasound, radiography, uterine artery embolization, CT, MRI, PET scan

6. Operative Gynaecology

a. Preoperative evaluation and post-operative management
b. Gynaecologic endoscopy (diagnostic and operative hysteroscopy and laparoscopy)
c. Hysterectomy
d. Robotic operations

PAPER IV: RECENT ADVANCES IN OBSTERICS AND GYNAECOLOGY

a. Recent advances – umbilical cord blood banking, stem cell therapy, etc,
b. Social obstetrics and Gynaecology:
c. Maternal mortality, maternal near miss, perinatal mortality, perinatal deaths, contraception, MTP Act, PCPNDT Act, breast feeding hospital initiative, immunization programme, measures to reduce caesarean sections, medico-legal aspects, health education
d. National programmes related to woman and child health
   - NHM
   - RCH I and II
   - RMNCH-A

- JSY
- Vandemataram scheme
- JSSK
- Pradhan mantra Surakshit matrutva abhyan
- 12thFive-year plan
- PPIUCD programme
- Other schemes

e. Adolescent health programmes:
   - Adolescent girls schemes in India

f. Nutritional programmes:
   - Integrated Child Development Services Scheme (ICDS)
   - Special Nutrition Programs (SNP)
   - Wheat Based Nutrition Programs (WNP)
   - Applied Nutrition Programs (ANP)
   - National Nutritional Anemia Prophylaxis Program (NNAPP)
   - National Goiter Control Program (NGCP)

ALLIED SUBJECTS

- Anatomy: Applied embryology, applied anatomy and development of uro-genital tract
- Physiology: Applied Physiology with regard to female reproductive system
- Biochemistry: hormones in obstetrics and gynecology, metabolic changes in pregnancy
- Pathology: Pathophysiology of diseases in female genital tract, pathogenesis, basic histo-pathology
- Microbiology: Clinical microbiology applied to investigations for diseases in obstetrics and gynecology
- Pharmacology: Clinical pharmacology, therapeutics in pregnant women and gynaec patients, drug interactions, rational drug therapy, adverse drug reactions and teratogenicity in first trimester of pregnancy
- Community Medicine: Health care delivery systems — structure and function, health statistics, national programs
- Radiology: Clinical Indications and interpretations of X-ray, ultrasound, CT, MRI
- Legal and Ethical Medicine: Rights and protection of women, Consumer Protection Act, basic principles of ethics.

POSTGRADUATE SKILLS

1. SURGICAL SKILLS:

- Conducting minimum 25 cases of normal delivery including forceps and ventouse application, episiotomy repair, 3rd degree perineal tear suturing
- Tubectomy: both mini lap and laparoscopic sterilization

2. MINOR OT PROCEDURES:

- MTP, D&C, suction evacuation, Menstrual regulation, Mid-Trimester termination of pregnancy.
- Cervical and Endometrial biopsy, pap-smear, electric cauterisation and cryo cautery and hysterosalphingogram
- colposcopy.

3. MAJOR OT PROCEDURES

- Caesarean section minimum 10 to be done and 20 operations to be assisted

- Vaginal hysterectomy minimum 10 to be assisted and 5 to be performed
- Abdominal hysterectomy minimum 10 to be assisted and 5 to be performed
- Ovariotomy
- Cervical encerclage
- Salpingectomy for ectopic pregnancy
- Laparotomy
- Manual removal of placenta

4. SPECIAL OPERATIONS (ONLY TO ASSIST)

- Tuboplasty
- Myomectomy
- Ovarian de-bulking operation
- Ventrofixation (Gilliam's operation)
- Sling operations for prolapse (abdominal and laparoscopic)
- Reconstructive pelvic surgeries
- Wertheim's hysterectomy
- Simple and radical vulvectomy
- Diagnostic laparoscopy,
- Hysteroscopy
- Caesarean hysterectomy
- Internal iliac ligation
- Internal podalic version
- Operation for inversion of uterus

PRACTICAL OBSTETRICS &GYNAECOLOGY

OBSTETRICS

- Diagnosis of early pregnancy and its complications and management.
- AIM of ANC and management of high risk pregnancies.
- To work in labour wards and to manage normal and complicated deliveries.
- Neonatal care and resuscitation in labour wards
- Follow-up of normal and abnormal deliveries during postnatal period
- Assisting caesarean section initially, by the end of the course, they shall be able to do caesarean sections independently.
- I C U Management.
- Family welfare programmes and reconstructive surgeries of the fallopian tubes.
- Rural obstetrics care and referral services.

GYNAECOLOGY

- To work in O.P.D. and examine Gynaecology cases routinely,
- Minor operations: To assist in the beginning and carry out the work independently by the end of I year
- Major Operations: To assist as second assistant for the first six months and as first assistant for the next 6 months and do major operations like vaginal hysterectomy with P.F.R. and abdominal hysterectomy, Ovariotomy with the assistance of senior doctors. By the end the course the candidate shall be familiar with the techniques of above mentioned operations and to do independently. iv. To do investigations like HSG and USG under guidance initially and independently by the end of the course.
- To assist medico legal cases.

- Writing case records
- Candidate should write separate PG case sheets. They should keep diary and log book and get verified by the Unit Chief by the end of each month

YEAR WISE STRUCTURED TRAINING SCHEDULE

I year

Theoretical knowledge, Basic sciences

Examination and diagnosis of Obstetrics & Gynaecological cases with relevant investigations case recording.

Surgical Skills

Assisting Caesarean sections as second assistant initially and later on as first assistant, with supervision.

Assisting all major gynaecological operations like, vaginal & abdominal hysterectomies as a second assistant.

Minor Operations

Assisting minor operations like M.T.P., Tubectomy, Laparoscopy, Cervical biopsy, D & C in the initial period, and later on doing independently under supervision.

II Year

Theoretical knowledge of Allied subjects

Clinical examination and diagnosis: The student is encouraged to take diagnostic, investigational and therapeutic decisions.

The student should be able to perform basic ultrasound in obstetrics and gynaecology

Surgical Skills: At the end of the second year the student should be capable of operating without assistance but under supervision, like caesarean section and minor operations like, M.T.P. cervical biopsy, D & C, tubectomies, outlet forceps, emergencies during delivery. The student must know how to manage the complications during and after delivery confidently.

Conference and workshops: Encouraged to attend one conference of State level and at National level. Presentation of paper in the conference should be encouraged. The student should be involved actively in presentation of seminars, panel discussion, Journal clubs and case discussions with seniors, and to maintain record in Log book.

III Year

Should be through with basic, allied and recent advances.

Clinical Diagnosis & Examination: Should be able to make clinical diagnosis, investigational and therapeutic decisions.

The student should be able to perform basic ultrasound in obstetrics and gynaecology

Surgical Skills: At the end of the third year the student should be capable of operating without assistance but under supervision, like caesarean section,abdominal and vaginal hysterectomies, diagnostic laparoscopy, hysteroscopy, reconstructive surgeries of fallopian tubes and surgeries on ovarian tumours. Techniques of assisted reproductive technologies.

Minor operations like, M.T.P. cervical biopsy, D & C, tubectomies, outlet forceps, emergencies during delivery. The student must know how to manage the complications during and after delivery confidently

Teaching activities: Final year student should take lead in conducting seminars, panel discussions, Journal Clubs and case discussions with I &II-year students. The

student should involve himself/herself in teaching undergraduate students especially bedside clinics.
The student should attend National and State level conferences, C.M.E. Programmes and workshops on colposcopy, Hysteroscopy and endoscopic surgeries, including ultrasound guided procedures. The student must also be exposed to the Assisted reproductive technologies like, I.V.F-E-T. ICSI and also to observe radical surgeries in Gynaec-Oncology.

ROTATION AND LABOUR WARD POSTINGS

- The student must work in labour wards at least 6 months during II & III year (3 months each year)
- Paediatrics: 15 days
- Radio-diagnosis including Ultrasound: 15 days
- Oncology: 15 days
- Reproductive medicine: 1 month (GRC Bangalore)

TEACHING AND LEARNING ACTIVITIES

A candidate pursuing the course should work in the institution as a full-time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.
Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.
A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below:

I. TEACHING LEARNING ACTIVITIES

TEACHING SESSIONS

	ACTIVITY	**FREQUENCY**	**MODERATOR**	**EVALUATOR**
1	CASE DISCUSSION	Once in a week	Faculty	Faculty other than moderator
2	JOURNAL CLUB/ CAPSULE	Once in a week	Faculty	Faculty other than moderator
3	SEMINAR	Once in a week	Faculty	Faculty other than moderator
4	BED SIDE CLINICS	Twice in a month	Faculty	Faculty other than moderator
5	INTEGRATED TEACHING	Once in 2 months	Faculty	Faculty other than moderator
6	MORTALITY MEETING	Whenever applicable	Faculty	Faculty other than moderator
7	GRAND ROUNDS	Once in a week	Unit chief/ HOD	Faculty other than moderator

1. **Lectures: Lectures are to be kept to a minimum. They may, however, be** employed for teaching certain topics. Lectures may be didactic or integrated.

a. Didactic Lectures: Recommended for selected common topics for post graduate students of all specialities. Few topics are suggested as examples:
   - Bio-statistics
   - Use of library
   - Research Methods
   - Medical code of Conduct and Medical Ethics
   - National Health and Disease Control Programmes
   - Communication Skills etc.

   These topics may preferably be taken up in the first few weeks of the 1st year.

b. Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected topics, e.g. Jaundice, Gestational Diabetes mellitus, Thyroid, Cardiac diseases etc.

c. Hands-on training: IUCD including PPIUCD insertion and suturing techniques including endosuturing

2. **Journal Club:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A time table with names of the student and the moderator should be announced at the beginning of every year.

3. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.

a. **Attending OPD work**

b. **Ward Rounds:** Ward rounds may be service or teaching rounds.

Service Rounds: Postgraduate students and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.

Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.

Entries of (a) and (b) should be made in the Log book.

c. **Records Round**

Objective: To appreciate the importance of documentation of facts and record keeping.

Methodology: Faculty in the presence of the team scrutinizes random case records, history sheets, doctor order sheets, progress sheets and discharge summaries are discussed.

Frequency: Once a week with the entire team present at the session

d. **Inter Departmental Meetings:**Strongly recommended particularly with departments of Pathology, Radio-Diagnosis and Paediatrics at least once a week. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.

e. **Teaching Skills:**Postgraduate students must teach under graduate Medical students by taking demonstrations, bed side clinics etc. Record of their participation be kept in Log book.

f. **Continuing Medical Education Programmes (CME):**Recommended to attend as many CME as possible, with minimum 1 state level CME per year.

g. **Conferences:** PGs are encouraged to present their dissertation in the national conference and publish the same in indexed journals. PGs are also encouraged to present rare/interesting cases in state and national conferences.

h. **Log Book**

The teaching staffs should scrutinize the log book every week which will be scrutinized by unit chief every month and counter signed by HOD every three months or at the end of each posting.

a. PG posted to each unit should write the case history, examine the patients in detail and carry out the investigations and shall be responsible for pre-operative, operative and post-operative care. By the end of the unit posting, shall submit the same to the unit chief and take the signature

b. Clinical cases: Each M.D. student should present at least 20 clinical cases for discussion in the three-year posting (10 Obstetrics & 10 Gynaecology)

c. Journal club: Each candidate shall present at least 10 papers on recent advances in Obstetrics and Gynaecology from latest journals in the Journal clubs.

d. Subject Seminar: They shall participate actively in minimum of eight subject seminars.

e. They should actively undertake the undergraduate teaching programmes

f. C.M.E. programmes: shall attend CME programmes and shall present minimum of two papers in any of the scientific conferences.

DISSERTATION

Every candidate pursuing degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a post-graduate student in research methods for and techniques. It includes identification of a problem, formulation of a hypothesis, rest search and review, of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar (Academic) of JSS Academy of higher education, in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the data of commencement of the course on or before the dates notified by the Deemed to be University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the

Deemed to be University. No change in the dissertation topic or guide shall be made without prior approval of the Deemed to be University.
The dissertation should be written under the following headings:

- Introduction
- Aims or Objectives of study
- Review of Literature
- Material and Methods
- Results
- Discussion
- Conclusion
- Summary
- References
- Tables
- Annexures

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side pf paper 9 (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.
Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination on or before the dates notified by the Deemed to be University.
The dissertation shall be valued by examiners appointed by the Deemed to be University. Approval of dissertation work is an essential precondition for a candidate to appear in the Deemed to be University examination.

MONITORING LEARNING PROGRESS

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching & learning activities. It may be structured and assessment be done using checklists that assess various aspects.
The learning out comes to be assessed should include: (1) Personal Attitudes, (2) Acquisition of Knowledge, (3) Clinical and operative skills, (4) Teaching skills and (5) Dissertation.

1. Personal Attitudes. The essential items are:

- Caring attitudes
- Initiative
- Organizational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge, the methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. **Acquisition of Knowledge**:

The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed.

- Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist
- Seminars / Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist
- Clinico-pathological conferences: This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

3. **Clinical skills**

- Day to day work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills
- Clinical meetings: Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list
- Clinical and Procedural skills: The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book.

4. **Teaching skills:** Candidates should be encouraged to teach undergraduate medical students.

5. **Dissertation in the department:** Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the Deemed to be University for registration, again before finalization for critical evaluation and another before final submission of the completed work

GUIDELINES FOR PERIODIC REVIEW OF DISSERTATION
Within 3 months of joining course: synopsis presentation
During 2nd year: mid-term presentation
6 months prior to examination: final presentation and submission

6. **Periodic tests:** The departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, using practical / clinical and viva voce.

7. **Work diary / Log Book/ Records:** Every candidate shall maintain a work diary and record his/her participation in the training programs conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

LOG BOOK:
The log book is a record of the important activities of the candidates during his training; internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training program of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.
Format for the log book for the different activities is provided. Copies may be made and used by the institutions.
Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default, the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements despite being given adequate chances to set himself or herself right

LOG BOOK EVALUATION
At the end of first year, second year and 3 months before final examination, the logbook will be evaluated considering the following parameters:

a) Skills and procedures learned independently, under supervision or assisted by him
b) Presentations in journal clubs
c) Cases presented in clinical meetings
d) Presentation in departmental seminars
e) Intra and interdepartmental training and evaluation details
f) Teaching activities
g) Conferences/workshops/CME attended
h) Papers presented/published conferences

SCHEME OF EXAMINATION

A. THEORY: 400 MARKS
There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 3 short essay questions each carrying 10 marks, 6 short answers of 5 marks each. Total marks for each paper will be 100. Questions on recent advances can be asked in all the papers. Details of distribution of topics for each paper will be as follows.

PAPER I - BASIC SCIENCES
PAPER II - OBSTETRICS
PAPER III - GYNAECOLOGY
PAPER IV - SOCIAL OBSTETRICS AND RECENT ADVANCES

EACH PAPER: Time: 3 Hours, Max Marks:100
2 LONG ESSAYS: 20 MARKS EACH - 2×20=40 MARKS
3 SHORT ESSAYS: 10 MARKS EACH - 3×10=30 MARKS
6 SHORT ANSWERS: 5 MARKS EACH - 6×5= 30 MARKS
Recent advances as applied to obstetric and gynecologic disorders can be incorporated in ALL THE PAPERS.

WEIGHTAGE OF MARKS IN EACH PAPER

PAPER I: BASIC SCIENCES

- Anatomy and development of female genital tract and applied anatomy: 10%
- Maternal; physiological changes during pregnancy: 20%
- Diagnosis of pregnancy and antenatal care: 20%
- Physiology of labour: 20%
- Biochemistry and pharmacology in obstetrics and gynaecology: 15%
- Immunology: 5%
- Puerperium and lactation: 10%

PAPER II: OBSTETRICS

- Abnormal pregnancy and medical disorders of pregnancy: 30%
- Obstetric complications of pregnancy: 25%
    - Foetal growth restriction
    - Repeated pregnancy loss
    - Preterm labour
    - Prolonged pregnancy
    - Shock and collapse
    - Ectopic pregnancy
    - Rh incompatibility
    - Obstetric haemorrhage
    - Abortions
    - Multiple pregnancy
- Presentations and congenital malformations: 15%
- Perinatology: 15%
- Operative obstetrics: 15%

PAPER III: GYNAECOLOGY INCLUDING CONTRACEPTION

- Reproductive endocrinology and infertility: 25%
    - Abnormal uterine bleeding
    - Abnormal puberty
    - Amenorrhea
    - Congenital anomalies of female reproductive system
    - Intersex- disorders of sexual development
    - Infertility
    - Endometriosis
    - Menopause and hormone replacement therapy
- General Gynecology: 15%
    - Benign diseases of uterus
    - Benign disease of ovary
    - Benign diseases of vulva, vagina, cervix and broad ligament
    - Miscellaneous gynecologicconditions: chronic pelvic pain, pelvic inflammatory disease, sexually transmitted disease, genital TB, vaginitis, etc.
- Gynaec Oncology: 15%
- Urogynaecology: 10%
- Family Planning: 25%
- Operative Gynecology: 10%

PAPER IV: RECENT ADVANCES AND SOCIAL OBSTETRICS

- Social obstetrics: 30%
- Gynaec endoscopy: 25%
- Ultrasonography and Doppler: 20%
- Prenatal diagnostic and therapeutic techniques: 15%
- Medico-legal issues and ethics in obstetrics and gynecology: 10%

B. CLINICAL EXAMINATION: 200 MARKS

TIME: 8 AM TO 5 PM
Cases are selected by external examiners and are allotted in the presence of external examiners.
The cases allotted are:

S. No	Subject	Long/ Short case	Number	Marks	Time for examination	Time for discussion
1.	OBSTETRICS	Long case	1	75	45 mins	30-45 mins
		Short case	1	25	15 mins	10-15 mins
2.	GYNAECOLOGY	Long case	1	75	45 mins	30-45 mins
		Short case	1	25	15 mins	10-15 mins

- Long case will be evaluated by all the four examiners together. Each examiner will assign marks independently for a maximum of 75 marks and the average will be taken into consideration.
- Short cases will be evaluated by all the four examiners.Each examiner will assign marks independently for a maximum of 25 marks and the average will be taken into consideration.

C. VIVA VOCE: 100 marks

Viva-voce examination: 60 marks
Pedagogy: 10 marks
Log book: 10 marks
OSCE: 20 marks

Viva voce examination: 60 marks

1. Dummy pelvis and fetal skull – 15 marks
2. Specimens and instruments – 15 marks
3. Drugs and contraception – 15 marks
4. Obstetric emergency (Case Scenario) – 15 marks

Each examiner will be allotted 15 marks in Viva voce.

Pedagogy: 10 marks

A topic will be given to each candidate in the beginning of viva voce examination. He/she is asked to make a presentation on the topic for 8-10 minutes

OSCE: 20 Marks

1. Non-observed station: 5 spotters for 2 marks each (HPE slide/ X Ray/ USG/ NST/ Drugs/ Instruments/ Specimens) – 10 marks

2. Observed station: Ward Rounds – 10 marks

Written instructions will be provided about each station to the students.
Checklist for each station will be provided to the examiners to assign marks

Examiners will be testing knowledge, understanding, data interpretation, problem solving, history taking, examination, counselling, resuscitation or procedures in the observed station

A. **MAXIMUM MARKS FOR MD DEGREE COURSE**

Theory	Clinical Exam	VivaVoce	Grand Total
400	200	100	700

B. **PASS CRITERIA**

Minimum of 50% marks in clinicals and in viva voce separately to declare pass.
A paper minimum of 40% is mandatory in each paper

RECOMMENDED BOOKS

S. No	Name of Author	Name of the book	Edition
1.	Williams	Textbook of Obstetrics	24th
2.	James	High risk pregnancy management options	4th
3.	Creasy & Resnik	Maternal fetal medicine	7th
4.	Fernando Arias	Practical guide to high risk pregnancy	4th
5.	Arul Kumaran	The management of labour	3rd
6.	Gabbe	Obstetrics normal and problem pregnancies	7th
7.	D C Dutta	Textbook of obstetrics	8th
8.	Mudaliar and Menon	Clinical obstetrics	12th
9.	Holland & Brews	Manual of obstetrics	4th
10.	Ian Donald	Practical obstetric problems	7th
11.	Oxorn Foote	Human labor & birth	6th
12.	Virkud	Practical obstetrics &gynecology	5th
13.	Parulekar	Practical gynecology& obstetrics	5th
14.	Padubidiri	Textbook of obstetrics	
15.	D Swiet	Medical disorders in obstetric practice	5th
16.	Munro Kerr	Operative obstetrics	12th
17.	Williams	Textbook of gynecology	3rd
18.	Berek & Novak's	Textbook of gynecology	16th
19.	Jeffcoate's	Principles of gynecology	8th
20.	TeLinde's	Operative gynecology	11th
21.	Shaw's	Textbook of gynecology	16th
22.	D C Dutta	Textbook of gynecology	7th
23.	Speroff's	Clinical gynecologic endocrinology and infertility	8th
24.	Dewhurst	Textbook of obstetrics &gynecology	8th
25.	Chaudhary	Practice of fertility control	7th
26.	Leon Speroff	A clinical guide for contraception	5th
27.	FIGO	Contraception past present future	

28.	Berek & Hacker's	Gynecologic oncology	8th
29.	Donalds	Basic textbook of USG in obstetrics &gynecology	2nd
30.	Kamini Rao	The infertility manual	3rd
31.	K.Park	Preventive and social medicine	23rd
32.	O P Ghai	Essential pediatrics	8th
33.	J Studd	Current progress in obstetrics and gynecology	3rd
34.	Bonnar	Recent advances in obstetrics and gynecology	23rd
35.	Das Gupta	Recent advances in obstetrics and gynecology	9th

RECOMMENDED JOURNALS

- Journal of FOGSI
- Clinics of obstetrics and gynecology – North America
- Fertility and sterility
- British journal of obstetrics and gynecology
- American journal of obstetrics and gynecology
- Current opinion in obstetrics and gynecology
- Clinics of obstetrics and gynecology

POSTGRADUATE DIPLOMA IN OBG (DGO)

GOALS

The goals of postgraduate training in OBG would be to produce a competent specialist and/or medical teacher:

- Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy
- Who shall have mastered most of the competencies pertaining to OBG that are required to be practiced at the secondary and tertiary levels of the health care delivery system
- Who shall be aware of the contemporary advances and developments in OBG
- To practice with empathy and the highest ethical standards of the profession.

OBJECTIVES

The objectives to be fulfilled at the completion of the course are as follows: At the end of 2 years, the student should be able to proficient in:

Knowledge:

1. To acquire in depth knowledge of female reproductive tract: Anatomy, Physiology as applicable to obstetrics &gynecology.
2. To understand the normal pregnancy right from conception till delivery.
3. To learn efficiently Antenatal care, Intrapartum& Post-partum care
4. To understand all the abnormal conditions of pregnancy and delivery.
5. To understand all the Maternal and Child Health Programs of our country
6. To have in depth knowledge of the diseases of female genital tract and all gynecological procedures and surgeries.
7. To practice with empathy and highest ethical standards of the profession.
8. To continue to strive for excellence by Continuing Medical Education in OBG throughout her/ his professional career.

Skills:

- Elicit an appropriate clinical history.
- Demonstrate appropriate clinical physical examination skills on women.
- Plan, decide upon and interpret appropriate cost-effective investigations.
- Perform essential procedures both diagnostic and therapeutic.
- Manage, resuscitate and stabilize critically ill pregnant women and women with gynaec emergencies.

Communication and attitudes:

- Communicate appropriately with the patient and her relatives, assisting in her health care decision making.
- Practice women health care at the highest ethical level, protecting the women's health interest at all costs.
- Respect patient's (and their guardian's) rights and professional relationships (doctor-doctor, doctor-nurse, doctor-patient, doctor-society)

SYLLABUS(Course Contents):

PAPER I: BASIC SCIENCES

a. Normal development, structure and function (female and male) of urogenital system and female breast.
b. Applied Anatomy of Genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).
c. Physiology of spermatogenesis and Oogenesis.
d. Endocrinology related to male and female reproduction.
e. Anatomy and physiology of urinary and lower GI (Rectum / anal canal) tract.
f. Development, structure and function of placenta, umbilical cord and amniotic fluid.
g. Anatomical and physiological changes in female genital tract during pregnancy.
h. Diagnosis of pregnancy
i. Anatomy of foetus, foetal skull, foetal growth and development, foetal physiology and foetal circulation.
j. Physiological and neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.
k. Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, haematological, renal, hepatic, renal, hepatic and other systems.
l. Biophysical and biochemical changes in uterus and cervix during pregnancy and labour.
m. Physiology and mechanism of normal labour
n. Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer of the drugs across the placenta, effect of the drugs (used) on labour, on foetus, their excretion through breast milk.
o. Mechanism of action, excretion, metabolism of identified drugs used in the management of Gynaecological disorder.
p. Role of hormones in Obstetrics and Gynaecology.
q. Humoral and cellular immunology in Obstetrics & Gynaecology.
r. Gametogenesis, fertilization, implantation and early development of embryo.
s. Normal Pregnancy, physiological changes during pregnancy, labour and puerperium.
t. Immunology of pregnancy.
u. Lactation.

PAPER II:OBSTETRICS

1. Antenatal care: Preconceptional care and counselling, prenatal care of normal pregnancy including examination, nutrition, immunization and follow up.
2. Foetal aspects: foetal imaging, amniotic fluid, teratology, teratogens and fetotoxic agents, genetics, prenatal diagnosis, foetal disorders, foetal therapy
3. Antenatal assessment of foetal well-being: Foetal movement, foetal breathing, contraction stress test, non-stress test, acoustic stimulation test, biophysical profile, amniotic fluid volume, Doppler velocimetry, assessment of foetal pulmonary maturation, current antenatal testing recommendations
4. Contracted pelvis & CPD

5. Intra-partum care:

a. Normal labour - mechanism and management.
b. Partographic monitoring of labour progress, recognition of abnormal labour and its appropriate management.
c. Identification and conduct of abnormal labour and complicated delivery – episiotomy, breech, forceps delivery, caesarean section, destructive operations, symphysiotomy.
d. Induction and augmentation of labour.
e. Management of abnormal labour - Abnormal pelvis, soft tissue abnormalities of birth canal, mal-presentation, mal-positions of foetus, abnormal uterine action, obstructed labour and other dystocia, cord prolapse.
f. Analgesia and anaesthesia in labour.
g. Maternal and foetal monitoring in normal and abnormal labour (including electronic foetal monitoring).
h. Identification and management of intrapartum complications, Cord presentation

6. New Born

a. Care of new born: Normal and high risk new born (including NICU care).
b. Asphyxia and neonatal resuscitation.
c. Meconium aspiration syndrome
d. Neonatal sepsis - prevention, detection and management.
e. Neonatal hyper - bilirubinaemia - investigation and management.
f. Birth trauma - Detection and management.
g. Detection and management of foetal/neonatal malformation.
h. Management of common neonatal problems.

7.Post-Partum

a. Complication of 3rdstage of labour retained placenta, inversion of uterus, post-partum haemorrhage, rupture of uterus, Management of primary and secondary post-partum haemorrhage, retained placenta, uterine inversion. Post-partum collapse, amniotic fluid embolism
b. Identification and management of genital tract trauma - perineal tear, cervical/vaginal tear, episiotomy complications, rupture uterus.
c. Management of critically ill woman.
d. Postpartum shock, sepsis and psychosis.
e. Postpartum contraception.
f. Breast feeding practice; counselling and importance of breast-feeding. Problems in breast-feeding and their management, Baby friendly practices.
g. Normal and abnormal purpureum - sepsis, thrombophlebitis, mastitis, psychosis.

8. Critical care and trauma

Obstetrical intensive care, acute pulmonary oedema, acute respiratory distress syndrome, sepsis syndrome, trauma, thermal injury, cardiopulmonary resuscitation, fluid balance,shock(septic shock, haemorrhagic shock), perimortem caesarean section, use of blood components.

9.High-risk pregnancy:

a. Hypertensive disorders: Terminology and diagnosis, incidence and risk factors, etiopathogenesis, pathophysiology, prediction and prevention, management, long term consequences

b. Haematological disorders: Iron deficiency anaemia, megaloblastic anaemia, haemolytic anaemia. Anaemia associated with chronic disease, aplastic and hypoplastic anaemia, polycythaemia, hemoglobinopathies, thalassemia syndromes, platelet disorders, inherited coagulation defects, Von Willebrand disease
c. Diabetes: Types of diabetes, pathophysiology, pre-gestational and gestational diabetes, screening, diagnosis, foetal effects, maternal effects, counselling, management, post-partum follow up
d. Cardiovascular disorders: Physiological considerations in pregnancy, diagnosis of heart disease, peripartum management considerations, surgically corrected heart disease, valvular heart disease, congenital heart disease, pulmonary hypertension, cardiomyopathies, heart failure, infective endocarditis, arrthymias, Diseases of the aorta, ischemic heart disease.
e. Pulmonary disorders: asthma, acute bronchitis, pneumonia, tuberculosis, restrictive lung disease.
f. Thromboembolic disorders: pathophysiology, thrombophilia, thrombophilia screening, deep vein thrombosis, labour and delivery, superficial venous thrombophlebitis, pulmonary embolism, thromboprophylaxis, foetalsurveillance in VTE.
g. Renal & urinary tract disorders: pregnancy induced urinary tract changes, urinary tract infections, nephrolithiasis, glomerular diseases, chronic renal disease, acute kidney injury, lower renal tract lesions, dialysis in pregnancy, pregnancy after renal transplantation, polycystic kidney disease.
h. Endocrine disorders: thyroid physiology & pregnancy, thyroid disorders in pregnancy, foetal& neonatal hypothyroidism, post-partum thyroid disease, parathyroid diseases, adrenal gland disorders, pituitary diseases.
i. Hepatic, biliary & pancreatic disorders: diagnosis of liver disease, liver disorders unique to pregnancy (intrahepatic cholestasis of pregnancy, acute fatty liver of pregnancy, preeclampsia & HELLP syndrome, liver rupture & infarction), maternal disorders coincidental to pregnancy (viral hepatitis A,B C D E G, other hepatic viruses, HIV) , chronic liver disease in pregnancy(chronic non-viral hepatitis, primary sclerosing cholangitis, Wilsons disease, portal hypertension, budd Chiari syndrome, cirrhosis), acute liver failure in pregnancy, liver transplantation in pregnancy, gall bladder disease, pancreatitis.
j. Gastrointestinal disorders: diagnostic techniques used in pregnancy, laparotomy & laparoscopy, hyperemesis gravidarum, gastroesophageal reflux disease, hiatal hernia, diaphragmatic hernia, peptic ulcer, upper GI bleed, acute diarrhoea, inflammatory bowel disease, intestinal obstruction, appendicitis, irritable bowel syndrome, constipation, haemorrhoids, bariatric surgery.
k. Connective tissue diseases: SLE, rheumatoid arthritis, APLA, systemic sclerosis-scleroderma, vasculitis syndromes, inflammatory myopathies, hereditary connective tissue disorders.
l. Neurological disorders: CNS imaging, headache, seizure disorders, cerebrovascular diseases, demyelinating/degenerative diseases, neuropathies, spinal cord injury, idiopathic intracranial hypertension, maternal ventricular shunts, maternal brain death, tetanus, movement disorders.
m. Psychiatric disorders: identifying psychiatric illness during pregnancy & puerperium, prenatal evaluation, treatment considerations, depressive disorders, bipolar & related disorders, anxiety disorders, schizophrenia spectrum disorders, feeding & eating disorders, personality disorders.
n. Dermatological disorders: pregnancy specific dermatosis (pruritis grav-

idarum, pruritic urticarial papules & plaques of pregnancy, atopic eruption of pregnancy, pemphigoid gestationis), dermatological conditions not specific to pregnancy (acne, erythema nodosum, atopic dermatitis).

o. Infectious diseases: viral infections(varicella zoster, influenza, mumps, measles, rubella, cytomegalovirus, bacterial infections (group B streptococcus, group A streptococcus, Methicillin resistant staphylococcus aureus, listeriosis, shigellosis, salmonellosis, Hansen's disease, Lyme disease), protozoal infections(toxoplasma, malaria, amoebiasis), emerging infections(west Nile, corona virus), travel precaution during pregnancy, sexually transmitted infections(syphilis, gonorrhoea, chlamydia, herpes simplex, chancroid, HPV, vaginitis, HIV)
p. Obesity: general considerations, morbidity & mortality associated with obesity in pregnancy, management, pregnancy after bariatric surgery.
q. Benign & malignant gynaecological conditions in pregnancy, other neoplasms: leiomyoma, endocervical polyp, CIN, benign ovarian tumours, adnexal masses, prolapse, retroverted gravid uterus, carcinoma cervix, carcinoma ovary, breast carcinoma, squamous cell carcinoma of vulva, thyroid cancer, lymphoid cell malignancies, malignant melanoma, colorectal cancer.

10.Obstetrical complications

a. Early pregnancy complications: abortion (nomenclature, incidence, causes & management of 1st& 2nd trimester miscarriage, threatened abortion, inevitable abortion, incomplete abortion, complete abortion, missed abortion, septic abortion, recurrent miscarriage,MTP), ectopic pregnancy (tubal, interstitial, abdominal, ovarian, cervical, caesarean scar-clinical manifestation, diagnosis & management), gestational trophoblastic disease (epidemiology & risk factors, pathogenesis, diagnosis, & treatment of hydatidiform mole).
b. Post term pregnancy: definition, incidence, risk factors, perinatal morbidity& mortality, pathophysiology, antenatal & intrapartum management
c. Preterm labour: definitions & incidence, causes, diagnosis, prevention, morbidity, management of PPROM, preterm labour with intact membranes.
d. Multifetal pregnancy: mechanism of multifetal gestation, diagnosis, maternal adaptations to multifetal pregnancy, pregnancy complications, unique foetal complications, discordant growth of twin foetuses, single foetal demise, prenatal care & antepartum management, preterm birth, labour& delivery, triplet & higher order gestation, selective reduction/termination
e. Foetal growth disorders: foetal growth, foetal growth restriction, foetal overgrowth.
f. Obstetrical haemorrhage: general considerations, causes, uterine atony, uterine inversion, injuries to birth canal, puerperal hematoma, rupture uterus, placental abruption, placenta praevia, placenta accreta syndromes, consumptive coagulopathy, management of haemorrhage
g. Embryonic &foetal demise: embryonic losses, causes of foetal loss, management of foetal& embryonic loss.
h. Abnormalities of placenta and cord
i. Pregnancy with previous caesarean section
j. Elderly primigravida, grand multipara

PAPER III:GYNAECOLOGY

1.Benign diseases of female reproductive tract

a. Fibroid uterus

b. Endometriosis and adenomyosis
c. Pelvic pain and dysmenorrhea
d. Abnormal uterine bleeding
e. Pelvic mass
f. Breast disease
g. Malformations of female generative organs
h. Sexual development and development disorders
i. Sexually transmitted diseases
j. Inflammation of the cervix and uterus
k. Pelvic inflammatory disease
l. Injuries of the female genital tract
m. Displacements of uterus
n. Diseases of vulva and vagina
o. Benign tumours of the ovary
p. Gestational trophoblastic disease

2.Endocrinology

a. Contraception (general aspects including counselling, world population demography, sexual and reproductive health and risks, demographic changes, socio economic trends and family welfare programmes in India, natural methods of contraception, lactational amenorrhea method, barrier contraceptives, intrauterine devices, oral contraceptives, non-oral hormonal contraceptives, emergency contraception, male and female sterilization, menstrual regulation, reversal of female sterilization, male contraception, vaccines for fertility control, HIV and AIDS)
b. Amenorrhea (differential diagnosis of amenorrhea of all types, galactorrhoea, pituitary adenoma)
c. Chronic anovulation and PCOS
d. Hirsutism
e. Menopause and peri menopausal transition and post-menopausal hormone therapy
f. Obesity
g. Reproduction and the thyroid
h. Normal and abnormal sexual development
i. Normal and abnormal growth and pubertal development (normal pubertal events, precocious puberty, delayed puberty, growth problems in normal adolescents)
j. Infertility (male and female infertility, induction of ovulation, assisted reproductive technologies)

3.Gynaecological oncology

a. Pre-invasive lesions of the lower genital tract
b. Cervical cancer
c. Invasive cancer of vulva
d. Vaginal cancer
e. Endometrial cancer
f. Uterine sarcoma
g. Epithelial ovarian cancer
h. Ovarian germ cell and sex cord stromal tumours
i. Gestational trophoblastic neoplasia
j. Principles of chemotherapy and radiotherapy

4.Urogynaecology and pelvic reconstructive surgery

a. Lower urinary tract disorders
b. Pelvic organ prolapse
c. Anorectal dysfunction

5.Imaging in Gynaecology
Ultrasound, radiography, uterine artery embolization, CT, MRI, PET scan

6.Operative Gynaecology
a. Preoperative evaluation and post-operative management
b. Gynaecologic endoscopy (diagnostic and operative hysteroscopy and laparoscopy)
c. Hysterectomy
d. Robotic operations

7.Social obstetrics and Gynaecology:
a. Maternal mortality, maternal near miss, perinatal mortality, perinatal deaths, contraception, MTP Act, PCPNDT Act, breast feeding hospital initiative, immunization programme, measures to reduce caesarean sections, medico-legal aspects, health education
b. National programmes related to woman and child health
- NHM
- RCH I and II
- RMNCH-A
- JSY
- Vandemataram scheme
- JSSK
- Pradhan mantra Surakshit matrutva abhyan
- 12thFive-year plan
- PPIUCD programme
- Other schemes

c. Adolescent health programmes:
- Adolescent girls' schemes in India

d. Nutritional programmes:
- Integrated Child Development Services Scheme (ICDS)
- Special Nutrition Programs (SNP)
- Wheat Based Nutrition Programs (WNP)
- Applied Nutrition Programs (ANP)
- National Nutritional Anemia Prophylaxis Program (NNAPP)
- National Goiter Control Program (NGCP)

ALLIED SUBJECTS
- Anatomy: Applied embryology, applied anatomy and development of uro-genital tract
- Physiology: Applied Physiology with regard to female reproductive system
- Biochemistry: hormones in obstetrics and gynecology, metabolic changes in pregnancy
- Pathology: Pathophysiology of diseases in female genital tract, pathogenesis, basic histo-pathology
- Microbiology: Clinical microbiology applied to investigations for diseases in obstetrics and gynecology
- Pharmacology: Clinical pharmacology, therapeutics in pregnant wom-

en and gynaec patients, drug interactions, rational drug therapy, adverse drug reactions and teratogenicity in first trimester of pregnancy
- Community Medicine: Health care delivery systems — structure and function, health statistics, national programs
- Radiology: Clinical Indications and interpretations of X-ray, ultrasound, CT, MRI
- Legal and Ethical Medicine: Rights and protection of women, Consumer Protection Act, basic principles of ethics.

I. **POSTGRADUATE SKILLS**

a. SURGICAL SKILLS:

- Conducting minimum 15 cases of normal delivery including forceps and ventouse application, episiotomy repair, 3rd degree perineal tear suturing
- Tubectomy: both mini lap and laparoscopic sterilization

b. **MINOR OT PROCEDURES:**

- MTP, D&C, suction evacuation, Menstrual regulation, Mid-Trimester termination of pregnancy.
- Cervical and Endometrial biopsy, pap-smear, electric cauterisation and cryo cautery and hysterosalpingogram
- colposcopy.

c. MAJOR OT PROCEDURES

- Caesarean section minimum 10 to be done and 20 operations to be assisted
- Vaginal hysterectomy minimum 10 to be assisted and 5 to be performed
- Abdominal hysterectomy minimum 10 to be assisted and 5 to be performed
- Ovariotomy
- Cervical encerclage
- Salpingectomy for ectopic pregnancy
- Laparotomy
- Manual removal of placenta

d. **SPECIAL OPERATIONS (ONLY TO ASSIST)**

- Tuboplasty
- Myomectomy
- Ovarian de-bulking operation
- Ventrofixation (Gilliam's operation)
- Sling operations for prolapse (abdominal and laparoscopic)
- Reconstructive pelvic surgeries
- Wertheim's hysterectomy
- Simple and radical vulvectomy
- Diagnostic laparoscopy,
- Hysteroscopy
- Caesarean hysterectomy
- Internal iliac ligation
- Internal podalic version
- Operation for inversion of uterus

PRACTICAL OBSTETRICS &GYNAECOLOGY

OBSTETRICS

- Diagnosis of early pregnancy and its complications and management.

- AIM of ANC and management of high risk pregnancies.
- To work in labour wards and to manage normal and complicated deliveries.
- Neonatal care and resuscitation in labour wards
- Follow-up of normal and abnormal deliveries during postnatal period
- Assisting caesarean section initially, by the end of the course, they shall be able to do caesarean sections independently.
- I C U Management.
- Family welfare programmes and reconstructive surgeries of the fallopian tubes.
- Rural obstetrics care and referral services.

GYNAECOLOGY

- To work in O.P.D. and examine Gynaecology cases routinely,
- Minor operations: To assist in the beginning and carry out the work independently by the end of I year
- Major Operations: To assist as second assistant for the first six months and as first assistant for the next 6 months and do major operations like vaginal hysterectomy with P.F.R. and abdominal hysterectomy, Ovariotomy with the assistance of senior doctors. By the end the course the candidate shall be familiar with the techniques of above mentioned operations and to do independently. iv. To do investigations like HSG and USG under guidance initially and independently by the end of the course.
- To assist medico legal cases.
- Writing case records
- Candidate should write separate PG case sheets. They should keep diary and log book and get verified by the Unit Chief by the end of each month

YEAR WISE STRUCTURED TRAINING SCHEDULE

I year

Theoretical knowledge, Basic sciences

Examination and diagnosis of Obstetrics & Gynaecological cases with relevant investigations case recording.

Surgical Skills

Assisting Caesarean sections as second assistant initially and later on as first assistant, with supervision.

Assisting all major gynaecological operations like, vaginal & abdominal hysterectomies as a second assistant.

Minor Operations

Assisting minor operations like M.T.P., Tubectomy, Laparoscopy, Cervical biopsy, D & C in the initial period, and later on doing independently under supervision.

II Year

Theoretical knowledge of Allied subjects

Clinical examination and diagnosis: The student is encouraged to take diagnostic, investigational and therapeutic decisions.

Surgical Skills: At the end of the second year the student should be capable of operating without assistance but under supervision, like caesarean section, abdominal and vaginal hysterectomies, basic endoscopy and basic ultrasound.Minor operations like, M.T.P. cervical biopsy, D & C, tubectomies, outlet forceps, emergencies during delivery. The student must know how to manage the complications during and after delivery confidently.

Conference and workshops: Encouraged to attend one conference of State level and at National level. The student should be involved actively in presentation of seminars, panel discussion, Journal clubs and case discussions with seniors, and to maintain record in Log book.
The student should attend National and State level conferences, C.M.E Programmes and workshops on colposcopy, Hysteroscopy and endoscopic surgeries, including ultrasound guided procedures.

ROTATION AND LABOUR WARD POSTINGS

- The student must work in labour wards at least 6 months during I & II year (3 months each year)
- Paediatrics: 15 days
- Radio-diagnosis including Ultrasound: 15 days
- Oncology: 15 days

TEACHING AND LEARNING ACTIVITIES

A candidate pursuing the course should work in the institution as a full-time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.
Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.
A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below:

I. **TEACHING LEARNING ACTIVITIES**

TEACHING SESSIONS

S.NO	ACTIVITY	FREQUENCY	MODERATOR	EVALUATOR
1	CASE DISCUSSION	Once in a week	Faculty	Faculty other than moderator
2	JOURNAL CLUB/ CAPSULE	Once in a week	Faculty	Faculty other than moderator
3	SEMINAR	Once in a week	Faculty	Faculty other than moderator
4	BED SIDE CLINICS	Twice in a month	Faculty	Faculty other than moderator
5	INTEGRATED TEACHING	Once in 2 months	Faculty	Faculty other than moderator
6	MORTALITY MEETING	Whenever applicable	Faculty	Faculty other than moderator
7	GRAND ROUNDS	Once in a week	Unit chief/HOD	Faculty other than moderator

1. **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.

a. Didactic Lectures: Recommended for selected common topics for post

graduate students of all specialities. Few topics are suggested as examples:

- Bio-statistics
- Use of library
- Research Methods
- Medical code of Conduct and Medical Ethics
- National Health and Disease Control Programmes
- Communication Skills etc.

These topics may preferably be taken up in the first few weeks of the 1st year.

b. Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected topics, e.g. Jaundice, Gestational Diabetes mellitus, Thyroid, Cardiac diseases etc.

c. Hands-on training: IUCD including PPIUCD insertion and suturing techniques including endosuturing

2. **Journal Club:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A time table with names of the student and the moderator should be announced at the beginning of every year.

3. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.

a. **Attending OPD work**

b. **Ward Rounds:** Ward rounds may be service or teaching rounds.

Service Rounds: Postgraduate students and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.

Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.

Entries of (a) and (b) should be made in the Log book.

c. **Records Round**

Objective: To appreciate the importance of documentation of facts and record keeping.

Methodology: Faculty in the presence of the team scrutinizes random case records, history sheets, doctor order sheets, progress sheets and discharge summaries are discussed.

Frequency: Once a week with the entire team present at the session

d. **Inter Departmental Meetings:** Strongly recommended particularly with departments of Pathology, Radio-Diagnosis and Paediatrics at least once a

week. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.

e. **Continuing Medical Education Programmes (CME):**Recommended to attend as many CME as possible, with minimum 1 state level CME per year.

f. **Log Book**

The teaching staffs should scrutinize the log book every week which will be scrutinized by unit chief every month and counter signed by HOD every three months or at the end of each posting.

a. PG posted to each unit should write the case history, examine the patients in detail and carry out the investigations and shall be responsible for pre-operative, operative and post-operative care. By the end of the unit posting, shall submit the same to the unit chief and take the signature
b. Clinical cases: Each DGO student should present at least10 clinical cases for discussion in the two-year posting (5 Obstetrics &5 Gynaecology)
c. Journal club: Each candidate shall present at least 10 papers on recent advances in Obstetrics and Gynaecology from latest journals in the Journal clubs.
d. Subject Seminar: They shall participate actively in minimum of eight subject seminars.
e. C.M.E. programmes: shall attend CME programmes

MONITORING LEARNING PROGRESS

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching & learning activities. It may be structured and assessment be done using checklists that assess various aspects.

The learning out comes to be assessed should include: (1) Personal Attitudes, (2) Acquisition of Knowledge, (3) Clinical and operative skills, (4) Teaching skills

1. Personal Attitudes. The essential items are:

- Caring attitudes
- Initiative
- Organizational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge, the methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2.Acquisition of Knowledge:

The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book

should periodically be validated by the supervisors. Some of the activities are listed.

- Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist
- Seminars / Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist
- Clinico-pathological conferences: This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

3.Clinical skills

- Day to day work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills
- Clinical meetings: Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list
- Clinical and Procedural skills: The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book.

4.Periodic tests: The departments may conduct two tests, one at the end of first year and the other in the second year. The tests may include written papers, using practical / clinical and viva voce.

5.Work diary / Log Book/ Records: Every candidate shall maintain a work diary and record his/her participation in the training programs conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

LOG BOOK:

The log book is a record of the important activities of the candidates during his training; internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training program of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate. Format for the log book for the different activities is provided. Copies may be made and used by the institutions.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default, the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements despite being given adequate chances to set himself or herself right

LOG BOOK EVALUATION

At the end of first year and 3 months before final examination, the logbook will be evaluated considering the following parameters:

a. Skills and procedures learned independently, under supervision or assisted

by him
b. Presentations in journal clubs
c. Cases presented in clinical meetings
d. Presentation in departmental seminars
e. Intra and interdepartmental training and evaluation details
f. Conferences/workshops/CME attended
g. Papers presented/published conferences

SCHEME OF EXAMINATION

A. **THEORY: 300 MARKS**

There shall be three question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 3 short essay questions each carrying 10 marks, 6 short answers of 5 marks each. Total marks for each paper will be 100. Questions on recent advances can be asked in all the papers. Details of distribution of topics for each paper will be as follows.

PAPER I – BASIC SCIENCES

PAPER II – OBSTETRICS

PAPER III - GYNAECOLOGY

EACH PAPER: Time: 3 Hours, Max Marks:100
2 LONG ESSAYS: 20 MARKS EACH - 2×20=40 MARKS
3 SHORT ESSAYS: 10 MARKS EACH - 3×10=30 MARKS
6 SHORT ANSWERS: 5 MARKS EACH - 6×5= 30 MARKS

WEIGHTAGE OF MARKS IN EACH PAPER

PAPER I: BASIC SCIENCES

- Anatomy and development of female genital tract and applied anatomy: 10%
- Maternal; physiological changes during pregnancy: 20%
- Diagnosis of pregnancy and antenatal care: 20%
- Physiology of labour: 20%
- Biochemistry and pharmacology in obstetrics and gynaecology: 15%
- Immunology: 5%
- Puerperium and lactation: 10%

PAPER II: OBSTETRICS

- Abnormal pregnancy and medical disorders of pregnancy: 30%
- Obstetric complications of pregnancy: 25%
    - Foetal growth restriction
    - Repeated pregnancy loss
    - Preterm labour
    - Prolonged pregnancy
    - Shock and collapse
    - Ectopic pregnancy
    - Rh incompatibility
    - Obstetric haemorrhage
    - Abortions
- Multiple pregnancy

- Presentations and congenital malformations: 15%
- Perinatology: 15%
- Operative obstetrics: 15%

PAPER III: GYNAECOLOGY INCLUDING CONTRACEPTION

- Reproductive endocrinology and infertility: 20%
    - Abnormal uterine bleeding
    - Abnormal puberty
    - Amenorrhea
    - Congenital anomalies of female reproductive system
    - Intersex- disorders of sexual development
    - Infertility
    - Endometriosis
    - Menopause and hormone replacement therapy
    - General Gynecology: 15%
    - Benign diseases of uterus
    - Benign disease of ovary
    - Benign diseases of vulva, vagina, cervix and broad ligament
    - Miscellaneous gynecologicconditions: chronic pelvic pain, pelvic inflammatory disease, sexually transmitted disease, genital TB, vaginitis, etc.
- Gynaec Oncology: 10%
- Urogynaecology: 5%
- Family Planning: 10%
- Operative Gynecology: 10%
- Social obstetrics: 15%
- Ultrasonography and Doppler: 5%
- Prenatal diagnostic and therapeutic techniques: 5%
- Medico-legal issues and ethics in obstetrics and gynecology: 5%

B. **CLINICAL EXAMINATION: 150 MARKS**

TIME: 8 AM TO 5 PM

Cases are selected by external examiners and are allotted in the presence of external examiners.

The cases allotted are:

S. No	Subject	Number	Marks	Time for examination	Time for discussion
1	OBSTETRICS	1	75	45 mins	30-45 mins
2.	GYNAECOLOGY	1	75	45 mins	30-45 mins

Each case will be evaluated by all the four examiners together. Each examiner will assign marks independently for a maximum of 75 marks and the average will be taken into consideration.

C. **VIVA VOCE: 50 marks**

Viva voce examination:32 marks

Log book:8 marks

OSCE:10 marks

VIVA VOCE:32 marks

1. Dummy pelvis and fetal skull – 8 marks
2. Specimens and instruments – 8 marks
3. Drugs and contraception – 8 marks
4. Obstetric emergency (Case Scenario) – 8 marks

Each examiner will be allotted 8 marks in Viva voce.

OSCE: 10 Marks

Non-observed station: 5 spotters for 2 marks each (HPE slide/ X Ray/ USG/ NST/ Drugs/ Instruments/ Specimens) – 10 marks

Written instructions will be provided about each station to the students.
Checklist for each station will be provided to the examiners to assign marks

D. MAXIMUM MARKS FOR DGO COURSE

Theory	Clinical Exam	Viva-Voce	Grand Total
300	150	50	500

E. PASS CRITERIA

Minimum of 50% marks in clinicals and in viva voce separately to declare pass.
A paper minimum of 40% is mandatory in each paper

RECOMMENDED BOOKS

S. No	Name of Author	Name of the book	Edition
1.	Williams	Textbook of Obstetrics	24th
2.	James	High risk pregnancy management options	4th
3.	Creasy & Resnik	Maternal fetal medicine	7th
4.	Fernando Arias	Practical guide to high risk pregnancy	4th
5.	Arul Kumaran	The management of labor	3rd
6.	Gabbe	Obstetrics normal and problem pregnancies	7th
7.	D C Dutta	Textbook of obstetrics	8th
8.	Mudaliar and Menon	Clinical obstetrics	12th
9.	Holland & Brews	Manual of obstetrics	4th
10.	Ian Donald	Practical obstetric problems	7th
11.	Oxorn Foote	Human labor & birth	6th
12.	Virkud	Practical obstetrics &gynecology	5th
13.	Parulekar	Practical gynecology& obstetrics	5th
14.	Padubidiri	Textbook of obstetrics	
15.	D Swiet	Medical disorders in obstetric practice	5th
16.	Munro Kerr	Operative obstetrics	12th
17.	Williams	Textbook of gynecology	3rd
18.	Berek & Novak's	Textbook of gynecology	16th

19.	Jeffcoate's	Principles of gynecology	8th
20.	TeLinde's	Operative gynecology	11th
21.	Shaw's	Textbook of gynecology	16th
22.	D C Dutta	Textbook of gynecology	7th
23.	Speroff's	Clinical gynecologic endocrinology and infertility	8th
24.	Dewhurst	Textbook of obstetrics &gynecology	8th
25.	Chaudhary	Practice of fertility control	7th
26.	Leon Speroff	A clinical guide for contraception	5th
27.	FIGO	Contraception past present future	
28.	Berek & Hacker's	Gynaecologic oncology	8th
29.	Donalds	Basic textbook of USG in obstetrics &gynecology	2nd
30.	Kamini Rao	The infertility manual	3rd
31.	K. Park	Preventive and social medicine	23rd
32.	O P Ghai	Essential paediatrics	8th
33.	J Studd	Current progress in obstetrics and gynecology	3rd
34.	Bonnar	Recent advances in obstetrics and gynecology	23rd
35.	Das Gupta	Recent advances in obstetrics and gynecology	9th

RECOMMENDED JOURNALS

- Journal of FOGSI
- Clinics of obstetrics and gynecology – North America
- Fertility and sterility
- British journal of obstetrics and gynecology
- American journal of obstetrics and gynecology
- Current opinion in obstetrics and gynecology
- Clinics of obstetrics and gynecology

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