

CHETTINAD ACADEMY OF RESEARCH AND EDUCATION

(DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT, 1956)



FACULTY OF MEDICINE

M.S. OBSTETRICS AND GYNAECOLOGY

REGULATIONS & SYLLABUS

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**CHETTINAD ACADEMY OF RESEARCH AND EDUCATION
REGULATIONS FOR M.D. & M.S. CLINICAL PROGRAMS**

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CHETTINAD ACADEMY OF RESEARCH AND EDUCATION

Regulations for M.D./M.S. Clinical Courses

1. INTRODUCTION:

M.D. / M.S. Clinical course is a three year post graduate program under the Faculty of Medicine for students with an Under Graduate Degree in Medicine. This program is taught course that covers relevant topics and a research project in the area of specialization. This program shall be competence based and learning shall be essentially autonomous and self-directed and supplemented with practical and laboratory work. The curriculum shall have modular approach to learning. The research component is through original exploration and experiments culminating in the research project. This program shall impart advanced theoretical and practical aspects of subjects previously studied in a more general manner at the undergraduate level.

These courses are aimed at imparting higher-level training to qualified under graduate medical students in various branches of M.D./M.S. Clinical subjects and to involve the learning experiments to the needs of community.

In exercise of the powers conferred under sub rule (a) and (g) of Rule 8 (b) of Memorandum of Association and Clause 2.1, Chapter III of Bye-laws of Chettinad Academy of Research and Education, the Academic Council hereby makes the following regulations:

2. SHORT TITLE AND COMMENCEMENT:

These Regulations shall be called the "Regulations for M.D /M.S. Clinical Courses of Chettinad Academy of Research and Education. These regulations shall come into force from the academic year 2012-2013. These regulations are subject to modifications as may be approved by the Academic Council from time to time.

3. GOAL:

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

- i) 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.
- ii) 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.
- iii) who shall be aware of the contemporary advance and developments in the discipline concerned.
- iv) who shall have acquired a spirit of scientific inquiry and is oriented to the principals of research methodology and epidemiology and
- v) who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

4. AIMS AND OBJECTIVES:

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

- i) 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.
- ii) Practice the speciality concerned ethically and in step to the principles of primary health care.
- iii) Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
- iv) Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitating, preventive and primitive measures/ strategies.
- v) Diagnose and manage majority of the conditions in the speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- vi) Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality.
- vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
- viii) Demonstrate empathy and human approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
- ix) Play the assigned role in the implementation of National Health Programme effectively and responsibly.
- x) Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- xi) Develop skills as a self-directed learner, recognize continuing education needs: select and use appropriate learning resources.
- xii) Demonstrate competence in basic concepts of Research Methodology and epidemiology, and be able to critically analyze relevant published research literature.
- xiii) Develop skills in using educational methods and techniques as applicable to the teaching of Medical/ Nursing students, General Physicians and Paramedical Health Workers.
- xiv) Function as an effective leader of a health team engaged in health care, research or training

5. COMPONENTS OF THE POSTGRADUATE CURRICULUM:

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Writing Thesis/Research articles
- Attitudes including communication skills.
- Training in research methodology, Medical Ethics and Medicolegal aspects.
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6. NOMENCLATURE OF POSTGRADUATE COURSES:

The nomenclature of Post Graduate Degree should be as laid down in the Post Graduate Medical Education Regulations prescribed by the Medical Council of India.

7. ELIGIBILITY FOR ADMISSION:

Every student, selected for admission to a post graduate medical course in Chettinad University on acquiring M.B.B.S degree or an equivalent qualification thereto shall have obtained permanent registration with the Medical Council of India, or any of the State Medical Council(s) or shall obtain the same within a period of one month from the date of his/her admission, failing which his/her admission shall stand cancelled.

Provided that in the case of a foreign national, the Medical Council of India may, on payment of the prescribed fee for registration, grant temporary registration, for the duration of the post graduate course limited to the medical college/institution to which the candidate is admitted for the time being exclusively for pursuing post graduate studies.

Provided further the temporary registration to such foreign national shall be subject to the condition that such person is duly registered with appropriate registering authority in his own country wherefrom he has obtained his basic medical qualification and is duly recognized by the corresponding Medical Council or concerned authority.

8. RECOGNITION FEE AND ELIGIBILITY CERTIFICATE:

Candidates who have passed the M.B.B.S Degree Examination other than that conducted by Chettinad Academy of Research and Education shall obtain Eligibility Certificate from this University at the time of admission and also remit recognition fee as prescribed.

9. REGISTRATION:

A candidate admitted to the Post Graduate Course shall register with the University by submitting the prescribed application form for registration, duly filled in along with the prescribed fee, through the Head of the Institution.

10. PERIOD OF TRAINING /DURATION OF THE COURSE:

The duration of certified study and training for the M.D. / M.S. Post Graduate Clinical Courses shall be three completed years including the period of examination.

Provided that in the case of students possessing a recognised two year postgraduate diploma course in the same subject, the period of training, including the period of examination, shall be two years.

11. COMMENCEMENT OF THE COURSE:

The course shall ordinarily commence from 2nd May of the academic year.

12. CUT OFF DATES FOR ADMISSION:

Candidates admitted up to 31st May of the Academic year shall be registered for the same Academic Year but shall be eligible to take up the final examination along with others students admitted prior to their admission. There shall be no admission of students in respect of any academic session beyond 31st May for postgraduate courses under any circumstances. The University shall not register any student admitted beyond the said date.

13. SYLLABUS:

The Syllabus for the course shall be as specified in the annexure to these Regulations.

14. MEDIUM OF INSTRUCTION:

English shall be the medium of instruction for all the subjects of study and for examination.

***15. WORKING DAYS / ATTENDANCE**

All the candidates joining the Post Graduate training program shall work as "Full Time Residents" during the period of training and shall attend not less than 85% (Eighty Five percent) of the imparted training during each academic year including assignments, assessed full time responsibilities and participation in all facets of the educational process as per MCI norms. 85% attendance is compulsory for all the Post Graduate students for every academic year. The Attendance details may be submitted to the Controller of Examinations at the end of every academic year. The student should also be intimated quarterly regarding the lack of attendance.

***16. CONDONATION FOR LACK OF ATTENDANCE:**

The discretionary power of condonation of shortage of attendance to appear for University Examination rests with the Vice Chancellor.

Lack of attendance can be condoned up to a maximum of 5% of the minimum attendance required

in the following exceptional circumstances:

- (i) Any illness/ accident (for which Medical certificate from a registered medical practitioner must be produced)
- (ii) Any unforeseen tragedy in the family (should produce the letter from the parent/guardian)
- (iii) Participation in NCC/NSS and other co-curricular activities representing the Institution / University. (Certificate from competent authority is required)

For any of the above reasons, request shall be made by the candidate with prescribed fees to the Controller of Examination through proper channel, ten days prior to the commencement of the theory examination. Based on the recommendation of the Head of

the Institution, the Controller of Examination shall obtain the approval of the Vice Chancellor for admission of the candidate to the University Examination.

***Sl.No.15 & 16 Amended vide XVIII meeting of Academic Council dated 15.04.2014 and to be**

replaced as detailed below:

In the existing regulations for M.D. Pre – Para and M.D./M.S. Clinical courses, it has been stipulated that 85% attendance is compulsory for all the Post graduate students for every academic year. This has been modified to 80% attendance in keeping with Statutory Body norms. There shall be no condonation for attendance. The attendance criteria will hence read as follow as in MCI regulations.

"All the candidates joining the Post Graduate training programme shall work as 'Full Time Residents' during the period of training and shall attend not less than 80%(Eighty percent) of the imparted training during each academic year including assignments, assessed full time responsibilities and participation in all facets of the educational process."

The Attendance details shall be submitted to the Controller of Examinations at the end of each academic year. The student should also be intimated quarterly regarding the lack of attendance.

16 (a) STIPEND AND GRANT OF LEAVE

The Post Graduate students undergoing Post Graduate Degree / Diploma/Super-Specialty course shall be paid stipend on par with the stipend being paid to the Post Graduate students of State Government Medical Institutions / Central Government Medical Institutions, in the State / Union Territory where the institution is located. Similarly, the matter of grant of leave to Post Graduate students shall be regulated as per the respective State Government rules.

17. MIGRATION / TRANSFER OF CANDIDATES:

Under no circumstances, Migration/transfer of student undergoing any Post Graduate degree course shall be permitted by the University/Authority

18. TRAINING PROGRAM:

The training given with due care to the Post Graduate students in the recognised institutions for the award of various Post Graduate medical degrees / super speciality degrees shall determine the expertise of the specialist and / or medical teachers produced as a result of the educational program during the period of stay in the institution.

The Post Graduate students of the institutions which are located in various States / Union Territories shall be paid remuneration at par with the remuneration being paid to the Post Graduate students of State Government medical institutions / Central Government Medical

Institutions, in the State/Union Territory in which the institution is located. Similar procedure shall be followed in the matter of grant of leave to Post Graduate students.

- (a) Every institution undertaking Post Graduate training programme shall set up an Academic cell or a curriculum committee, under the chairmanship of a senior faculty member, which shall work out the details of the training programme in each speciality in consultation with other department faculty staff and also coordinate and monitor the implementation of these training Programmes.
- (b) The training programmes shall be updated as and when required. The structured training programme shall be written up and strictly followed, to enable the examiners to determine the training undergone by the candidates and the Medical Council of India inspectors to assess the same at the time of inspection.

During the training for PG Degree Courses to be awarded in clinical disciplines, there shall be proper training in basic medical sciences related to the disciplines concerned; during the training for the degree to be awarded in basic medical sciences, there shall be training in applied aspects of the subject; and there shall be training in allied subjects related to the disciplines concerned. In all Post Graduate training programmes, both clinical and basic medical sciences, emphasis is to be laid on preventive and social aspects and emergency care facilities for autopsies, biopsies, cytopsies, endoscopic and imaging etc. also be made available for training purposes. The Post Graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

Training in Medical Audit, Management, Health Economics, Health Information System, basics of statistics, exposure to human behaviour studies, knowledge of pharmaco – economics and introduction to non- linear mathematics shall be imparted to the Post Graduate students.

Implementation of the training programmes for the award of various Post Graduate Degree course shall include the following:

Basic Medical Sciences

- (i) Lectures, Seminars, Journal Clubs, Group Discussions, Participation in laboratory and experimental work, and involvement in research studies in the concerned speciality and exposure to the applied aspects of the subject relevant to clinical specialities.

Clinical disciplines

- (i) In service training, with the students being given graded responsibility in the management and treatment of patients entrusted to their care; participation in Seminars, Journal clubs, Group Discussions, Clinical Meetings, Grand rounds, and Clinico - Pathological Conferences; practical training in Diagnosis and medical and Surgical treatment; training in the Basic Medical Sciences, as well as in allied clinical specialities.

The training program shall be on the same pattern as for M.D. / M.S. in clinical disciplines; practical training including advanced Diagnostic, Therapeutic and Laboratory techniques, relevant to the subject of specialization.

The Academic Council in its XV meeting held on 08.05.2013 resolved to approve the following Curriculum Committee's recommendations.

- ❖ The members of Post Graduate Curriculum committee recommended that M.D/M.S. specialty Post Graduates can be posted to other department, so that it may give the Post Graduate an integrated approach.

MD PG Speciality	Departments to which they may be posted
Anaesthesia	Medicine, Obsterics and Gynaec
Dermatology	Medicine, Pulmonology
Pulmonology	Medicine, Cardiology, Cardio thoracic surgery
Obsterics and Gynaec	Medicine, Neonatology, Oncology
Orthopaedics	General Surgery
ENT	General Surgery
Ophthalmology	General Surgery, Medicine

19.MAINTENANCE OF LOG BOOK

- a) Every Post Graduate student shall maintain a record (Log) book containing skills, the candidate has acquired during the training period certified by the various heads of department where the candidate has undergone training including outside the institution.
- b) The students shall maintain a Record Book (Log Book) of the work carried out by them & training program undergone during the period of training including details of procedures carried out independently or assisted by the candidate. The log book will be checked by the faculty members imparting the training.
- c) At the end of the course, the candidate should summarise the contents and get the record (Log) book certified by the Head of the Department.
- d) The record (Log) book should be submitted at the time of practical examination for the scrutiny of the Board of Examiners.
- e) It would be the constant endeavour of the faculty to develop desirable attitudes in the PG trainees during the course by personal examples, interaction and group discussion. Constant watch will be maintained during their work in the wards to ensure that this objective is being met. Although there will be no formal evaluation of attitude, some aspects of this domain would be covered during the formative

evaluation as noted below for continued internal assessment. Formative evaluation will be carried out over following activities of the P.G. resident.

- i)Ward work
- ii)Case presentation
- iii)P.G.Lecture
- iv)Journal club
- v)General assessment of affective function attitude by medical & paramedical staff;
- vi)Internal Assessment

Candidates can appear for theory examination only after being certified on the basis of Internal assessment.

20.THESIS / DISSERTATION AND EVALUATION

- a) All Candidates admitted to undergo Post Graduate Degree course shall be assigned a topic for dissertation / thesis by the Head of the concerned unit and the title of the topic assigned to the candidates be intimated to the Controller of Examination of the University by the Head of the Department through the Head of the Institution before end of the First year.
- b) The dissertation / thesis shall be a bound volume of minimum 50 pages and not exceeding 75 pages of typed matter (double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.
- c) Four copies of dissertation shall be submitted six months prior to the commencement of the examination on the prescribed date to the controller of examination of the University.
- d) Two copies are to be submitted as an electronic version of the entire dissertation in a standard C.D. format mentioning the details and technicalities used in the C.D. format.
- e) The concerned Professors / Readers are to supervise and to see that the dissertation is done properly utilising the clinical materials of their own department / institution. The students must learn the design and interpretation of research studies, responsible use of informed consent and research methodology and interpretation of data and statistical analysis. They should seek the help of qualified staff members in the conduct of research. They must learn to use library and the computer-based research. This training will help them to develop skills in planning, designing and conduct of research studies.
- f) All candidates on admission will be allotted one of the department faculties who have fulfilled the requirement to be guides for purposes of guiding Dissertation/thesis. The topic for dissertation shall be finalized and discussed in the departmental faculty meeting and allotted to the individual candidates before the completion of 3 months

after admission. The purpose of dissertation is to develop in the candidate the ability to perform an independent study keeping the principles and research methodology in mind. The candidate will therefore work on the prospective problem either within the department or in collaboration with other departments. There will be continuous monitoring of the dissertation work by the guides and co-guide and by the other department staff throughout the course. The candidate will present the progress of the dissertation to the faculty on the completion of 1 ½ years for monitoring and feedback. The completed dissertation should be submitted not later than 6 months before final examination.

- g) The theory examinations shall be held sufficiently earlier than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical/Practical and Oral examination.
- h) The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical. A candidate shall be allowed to appear for Theory and Practical/Clinical examination only after the acceptance of thesis by the examiners. The thesis shall be evaluated under the following heading:
 - 1) Approved
 - 2) Not approved

In all cases the approval shall be given before 3 months of the date of appearing for the examination and this will be essential before the candidate is allowed to appear for the written examination.

21. SCHEDULE OF EXAMINATIONS:

The examination for M.D./ MS, shall be held at the end of 3rd academic year. An academic term shall mean six month's training period."

22. *SCHEME OF EXAMINATIONS:

Post Graduate Examinations shall consist of Dissertation/Thesis, Written Paper (Theory), Practical/Clinical and Viva voce.

The examinations shall be organised on the basis of " Marking system" to evaluate and to certify candidate's level of knowledge, skill and competence at the end of the training.

- a. Dissertation/Thesis:** Every candidate shall carry out and submit a Dissertation/Thesis as explained and approval of Dissertation/Thesis shall be a precondition for a candidate to appear for the final year examination.
- b.** A postgraduate student of a postgraduate degree course would be 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.

- c. Theory:** A Written Examination shall consist of four theory papers each of three hours duration. Each paper carries 100 marks (Total 400 marks). Out of these one shall be of Basic Medical Sciences and one shall be of Recent advances. The theory examinations shall be held well in advance than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the commencement of the Clinical/Practical and Oral examination.
- d. Clinical Examination:** 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.
- e. Oral Examination:** The Oral examination 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 specialty, which form a part of the examination.

THEORY	
No. of Theory Papers	4
Marks for each Theory Paper	*100
Total marks for Theory Paper	400
Passing Minimum for Theory	200/400
Total Marks for CLINICAL	300
Passing Minimum for Clinical	150/300
Viva voce	100
Passing minimum for Clinical including Viva voce	200/400

(i) if any candidate fails even under one head, he/she has to re-appear for entire examination.

(ii) Theory paper consist of 2 essay questions of 25 marks each (2 X 25 = 50) & 5 short notes of 10 marks each (5 X 10 = 50). Total =100 marks each.

Sl.No.22 (ii) Amended vide XVIII meeting of Academic Council dated 15.04.2014 and to be replaced as detailed below:

Resolved to approve 2 Essay Questions (2 x 20 marks) and 10 short notes (10 x 6 marks) for all post graduate medical / broad and higher speciality courses which will take effect for the students appearing for first time examination from March 2015.

Sl.No.22(ii) Amended in XX Academic Council dated 25.03.2015.

Resolved to approve 2 essays (2 x 20 marks) and 6 short notes (6 x 10 marks) for theory paper in all M. D/ M.S. courses by the Academic Council in its XX meeting held on 25.03.2015.

***Resolved to approve that an examinee should obtain minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers in P.G. degree examination to be cleared as passed which will be implemented prospectively. (Academic Council in its XX meeting held on 25.03.2015).**

23. EXAMINERS:

All the Post Graduate Examiners shall be recognized Post Graduate Teachers holding recognized post graduate qualification in the subject concerned. For all Post Graduate Examinations, the Minimum number of examiners shall be Four, out of which at least two (50%) shall be external examiners who shall be invited from other recognized universities from outside the state / outside university. The remaining two will be internal examiners.

The qualification and teaching experience for appointment of examiner shall be as detailed below and by the guidelines of Medical Council of India issued from time to time.

No person shall be appointed as an internal examiner in any subject unless he/she has three years' experience as recognized PG teacher in the concerned subject. For external examiners, he/she should have minimum six years of experience as recognized PG teacher in the concerned subject'. "An examiner shall ordinarily be appointed for not more than two consecutive terms"

- i. Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is intimated for the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

24. MAXIMUM NUMBER OF CANDIDATES:

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. Clinical Courses.

25. *NUMBER OF EXAMINATIONS:

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations. The examination shall be conducted in March and September.

***SI. No.25 Amended in XXI meeting of Academic Council dated 22.07.2015.
Resolved to approve the commencement of M.D. /M.S. University examination in April
(for Regular Batch) and October (for Supplementary Batch).**

26. REVALUATION OF ANSWER PAPERS:

There shall be no revaluation of answer papers. However, re-totaling is allowed in the failed subjects with the payment of required fee fixed by the University within 15 days from the date of receipt of statement of marks.

SYLLABUS FOR POST GRADUATE M.S. DEGREE COURSE IN OBSTETRICS & GYNAECOLOGY

GENERAL OBJECTIVES OF POST-GRADUATE TRAINING EXPECTED FROM STUDENTS AT THE END OF POST GRADUATE TRAINING

At the end of the postgraduate training in Obstetrics & Gynecology the postgraduate student shall be able to:

1. Practice obstetrics & gynecology ethically and in step with the principles of primary health care.
2. Demonstrate sufficient understanding of the basic sciences relevant to obstetrics & gynecology.
3. 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.
4. Diagnose and manage majority of the conditions in obstetrics & gynecology on the basis of clinical assessment, and appropriately selected and conducted investigations.
5. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to obstetrics & gynecology.
6. Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
7. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
8. Play the assigned role in the implementation of national health program, effectively and responsibly.
9. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in t he clinic /hospital or the field situation.
10. Develop skills as a self-directed learner, recognize continuing education needs, select and use appropriate learning resources.
11. Demonstrate competence in basic concepts of research methodology and epidemiology and be able to critically analyze relevant published research literature.
12. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
13. Function as an effective leader of a health team engaged in health care, research or training.

DEPARTMENTAL OBJECTIVES

A Postgraduate resident should be able to achieve objectives in the following domains:

A. COGNITIVE DOMAIN

1. Learn the basics of the subjects of Obstetrics and Gynecology, covering all conditions likely to be met in obstetric practice in our country.
 - (a) Normal & abnormal development, structure and function of (female & male) urogenital system and female breast.
 - (b) Applied anatomy of genitor- urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal)
 - (c) Physiology of Spermatogenesis
 - (d) Endocrinology related to male and female reproduction
 - (e) Anatomy & Physiology of urinary & lower GI (Rectum / anal canal), tract
 - (f) Development, structure & function of placenta, umbilical cord & amniotic fluid.
 - (g) Anatomical & physiological changes in female genital tract during pregnancy.
 - (h) Anatomy of fetus, fetal growth & development, fetal physiology and fetal circulation.
 - (i) Physiological & neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.
 - (j) Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal, hepatic and other systems.
 - (k) Bio physical and biochemical changes in uterus and cervix during pregnancy & labour.
 - (l) Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion (hepatic) metabolism transfer of the drugs cross the placenta, effect of the drugs (used) on labour, on fetus, their excretion through breast milk.
 - (m) Mechanism of action, excretion, metabolism of identified drugs used in Obstetrics & Gynecology.
 - (n) Role of hormones in Obstetrics & Gynaecology.
 - (o) Markers in Obstetrics & Gynaecology – Non neoplastic and Neoplastic Diseases.
 - (p) Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genitalia in healthy and diseased conditions.
 - (q) Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus.
 - (r) Normal and abnormal microbiology of genital tract – bacterial, viral & parasitical infections responsible for maternal, fetal and gynaecological disorders.
 - (s) Humoral and cellular immunology in Obstetrics & Gynaecology
 - (t) Gametogenesis, fertilization, implantation and early development of embryo.
 - (u) Normal pregnancy, physiological changes during pregnancy, labour and puerperium.

- (v) Immunology of pregnancy
- (w) Lactation

2. Provide effective prenatal care depending on the clinical condition of the mother, including nutrition, immunization and risk assessment.
3. Learn in greater detail about common problems like hypertension complicating pregnancy, intrauterine growth restriction, cephalo pelvic disproportion, obstructed labour and puerperal sepsis.
4. Appreciate the indications and methods of induction of labour.
5. Acquire thorough knowledge of gynaecologic conditions of public health importance such as cancer, cervix and other gynaecologic diseases likely to affect pregnancy.
6. Gain knowledge of other branches of medicine which are relevant to Obstetrics and Gynaecology with special stress on Diabetes mellitus. Hypertension, Cardiac Disease, Anaemia, Lower urinary tract disorders, HIV and Medical and surgical causes of acute abdomen.
7. Aware of medico-legal aspects of practice of Obstetrics and Gynaecology especially as regards rape and child abuse.
8. Able to diagnose and manage normal pregnancy, labour and puerperium and recognize any departure from normal in the above.
9. Able to competently manage cases of abortion, spontaneous and induced including ectopic gestation and gestational trophoblastic diseases.
10. Diagnose and manage preterm labour and assess the fetal well being, maturity and birth weight and to use that information in deciding the obstetric management.
11. Develop decision making skills by utilizing the clinical and laboratory data.
12. Able to diagnose and manage acute abdomen, haemorrhage in Obstetrics & Gynaecology and other emergencies i.e. eclampsia.
13. Able to medically treat common gynaecologic diseases specially using
 - (i) Antibiotics
 - (ii) Hormone therapy including contraception
 - (iii) Ovulation inducing agents
 - (iv) Anti-neoplastic drugs
14. Understand the need for common obstetric operative interventions i.e. episiotomy, forceps, ventouse, caesarean section, dilatation and evacuation etc.
15. Understand the importance of population control, contraception and different methods of contraception
16. Understand the physiology of menstruation and manage common menstrual abnormalities.
17. Identify common adolescent and paediatric gynaecological problems and their management.
18. Learn common causes of infertility and their management and assisted reproductive techniques.

19. Acquire knowledge about common gynaecological problems like leucorrhoea, sexually transmitted infections & HIV, displacements, fibroid, endometriosis etc.
20. Learn about screening and diagnosis of gynaecological malignancies including that of breast.
21. Acquaint oneself with common gynaecological operative procedures.
22. Learn the proper method of handling data and presenting statistics in a scientific and orderly fashion in seminars, symposia and papers.
23. Utilize journals and reference works effectively.

B. AFFECTIVE DOMAIN

1. Appreciate the fact that women and children are especially a vulnerable group as regards health problems.
2. Appreciate particularly the problem of patients of advanced and terminal disease and to develop a sympathetic attitude to them and their relatives.
3. Understand the psychological aspects of gynecologic diseases in general and infertility and unwanted pregnancy in particular.
4. Develop the ability to view the patient's condition in a wider social perspective and to adjust therapy to suit her social and financial reality.
5. Understand the importance of good medical care in preventing most of the morbidity and mortality in obstetrics and gynecology.
6. Develop skills to communicate with patients and their relatives and to elicit a thorough history and explain regarding investigations and management.
7. Understand that obstetrics and gynecology form a hotbed for ethical issues and follow necessary precautions needed for an ethical practice.

C. PSYCHOMOTOR DOMAIN

1. Able to **select** cases for the following obstetric procedures and able to perform them independently and confidently:
 - i) Lower segment caesarean section including cases of obstructed labour and mal presentations.
 - ii) Outlet and low forceps delivery
 - iii) Vacuum extraction
 - iv) Assisted Breech Delivery
 - v) External cephalic/internal podalic version.
 - vi) Manual removal of placenta and exploration of uterine cavity
 - vii) Management of atonic and traumatic Post-Partum Haemorrhage
2. Able to **perform** safe and effective Medical termination of Pregnancy upto 20 weeks of gestation as per the MTP act using the methods of
 - i) Suction Evacuation / MVA
 - ii) Dilation and Evacuation
 - iii) Extra amniotic instillations and other newer methods like medical abortion

3. Able to **perform** the following gynecological surgical procedures:
 - I) D & C / Fractional curettage, Menstrual Regulation
 - II) Polypectomy
 - III) Minilap tubectomy
 - IV) Vaginal Hysterectomy with pelvic floor repair
 - V) Abdominal Hysterectomy for 'Straight-forward' cases
 - VI) Salpingectomy for ectopic pregnancy; Salpingo-ovariotomy
 - VII) Amputation of Cx/Manchester repair / Conisation

4. Able to competently **assist** in the following:
 - i) Gynaecological Oncology surgery
 - ii) Gynaecological urological surgery
 - iii) Tubal microsurgery
 - iv) Caesarean Hysterectomy
 - v) Hysterectomy in 'difficult cases'
 - vi) Minilap tubectomy, laparoscopic sterilization
 - vii) Diagnostic Laparoscopy
 - viii) Colpocentesis/colpotomy, laparotomy for septic abortion
 - ix) Cervical cerclage

5. Able to **manage** the post-operative and intra-operative complications

6. Able to **assist/perform** the following investigations:
 - i) Obstetric Ultrasonography for
 - Pregnancy diagnosis
 - Pregnancy dating
 - Early pregnancy bleeding
 - Antepartum Haemorrhage
 - Biophysical profile
 - Fetal anomalies
 - ii) Gynaecological USG for adnexal mass, uterine pathology and follicular monitoring
 - iii) Hysterosalpingography/sonohysterosalpingography
 - iv) Pap smear/ Colposcopy
 - v) Cystoscopy

7. Able to resuscitate an asphyxiated newborn by emergency measures and recognize signs requiring referral of a baby for specialized care.

4. TEACHING PROGRAMME

Daily

OP days: 8.30 am. – 12 Noon case discussion and disposal of Antenatal and Gynaec patients in the respective units.

Non-OP days: Ward rounds and bed side discussion – in the respective units.

OP days 1.30 p.m. – 3 p.m. ward rounds in the respective units and detailed examination and work up of the admitted cases

Weekly

Grand rounds – every week on a convenient day by the Professors & HOD

Clinical discussion once in a week – professors
Lecture classes once in a week – Assistant Professors
Symposium / Seminar – Once in two weeks

Monthly

Mortality & Morbidity Audit (Maternal & Perinatal)
Journal club
CME programmes
Tumour board
Any other innovative programs

5. SYLLABUS CONTENTS

OBSTETRICS

Must Know

1. Obstetrics – Aims and Vital Statistics
2. Embryology – Applied – Fertilisation, Implantation and fetal development
3. Morphological and functioning development of fetus
4. Maternal adaptation to pregnancy
5. Management of normal pregnancy
 - i) Prenatal care
 - ii) Techniques to evaluate fetal growth and health
 - iii) Conduct of normal labour and delivery
 - iv) Labour Analgesia and Anaesthesia
6. Management of labour
 - i) The normal pelvis
 - ii) Attitude, Lie, Presentation and position of the fetus
 - iii) Parturition: Biomolecular and Physiologic processes
 - iv) Mechanisms of Normal labour
 - v) The Newborn Infant
 - vi) The Puerperium
7. Complications of pregnancy
 - i) Abortion, gestational trophoblastic diseases
 - ii) Ectopic Pregnancy
 - iii) Diseases and Abnormalities of the placenta and fetal membranes.
 - iv) Congenital malformations and inherited disorders
 - v) Diseases, Infections and Injuries of the fetus and newborn infant
 - vi) Multifoetal Pregnancy
 - vii) Hypertensive Disorders in Pregnancy including eclampsia
 - viii) Obstetrical Haemorrhage
 - ix) Abnormalities of the Reproductive Tract
 - x) Preterm and post term pregnancy and inappropriate foetal growth
8. Abnormal labour
 - i) Dystocia due to abnormalities of the expulsive forces and precipitate labour
 - ii) Dystocia due to abnormalities in presentation, position and development of the fetus.

- iii) Dystocia due to pelvic contraction
 - iv) Dystocia due to soft issue abnormalities of the Reproductive Tract
 - v) Techniques for Breech Delivery and occipito posterior
 - vi) Injuries to the Birth Canal – Perineal tears, cervical /vaginal lacerations, rupture uterus
 - vii) Abnormalities of the third stage of labour
9. Operative Obstetrics
 - i) Forceps / vacuum delivery and related techniques
 - ii) Caesarean Section and Caesarean Hysterectomy
 - iii) Destructive operations
 10. Abnormalities of the Puerperium
 11. Medical, surgical illness complicating pregnancy
 12. Family welfare including Post-Partum Program
 13. Other National program applicable to obstetrics and gynaecology
 14. Drugs in pregnancy
 15. Current concepts in the management of preterm labour
 16. Conservative management of Ectopic gestation
 17. Ante partum monitoring of fetus at risk
 18. Chromosomal abnormalities in the fetus and genetic counseling
 19. Prenatal diagnosis and intrauterine therapy
 20. Immunology of pregnancy and other obstetrics complications
 21. Imaging in obstetrics
 22. Medico legal aspects pertaining to obstetrics

GYNAECOLOGY

Must know

1. Anatomy and embryology of female reproductive tract
2. Ovarian function and physiology of menstruation
3. Disorders of breast
4. Mal formations and mal development to female genital tract
5. Sex determination, asexuality and intersexuality
6. Trophoblastic tumours
7. Injuries to female urogenital tract
8. Genital prolapse
9. Other displacements of the uterus and pelvic organs
10. Torsion of the pelvic organs
11. Infections
12. Epithelial abnormalities of the genital tract
13. Endometriosis and allied states
14. Tumours of the vulva
15. Tumours of the vagina
16. Tumours of the cervix uteri
17. Tumours of the corpus uteri

18. Tumours of the fallopian tube
19. Tumours of the pelvic ligaments
20. Tumours of the ovary
21. Genital cancer screening and prevention
22. Amenorrhoea, Scanty and infrequent menstruation
23. Abnormal uterine bleeding, DUB, Postmenopausal bleeding
24. Dysmenorrhoea
25. Other menstrual phenomena
26. Vaginal discharge, sexually transmitted infections
27. Pruritus vulvae
28. Low Backache
29. Problems of sex and marriage
30. Infertility and sub fertility
31. Contraception
32. Sterilization, termination of pregnancy
33. Urinary problems in gynaecology
34. Sex hormone therapy
35. Physiotherapy in Gynaecology
36. Preoperative and post-operative management; post-operative complications
37. Hysterectomy and its aftermath
38. Infertility and Assisted reproduction techniques
39. Advances in the diagnosis and management of urinary incontinence
40. Steroid hormone receptors in gynaecological cancers
41. Role of GnRH analogues in Gynaecology
42. New approaches to male and female contraception
43. Endometrial ablation and other conservative surgeries in gynaecology
44. Laparoscopic surgery
45. Radiotherapy and chemotherapy in gynaecology cancer
46. Immunology and Immunotherapy of gynaecological cancers
47. Hormone Replacement Therapy
48. Imaging Techniques in gynecology
49. Medico legal aspects pertaining to gynaecology
50. Pelvic floor dysfunction and related surgeries

6. POSTING

1st year

- | | | |
|------|--------------------------------------|----------------|
| i. | Labour Ward | : 3 Months |
| ii. | AN/PN ward | : 3 Months |
| iii. | GYN-Preop/Postop wards | : 3 Months |
| iv. | Medicine | : 1 Month |
| v. | Surgery & Urogynaecology/
Urology | : 15 + 15 days |
| vi. | Family welfare | : 15 days |
| vii. | Infertility & Ultrasound | : 15 days |

2nd Year

- i.** Labour Ward : 3 Months
- ii.** AN/PN ward : 3 Months
- iii.** GYN-Preop/Postop wards : 3 Months
- iv.** Anaesthesia : 15 days
- v.** Neonatology : 1 Month
- vi.** Infertility & Ultrasound : 15 days
- vii.** Colposcopy & Pathology : 1 Month

3rd Year

- i.** Labour Ward : 3 Months
- ii.** AN/PN ward : 3 Months
- iii.** GYN-Preop/Postop wards : 3 Months
- iv.** Anaesthesia : 15 days
- v.** Family welfare : 15 days
- vi.** Radiotherapy : 7 days
- vii.** Oncology : 7 days
- viii.** Endocrinology : 7 days
- ix.** Genetics : 7 days
- x.** Social Obstetrics : 1 Month
- xi.**

Amended in the XXIX Meeting of Academic Council held on 27.02.2018

6. POSTINGS

First year	i) Labour Ward	: 3 months
	ii) AN/PN ward	: 3 months
	iii) GYN/Preop/Postop wards	: 3 months
	iv) Medicine	: 15 days
	v) Surgery	: 15 days
	vi) Family welfare	: 15 days
	vii) Social Obstetrics	: 15 days
	viii) Infertility	: 15 days
	ix) Genetics	: 7 days
	(xi) Endocrinology	: 7 days
Second Year	i) Labour ward	: 3 months
	ii) AN/PN wad	: 3 months
	iii) GYN-Pre-op/Postop wards	: 3 months
	iv) Anaesthesia	: 15 days
	v) Neonatology	: 15 days
	v) Radiology/ ultrasound	: 15 days
	vii) Colposcopy & Pathology	: 15 days
	viii) Urology	: 15 days
	ix) Oncology & Radiotherapy	: 15 days

Third Year:	i) Labour ward	: 3 months
	ii) AN/PN ward	: 3 months
	iii) GYN-Preop/Postop wards	: 3 months
	iv) Intensive coaching	: 3 months

These shall be rotated as per department needs / objectives and can include specific postings from the unit posted. All postgraduates have to compulsory stay in the hostel and should be available at all times for call from any ward.

Theory

There shall be four theory papers of 3 hours each for a total of **400 marks.**

- i) Paper 1: Basic Sciences as regards OG
- ii) Paper 2: Obstetrics
- iii) Paper 3: Gynaecology
- iv) Paper 4: Recent advances in OG

Clinicals :

300 marks

- a) Obstetrics : 150 Marks
One Long case : 100 Marks
One Short case : 50 Marks
(Post natal case can also be given)
- b) Gynaecology : 150 marks
One Long Case : 100 marks
One Short Case: 50 marks

Orals:

100 Marks

- (i) Dummy & Pelvis
- (ii) Contraception
- (iii) X-ray/USG
- (iv) Specimens / Instruments
- (v) FHR tracings or partogram / gravidogram tracing

A. BOOKS

1. Williams Obstetrics – Cunningham et al 22nd Edition – McGraw Hill 2005
2. Practical Guide to High- risk pregnancy and delivery Fernando Arias – 3rd Edition S. Daftary, A.G. Bhide – Elsevier 2008
3. Turnbull's Obstetrics by Chamberlain 4th Edn. – Churchill Livingstone Harcourt Publishers 2011.
4. Mudaliar & Menon's Clinical Obs – S. Gopalan & Orient Longman 2005
5. Manual of Obstetrics – Shirish Daftary & Sudip Chakravarti – 2nd Edition – Elsevier 2005
6. Medical disorders during pregnancy -3rd Edition – William Barne & Marshall Lindheim – Mosby 2000
7. Obstetrics Normal & Problem pregnancies – 5th Edition – Gabbe – Elsevier 2007

8. High risk pregnancy – Management Options – 4th Edition – James, Steer, Weiner, Gonik – Elsevier – 2011
9. Medical Disorders in Obstetric Practice – 4th Edition – Michael de Swiet – Blackwell 2002
10. Practical Obstetric Problems (Ian Donald) 6th Edition – BI Publication, Delhi.
11. Munro Kerr's Operative Obstetrics – 11th Edition – Balliere Tindall U.K. – AITBS Delhi 2007
12. Danforth's Obstetrics & Gynaecology – 10th Edition – 2008 Lippincott Williams & Wilkins 2003
13. Shaw's Text Book of Gynaecology – 13^h Edition – Elsevier 2004
14. Shaw's Text Book of Operative Gynaecology – 6th Edition – Elsevier 2004
15. Jeffcoate's principles of Gynaecology – International Edition – Arnold 2001
16. Te Linde's Operative Gynaecology – 10th Edition – Lippincott Williams & Wilkins 2008
17. Berek & Novak's Gynaecology – 14th Edition – Lippincott Williams & Wilkins – 2007
18. Clinical Gynaecologic Endocrinology and Infertility – 8th Edition Speroff & Fritz Lippincott 2010
19. Clinical Gynaecologic Oncology: Disaia JP, Creasman TM, 5th Edition the C.V. Mosby Company, 1989, 1997
20. Year Book of Obstetrics Gyn. & Women's Health – Lee P. Shulman – Elsevier & Subsequent Edn. 2007
21. Recent Advances in Obstetrics & Gynaecology, Bonner J: 23, 252 Harcourt Publishers and Subsequent Edition.
22. Progress in Obstetrics & Gynaecology, Studd 18, Elsevier 2008 and subsequent EDITION.
23. Obstetrics & Gynaecology for Postgraduates (Vol.I, II) – Orient Longman (Ratnam, S.S. Rao, BK Arulkumaran 2001
24. Clinical methods in Obst. & Gyn. – a problem-based approach – Asha O, Raghavan S, Habeebullah S – 2nd Edn. Orient Longman 2007
25. Atlas of Pelvic anatomy and gynaecological surgery 3rd edition Michael S. Baggish
26. Management of acute obstetric emergencies Baha M. Sibai
27. Gynaecology illustrated 6th Edition 2011
28. Netter's Obstetrics & Gynaecology 2nd Edition 2009 Roger P. Smith
29. Obstetrics illustrated 7th edition 2010
30. Clinical Gynecological Oncology 7th Edition 2007
31. Active management of labour O'Discroll 4th edn. 2004
32. Management of high-risk pregnancy Queenan 5th 2007
33. Latest editions of the above books recommended.

B. JOURNALS

1. Journal of Obst. & Gyn. India
2. British Journal of Obstetrics & Gynaecology
3. American Journal of Obstetrics & Gynaecology
4. International Journal of Obstetrics & Gynaecology
5. Obstetric & Gyn. Survey
6. Gynae Oncology

7. Obstetric & Gyn. Clinics of N. America
8. Clin Obst. & Gyn.
9. Contraception
10. Population Reports
11. Fertility & Sterility
12. Journal of Reproductive Immunology