



# **BLDE** **(DEEMED TO BE UNIVERSITY)**

## **SUPER SPECIALITY**

### **PG CURRICULUM** **2019-20**

### **M.Ch. Urology**

Published by

**BLDE**

**(DEEMED TO BE UNIVERSITY)**

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

**SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA**

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

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BLDE(DU)/REG/PG-Curr/2019-20/268

May 06, 2019

**NOTIFICATION**

Sub: Competency Based Medical Education (CBME) based Revision of Post Graduate Curriculum

- Ref: 1. Medical Council of India Regulation on Graduate Medical Education, 1997 and subsequent amendments of the same from time to time.  
2. Minutes of the 28<sup>th</sup> meeting Academic Council of the University held on April 26, 2019.  
3. Minutes of the 47<sup>th</sup> meeting Board of Management held on May 04, 2019.

The Board of Management of the University is pleased to approve the CBME based Revised Curriculum for Post Graduate Degree Course at in its 47<sup>th</sup> meeting held on May 04, 2019.

The Revised Curriculum shall be effective, from the Academic Session 2020-21 onwards, for Post Graduate Degree Course in the Constituent College of the University viz. Shri B. M. Patil Medical College, Hospital and Research Centre, Vijayapura.

REGISTRAR  
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BLDE (Deemed to be University)  
Vijayapura-586103, Karnataka.

To,

The Dean, Faculty of Medicine and Principal  
Shri B. M. Patil Medical College,  
Hospital and Research Centre,  
Vijayapura

Copy to:

- The Secretary, UGC, New Delhi
- The Secretary, MCI
- The Controller of Examinations
- The Vice Principal
- The Vice Principal (Academics)
- The Prof. & HODs Pre, Para and Clinical Departments
- The Co-ordinator, IQAC
- PS to the Hon'ble Chancellor
- PS to the Hon'ble Vice-Chancellor

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

**BLDE (DU)** : Phone: +918352-262770, Fax: +918352-263303 , Website: www.bldedu.ac.in, E-mail:office@bldedu.ac.in  
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## **Our Vision**

“To be a Leader and be recognized as an Institution striving for maintenance and enhancement of Quality Medical Education and Healthcare”

## **Our Mission**

- To be committed to promote sustainable development of higher education including Health science education, consistent with the statutory and regulatory requirements.
- Reflect the needs of changing technology and make use of the academic autonomy to identify the academic programs that are dynamic.
- Adopt global concepts in education in the healthcare sector.

**Section - I**

**Goals and General Objectives of Postgraduate  
Medical Education Program**

**Goal**

The goal of postgraduate medical education shall be to produce a competent specialist and / or a medical teacher as stated in the Post Graduate Medical Education Regulations 2000 and its amendments thereof [May2018]

- (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 advances and developments in the discipline concerned.
- (iv) Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology, and
- (v) 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:

- (i) Recognize the importance of the concerned specialty in the context of the health need of the community and the national priorities in the health sector.
- (ii) Practice the specialty concerned ethically and in step with the principles of primary health care.
- (iii) Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
- (iv) 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 promotive measures/strategies.
- (v) Diagnose and manage majority of the conditions in the specialty concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- (vi) Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
- (vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
- (viii) Demonstrate empathy and humane 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 programs, 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 educational needs, select and use appropriate learning resources.
- (xii) Demonstrate competence in basic concept of research methodology and epidemiology, and be able to critically analyse 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 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 program so that he or she can direct the efforts towards the attainment of these competencies.

### **Components of the PG Curriculum**

The major components of the PG curriculum shall be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in writing thesis/research articles
- Attitudes, including communication.
- Training in research methodology, medical ethics & medicolegal aspects
- Teaching skills to the undergraduates, juniors and support teams

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000. [amended upto May 2018]

### **Eligibility for Admission:**

1. Post graduate degree course:

The candidate seeking admission should have passed MBBS from a college recognized by Medical Council of India.

As per requisites of statutory bodies & as laid out in Post graduate regulations of MCI & its amendments thereof, the minimum percentage of marks obtained in the entrance test

conducted by competent authority shall be as per MCI regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and MCI amendments as applicable at the time of selection and admission process.

Candidates seeking admission to superspeciality [M.Ch]

The candidate seeking admission to superspeciality course should have passed MS/MD in concerned subjects (As per MCI regulations & its amendments thereof) or passed DNB in concerned broad specialities & should fulfill requirements of MCI regulations.

2. As per requisites of statutory bodies & as laid out in Post graduate regulations of MCI & its amendments thereof, the minimum percentage of marks obtained in the entrance test conducted by competent authority shall be as per MCI regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and MCI amendments as applicable at the time of selection and admission process.

### **The MCI norms to qualify for Admissions**

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognized by Medical Council of India or equivalent qualification and should have obtained permanent Registration from the Medical Council of India or any of the State/ Medical council or candidate should register the same within one month from the date of admission, failing which the admission of the candidate shall be cancelled. Provided that in the case of a foreign national, the MCI may on the payment of prescribed fee for the registration, grant temporary registration for the duration of post graduate training restricted to the medical college/ institute to which the applicant is admitted for the time being exclusively for post graduate studies; provided further, that temporary registration to such foreign national shall be subjected to the condition that such person is duly registered with appropriate registering authority in his /her country wherefrom he has obtained his basic medical qualification ,and is duly recognized by the corresponding Medical Council or concerned authority.

If the candidate fails to fulfill the relevant eligibility requirements as mentioned above he/she will not be considered eligible for admission for Medical Postgraduate Degree Courses even if he/she is placed in the merit list of statutory authority and BLDE (Deemed to be University).

### **Obtaining Eligibility Certificate by the University before making Admission**

Candidate shall not be admitted for any postgraduate degree course unless he/she has obtained and produced the eligibility certificate used by the University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

1. MBBS pass/degree certificate issued by the University.
2. Marks cards of all the university examinations passed MBBS course.
3. Attempt Certificate issued by the Principal
4. Certificate regarding the recognition of the Medical College by the Medical Council of India.
5. Completion of internship certificate.
6. In case internship was done in a non-teaching hospital, a certificate from the Medical Council of India that the hospital has been recognized for internship.
7. Registration by any State Medical council and
8. Proof of SC/ST or OBC or physically handicapped status, as the case may be.

In addition to the above mentioned documents, candidate applying for admission to superspeciality courses has to produce degree/pass certificate of MD/MS/DNB degree with prescribed fee.

### **Intake of Students**

The intake of students to each course shall be in accordance with the ordinance in this behalf.

### **Course Duration**

- a. M.D. / M.S. Degree Courses:

The course of study shall be for a period of 3 completed years including examinations. (MCI PG REG 2000 10:1)

- b. D.M/M Ch Degree Courses; (MCI PG REG 2000, 10:2)

The duration of these courses shall be for a period of 3 completed years including examinations.

### **Training Method**

The postgraduate training for degree shall be of residency pattern. The post graduate shall be trained 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 should be required to participate in the teaching and training program 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. Exposure to applied aspects of their learning should be addressed. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

Training of superspeciality [M.Ch] should follow similar pattern. In addition, they have to be trained in advanced techniques of diagnosis and treatment pertaining to their specialty, participate actively in surgical operations as well.

### **Attendance, Progress and Conduct**

A candidate pursuing degree course should work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home 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. This shall include assignments, assessment of full time responsibilities and participation in all facets of educational process. 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. Leave benefits shall be as per university rules.

A post graduate student pursuing degree course in broad specialties, MD, MS and superspeciality courses DM, M.Ch would be required to present one poster presentation, read one paper in 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/her to be eligible to appear at the university degree examinations. (MCI, PG 2000, 13.9)

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

### **Monitoring Progress of Studies**

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



The learning outcomes to be assessed include:

- Personal Attitudes,
- Acquisition of Knowledge,
- Clinical and operative skills, skills of performing necessary tests/experiments
- Teaching skills.
- Documentation skills

### **Personal Attitudes:**

The essential items are:

- Caring attitude, empathy
- Initiative in work and accepting responsibilities
- Organizational ability
- Potential to cope with stressful situations and undertake graded responsibility
- Trustworthiness 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. Any appropriate methods can be used to assess these. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers. However every attempt should be made to minimize subjectivity.

### **Acquisition of Knowledge:**

Lectures: Lectures/theory classes as necessary may be conducted. It is preferable to have one class per week if possible. They may, be employed for teaching certain topics. Lectures may be didactic or integrated.

The following selected common topics for post graduate students of all specialties to be covered are suggested here. These topics can be addressed in general with appropriate teaching-learning methods centrally or at departmental level.

- History of medicine with special reference to ancient Indian medicine
- Basics of health economics and health insurance
- Medical sociology, Doctor –Patient relationship, role of family in disease
- Professionalism & Medical code of Conduct and Medical Ethics
- Research Methods, Bio-statistics
- Use of library, literature search ,use of various software and databases

- Responsible conduct of research
- How to write an article, publication ethics and Plagiarism
- Journal review and evidence based medicine
- Use of computers & Appropriate use of AV aids
- Rational drug therapy
- National Health and Disease Control Programmes
- Roles of specialist in system based practice
- Communication skills.
- Bio medical waste management
- Patient safety, medical errors and health hazards
- Patient's rights for health information and patient charter.

These topics may preferably taken up in the first few weeks of the 1<sup>st</sup> year commonly for all new postgraduates and later in 2<sup>nd</sup> year or 3<sup>rd</sup> year as required during their progression of the programme. The specialty wise topics can be planned and conducted at departmental level.

- a) Integrated teaching: These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, thyroid diseases etc. They should be planned well in advance and conducted.

#### **Journal Review Meeting (Journal club):**

The ability to do literature search, in depth study, presentation skills, use of audio – visual aids, understanding and applying evidence based medicine are to be focused and 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.

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

**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.

**Group discussions:** Group discussions are one of the means to train and assess the student's ability to analyse the given problem or situation, apply the knowledge and make appropriate decisions. This method can be adopted to train and assess the competency of students in analyzing and applying knowledge.

**Death review meetings/Mortality meetings:** Death review meetings is important method for reflective learning. A well conducted morbidity and mortality meetings bring about significant reduction in complications, improve patient care and hospital services. They also address system related issues. Monthly meetings should be conducted with active participation of faculty and students. Combined death review meetings may be required wherever necessary.

**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.

**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

**Attitude and Communication skills:**

Candidates should be trained in proper communication skills towards interaction and communication with patients, attendees and society in general. There should be appropriate training in obtaining proper written informed consent, discussion and documentation of the proceedings. Structured training in various areas like consent, briefing regarding progress and breaking bad news are essential in developing competencies.

Variety of teaching –learning methods like Role play, video based training, standardized patient scenarios, reflective learning and assisting the team leader in all these areas will improve the skills. Assessment can be done using OSCE simulated scenarios and narratives or any appropriate means. Training to work as team member, lead the team whenever situation demands is essential. Mock drills to train and assess the readiness are very helpful.

### **Work diary / Log Book:**

Every candidate shall maintain a Work Diary/Log Book 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, conducted by the candidate. A well written and validated Log Book reflects the competencies attained by the learner and points to the gap which needs address. This Log Book shall be scrutinized by concerned teachers periodically and certified, by the Head of Department and Head of the Institution, and presented during University Practical / Clinical examination.

### **Periodic tests:**

In case of degree courses of three years duration ( MD/MS, DM, M.Ch), the concerned 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, practical / clinical and viva voce. One of these practical/clinical tests should be conducted by OSPE (objective structured practical examination or OSCE (objective structured clinical examination) method. Records and marks obtained in such tests will be maintained by the Head of Department and sent to the University, when called for,

### **Assessment**

Assessment should be comprehensive & objective. It should address the stated competencies of the course. The assessment needs to be spread over the duration of the course.

FORMATIVE ASSESSMENT, ie., assessment during the training would include:

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.

### **General Principles**

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning: it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination.

Quarterly assessment during the Postgraduate training course should be based on following educational activities:

1. Journal based/recent advances learning
2. Patient based/Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and outreach Activities/CMEs

**Records:** Records and marks obtained in tests will be maintained by the Head of the Departments and will be made available to the University or MCI.

**Procedure for defaulter:**

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 himself or herself right.

**Dissertation:** Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognized 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 and techniques. It includes identification of a problem, formulation of 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 Registrar (Academic) of the 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 University. The synopsis shall be sent through the proper channel.

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

The dissertation shall be written under the following headings:

1. Introduction
2. Aims or Objectives of study
3. Review of Literature
4. Material and Methods
5. Results

6. Discussion
7. Conclusion
8. Summary
9. References
10. Tables
11. Annexure

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.

Adequate number of copies as per norms and a soft copy of dissertation thus prepared shall be submitted to the Controller of Examinations six months before final examination or before the dates notified by the University.

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

**Guide:**

The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per Medical Council of India Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998 and its amendments thereof. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as Lecturer or Assistant Professor gained after obtaining post graduate degree shall be recognized as post graduate teachers.

A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by this University / Medical Council of India. The co-guide shall be a recognized post graduate teacher of BLDE (Deemed to be University).

**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 University.

**Schedule of Examination:**

The examination for M.D. /M.S and DM/M.Ch courses shall be held at the end of three academic years. The university shall conduct two examinations in a year at an interval of four to six months between the two examinations. Not more than two examinations shall be conducted in an academic year.

## Scheme of Examination

### **M.D. /M.S. Degree**

M.D. / M.S. Degree examinations in any subject shall consist of dissertation, written papers (Theory), Practical/Clinical and Viva Voce.

### **Dissertation:**

Every candidate shall carryout work and submit a Dissertation as indicated above. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

### **Written Examination (Theory):**

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 1<sup>st</sup> paper in clinical subjects will be on applied aspects of basic medical sciences and 4<sup>th</sup> paper on Recent advances, which may be asked in any or all the papers. In basic medical subjects and para-clinical -subjects, questions on applied clinical aspects should also be asked.

### **Practical / Clinical Examination:**

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

In case of clinical examination, it should aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases minimum. However additional assessment methods can be adopted which will test the necessary competencies reasonably well.

The total marks for Practical / Clinical examination shall be 300.

### **Viva Voce:**

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 Marks for Pedagogy

### **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 pass & distinction:** Criteria for declaring as pass in University Examination: A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical/clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination and Viva Voce: vide MCI pg 2000 Reg no 14(4) (Ciii)

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree examination as the case may be.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

A candidate securing less than 50% of marks as described above 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 distinction:** A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

Distinction will not be awarded for candidates passing the examination in more than one attempt.

### **D.M/M.Ch Degree**

DM/M.Ch Degree examinations in any subject shall consist of written theory papers (theory), practical/clinical and Viva voce.

### **Written Examination (Theory):**

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 1<sup>st</sup> 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 should also be asked.

### **Practical / Clinical Examination:**

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

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

The total marks for Practical / clinical examination shall be 300.



**Viva Voce:**

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 Marks for Pedagogy

**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 passing and distinction:** Criteria for declaring as pass in University Examination: A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination vide: MCI pg 2000 Reg no 144-c (iii).

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree examination as the case may be.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

Declaration of distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

A candidate securing less than 50% of marks as described above 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 distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

Distinction will not be awarded for candidates passing the examination in more than one attempt.

**Number of candidates per day:** The maximum number of candidates for practical / clinical and viva-voce examination shall be as under:

- MD / MS Courses: Maximum of 8 per day
- DM/M.Ch                      Maximum of 3 per day

Additional annexure to be included in all curricula

Postgraduate Students Appraisal Form  
Pre/Para/Clinical Disciplines

Name of Department/Unit :  
Name of the PG Student :  
Period of Training : FROM..... TO.....

Sr. No	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
1	Journal based/recent advances learning				
2	Patient based /Laboratory or Skill based learning				
3	Self directed learning and teaching				
4	Departmental and interdepartmental learning activity				
5	External and Outreach Activities/CMEs				
6	Thesis/Research work				
7	Log Book Maintenance				

Publications Yes/No

Remarks\* .....  
.....  
.....  
.....

\*Remarks: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

SIGNATURE OF ASSESSEE

SIGNATURE OF GUIDE

SIGNATURE OF HOD

SIGNATURE OF UNIT CHIEF

## SECTION II

### M.Ch. (Urology)

#### POST DOCTORAL DEGREE COURSE

#### GOALS:

M.Ch. (UROLOGY) course is designed to train the candidates in the principles and practice of advanced urology, to equip them to function as faculty/consultants and researcher in urology.

#### OBJECTIVES:

The following objectives are laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The objectives may be considered under the sub headings.

1. Knowledge
2. Skills
3. Human values, ethical practice and communication abilities.

#### KNOWLEDGE:

1. To train doctors in the scientific aspects of the specialty of urology, with competence, care and Compassion thereby delivering the highest standard of urological care to the community.
2. To provide the candidate with the current, latest, scientific and evidence based knowledge.
3. To empower the trainee in academic and research aspects of urology, to empower the trainee to become an effective teacher and communicator in urology.

#### SKILLS:

1. To impart the skills to undertake independent clinical practice in the above areas of urology and to provide opportunities to the practice of these skills in a graded manner.
2. To include in the candidate an attitude of responsibility, accountability and caring, to empower the candidate with a good and sound foundation of ethical values in the practice of urology and to develop in the candidate the ability to effectively communicate with patients, peers, superiors and the community in the discharge of his/her clinical and research role.

#### 3. HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES:

- Adopt ethical principles in all aspects of his/her practice; professional honesty and integrity are to be fostered. Care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
- Develop communication skills, in particular the skill to explain various options available in management and to obtain a true informed consent from the patient.

- Apply high moral and ethical standard while carrying out human or animal research.
- Be humble and accept the limitations in these knowledge and skill and to ask for help from colleagues when needed.

**PREAMBLE:**

The objective of M.Ch (Urology) degree course is to produce highly competent medical manpower in Urology. The training ingredients should provide in-depth knowledge of the entire urology and relevant basic allied subjects. This should culminate in shaping of a shrewd clinician confident surgeon and a knowledgeable teacher insured to basic research methodology. Basic of an ideal training programme will be a powerful urology service complete in every sense.

**ELIGIBILITY:**

M.S. in (General Surgery) from any recognized University or its equivalent qualifications recognized by the Medical Council of India.

**COURSE CONTENTS:**

**Basic Sciences as applied to Urology**

- Surgical Anatomy of Genito-Urinary Tract and Retroperitoneum
- Normal Renal Physiology
- Renal Biochemistry – Acid base and fluid regulation
- Renal Endocrinology
- Physiology & Pharmacology of Renal Pelvis & Ureter
- Physiology of Urinary Bladder
- Genetic determinants of Urologic Diseases
- Pathophysiology of Urinary Tract Obstruction :Upper Urinary Tract, Lower Urinary Tract
- Embryology & Normal Development of the Genitourinary tract
- Embryology of Congenital Anomalies of the G.U. Tract : Vesico-Ureteric Reflux, Megs Ureter & Ureteral Re-implantation, Ectopic Ureter & Ureterocoele, Exstrophy of the Bladder, Epispadias & other Bladder Anomalies, Cloacal Malformations, Prune Belly Syndrome, Posterior Urethral Valves & other Urethral Anomalies, Hypospadias, Congenital Anomalies of Testes
- Renal Function in Foetus & Neonates
- Renal Dysplasia & Cystic disease of Kidney
- Disorders of Sexual Differentiation
- Normal and abnormal spermatogenesis
- Urologic Examination & Diagnostic Techniques – Imaging of the G.U. Tract : Conventional Radiography of Urogenital system and Retro-peritoneal area, Urologic Ultrasonography, Excretory & Retrograde Pyelography, Conventional Lower Urinary Tact Radiography, CT, MRI, Angiography and other Imaging modalities
- Radionuclide studies in Urology

- Pathologic Techniques in Urology: Urine Analysis, Urinary Cytology, Flow Cytometry Fine Needle Aspiration Cytology (FNAC), Needle Biopsy, Immunohistochemistry and other relevant Special Techniques.
- Urinary tract changes in Pregnancy and Puerperium
- Overview of Genital and Urinary Tract Pathogens

### **Infections & Inflammations of G.U. Tract**

- Host Defence Mechanism against Urinary Tract Infections
- Bacterial infections of the Urinary tract – Diagnosis & Management
- Urinary Tract infections in Pregnancy – Screening, Evaluation & Management
- Management of Acute & Chronic Pyelonephritis, Emphysematous Pyelonephritis
- Approach to Management of Urinary Tract Infection in Infants & Children
- Diagnosis & Management of Prostatitis & Related disorders
- Diagnosis & Management of Sexually transmitted diseases
- Diagnosis & Management of Cutaneous diseases of External Genitalia
- Diagnosis & Management of Parasitic diseases of G.U. Tract
- Diagnosis & Management of Fungal infections of Urinary Tract
- Diagnosis & Management of Genito-Urinary Tuberculosis
- Management of Fournier’s Gangrene and other Soft Tissue Infections
- Diagnosis and Management of Interstitial Cystitis & Related Syndromes
- Antimicrobial agents used in treatment of G.U. Tract infections
- Urologic manifestations of HIV infections, AIDS and related syndromes

### **Genito-Urinary Trauma**

- Diagnosis & Management in Blunt Renal Trauma
- Diagnosis & Management in Penetrating Renal Trauma
- Diagnosis & Management of Renovascular injuries
- Diagnosis & Management of Iatrogenic and Intraoperative Ureteral injuries
- Diagnosis & Management of Bladder injuries
- Diagnosis & Management of Urethral injuries
- Diagnosis & Management of Penile injuries
- Diagnosis & Management of Scrotal and Testicular trauma
- Diagnosis & Management of Retroperitoneal Haematoma

### **Adrenal Disorders**

- Evaluation and Management of Adrenal Cortical Disorders
- Evaluation and Management of Adrenal Medullary Disorders
- Evaluation and Management of Adrenal Carcinoma

### **Renal Failure & Renal Replacement Therapy**

- Aetiology of Acute and Chronic Renal Failure
- Management of Acute Renal Failure
- Management Chronic Renal Failure
- Complications of Renal Failure and their Management
- Principles of Dialysis therapy – Haemodialysis, Peritoneal Dialysis
- Immunological considerations in Renal Transplantation
- Live Donor evaluation for Renal Transplantation
- Cadaver Donor evaluation for Renal Transplantation

### **Urinary Calculus Disease**

- Etiopathogenesis of Urinary Tract Calculi : Theories of Urolithiasis, Endocrine factors in development of Urolithiasis, Role of Modulators, Types of composition of Urinary Calculi, Role of Stone Analysis and types of stone analysis
- Dietary and Medical Management of Calculus Disease
- Principles and Practice of Extracorporeal Shock Wave Lithotripsy (ESWL) : Evolution of ESWL, Types of Lithotriptors, Indications of ESWL, Post ESWL management, Complications of ESWL and follow up

### **Benign Prostatic Hyperplasia**

- Pathophysiology of Benign Prostatic Hyperplasia
- Clinical evaluation of Benign Prostatic Hyperplasia
- Medical Management of Benign Prostatic Hyperplasia
- Minimally Invasive Therapy in Benign Prostatic Hyperplasia
- LASERS

### **Urologic Oncology**

- Overview of Cancer Biology & Principles of Urologic Oncology
- Paediatric Urogenital tumours
- Benign & Malignant tumours of the G.U. Tract in Adults : Renal tumours, Upper tract Transitional Cell Tumours, Bladder tumours, Tumours of the Prostate, Tumours of the Seminal Vesicles, Tumours of the Urethra, Tumours of the Penis, Tumours of the Penile & Scrotal Skin, Testicular tumours, Extragonadal germ-cell tumours, Retroperitoneal tumours, Metastatic tumours of the G.U. Tract
- Radiotherapy in Genitourinary tumours
- Chemotherapy of Genitourinary tumours
- Gene therapy in Genitourinary tumours
- Other advanced therapeutic modalities in Genitourinary tumours

### **Foetal & Perinatal Urology**

- Prenatal & Postnatal Urologic diagnosis and Management
- Neonatal & Perinatal Emergencies – Diagnosis & Management

### **Paediatric Urology**

- Cryptorchidism and Ectopic Testes : Etiopathogenesis, Diagnosis and Imaging, Hormone therapy, Surgical Management
- Vesico-ureteric reflux : Primary and Secondary Vesico-ureteric reflux, Evaluation and Principles of Management of Primary Vesico-ureteric reflux, Urinary Tract Infections Role of Chemoprophylaxis, Renal and Bladder complications in Vesico-ureteric reflux
- Megaureter : Primary obstructive Megaureter – Diagnosis & Management, Principles of Ureteric Reimplantation
- Ectopic Ureter and Ureterocoele – Diagnosis & Management
- Exstrophy – Epispadias complex – Principles of Management
- Cloacal Malformations – Principles of Management
- Diagnosis & Management of Prune Belly Syndrome
- Posterior Urethral Valves & other Urethral Anomalies : Diagnosis, Complications, Principles of Management

### **Andrology**

- Normal Physiology of Male Reproduction
- Diagnosis Approach in Male Infertility
- Varicocele – Diagnosis & Management
- Endocrine & Medical Management of Male Infertility
- Surgical Management of Male infertility
- Overview of Assisted Reproduction Techniques
- Physiology & Pharmacology of Penile Erection and Pathophysiology of Erectile Dysfunction
- Diagnostic tests in Erectile Dysfunction
- Medical and other therapies in Erectile Dysfunction
- Peyronie's Disease
- Penile Prosthesis implantation – Types, indications and complications
- Phallic reconstruction following trauma.

### **Neuro Urology**

- Neurophysiology and Pharmacology of Micturition and Continence
- Pathophysiology of Neurovesical dysfunction : CNS Disorders, Spinal trauma, Spinal dysraphism, Pelvic surgery, Diabetes

- Urodynamics & its applications in Incontinence of Voiding dysfunction : Uroflowmetry, Cystometrogram, Urethral Pressure Profile & EMG, Videourodynamics, Ambulatory Urodynamics
- Medical Management of Urinary Incontinence
- Female Urinary Incontinence – Evaluation & Management: Urge Incontinence, Stress Incontinence, Mixed Incontinence
- Implantation of Artificial Urinary Sphincter in men and women
- Reconstruction of Dysfunctional Urinary Tract

### **Female Urology**

- Management of Urologic conditions in Pregnancy
- Management of Urogenital Fistulae in women
- Gynaecological tumours & the Female Urinary Tract
- Female Lower Urinary Tract Reconstruction
- Urinary incontinence in females
- Treatment of Stress Incontinence
- Surgery for Incontinence
- Stress Incontinence and Cystocele
- Posterior Vaginal Wall Prolapse
- Enterocoele
- Uterine Prolapse
- Urethral Diverticulum
- Vesico Vaginal Fistula
- Injuries (iatrogenic) during Gynaecologic procedures and management
- Pathology affecting primarily Genital organs in females - causing secondary effects on urinary organs and management.

### **Renal Transplantation**

- Immunological considerations in Renal Transplantation
- Live Donor evaluation for Renal Transplantation
- Recipient evaluation for Renal Transplantation
- Complications of Renal Transplantation and their management : Medical, Surgical
- Transplantation in Special Groups : Patients with Neuropathic Bladder/Urinary Diversions, Paediatric patients, Previously transplanted patients, Multiple Organ Recipients
- Cadaver Donor evaluation for Renal Transplantation : Evaluation of Cadaver Donor, Cadaver Donor Management, Certification of Brain Death, Organ retrieval, storage and transport
- Legal and Ethical aspects of Organ Transplantation



### **Reconstructive Urology**

- Principles of Urethral Reconstruction
- Principles of Bladder Reconstruction
- Principles of Bladder Substitution procedures
- Principles governing use of Intestinal Segments in Urological Reconstruction
- Autologous tissue transfer options in Urology
- Principles of Urinary Diversion & Undiversion
- Complications of Urinary Diversion

### **Endo Urology**

- Endoscopic anatomy of the Upper and Lower Urinary Tract
- Physics governing Endourologic equipment
- Basic technical aspects of Endourologic equipment : Cystoscope, Resectoscope, Ureterorenoscope, Nephroscope, Laparoscope, Associated accessories
- Anaesthetic consideration in Endourologic surgery
- Endourologic procedures – Indications, Performance and Complications : Lower Urinary Tract Endoscopy, Transurethral Resection of Prostate, Transurethral Resection of Bladder Tumours, Ureterorenoscopy, Percutaneous Nephroscopy, Intracorporeal Lithotripsy devices, Endoscopic Reconstructive Procedures, Endoscopic Laser Applications
- Implants, Biomaterials and others : Urethral Catheters, Urethral Stents, Ureteric Catheters, Ureteric Stents, Baskets & Graspers, Endoscopic Laser Devices, Ureteric Dilators, Guide Wires, Autologous Biomaterials, Synthetic Biomaterials, Prosthesis & Sphincter Implants, Tissue Culture Products

### **Operative Urology**

- Surgical approaches to the Kidneys
- Surgical approaches to the Adrenals
- Surgery of the Kidneys : Surgery in Renal Trauma, Surgical procedures in Renovascular disease, Auto transplantation of the Kidney, Surgical procedures for Pelvic-ureteric junction obstruction, Surgical procedures on Adrenals, Nephrectomy for benign disease, Nephrectomy for malignant disease, Nephron sparing Surgical procedures
- Surgical procedures for Renal Calculi : Pyelolithotomy & Extended - pyelolithotomy, Anatomic Nephrolithotomy, Coagulum Pyelolithotomy, Nephrolithotomy, Percutaneous Nephrostolithotomy (PCNL)
- Surgery of the Adrenal Glands : Adrenal Tumours, Adrenal Cysts, Pheochromocytoma
- Surgery of the Ureter : Ureterolithotomy, Uretero-ureterostomy, Trans Uretero-ureterostomy, Ureteral replacement, Ureteral Tailoring and Reimplantation, Boari's Flap Reimplantation, Ureterolysis & Ureteral Transposition
- Surgery of the Urinary Bladder : Suprapubic Cystostomy, Surgery for Vesical Calculi,

Bladder diverticulectomy, Augmentation Cystoplasty, Partial Cystectomy, Radical Cystectomy, Transurethral Resection of Bladder tumour, Repair of Vesico-vaginal Fistulae Vaginal repair, Abdominal repair, Repair of complex fistulae:, Repair of Rectovesical Fistulae, Bladder neck reconstruction.

- Surgery of the Prostate : Transurethral Resection of the Prostate, Retropubic Prostatectomy ,Transvesical Prostatectomy, Radical Retropubic Prostatectomy, Radical Perineal Prostatectomy, Nerve Sparing Prostatectomy.
- Surgery of the Urethra: Reconstruction of Posterior Urethral Strictures, Reconstruction of Bulbar Urethral Strictures, Reconstruction of Anterior Urethral Strictures, Endoscopic Urethrotomy, Perineal Urethrotomy, Meatoplasty & Glanuloplasty, Single-stage repair of Hypospadias, Staged repair of Hypospadias, Surgery of Urethral Carcinoma.
- Surgery in Male Infertility: Varicocele ligation, Ejaculatory duct incision, Vaso-vasostomy, Vaso-epididymostomy, Vaso-epididymal Fistulae.
- Surgery of the Scrotum : Surgery for Hydrocoele & Chylocoele, Surgery for Haematocoele, Reconstructive procedures in trauma
- Surgery for Testes: Orchidopexy in Cryptorchidism, Orchidopexy in Torsion, Orchidectomy for benign conditions, Orchidectomy for malignant conditions, Testicular biopsy, Testicular reimplantation.
- Surgery of the Penis : Surgery for Penile Curvature, Biopsy of Penile lesion, Circumcision, Partial Penectomy, Total Penectomy, Organ conserving procedures in Penile Carcinoma, Post traumatic Penile reconstruction, Penile Prosthesis Implantation
- Urinary Diversion: Vesicostomy, Cutaneous Ureterostomy, Ileal conduit, Continent diversions using ileum, Continent diversions using ileo-caecal valve, Orthotopic Neobladder, Mitrofanoff and Benchechroun Procedures, Ureterosigmoidostomy
- Surgery for associated Conditions : Retroperitoneal Lymphadenectomy, Nerve sparing Retroperitoneal Lymphadenectomy, Ilio-inguinal Lymphadenectomy
- Renal Transplantation : Techniques of Renal Transplantation, Cadaver & Live Donor harvesting technique, Complications of Donor Nephrectomy & Transplantation: Medical, Surgical:, Vascular access in Renal failure
- Surgery for incontinence : Endoscopic Bladder Neck Suspension, Transabdominal Bladder Neck Suspension, Abdominal & Vaginal Sling Procedures, Endoscopic Injection Procedure, Artificial Sphincter implantation
- Basic Principles of Laparoscopic procedures in Urology
- Robotics

#### TRAINING & TEACHING METHODOLOGY:

##### A) Theoretical Teaching:

1. Lectures: Lectures are to be kept to a minimum. Certain selected topics can be taken as lectures. Lectures may be didactic or integrated.
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 the

relevant details. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A time table with names of the students and the moderator should be announced in advance.

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. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A timetable for the subject with names of the students and the moderator should be announced in advance.
4. **Case Discussion:** 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. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A timetable for the case presentation with names of the students should be announced in advance.
5. **Ward Rounds:** Ward rounds may be service or teaching rounds.
  - a) **Service Rounds:** Postgraduate students should do service rounds every day for the care of the patients. Newly admitted patients should be worked up by the post graduate student and presented to the faculty members the following day.
  - b) **Teaching Rounds:** Every unit should have 'grand rounds' for teaching purpose at the bed side. A diary should be maintained for day-to-day activities by the post-graduate students.  
Entries of (a) and (b) should be made in the Log book.
6. **Clinico-Pathological Conference:** Recommended once a month for all post graduate students. Presentation to be done by rotation. Presentations will be assessed using checklist. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.
7. **Uro-Radiology Meet-** Recommended once a month for all post graduate students. Presentation to be done by rotation. Presentations will be assessed using checklist.
8. **Inter Departmental Meetings:** Strongly recommended particularly with related departments like Nephrology, Pathology, Radiology and Radiation Oncology at least once a month. These meetings should be attended by post-graduate students and relevant entries must be made in the Log Book.
9. **Mortality Meeting:** The mortality meeting should be conducted in the department every month. The post graduate student should prepare the details regarding the cause of death after going through the case records in detail, and should present during the mortality meeting. The death records will be discussed in detail during this meeting.
10. **Teaching Skills:** Post-graduate students must teach under graduate students (eg. Medical, Nursing) by taking demonstrations, bedside clinics, tutorials, lectures etc. Assessment is made using a checklist by medical faculty as well as by the students. Record of their participation is to be kept in Log Book. Training of postgraduate students in Educational Science and Technology is recommended.
11. **Continuing Medical Education Programmes (CME):** Recommended that at least one national and state level CME programmes should be attended by each student during the course. CME will carry credits.

12. Conferences: Attending conference is compulsory. Post-graduate student should Attend at least one national and one state level conference during the course. Present at least one paper in National & 2 papers in state /zonal conference.
13. Research Activities: The candidate shall submit for publication at least one research work performed by him six months prior to taking final examination.
14. Posting to Anatomy department: Postgraduate students will be posted to Anatomy Department for 15 days after completion of 1st. year. The modality of posting will be finalized by the Department in consultation with department of Anatomy. The same shall be entered in the log book by the student and attested by the Anatomy faculty in charge of the student.
15. Posting to Nephrology department: Postgraduate students will be posted to Nephrology for 1 month during 2<sup>nd</sup> year. The modality of posting will be finalized by the Department in consultation with department of Nephrology. The same shall be entered in the log book by the student and attested by the Nephrology faculty in charge of the student.
16. Periodic Tests: During the course of 3 years the department will conduct 5 periodic tests at the interval of 6 months. The performance in the tests will be considered for final examination.
17. Student exchange programme: In view of expanding field of Urology, it is difficult to see, observe and have training in all newer sub-specialties. Therefore it is imperative to inculcate exchange programme. The student will be posted for one month to institutes of national repute at the end of 2nd year or beginning of 3rd. year. The details of the programme and mode of exchange will be decided by the department
18. Mock (Theory & Practical) Test for the final year resident will be conducted 2 months before appearing the main exams.
19. Each resident will be encouraged to conduct surgical audit (clinical)

#### **SCHEME OF EXAMINATION:**

For the appearance of final examination attendance (Minimum 80%), internal assessment, research and publication work will be considered.

The examination shall consist of theory, clinical examination and viva voce examination

The examination shall consist of the following parts:

- (i) Theory
- (ii) Clinical Examinations & Viva Voce

#### **A. Theory: 400 marks**

The theory examination shall consist of four papers of hundred marks each and of three hours duration. The format of each paper will be as below. includes all components of course contents. Student's knowledge on use of instruments and drugs will also be evaluated during viva-voce examination.

## SUGGESTED CHANGES IN THE THEORY EXAMINATION

Type of Questions	No. of questions	Marks for each question	Total Marks
Long essay	Existing:2 suggested:01	20	20
Short essay	Existing:6 Suggested:08	10	80
Grand Total			100

Paper I Basic Sciences as applied to Urology

Paper II Principles and Practice of Urology

Paper III Specialty Urology

Paper IV Operative Urology + Recent Advances in Urology

Note: The distributions of topics shown against the papers are suggestive only and may overlap or change.

**B. Practical / Clinical Examination: 300 marks**

Type of Case	No. of Cases	Marks	Duration of Examination
Long Cases	1	120	1 Hour
Short Cases	2	45+45=90	30 Minutes
Ward round			
Case Discussion	3	30+30+30=90	30 Minutes

**C. Viva Voce: 100 Marks**

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. Student's knowledge on use of instruments and drugs will also be evaluated during viva-voce examination. (Course contents=80, pedagogy=20, total 100)

**D. Distribution of Marks:**

Theory	Practical or Clinical Examination	Viva	Grand Total
400	300	100	800

## **BOOKS AND JOURNALS**

### **Recommended books**

1. Campbell urology-4 Volumes Edited by Walgh, et al
2. Urogenital trauma Macaminch
3. Adult & Paediatric Urology Gillenwater et al
4. Pediatric Urology Kelalis & King – 2 vol.
5. Endourology Arthur Smith
6. Kidney transplantation Peter morris
7. Renal transplantation Garovoy & Guttman
8. Glen's operative urology
9. Urologic Endoscopy Bagley et al
10. Transurethral surgery Maurmayer
11. Urodynamics principle & practise Mundy

### **Reference books**

1. Scientific Basis of Urology Mundy
2. Current Urological Therapy Kaufman
3. Female urology Blandy

### **Additional books**

1. Obstructive Uropathy O'Reilly
2. Paediatric Urology Whitakar
3. Genito-urinary cancer management Backeman & Paulson
4. Genitourinary cancer Dekerrion et al
5. Testicular cancer Javadopor
6. Controversy in Neurourology Barret & wein
7. Neurourology & urodynamics Bradly & Hald
8. Stone disease Diagnosis & management by Rous
9. Endourology Clayman et.al
10. Endourology Carson
11. Extracorporeal shock wave Lithotripsy Gravernstein
12. Male Infertility Amelar
13. Reproductive infertility Silber
14. Microsurgery in male and female
15. Operative Gynaecology Te Linde
16. Urinary Incontinence Dat. D.O.'Donnel
17. Urogynaecology & urodynamics Obstargard & Bent
18. Reconstructive urologic surgery Libertino
19. Introduction to Dialysis Logan
20. Vascular arress in Haemodialysis Bell et Al
21. Laparoscopic urology Ralph V. Clayman, E.M. McDougall
22. Urologic Laparoscopy Sakti Das
23. Laparoscopic Urologic Surgery A.K. Hemal
24. Uro radiology- Emmett's -Witten-Clinical Uroradiology 3 volumes

**Journals**

1. Indian Journal of Urology
2. Journal of Urology
3. British Journal of Urology
4. European Urology
5. World Journal of Urology

**Periodicals**

1. Urological clinics of North America
2. Recent Advances in Urology
3. Year Book of Urology

**SECTION III****Model Checklists for Assessment of Scientific Papers for Publication**

<b>Sl. No.</b>	<b>Criteria</b>	<b>Distribution of Marks</b>	<b>Marks awarded</b>
1.	Originality	10	
2.	Clarity & Quality of presentation	10	
3.	Relevance	10	
4.	Review of Literature	10	
5.	Quantum of works involved	15	
6.	Methodology, Sensitivity, Sample size, controlled, not Controlled study etc.,	25	
7.	Advancement of knowledge	10	
	Total	90	

**Signature of the Evaluator**      -----

**Name**      -----

**Designation**      -----



**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 Candidate					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications consulted					
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					
	<b>Total Score</b>					

**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 other relevant publications consulted					
2.	Whether cross references have been consulted					
3.	Completeness of Preparation					
4.	Clarity of Presentation					
5.	Understanding of subject					
6.	Ability to answer questions					
7.	Time scheduling					
8.	Appropriate use of Audio-Visual aids					
9.	Overall performance					
10.	Any other observation					
	<b>Total Score</b>					

**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 Unit Head \_\_\_\_\_ 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.	Counselling patient's relatives for blood donation or Postmortem and Case follow up.					
10.	Over all quality of Ward work					
	<b>Total Score</b>					

**Check List-IV****EVALUATION FORM FOR CLINICAL PRESENTATION**

Name of the Student \_\_\_\_\_

Name of the Unit Head \_\_\_\_\_ Date: \_\_\_\_\_

Sl. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Above Average 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 logically from history and findings					
10.	Investigations required * Complete					
	*Relevant order					
	*Interpretation of investigations					
11.	Ability to react of questioning Whether it follows logically from history and findings					
12.	Ability to defend diagnosis					
13.	Ability to justify differential diagnosis					
14.	Others					
	Grand Total					

**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 A.V. aids appropriately		

**Check List-VI**

Postgraduate Students Appraisal Form  
Pre/Para/Clinical Disciplines

Name of Department/Unit :

Name of the PG Student :

Period of Training : FROM..... TO.....

Sr. No	PARTICULARS	Not Satisfactory			Satisfactory			More Than Satisfactory			Remarks
		1	2	3	4	5	6	7	8	9	
1	Journal based/recent advances learning										
2	Patient based /Laboratory or Skill based learning										
3	Self directed learning and teaching										
4	Departmental and interdepartmental learning activity										
5	External and Outreach Activities/CMEs										
6	Thesis/Research work										
7	Log Book Maintenance										

Publications

Yes/No

Remarks\*

.....  
.....  
.....

\*Remarks: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

SIGNATURE OF ASSESSEE

SIGNATURE OF GUIDE

SIGNATURE OF HOD

LOG BOOK

Table 1: Academic activities attended

Name: \_\_\_\_\_ Admission Year: \_\_\_\_\_

College: BLDE UNIVERSTY'S SHRI: B.M.PATIL MEDICAL COLLEGE, BIJAPUR-586103

<b>Date</b>	<b>Type of Activity</b> <b>Specify Seminar, Journal Club, Presentation, UG teaching</b>	<b>Particulars</b>

**LOG BOOK**

Table: 2: **Academic presentations made by the student**

Name: \_\_\_\_\_ Admission Year: \_\_\_\_\_

College: BLDE UNIVERSITY'S SHRI: B.M.PATIL MEDICAL COLLEGE, BIJAPUR-  
586103

<b>Date</b>	<b>Topic</b>	<b>Type of Presentation Specify Seminar, Journal Club, Presentation, UG teaching etc.</b>



**LOG BOOK**Table 3: **Diagnostic and Operative procedures performed**

Name \_\_\_\_\_ Admission Year: \_\_\_\_\_

College: BLDE UNIVERSITY'S SHRI: B.M.PATIL MEDICAL COLLEGE, BIJAPUR-  
586103

<b>Date</b>	<b>Name</b>	<b>ID No.</b>	<b>Procedure</b>	<b>Category O, A, PA, PI*</b>

- \* **Key**
- 0 - 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**

Name of the College: BLDE UNIVERSITY'S SHRI. B.M.PATIL MEDICAL COLLEGE,  
BIJAPUR

Academic Year: \_\_\_\_\_

Sl. No.	Faculty Member	Name of Student and Mean Score									
		A	B	C	D	E	F	G	H	I	J
1											
2											
3											
4											
5											
<b>Total Score</b>											

**Note: Use separate sheet for each year.**

## SECTION - IV

### MEDICAL ETHICS & MEDICAL EDUCATION

#### Sensitization 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 patient, 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 (i), General Objectives (ii) stated in Chapter II (pages 2.1 to 2.3), and develop human values it is urged that **ethical sensitization** be achieved by lectures or discussion on ethical issues, clinical case discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentations, bedside rounds and academic postgraduate programs.

##### 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 0

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 Behavior 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 cares
  - Malpractice and Negligence

8. Research Ethics
  - Animal and experimental research / humanness
  - Human experimentation
  - Human volunteer research – Informed Consent
  - Drug trials\
  - ICMR Guidelines for Ethical Conduct of Research – Human and Animal
  - ICH / GCP Guidelines
  - Schedule Y of the Drugs and Cosmetics Act.
9. Ethical work -up of cases
  - Gathering all scientific factors
  - Gathering all human factors
  - Gathering value factors
  - Identifying areas of value – conflict, setting of priorities,
  - Working our criteria towards decisions

### **Recommended Reading**

1. Francis C. M., **Medical Ethics**, 2<sup>nd</sup> Ed, 2004 Jaypee Brothers, Bangalore/-
2. Ethical guidelines for biomedical research on human participants, ICMR publication 2017
3. Santosh Kumar: the elements of research, writing and editing 1994, Dept of Urology, JIPMER, Pondicherry
4. Srinivas D.K et al, Medical Education Principles and Practice, 1995, National Teacher Training Centre, JIPMER, Pondicherry
5. Indian National Science Academy, Guidelines for care and use of animals in scientific Research, New Delhi, 1994
6. International committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N Engl J Med 1991
7. Kirkwood B.R, Essentials of Medical Statistics, 1<sup>st</sup> Ed., Oxford: Blackwell Scientific Publications 1998
8. Mahajan B.K. Methods in bio statistics for medical students, 5<sup>th</sup> Ed, New Delhi, Jaypee, Brothers Medical Publishers, 1989
9. Raveendran, B. Gitanjali: A Practical approach to PG dissertation, New Delhi, Jaypee Publications, 1998.
10. John A Dent. Ronald M Harden, A Practical guide for medical teacher, 4<sup>th</sup> Edition, Churchill Livingstone, 2009.
11. Tejinder Singh Anshu, Principles of Assessment in Medical Education, Jaypee brothers
12. Dr. K.Lakshman, A Hand Book on Patient Safety, RGUHS & Association of Medical Consultants, 2012

13. Bernard Mogs, Communication skills in health & social care, 3rd Edition, (S) SAGE, 2015
14. Manoj Sharma, R. Lingyak Petosa, Measurement and Evaluation for Health Educators, Jones & Bartlett Learning.
15. David E. Kern, Patricia A, Thomas Mark T, Hughes, Curriculum Development for Medical Education. A six-step approach, The Johns Hopkins University press/Baltimore.
16. Tejinder Singh Piyush Gupta Daljit Singh, Principles of Medical Education (Indian Academy of Paediatrics), 4th Edition, Jaypee Brothers, 2013.
17. Robert Reid, Torri Ortiz Linenemann, Jessica L.Hagaman, Strategy Instruction for Students with learning disabilities, 2nd Edition, The Guilford Press London.
18. Lucinda Becker Pan Demicolo, Teaching in higher education, (S) SAGE, 2013.
19. C.N. Prabhakara, Essential Medical Education (Teachers Training), Mehta publishers.
20. Tejinder Singh Piyush Gupta, Principles of Evaluation & Research for health care programmes, 4th Edition, IAP National Publication House (Jaypee Brothers).
21. R.L.Bijlani, Medical Research, Jaypee Brothers, 2008
22. Stephen Polgar Shane A Thomas, Introduction to Research in the Health Sciences, Churchill Livingstone Elsevier, 2013.
23. Amar A,Sholapurkar. Publish & Flourish -A practical guide for effective scientific writing, Jaypee Brothers, 2011
24. Charles R.K.Hind, Communication Skills in Medicine, BMJ, 1997.