



# BLDE UNIVERSITY

## SUPERSPECIALITY PG CURRICULUM

**2012-13**

**M.Ch.Urology**

Published by

**BLDE UNIVERSITY**

[Declared as Deemed to be University u/s 3 of UGC act, 1956, vide notification No.F.9-37/2007-U.3(A)]

The Constituent College

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

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## B.L.D.E. UNIVERSITY

(Declared vide notification No. F.9-37/2007-U 3 (A) Dated. 29-2-2008 of the MHRD, Government of India under Section 3 of the UGC Act,1956)  
The Constituent College

### SHRI. B. M. PATIL MEDICAL COLLEGE, HOSPITAL AND RESEARCH CENTRE

BLDEU/REG/PG/2012-13/845

September 20, 2012

#### NOTIFICATION

Subject: Revised Curriculum for the Post Graduate Degree and Diploma Courses – 2012

Reference:

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 meeting of the Academic Council of the University held on April 11, 2012
3. Minutes of the meeting of the BOM of the University held on May 23, 2012.

The Board of Management of University is pleased to approve the Curriculum for Post Graduate Degree and Diploma Courses at its meeting held on May 23, 2012.

The revised curriculum shall be effective, from the Academic Session 2012-13 onwards, for Post Graduate Degree and Diploma Course in the Constituent College of the University viz Shri B. M. Patil Medical College, Hospital and Research Centre.

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

  
REGISTRAR  
REGISTRAR.  
BLDE University, Bijapur.

Copy to:

1. The Secretary, UGC, New Delhi
2. The Controller of Examinations
3. Prof. & HODs of Pre, Para and Clinical Departments.
4. PS to Hon'ble President
5. PS to Hon'ble Vice Chancellor
6. Office Copy

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## **Vision and Mission**

- *Committed to provide globally competitive quality medical education.*
- *To provide the best health care facilities in this backward region, in particular, to socially disadvantaged sections of the society.*
- *Constantly striving to become a reputed research University with world-class infrastructure, latest tech-tools for teaching/research and adopting global best practices.*

## **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:

- (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, retraining 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

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000. [amended upto January 2010]

### **Eligibility for Admission:**

Eligibility requirements for Post Graduate Diploma and Degree Courses are :-

1. The candidates seeking admission to these courses should have passed MBBS from the college recognized by Medical Council of India.

Eligibility requirements for Post graduate degree in superspeciality courses, M.Ch./D.M are:

The candidate seeking admission to these courses should have passed MS/MD from the college recognized by Medical Council of India.

2. As per the requisitions of statutory bodies, as laid out in post graduate regulations 2000 of Medical Council of India and its amendments thereof, the minimum percentage of marks in

the entrance test conducted by the University for eligibility for admission to Post Graduate courses in broad specialties and super specialties shall be 50 percent for candidates belonging to General category and 40 percent for the candidates belonging to Scheduled Caste, Scheduled Tribes and Other Backward Classes. Eligibility for persons with locomotor disability of lower limbs category will be 45 percent.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks.

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

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognised 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 and Diploma Courses even if he/she is placed in the merit list of BLDEU-PGET/BLDEU-SUPERSPECIALTY ET.

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

Candidate shall not be admitted for any postgraduate degree/diploma 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 superspecialty courses has to produce degree/pass certificate of MD/MS 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 years consisting of 6 terms including examinations. For Candidates possessing recognized two year Postgraduate Diploma in the same subject the duration of the course shall be two 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 years including examinations.

c.Diploma Courses:

The course of study shall be for a period of 2 years consisting of 4 terms including examinations(MCI PG REG 2000,10.3).

### **Training Method**

The postgraduate training for degree/diploma 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. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

## **Attendance, Progress and Conduct**

A candidate pursuing degree/diploma 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, assessed 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 specialities, 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,
- Teaching skills.

### **Personal Attitudes:**

The essential items are :

- Caring attitudes
- Initiative
- Organizational ability



- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

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

### **Acquisition of Knowledge:**

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

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

a) Didactic Lectures: Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested here.

- Bio-statistics
- Use of library,
- Journal review
- Use of computers,
- Appropriate use of AV aids
- Research Methods,
- Search of literature,
- Rational drug therapy
- Medical code of Conduct and Medical Ethics
- National Health and Disease Control Programmes
- Communication skills etc.

These topics may preferably taken up in the first few weeks of the 1<sup>st</sup> year commonly for all new postgraduates

b) Integrated teaching : These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, thyroid diseases etc.

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

The ability to do literature search, in depth study, presentation skills, and use of audio – visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist

**Seminars / symposia:**

The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio – visual aids are to be assessed using a checklist.

**Clinico-Pathological conferences:**

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

**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

**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

**Work diary / Log Book:**

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

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

One of these practical/clinical tests should be conducted by OSPE or OSCE method.

**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.

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

The dissertation shall be valued by examiners appointed by the university. Approval 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. 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 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 (six academic terms). The examination for the diploma courses shall be held at the end of two academic years (four academic terms).

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. 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 and 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 200.

**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 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)

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 200.

**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 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).

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 Examination

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

**Diploma Examination:**

Diploma examination in any subject shall consist of Theory (written papers),

Practical / Clinical and Viva-Voce.

**Theory:**

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

**Practical / Clinical Examination:**

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

In case of clinical examination, it 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.

The maximum marks for Practical/Clinical shall be 150.

Viva-Voce Examination: Viva Voce examination should aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 50.

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 viva voce examination.

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

**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.

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 6 per day

Diploma Courses: Maximum of 6 per day

DM/M.Ch Courses: Maximum of 3 per day

## **SECTION II**

### **CURRICULUM**

#### **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.

#### **1. 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.

#### **2. 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 & Ureterocele, 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 Tract 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. **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.

8. **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.
9. **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.
10. 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.
11. 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.
12. Research Activities: The candidate shall submit for publication at least one research work performed by him six months prior to taking final examination.
13. Posting to other 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.
14. 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.
15. 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.

#### 16: 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.

Type of Questions	No.of questions	Marks for each question	Total Marks
Long essay	02	20	40

Short essay	06	10	60
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: 200 marks**

Type of Case	No. of Cases	Marks	Duration of Examination
Long Cases	1	100	1 Hour
Short Cases	2	50(25x2)	30 Minutes
Ward round			
Case Discussion	2	50(25x2)	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	200	100	700

**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

## **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

## **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. Uroradiology- Emmett's –Witten-Clinical Uroradiology 3 volumes

## **SECTION III**

### **Additional reading**

1. Compendium of Recommendations of Various committees on Health and Development (1943-1975) DGHS, 1985 Central Bureau of Health Intelligence, Directorate General of Health Services, Min. Of Health and Family Welfare, Govt. of India, Nariman Bhawan New-Delhi, P-335
2. National Health Policy: Min. of Health & Family Welfare, Nirman Bhawan, New Delhi, 1983
3. Santosh Kumar: The elements of Research, writing and editing 1994, Dept. of Urology, JIPMER, Pondicherry.
4. Srinivasa D K et al : Medical Education Principles and Practice, 1995. National Teacher Training Centre, JIPMER, Pondicherry.
5. Ethical guidelines for biomedical research on human participants I.C.M.R. New Delhi 2006.
6. Code of Medical Ethics framed under Section 33 of the Indian Medical Council Act, 1956. Medical Council of India, Kotla Road, New Delhi.
7. Francis C.M: Medical Ethics, Jaypee Publications, Bangalore, 2<sup>nd</sup> Edn-2004.
8. Indian National Science Academy, Guidelines for care and use of animals in Scientific Research, New Delhi, 1994.
9. International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N England Journal of Medicine. 1991, 424-8
10. Kirkwood B.R. Essentials of Medical Statistics, 1<sup>st</sup> Ed. Oxford, Blackwell Scientific Publications 1988.
11. Mahajan B.K.: Methods in Bio-statistics for Medical students, 5<sup>th</sup> Edition new Delhi, Jaypee Brothers Medical Publishers, 1989.
12. K.R. Sundaram, S.N. Dwivedi, V. Srinivas. Medical Statistics. Principles & Methods .B.I. Publications, New Delhi, 2010
13. R.K. Chaube: Consumer Protection Act and Medical Profession, 1st Edition, 1999, Jaypee Brothers.

## Model Checklists for Assessment of Scientific Papers for Publication

Sl. No.	Criteria	Distribution of Marks	Marks awarded
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**

**MODEL CHECK LIST FOR DISSERTATION PRESENTATION**

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

Name of the Faculty: \_\_\_\_\_ Date: \_\_\_\_\_

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

## Check List-VII

### CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE/CO-GUIDE

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

Name of the Faculty: \_\_\_\_\_ Date: \_\_\_\_\_

Sl. No.	Items for observation during presentations	Poor	Below Average	Average	Good	Very Good
1.	Periodic consultation with guide/co-guide					
2.	Regular collection of case material					
3.	Depth of analysis/discussion					
4.	Departmental presentation of findings					
5.	Quality of final output					
6.	Others					
	<b>Total Score</b>					

## 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> Specify Seminar, Journal Club, Presentation, UG teaching	<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</b> <b>Specify Seminar, Journal Club,</b> <b>Presentation,</b> <b>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</b> <b>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.**

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