# SUMANDEEP VIDYAPEETH

(Declared as Deemed to be University under Section 3 of the UGC Act 1956)

Accredited by NAAC with a CGPA of 3.53 out of four-point scale at 'A' Grade

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**CURRICULUM** 

# PG Diploma in CLINICAL PATHOLOGY

Attested CTC

Vice-Chancellor

Sumandeep Vidyapeeth
An Institution Deemed to be University
Vill. Piparia, Taluka: Waghodia.
Dist. Vadodara-391 760. (Gujarat)

2015

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# Programme outcome PG DIPLOMA

The purpose of PG Diploma education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

# Programme specific outcome PG DIPLOMA

- **POS 1..** A post graduate diploma student after undergoing the required training should be able to deal effectively with the needs of the community and should be competent to handle the problems related o his specialty including recent advances.
- POS 2. He should also acquire skill in teaching of medical/paramedical students.
- **POS 3.** Practice the specialty concerned ethically and in step with the principles of primary health care.
- **POS 4.** Demonstrate sufficient knowledge of the basic sciences relevant to the concerned specialty.

**COURSE OUTCOME (CO)**: A post graduate diploma student upon successfully qualifying in the DCP examination should have acquired the following broad theoretical competencies and should be:

- Capable of offering a high quality diagnostic opinion in a given clinical situation with an appropriate and relevant sample of tissue, blood, body fluid, etc. for the purpose of diagnosis and overall wellbeing of the ill.
- 2. Able to teach and share his knowledge and competence with others. The student should be imparted training in teaching methods in the subject which may enable the student to take up teaching assignments in Medical Colleges/Institutes.
- Capable of pursuing clinical and laboratory based research. He/she should be introduced to basic research methodology so that he/she can conduct fundamental and applied research.
- 4. The student will show integrity, accountability, respect, compassion and dedicated patient care. The student will demonstrate a commitment to excellence and continuous professional development.
- 5. The student should demonstrate a commitment to ethical principles relating to providing patient care, confidentiality of patient information and informed consent.
- 6. The student should show sensitivity and responsiveness to patients' culture, age, gender and disabilities.

the student should have acquired skills such as Surgical pathology, cytopathology, hematology, laboratory medicine, transfusion medicine and imunohistochemistry.

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#### GOAL:

The goal of postgraduate medical education shall be to produce competent specialist ......

- (i) Who shall recognize the health needs of the community and carry out professional obligation ethically and in keeping with the objectives of the national health policy;
- (ii) Who shall have mastered most of the competencies, retaining to the speciality, that are required

to be practiced at the secondary and tertiary levels of the healthcare delivery system.

- (iii) Who shall be aware of contemporary advances and developments in the discipline concerned.
- (iv) Who shall be able to organize and establish clinical laboratory.
- (v) Conduct research works independently incorporating most current and best evidence available and practice **Evidence based education system (EBES)**

#### **OBJECTIVES:**

Duration of course - 2 years.

At the end of the course a candidate must be able to ....

- (i) Understand and explain about the factors in causation of disease.
- (ii) Understand processes involved in the gross and microscopic changes of organs and tissues and explain these changes.
- (iii) Understand and explain the basis of evolution of clinical signs and symptoms.
- (iv) perform procedures designated for laboratory detection of diseases, process and accurately interpret the representative materials obtained from the patients in order to arrive at a correct diagnosis.
- (v) Should be able to recognize and report morphological changes in cells, tissues and organs.
- (vi) Should be able to plan, perform and report specific research projects.

# P.G. Teaching sessions

#### 1. Lectures:

They shall be kept minimum and integrated depending upon the topic. All PG's shall attend the classes taken by faculty for undergraduate students.

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# 2. Case based & problem based learning

All post graduates after enrolment will be exposed to organized evidence searching skills lectures along with teaching of clinical epidemiology, biostatistics and research methodology. One session on last day of the week to be kept for case based learning or problem based learning wherein interesting cases may be chosen from the surgical pathology section, cytology section, clinical laboratory etc. The cases will be presented by the post graduate student and discussed by them as well as the senior staff of the department and with the doctors involved in the cases supported by higher level of evidences.

#### 3. Journal Club:

One session of journal article review to be kept once a month, preferably 3<sup>rd</sup> Thursday of the month. All the post graduate Journal Clubs will be carried out on a prescribed Evidence Based format with emphasis on critical appraisal. A designated teacher/facilitator wills asses every post graduate student for each JC presentation.

# 4. Subject Seminar:

One sessions of subject seminar shall be kept preferably on 4<sup>th</sup> Thursday of every month. All PG seminars will have evidence embedded in the presentation and all references relating to the subject matter will be incorporated. AT the end of the seminar all the references will be listed and the seminar will be assessed by the facilitator.

# **Clinico-Pathological Correlation meetings:**

All PG students are expected to actively participate in Clinico-Pathological Correlation meetings which should be supported by higher level of evidences

# 5. Integrated Teachings:

Such teachings especially with departments of pathology, radiodiagnosis and other concerned departments shall be arranged at least once a month. These meetings should be attended by post-graduate students and relevant entries must be made in the log book. In pathology, interesting cases shall be chosen and presented by the post-graduate students and discussed by them as well as the senior staff of Pathology department. The staff of Pathology department would then show the slides and present final diagnosis. In these sessions, the advanced immunohistochemical techniques, the burgeoning markers & other recent developments to be discussed. In radio diagnosis, interesting cases and the imaging modalities shall be discussed with emphasis given for differential diagnosis. Every post graduate student will be exposed to at least one encounter of role modeling in which a consultant after raising a relevant query will for the student.

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# **Teaching Skills:**

Every post-graduate student must teach under graduate students by taking demonstrations, tutorials, lectures etc. Assessment shall be 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 shall be recommended.

# 6. CME, Conferences, Publications:

During the three year course duration a post graduate student is expected to present one paper and one poster in National or international conferences in their specialty. The student is also required to publish one original research paper in National or international journal of their specialty.

#### 7. Research Activities:

All post-graduate students shall be encouraged to carry out research activities in the department other than dissertation work in conjunction with the faculty of the department.

#### **COURSE CONTENTS:**

#### THEORY:

- General pathology including Immunopathology
- Systemic pathology
- Haematology
- Blood Banking including Transfusion Medicine
- Cytopathology
- Laboratory methods including quality control
- Applied Microbiology & Serology
- Applied Biochemistry

#### PRACTICALS:

- 01) Collection and dispatching of samples to laboratory and handling of all equipments
- 02) Hands on experience in techniques, its interpretation and reporting
  - (a) Gram's stain
  - (b) Albert stain
  - (c) Z. N. stain

(U) Flanging drop preparation

(e) KOH / Lactophenol preparation

3) Sterilization techniques, Culture- methods identification and reporting

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- 04) Hands on experience and interpretation of serological tests like Widal, VDRL, HIV, HBV,
- RF, ASO and Pregnancy tests
- 05) Microscopic examination of stools and reporting
- 06) Clinical Biochemistry- Procedures and interpretations of routine biochemical estimations including electrolytes
- 07) Hands on experience in and reporting of routine haematological investigations and special investigations like Platelet count, Sickling tests, Reticulocyte count, PCV, Blood indices, Bone marrow examination etc.
- 08) Histopathology techniques and reporting
- 09) Cytopathology techniques and reporting
- 10) Techniques and interpretation of various procedures in transfusion medicine

#### **POSTING SCHEDULE:**

Cytopathology		4 months
2. Haematology and Blood Bank	Clinical pathology	8 months
3Histopathology		4 months
4Biochemistry		3 months
5. Microbiology		3 months
6. Revision in all sections		1 months

Total Duration 23 Months

# POSTGRADUATE TEACHING PROGRAMME:

- (a) Grossing seminars
- (b) Slide seminars -

Histopathology Haematology Cytopathology

- (c) Journal club
- (d) Subject seminars
- (e) Group discussion on clinical cases
- (f) Inter departmental seminars
- (g) Attendance & presentation of papers in -

CME, Workshops Conferences

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# **EXAMINATION**

# 1. Theory

Paper I: Basic Sciences in relation to ENT (at the end of first year)

Paper II: Oto-rhinolarynogology including Audiology and Neurootology

Paper III: Oto-rhinolaryngology including Head and Neck Oncology and Endoscopy

# 2. Practical/Clinical and Oral Examination:

**Practical Examination consists of:** 

Clinical Examination - 2-3 clinical cases, imaging and its techniques, instruments,

clinical exercise

**Oral /Viva-voce Examination** 

Oral examination shall be comprehensive enough to test the post graduate student's

overall knowledge of the subject.

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