NIMHANS PROSPECTUS 2009-2010

CONTENTS

	Page No.
Introduction	2
Academic Calendar	2 3 5 5
Institute Authorities	5
Heads of Departments	5
Central Facilities	6
Hospital Administration	7
General Administration	7
Courses	_
Postgraduate Degree/Diploma Courses	9
B.Sc./Diploma Courses	10
Qualifying Examination	11
Sponsored Candidates	12
Foreign Nationals	12
Minimal Qualification for Admission	13
Age Limit	16
Reservation of Seats	17
Emoluments	17
Enclosures	18
Sponsorship Certificate	19
Fee Structure	00
Indian Nationals	20
Foreign Nationals	21
Courses and Faculty	22
Method of Selection	47
Date of Joining	49
Prizes	49
General Instructions	50 52
Warning	
Ragging	52
Accommodation	52 53
NIMHANS Library	
Alumni Association	53 53
Kannada Language Learning Programme Publication	53
	55

NATIONAL INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCES (DEEMED UNIVERSITY), BANGALORE

INTRODUCTION

The Government of India established the All India Institute of Mental Health in 1954 in association with the Mental Hospital of the Karnataka Government. A major objective of the Institute was manpower development in the field of mental health and neurosciences. The Mental Hospital, Bangalore which had already built up certain traditions since 1938 in matters related to undergraduate training in the field of Psychiatry was chosen by the Government of India as the Centre of training. In tune with this objective, two diploma courses – one in Psychological Medicine (DPM) and the other in Medical Psychology (DMP) were started in January 1955. These were followed by a Post Certificate Course in Psychiatric Nursing (DPN) in January 1956. The Institute was affiliated to the University of Mysore for the courses.

Subsequently the Institute got affiliated to the Bangalore University in 1964 when the latter was established. The Bangalore University established a separate faculty of Mental Health and Neurosciences. The Institute introduced MD in Psychological Medicine in 1966, Ph.D. in Clinical Psychology in 1967 and Post Graduate Diploma in Psychiatric Social Work (DPSW) in 1968. DM in Neurology and M.Ch. in Neurosurgery courses were introduced in 1970. Later, Ph.D. programmes in different disciplines were introduced.

The All India Institute of Mental Health and the Mental Hospital of the Government of Karnataka were amalgamated into an autonomous Institute, the National Institute of Mental Health and Neuro Sciences (NIMHANS) in 1974. In the subsequent years many post-graduate training programs were started in the areas of Neurophysiology, Biophysics and Psychiatric Nursing. In 1994, NIMHANS was granted the "Deemed to be University" status under which the Institute awards degrees and diplomas. DM in Neuroradiology, Post Doctoral Fellowship in Neuropathelisia, Post Doctoral Fellowship in Neuropathology and M.Phil. in Neurosciences are the new courses initiated after the Institute was conferred the status of Deemed University. In the year 2008, Post Doctoral Fellowship in Child & Adolescent Psychiatry has also been started.

The special feature of this Institute is its multidisciplinary approach in patient care, training programmes and also in the promotive, preventive and curative aspects of clinical services in the area of Mental Health and Neuro Sciences. The manpower development programmes at the Institute reflect the extent to which we have succeeded in bringing together and nurturing behavioural sciences, neurosciences, basic biological sciences and ancient health systems in Mental Health and Neurosciences.

ACADEMIC CALENDAR

a. Advertisement regarding admission	1 st week of October 2008
b. Last date for issue of application Through post In person	25 th October 2008 31 st October 2008
c. Last date for receipt of filled in applications	5 th November 2008
d. Date of entrance test	22 nd February 2009
e. Commencement of courses	2 nd May 2009
f. Last date for admission	9 th May 2009

SESSION 2: Super-Speciality, Post Doctoral Fellowship/B.Sc. and DCNT courses

25th March 2009 31st March 2009

a. Advertisement regarding admission	1 st week of March 2009
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- b. Last date for issue of application
 Through post
 In person
- c. Last date for receipt of filled in applications 6th April 2009
- d. Date of entrance testJune 2009e. Commencement of courses1st August 2009
- f. Last date for admission 8th August 2009

SESSION 3 : Ph.D. for candidates with Institutions/Agencies	Fellowship from recognized	
(i) Issue and receipt of applications	1 st August to 15 th September 2009	
(ii) Entrance test	19 th October 2009	

EXAMINATIONS

1. Annual Examinations PG Medical & Non Medical courses Second Monday of April Superspeciality courses Second Monday of July Second Monday of June B.Sc. courses 2. Supplementary Examinations PG Medical & Non Medical courses **Second Monday of October** Second Monday of January Superspeciality courses B.Sc. courses Second Monday of December 14th February 3. Institute Day November/December 4. Convocation 12th May 5. International Nurses' Day 5th September 6. Teachers Day

INSTITUTE AUTHORITIES

Telephone

Dr.D.Nagaraja - Director/Vice Chancellor	26995001 26995002 26564140 26561811 26565822
Mrs.M.V.Savithri - Registrar	26995005 26995006 26564199
Dr.N.Pradhan - Dean	26995004 26995108

HEADS OF THE DEPARTMENTS

BIOPHYSICS Dr.Preeti G.Joshi, Professor	26995102
BIOSTATISTICS Dr.D.K.Subbakrishna, Professor	26995116 26995120
EPIDEMIOLOGY Dr.G.Gururaj, Professor	26995245
HUMAN GENETICS Dr.K.R.Manjunatha, Professor	26995121
MENTAL HEALTH & SOCIAL PSYCHOLOGY Dr.Shobini L.Rao, Professor	26995180
MENTAL HEALTH EDUCATION Dr.Jayashree Ramakrishna, Professor	26995155
NEUROANAESTHESIA Dr.G.S.Umamaheswara Rao, Professor	26995416
NEUROCHEMISTRY Dr.M.N.Subhash, Professor	26995159

NEUROIMAGING & INTERVENTIONAL RADIOLOGY Dr.P.N.Jayakumar, Professor	26995425	
NEUROLOGY Dr.M.Veerendra Kumar, Professor	26995140	
NEUROMICROBIOLOGY Dr.R.Ravikumar, Professor	26995151	
NEUROPATHOLOGY Dr.S.K.Shankar, Professor	26995130	
NEUROPHYSIOLOGY Dr.T.R.Raju, Professor	26995168	
NEUROSURGERY Dr.B.Indira Devi, Professor	26995403	
NEUROVIROLOGY Dr.V.Ravi, Professor	26995126	
NURSING Dr.K.Reddemma, Professor	26995226	
PSYCHIATRIC & NEUROLOGICAL REHABILITATION I/c Dr.B.N.Gangadhar, Professor and Medical Superintendent	26995201	
PSYCHIATRIC SOCIAL WORK Dr.K.Sekar, Professor	26995234	
PSYCHIATRY Dr.B.N.Gangadhar, Professor	26995260	
PSYCHOPHARMACOLOGY Dr.Chittaranjan Andrade, Professor	26995109	
SPEECH PATHOLOGY & AUDIOLOGY Dr.M.Jayaram, Professor	26995569	
CENTRAL FACILITIES		
AYURVEDIC RESEARCH UNIT Dr.D.Sudhakar, Asst. Director (Ay)	26995243	
BIOMEDICAL ENGINEERING Mr.G.Lakshmanna, Chief Biomedical Engineer	26995220	

CENTRAL ANIMAL RESEARCH FACILITY Dr.J.Suresh Chandra, Sr. Veterinary Officer	26995040
PHOTOGRAPHY Dr.Jayashree Ramakrishna, Professor & I/C Head	26995044
ENGINEERING Mr.S.M.Krishnappa, Asst. Executive Engineer	26995215
LIBRARY & INFORMATION SERVICES Dr.H.S.Siddamalliah, Principal Library & Information Officer	26995031
PUBLICATION Mr.N.Gopalakrishna, Deputy Editor	26995036

HOSPITAL ADMINISTRATION

Dr.B.N.Gangadhar, I/C Medical Superintendent	26995260
Dr.C.R.Chandrashekar, Deputy Medical Superintendent	26995255
Dr.V.L.Sateesh, Resident Medical Officer	26995203
Mr.M.N.Shankarsa, Asst. Admn. Officer (Rehab. Ser.)	26995284
Mr.S.Venkatesh, Asst. Admn. Officer (OPD)	26995524
Mr.D.Rajendran, Asst. Admn. Officer (Hospital)	26995205

GENERAL ADMINISTRATION

Mrs.D.Sukumariamma Administrative Officer	26995008
Mr.T.H.Naik Finance & Accounts Officer	26995018
Mrs.G.Jayamonie Admn. Officer (A&E) & P.S to Director	26995002
Mrs.Sudha Ramamurthy	

Dy. Finance & Accounts Officer	26995021
Mr.G.Vasudevan Asst. Finance & Accounts Officer	26995020
Mr.A.Loganathan Asst. Administrative Officer, Accounts	26995557
Mrs.E.B.Lalitha Asst. Administrative Officer, Accounts	26995705
Mrs.Leticia Pires Special Officer (Academic & Evaluation)	26995012
Mr.H.C.Venkateshaiah Asst. Administrative Officer, Personnel	26995706
Mr.B.G.Balaram Asst. Admn. Officer (Claims)	26995026
Mr.A.V.Ramaswamy Asst. Admn. Officer (Co-ordination)	26995015
Mr.Parameshwar Asst. Administrative Officer	26995009
Mrs.S.R.Suvarna Bai Asst. Administrative Officer	26995022
Dr.Satish Chandra Girimaji Hon. Warden, NIMHANS Hostels	26995266
Dr.Y.C.Janardhana Reddy Hon. Deputy Warden, NIMHANS Hostels	26995278
Dr.Bindu M.Kutty Hon. Deputy Warden, NIMHANS Hostels	26995170
Mr.Praseed Kumar Public Relation Officer	26995010

COURSES

A. POST GRADUATE DEGREE/DIPLOMA COURSES

1. Ph.D.

- 1.1 Institute Fellowships
 - a) Ph.D. degree in Mental Health & Social Psychology
 - b) Ph.D. degree in Neurophysiology
 - c) Ph.D. degree in Speech Pathology & Audiology
 - d) Ph.D. degree in Clinical Neurosciences (ICMR Fellowship)

1.2 External Fellowships: Candidates with Sponsorship from Government of India/State Govt. Institutions, Deputed or Sponsored from a recognized University, Fellowships from Government Agencies like UGC/ICMR/CSIR etc., Permanent Employees and tenured employees of NIMHANS can also apply for Ph.D. in the various departments of this Institute, which will be considered at the discretion of the competent authority for Entrance Test. They have to work on full time basis for a minimum period of THREE years (Two years in case of having M.Phil/DNB/MD/MS/DM/M.Ch. degrees). Entrance Test for selection of candidates for Ph.D. programmes will be held in the following departments in the months of February and October.

- a) Biophysics
- b) Biostatistics
- c) Epidemiology
- d) Human Genetics
- e) Mental Health Education
- f) Mental Health & Social Psychology
- g) Neuroanaesthesia
- h) Neurochemistry
- i) Neuroimaging and Interventional Radiology
- j) Neurology
- k) Neuromicrobiology
- I) Neurophysiology
- m) Neurosurgery
- n) Neurovirology
- o) Psychiatric Nursing
- p) Psychiatric Social Work
- q) Psychiatry
- r) Psychopharmacology
- s) Speech Pathology & Audiology

2.	DM in Neuroradiology	- 2 Seats	
3.	DM degree in Neurology	- 8 Seats (5 Post MD/DNB + 3 Post MBBS)	
4.	M.Ch. degree in Neurosurgery	- 6 Seats (3 Post MS/DNB + 3 Post MBBS)	
5.	MD degree in Psychiatry	- 14* Seats	
6.	Diploma in Psychiatry	- 7* Seats (6 seats for Karnataka Domiciles and 1 for sponsored)	
7.	Post Doctoral Fellowship in Child & Adolescent Psychiatry	- 2 Seats (1 for sponsored)	
8.	Post Doctoral Fellowship in Neuroanaesthesia	- 4 Seats (2 for foreign/sponsored)	
9.	Post Doctoral Fellowship in Neuropathology	- 2 Seats (1 for foreign/sponsored)	
10	. M.Phil. in Biophysics	- 3 Seats	
11.	. M.Phil. in Mental Health & Social Psychology	- 18 Seats (3 for foreign/sponsored)	
12	. M.Phil. in Psychiatric Social Work	- 18 Seats (3 for foreign/sponsored)	
13	. M.Phil. in Neurophysiology	- 2 Seats	
14	. M.Phil. in Neurosciences	- 4 Seats	
15	. M.Sc. in Psychiatric Nursing	- 9 Seats	
В.	B.Sc. COURSES	No. of seats	
1.	B.Sc. in Nursing	77	
2.	B.Sc. in Radiography	10 (4 for sponsored)	
B (1). DIPLOMA/CERTIFICATE COURSES No. of seats			
1. Diploma in Psychiatric Nursing (DPN)) 30 [*]	
2.	2. Diploma in Neurological & Neurosurgical Nursing (DNN) 6 [*]		
3. Diploma in Clinical Neurophysiology Technology (DCNT) 8 (4 for sponsored)			
*			

* Seats are likely to be increased subject to sanctioning and filling up of the posts required for enhancement.

C. QUALIFYING EXAMINATION REQUIREMENT FOR VARIOUS COURSES

- (a) MBBS degree from a recognized University or from any other University recognized as equivalent thereto by NIMHANS and by the Medical Council of India.
- (b) The candidate should complete compulsory rotation internship of one year after MBBS or its equivalent recognized by Medical Council of India on or before the date of commencement of course. A certificate to that effect has to be produced. The candidate should also have full registration with State Medical Council.
- (c) Candidates who have MD/MS/DNB/DPM from a recognized University or from any other University recognized as equivalent thereto by NIMHANS and by the Medical Council of India may apply for the course. However, Candidates who are awaiting the results may also appear for the entrance test subject to production of proof of having passed the examination in writing issued by the University on or before the date of commencement of course.
- (d) Candidates with M.Sc./MA/MSW/Ayurvedic Graduation/BE/B.Tech./B.Sc. /B.Sc. (Hons) Nursing/B.Sc. Engineering should have passed the examination from a recognized University or from any other University recognized as equivalent thereto, securing not less than 55% of marks in aggregate on or before the date of Entrance test. Candidates who have appeared for the qualifying examinations and are awaiting results, may also apply. However, such candidates will be eligible to appear in the Entrance test only if they produce the proof of having passed the examination in writing issued by the University as on the date of Entrance test.
- (e) Candidates with Master's degree obtained through research and awarded on the basis of the evaluation of the thesis (from a University recognized by NIMHANS which does not award marks at the master's level) are also eligible to apply for Ph.D. programme.
- (f) Candidates with PUC or 10 + 2 with Physics, Chemistry, Biology and English with 50% aggregate in the above subjects can apply for B.Sc. in Nursing course.
- (g) Candidates with PUC or 10 + 2 with English, Physics, Chemistry, Mathematics and Biology or job oriented diploma courses from a recognized board can apply for B.Sc. in Radiography course.

D. SPONSORED CANDIDATES

- 1. Minimal qualifications are the same as indicated under item F.
- 2. The candidate should qualify in the Entrance test.
- 3. The candidate should produce the sponsorship certificate in the prescribed format (Please refer page 19)
- 4. This certificate should be enclosed along with the application.
- 5. Applications without the certificate will not be considered for sponsorship.

E. FOREIGN NATIONALS

Foreign Nationals are required to submit their applications through the Diplomatic Channel (through the Ministry of External Affairs). They shall also appear for a Common Entrance Test along with the other candidates.

Students possessing foreign qualifications who intend to seek admission to academic courses at NIMHANS are required to produce an EQUIVALENCE CERTIFICATE from Association of Indian Universities/Medical Council of India to facilitate their admission to the course.

The guidelines to obtain an Equivalence Certificate from Association of Indian universities are as follows:

- 1. The candidate should submit degree/diploma certificate together with year-wise academic transcript/marksheet duly authenticated by Indian Mission abroad/concerned foreign Mission in India
- 2. Accreditation status of the degree awarding foreign University/authority
- 3. A Bank Draft of US \$ 50 or equivalent Indian currency in favour of the Secretary General, Association of Indian Universities, New Delhi as fee

The Association of Indian Universities does not recognize any degree/diploma awarded by accredited foreign Universities for programmes/courses conducted in India.

For Medical degree, Secretary, Medical Council of India, Aiwan-E-Galib Marg, Kolta Road, New Delhi – 110 002 may be contacted.

F. MINIMAL QUALIFICATION FOR ADMISSION

1.1 (a to d) Doctor of Philosophy (Ph.D.) Institute Fellowships

Duration: 3 – 5 years

- a) **Ph.D. in Mental Health & Social Psychology**: 2 years full time MA/M.Sc. degree in Psychology or two years M.Phil. degree in Mental Health and Social Psychology or equivalent qualification recognized by NIMHANS.
- b) **Ph.D. in Neurophysiology**: Master's degree in Life Science or M.Phil. or MBBS or BE degree.
- c) **Ph.D. in Speech Pathology & Audiology**: Master's degree in Speech & Hearing.
- d) **Ph.D. in Clinical Neurosciences**: (1) MBBS degree with not less than 55% of the marks of any University recognized by the Medical Council of India (MCI). The candidate should have completed satisfactorily one year compulsory rotating internship or its equivalent as recognized by the MCI after passing the final MBBS examination and must have full registration with a State Medical Council. (2) Candidates with Postgraduate medical qualifications can also apply (but no special reservation or preference will be given).

1.2 (a to s) Doctor of Philosophy (Ph.D.) External Fellowships

Duration: 3 - 5 years

A Master's degree in the discipline securing not less than 55% of marks in the aggregate or MBBS/BE/B.Tech. to work full time for a minimum period of three years or M.Phil./DM in Neurology/M.Ch. in Neurosurgery/MD/MS/DNB to work full time for a minimum period of two years.

2. DM in Neuroradiology

MD/DNB in Radiodiagnosis: The duration of the course will be for a period of three years.

3. DM in Neurology

(i) MBBS: The duration of the course will be for a period of five years.

(ii) MD/DNB in General Medicine or Pediatrics: The duration of the course will be for a period of three years.

4. M.Ch. in Neurosurgery

(i) MBBS: The duration of the course will be for a period of five years.(ii) MS/DNB in General Surgery: The duration of the course will be for a period of three years.

5. MD in Psychiatry

(i) MBBS: The duration of the course will be for a period of three years.(ii) Diploma in Psychiatry (DPM): The duration of the course will be for a period of two years.

6. Diploma in Psychiatry (DPM)

MBBS: The duration of the course will be for a period of two years.

7. Post Doctoral Fellowship in Child & Adolescent Psychiatry

MD/DNB in Psychiatry: The duration of the course will be for a period of one year.

8. Post Doctoral Fellowship in Neuroanaesthesia

MD/DNB in Anaesthesia: The duration of the course will be for a period of one year.

9. Post Doctoral Fellowship in Neuropathology

MD/DNB in Pathology: The duration of the course will be for a period of one year.

10 – 14 M.Phil. courses

Duration: 2 years

M.Phil. in Biophysics

M.Sc. degree in Physical/Life Sciences or BE degree or MBBS.

M.Phil. in Mental Health & Social Psychology

2 years full time MA/M.Sc. degree in Psychology from a University recognized by NIMHANS.

M.Phil. in Neurophysiology

Master's degree in Life Sciences or MBBS.

M.Phil. in Neurosciences

Master's degree in Physical/Life/Behavioural Sciences or BE/B.Tech. or MBBS.

M.Phil. in Psychiatric Social Work

Master's degree in Social Work. Preference will be given to those who have specialized in Medical and Psychiatric Social Work.

15. M.Sc. in Psychiatric Nursing

Duration: 2 years

- (i) Registered Nurse with B.Sc./B.Sc. (Hons) Nursing.
- (II) Should have a minimum of two years experience after obtaining B.Sc./B.Sc. (Hons) Nursing degree in Hospital, Nursing Education Institution or Community Health setting.

B. B.Sc. COURSES

1. B.Sc. in Nursing

Duration: 4 years

- a) Pre-University examination conducted by department of Pre-University education with Physics, Chemistry, Biology and English with a minimum 50% aggregate in the above subjects.
- b) Higher Secondary School Certificate Examination (12 years course) with Physics, Chemistry, Biology and English with a minimum 50% aggregate.
- c) Senior School Certificate examination Pre-Degree Examination (10+2) with Physics, Chemistry, Biology and English with a minimum 50% aggregate.
- d) An Equivalent with 12 years of Schooling from a recognized Board with Physics, Chemistry, Biology and English with a minimum 50% aggregate.

2. B.Sc. in Radiography

Duration: 3 years

- a) Pre-University examination conducted by department of Pre-University education or any recognized state Board with English and Physics, Chemistry, Biology and Mathematics as optional subjects.
- b) Job oriented Diploma course from a recognized Board with Diagnostic Radiography as vocational subject or equivalent.
- c) Any equivalent examination recognized by the NIMHANS, Bangalore for the above purpose with Physics, Chemistry, Biology and Mathematics as principal subjects of study.

B (1). Diploma Courses

Duration: 1 year

1. Diploma in Psychiatric Nursing (DPN)

- a) Should possess 'A' Grade certificate in General Nursing recognized by Indian Nursing council.
- b) Should be a registered Nurse in the State Nursing Council with two years experience.

2. Diploma in Neurological and Neurosurgical Nursing (DNN)

- a) Should possess 'A' Grade certificate in General Nursing recognized by Indian Nursing Council.
- b) Should be a registered Nurse in the State Nursing Council with two years experience.

3. Diploma in Clinical Neurophysiology Technology (DCNT)

a) B.Sc. with Physics/Electronics/Computer Sciences with minimum II Class in the qualifying examination.

OR

- b) Diploma in Electronics/Electrical/Instrumentation/Computer (approved by Board of Technical Education).
 OB
- c) PUC with 3 years experience as EEG Technician.

4. Certificate course in Neuroimaging & Technology (CNT)

- a) Diploma in Radiographic Technology from Vocational Board of Government of Karnataka or equivalent qualification.
- b) Bachelors degree in Radiation Technology from any recognized University or equivalent qualification.

A RELAXATION OF 5% ON THE AGGREGATE OF MARKS OBTAINED IN THE QUALIFYING EXAMINATION WILL BE GIVEN FOR NON MEDICAL AND Ph.D. COURSES IN RESPECT OF SC & ST CANDIDATES.

G. AGE LIMIT

For PG medical and Superspeciality courses, age should not be more than 32 years for MBBS degree holders and 35 for PG medical degree holders and relaxable in case of SC/ST candidates by a maximum of 5 years as on the date of commencement of courses. For sponsored candidates, age should not be more than 40 years as on the date of commencement of courses.

For B.Sc. in Nursing and B.Sc. in Radiography courses, the age of the candidates should be between minimum of 17 years and maximum of 25 years as on the date of commencement of course.

RESERVATION OF SEATS

1. Following reservation of seats is applicable to the courses (except superspeciality courses - DM in Neurology, DM in Neuroradiology and M.Ch. in Neurosurgery).

a) 15% of the seats for SC

- b) 7.5% of the seats for ST
- c) 27% of the seats for OBC*

If suitable candidates are not available under the reserved category, they will be filled up by General category candidates.

*Subject to sanctioning and filling up of the posts required for enhancement.

- 2. Number of seats and reservation may vary as per the direction of the Government of India order.
- 3. Six seats in Diploma in Psychiatry (DPM) and three seats in M.Phil. in Mental Health & Social Psychology are reserved for domiciles of Karnataka State.
- 4. 3% of the PG seats are reserved for persons with above 40% and less than 70% disability (except DM in Neurology, DM in Neuroradiology and M.Ch. in Neurosurgery).

NOTE

To claim that candidates are residents/domiciles of Karnataka State, he/she should produce a certificate from the Tahsildar to the effect that he/she or his/her father/mother has been a resident of Karnataka State for a period of 10 years or has owned or possessed land or property or house in Karnataka State.

EMOLUMENTS

Candidates admitted to Medical courses will be paid as per the Residency Scheme. They will be paid emoluments of Rs.9400/- per month in the first year, Rs.9725/- per month in the second year and Rs.10050/- in the third year along with admissible allowances. The emolument is subject to vary as per the Government orders from time to time.

Candidates with PG degree (MD/MS) admitted to the 3 years course in DM Neurology, DM in Neuroradiology, M.Ch. in Neurosurgery will be considered for the post of Senior Resident, subject to availability of vacancies.

Candidates admitted to the M.Phil. courses will be paid stipend of Rs.5000/- per month during the course of two years.

Candidates admitted to Ph.D. courses (under Sl. No.1.1 (a to c)) will be paid stipend of Rs.9000/- per month for all the three years. Contingency grants of Rs.5000/- and Rs.7500/- will be paid per year to Research Scholars in Mental Health and Social Psychology and Science subjects respectively.

Candidates admitted to Ph.D. courses (under SI. No.1.1 (d)) (under ICMR Fellowship) will be paid emoluments of Rs.9400/- per month in the first year, Rs.9725/- per month in the second year and Rs.10050/- in the third year along with admissible allowances. Contingency grants of Rs.20000/- will be paid per year to Research scholars.

Candidates admitted to M.Sc. in Psychiatric Nursing course will be paid Rs.700/- as stipend per month during the period of the course with the exception of the candidates who are on sponsorship/drawing pay and allowances from their employers.

Candidates admitted to Diploma in Psychiatric Nursing Course/Diploma in Neurological and Neurosurgical Nursing Course will be paid Rs.560/- per month. Candidates admitted to Diploma in Clinical Neurophysiology Technology Course will be paid Rs.750/- per month, during the period of the course with the exception of the candidates who are on sponsorship/drawing pay and allowances from their employers.

Foreign Nationals and sponsored candidates from State Government/Government of India are not eligible for any stipendiary benefits. The fee structure for foreign nationals will be in US dollars and for sponsored candidates in Indian Rupees.

ENCLOSURES

Medical courses: Mark Sheet year wise, Attempt, Internship Completion, Degree, Registration Certificates and Birth Certificate/SSC Marks sheet. Caste Certificate in case of SC/ST/OBC category. Non Medical courses: Qualifying exam mark sheets, Certificate, Caste Certificate in case of SC/ST/OBC category and experience certificate (if applicable). Applications without these enclosures will be rejected without intimation.

SPONSORSHIP CERTIFICATE

This is to certify that:

- 1. Dr./Mr./Ms._____ is a permanent employee with the ______ (Name of the Government Organization) and the date of joining service is _____.
- 2. The candidate is being sponsored for ______ course at NIMHANS, Bangalore.
- 3. The candidate is being sponsored for the entire duration of the course, if selected.
- 4. The candidate will be paid all emoluments by the State/Central Government or Public Sector Undertaking of State/Central Government and no expenses will devolve upon NIMHANS, Bangalore.
- 5. The candidate after getting training at NIMHANS, Bangalore shall continue to be in regular service with the State/Central Government or Public Sector Undertaking of State/Central Government and will work in the State/Central Government or Public Sector Undertaking of the State/Central Government.

Date: Place:

Signature with Seal of Competent Authority

											(All figures are in rupees)
SI.	Nature of Fees	Ph.D	DM/M.Ch.	MD/PDF	DPM	M.Phil.	M.Sc.	B.Sc.	B.Sc.	DPN/DCNT	Remarks
No.								Nursing	Radiography	DNN/CNT	
1	Eligibility fee: 1) Other Ur	niversities	of Karnataka	: Rs.100/-	2) Universit	ies outside K	arnataka: Rs	.500/- 3) Fore	ign students: R	s.5000/-	
2	Registration fee	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-		Payable at the time of joining
3	Tuition fee per year	18,000/-	50,000/-	50,000/-	36,000/-	10,000/-	10,000/-	45,000/-*	10,000/-*		Payable in instalment only for candidates with Institute fellowship
4	Laboratory fee	500/-	500/-	500/-	400/-	400/-	300/-	300/-	300/-		
5	Gymkhana & recreation fee	250/-	250/-	250/-	250/-	250/-	250/-	250/-	250/-	250/-	One time payment for thewhole duration of the course at the time of joining.
6	Library fee (per year)	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	
7	Caution Money & Hostel Deposit	5,000/-	5,000/-	5,000/-	5,000/-	5,000/-	5,000/-	5,000/-	5,000/-	5,000/-	Refundable on completion of course
8	Identification card fee	100/-	100/-	100/-	100/-	100/-	100/-	100/-	100/-	100/-	Payable at the time of joining
9	Examination fee									—	
	Part I		3,000/-	1,000/-	3,000/-	1,500/-	1,000/-	1,000/-	1,000/-		
	Part II		3,000/-	5,000/-		1,500/-	1,000/-	1,000/-	1,000/-	•	As prescribed by the Institute
	Part III		10,000/-					1,000/- 1,000/-	1,000/-		
10	Pre-Ph.D. exam fee	2,000/-									
11	Ph.D. Thesis evaluation	10,000/-									

FEE STRUCTURE FOR INDIAN NATIONALS

Fees once paid will not be refunded at any cost.

*One time payment, Rs.25,000/- for SC/ST candidates (B.Sc. in Nursing)

**Hostel Rent (water & electricity charges) per annum Rs.5000/- and Rs.1000/- mess advance for B.Sc. Nursing students

		(All figure	es are in US \$)
SI. No.	Name of the Course	* Tuition fee	Registration fee
1 Ph.D.		30000	500
a. DM/N	r speciality courses /I.Ch. (5 years duration) /I.Ch. (3 years duration)	60000 50000	1000 1000
3 PDF in N	europathology/Neuroanaesthesia	30000	1000
4 M.Phil.		20000	500
5 M.Sc. Ps	ychiatric Nursing	15000	500
6 DPN/DN	N/DCNT/CNT		100

FEE STRUCTURE FOR FOREIGN NATIONALS

* Tuition fee to be paid in equal annual instalments. The amount indicated is for the entire duration of the course

The fees once paid will not be refunded at any cost

COURSES AND FACULTY

NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF BIOPHYSICS

Duration: (i) 3 - 5 years for general candidates (ii) 2 - 4 years for candidates with M.Phil. degree in Biophysics.

Programme of study: During the first year, the candidate will be given training in the theoretical aspects of the problem and the research methodology related to the proposed topic. The candidate will appear for Pre Ph.D. examination after one year from the date of provisional registration. After completion of the proposed research work, the candidate will submit the thesis for the award of Ph.D. Candidates having M.Phil. degree in Biophysics will be exempted from Pre Ph.D. examination.

ACADEMIC FACULTY AND RESEARCH INTERESTS:

Dr.Preeti G.Joshi, Professor: Cell signaling, purinergic receptors in the nervous system, mechanisms of neuron-glia communication and its deregulation in neurological and psychiatric disorders.

Dr.V.K.Kalia, Additional Professor: Radiosensitization.

Dr.Sudha Mishra, Assistant Professor: Glutamatergic receptors and downstream signaling, Modulation of protein expression and function in neurological disorders-ischemia and stroke.

NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF BIOSTATISTICS

Duration: 3 – 5 years

Programme of study: Development and application of biostatistics in the field of mental health and neurosciences.

Specification fields: Applied multivariate techniques, Survival analysis, Longitudinal methods, Epidemiological methods, Meta analysis, Genetic statistical methods.

Research Facilities: Rich data base, Good computational facilities and adequate library.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.D.K.Subbakrishna, Professor: Applied multivariate analysis, Application of artificial neural networks in medicine, Survival analysis, Latent structure analysis.

Dr.M.Venkataswamy Reddy, Additional Professor: Epidemiological methods, Cluster analysis, Meta analysis, Applied multivariate analysis.

Dr.K.Thennarasu, Associate Professor: Applied multivariate analysis, statistical applications in genetics, Survival analysis, Qualitative data analysis, Latent variable modeling.

Dr.P.Marimuthu, Assistant Professor: Clinical Trails, Simulation and projection for Cancer, Mental Health, HIV/AIDS problems.

NAME OF THE COURSE: Ph.D. IN CLINICAL NEUROSCIENCES

Mode of Selection: Competitive written test to assess the basic knowledge and aptitude for research in interdisciplinary fields related to clinical neuroscience.

Duration of the Course: Five academic years

Programme of study: The course will consist of an initial training phase of two years followed by three years of research work. During first and second year, the candidates will undergo clinical postings and basic neuroscience training, respectively, in various fields as envisaged in the curriculum. The course will consist of theory/lectures followed by practical exposure to various techniques used in different disciplines. The candidates will be assessed periodically during these two years and are required to score a minimum of 80% credits for each year. At the beginning of the third year, a doctoral committee consisting of Guide, Joint Guide (if applicable) with two other experts in the area of research will be constituted for each candidate. This committee would be responsible to monitor the candidate's progress in his or her chosen area of research till the submission of the Ph.D. thesis.

First Year: The candidate has to work in the clinical side, actively participating in patient care and exploring avenues of interdisciplinary research, utilizing the patient material.

Second Year: During the second year the candidate would be posted to the various basic neuroscience departments and they would be provided "hands on training" in laboratory techniques.

Third-Fifth Year: Ph.D. Thesis work.

During the three-year period, the Ph.D. Thesis work will be undertaken by the candidate in a chosen area of research. The candidate will carry out research work under the supervision of a faculty member, who will function as the guide. Depending on the nature of the topic, the candidate can also have a joint guide. For the purpose of carrying out Thesis work, the candidate will be posted to the concerned Department for a period of three years.

Evaluation: The evaluation is a continous process based on assignments, seminar/Journal club presentations, clinical postings and laboratory training. Students will be evaluated at all postings by the clinicians and basic neuroscientists. Evaluation on daily basis and by credit system will be used. A ten-point grading scale with corresponding letter grades will be used. Attendance at all academic activities and clinical work is mandatory.

Ph.D. Registration: A minimum of 80% of credits clearance, separately in first and second year will be required for Ph.D. registration. The candidate has to submit a Ph.D. protocol for the registration from NIMHANS and should abide by the Ph.D. regulations of the Institute. The candidates are exempted from the pre-Ph.D. examination.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF MENTAL HEALTH</u> <u>& SOCIAL PSYCHOLOGY</u>

Duration: 3 – 5 years

Eligibility: a) 2 year full time Master's degree in Psychology from a recognized University or Equivalent Qualification recognized by NIMHANS securing not less than 55% of marks in aggregate. OR b) A two year M.Phil. degree in Mental Health & Social Psychology or equivalent qualification recognized by NIMHANS.

Exemption: Pre-Ph.D. examination and duration of one year for those candidates possessing M.Phil. degree in Mental Health & Social Psychology or equivalent qualification recognized by NIMHANS.

Programme of study: Training in theoretical and practical aspects of clinical psychology and in research methodology would be provided. Two years of supervised clinical internship in clinical psychology with special emphasis in areas related to the topic of research would also be provided.

Candidates with M.Phil. degree in Mental Health and Social Psychology or equivalent qualification recognized by NIMHANS would be registered immediately after they join the department candidates with Master's degree in Psychology would be provisionally registered upon joining the department. One year from the date of provisional registration the candidate should undertake the pre Ph.D. examination, upon the successful completion of the Pre-Ph.D. examination. The registration would be confirmed.

For candidates with M.Phil. degree in Mental Health and Social Psychology or equivalent qualification recognized by NIMHANS the pre- Ph.D. examination would be exempted and the minimum duration of training would be 2 years. After completion of a minimum of 3 years (2 years for those with M.Phil. degree in Mental Health and Social Psychology or equivalent qualification recognized by NIMHANS) and upon satisfactory completion of proposed work, the candidates would be permitted to submit their thesis.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.Shobini L. Rao, Professor: Neuropsychology, Cognitive Neuroscience.

Dr.Kiran Rao, Professor: Stress, Coping, Vulnerability, Resilience & Well being, Psychotherapy & Psychosocial Rehabilitation.

Dr.Ahalya Raguram, Additional Professor: Psychosocial aspects of mental Health/Family/Marital/Individual therapies.

Dr.H.Uma, Additional Professor: Child & Adolescent Mental Health, School Mental Health.

Dr.Mahendra P.Sharma, Additional Professor: Behavioural Medicine, Cognitive Behaviour Therapy, Cognitions and meta cognitions, Stress Management, Meditation and Psycho-oncology.

Dr.Anisha Shah, Additional Professor: Marital and Family Relationships & Therapies/Emotion-Focused Therapy: Gender in Depression.

Dr.L.N.Suman, Associate Professor: Adult Mental Health; Psychosocial aspects of Substance Abuse, Forensic Psychology.

Dr.Seema Mehrotra, Associate Professor: Adaptation to major life events, Positive Psychology, Emotional regulation and Psycho-oncology.

Dr.N.Jamuna, Assistant Professor: Neuropsychological Assessment and Rehabilitation, Paediatric Neuropsychology, Forensic Neuropsychology and Neuropsychiatric disorders.

Dr.Paulomi M.Sudhir, Assistant Professor: Behavioural Medicine, Cognitive Behaviour Processes and Therapies.

Dr.J.Keshav Kumar, Assistant Professor: Neuropsychology, Cognitive Neuroscience, Cognitive Psychiatry and Neuropsychological Rehabilitation.

Dr.Manoj Kumar Sharma, Assistant Professor: Tobacco cessation, Child, Adolescent, Adult Substance Abuse & Dependence – Neuropsychological aspects and Psychological Intervention.

Dr.M.Manjula, Assistant Professor: Youth Mental Health, Process research in Cognitive Behaviour Therapies, Anxiety Disorders, Sexual Dysfunctions.

NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF EPIDEMIOLOGY

Duration: 3 – 5 years

Programme of study: Development and application of epidemiological methods in the field of Mental Health and Neurosciences. Specified fields includes Epidemiology of Psychiatric disorders, Neurological disorders, Injuries, Traumatic Brain Injuries and Health Behaviour Surveillance.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.G.Gururaja, Professor: Injury prevention and control – epidemiology, surveillance, utilization of services, organization of emergency and trauma care, disability assessment and rehabilitation services. Road traffic injuries, traumatic brain injuries, suicides, violence, burns, agricultural injuries and work related injuries. Health behaviour surveillance, prevention and control of non-communicable diseases. Epilepsy, stroke, mental health, HIV/AIDS.

Dr.N.Girish, Associate Professor: Psychiatric Epidemiology, Maternal Mental Health issues and concerns. Traditional complementary and alternate systems of Medicine use, Iodine deficiency disorders, Health systems research.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF HUMAN</u> <u>GENETICS</u>

Duration: 3 – 5 years

Programme of study: Initially, the candidate will be provisionally registered for Ph.D. Before confirmation of registration, the candidate has to complete Pre Ph.D. examination after one year from the date of provisional registration. The candidate would be trained in both theory and in practical aspects of the curriculum pertaining to the discipline. Later, the candidate would pursue regular Ph.D. research work and submit the thesis for award of Ph.D. degree.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.K.R.Manjunatha, Professor: Genetics of mental retardation, Genotoxicity, Human molecular cytogenetics.

Dr.Rajalakshmi Gope, Additional Professor: Molecular biology of wound healing, Molecular genetics of human brain tumors.

Dr.G.K.Chetan, Associate Professor: Human genetics, Molecular cytogenetics, Genetic counseling, Genotoxicity, Genetics of MR and fragile X syndrome.

RESEARCH INTERESTS

Diagnosis of genetic disorders, DNA diagnosis of familial genetic disorders involving PCR, Southern and FISH related molecular techniques, Genotoxicity assays for a variety of chemicals, drugs and other related biological compounds and Genetic characterization of Brain Tumors.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF MENTAL HEALTH</u> <u>EDUCATION</u>

Programme of study: Theoretical basis for development and application of public health education interventions, opportunity for practical experience and relevant research methodology.

Facilities: Audio-visual facilities, video production and editing.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.Jayashree Ramakrishna, Professor: Social cultural aspects of health education interventions, reproductive health, HIV/AIDS, qualitative research, action research.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF</u> <u>NEUROCHEMISTRY</u>

Duration: 3 – 5 years

Minimum qualification: M.Sc. degree in Biochemistry/Chemistry with biochemistry/medical biochemistry with 55% aggregate marks.

Programme of study: Initially, the candidate will be provisionally registered for Ph.D. Before confirmation of registration, the candidate has to complete pre Ph.D. examination after one year from the date of Provisional registration. The candidate would be trained in both theoretical and practical aspects of the curriculum of Pre-Ph.D. course work. After satisfactory completion of proposed work and approval of synopsis, the candidate shall submit thesis for Ph.D. degree.

Area of Research Interests: Receptor mediated second messenger system, Biochemical basis of stroke and inborn metabolic disorders, Immunochemical basis of Neurodegenerative disorders.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.M.N.Subhash, Professor: Characterization of 5-HT receptors in brain, Second messenger system in neuropsychiatric disorders, Adrenergic receptors in brain, G – Proteins.

Dr.Rita Christopher, Additional Professor: Biochemical studies on inborn errors of metabolism, Biochemical studies in stroke.

Dr.Sharada Subramanian, Associate Professor: Immunotherapeutic approaches to Amyloidoses/Prionoses.

Dr.M.M.Srinivas Bharath, Assistant Professor: Role of oxidative stress, oxidation and aggregation of proteins in parkinson's disease.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF</u> <u>NEUROMICROBIOLOGY</u>

Duration: 3 – 5 years

Programme of study: Initially, the candidate will be provisionally registered for Ph.D. Before confirmation of registration the candidate has to complete Pre - Ph.D. examination after one year from the date of provisional registration. The candidate would be trained in both theoretical and practical aspects of the curriculum of Pre-Ph.D. examination. After satisfactory completion of proposed work and approval of synopsis, the candidate shall submit thesis for Ph.D. Candidates with fellowship from registered/recognized agencies only are eligible to apply for Ph.D. in Neuromicrobiology.

Field of Interests: Diagnosis of neuro infections with special reference to Neurotuberculosis and Neurocysticercosis, autoimmune diseases of the central nervous system. Molecular typing of microbes associated with central nervous system infections and molecular diagnosis of central nervous system infections.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.R.Ravikumar, Professor: Opportunistic bacterial, Parasitic, Fungal and Protozoal infections like Tuberculosis, Toxoplasmosis, Amoebic encephalitis and other neuroinfections in immunocompromised individuals.

Dr.Shripad A.Patil, Additional Professor: Immunology of autoimmune diseases of the central and peripheral nervous system including leprosy. Development of immunodiagnostics for chronic infectious disease of CNS with special reference to CNS TB meningitis and Neurocysticercosis.

Dr.S.Nagarathna, Associate Professor: CSF cell analysis, cytological studies and bacterial isolation in pyogenic infections of the brain. Delineating cryptococcal meningitis in AIDS patients with clinical correlation; a study of mortality and morbidity. Rapid modes of isolation of M.tuberculosis – PCR, Bactec.

Dr.H.B.Veena Kumari, Associate Professor: Isolation and molecular analysis of microbial strains isolated from hospital infections in a neurosurgery and ICU set up of NIMHANS.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF</u> <u>NEUROPHYSIOLOGY</u>

Duration: 3 – 5 years

Programme of study: Initially the candidates will be provisionally registered for Ph.D. Before confirmation of the registration, the candidate has to complete pre - Ph.D. examination. The candidate would be trained in both theory and practical aspects of the curriculum pertaining to the discipline. After satisfactory completion of proposed research work and approval of synopsis, the candidate shall submit the thesis for award of Ph.D. degree.

Candidates with two years M.Phil. degree from NIMHANS or MD/MS/M.Ch./DM and DNB may be given one year exemption by the Ph.D. committee and also be exempted from taking pre-Ph.D .examination.

Research Facilities: Laboratory facilities are available to carry out research in the following areas:

- 1) Neurophysiology of Yoga
- 2) Autonomic functions including HRV and BP variability
- 3) Evaluation of pulmonary functions in neuropsychiatric disorders
- 4) Neurobiology of sleep and memory systems
- 5) Cellular and molecular mechanisms of learning and memory
- 6) Neuronal plasticity in developing and adult nervous system
- 7) Neurobiology of motor neurone disease
- 8) Neurobiology of stress, depression and brain stimulation reward
- 9) Central nervous system regeneration and the role of stem cells
- 10) Synaptic physiology
- 11) Neural plasticity and brain repair mechanisms
- 12) Activation of resident stem cells in the adult brain: Implications for the treatment of neuropsychiatric disorders

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.T.R.Raju, Professor: Animal model of motor neurone disease, Trophic factors, CNS regeneration and role of stem cells, Neuronal plasticity.

Dr.Bindu M.Kutty, Additional Professor: Role of subiculum in spatial learning and memory functions, Strategies of environmental stimulation and transplantation in establishing functional recovery, Neurobiology of sleep in various psychiatric disorders and yogic practices, Human EEG and ERP studies.

Dr.T.N.Sathyaprabha, Associate Professor: Autonomic and pulmonary functions in neuropsychiatric disorders, Neurophysiology of yoga, Neurobiology of motor neuron disease.

Dr.B.S.Shankaranarayana Rao, Associate Professor: Cellular and molecular mechanisms of learning and memory, Amelioration of stress and depression induced cognitive deficits, Mechanisms of synaptic plasticity in the hippocampus, Activation of resident stem cells in the adult brain: Implications for treating neuropsychiatric disorders, Synaptic plasticity in transgenic and knockout mouse models of neuropsychiatric disorders, Neural plasticity and brain repair mechanism.

Dr.Laxmi T.Rao, Assistant Professor: The information processing at the neuronal circuitry of the hippocampus, amygdala and prefrontal cortex due to early adverse experience, Information processing in the somatosensory cortex during and following focal ischemia.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF</u> <u>NEUROVIROLOGY</u>

Duration: 3 – 5 years

Programme of study: Initially, the candidate will be provisionally registered for Ph.D. Before confirmation of registration the candidate has to complete Pre - Ph.D. examination after one year from the date of provisional registration. The candidate would be trained in both theoretical and practical aspects of the curriculum of Pre-Ph.D. examination. After satisfactory completion of proposed work and approval of synopsis, the candidate shall submit thesis for Ph.D. degree.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.V.Ravi, Professor: HIV diagnosis, development of kits, antiretroviral therapy. Japanese encephalitis.

Dr.S.N.Madhusudana, Additional Professor: Rabies development of diagnostic kits, clinical trails on intradermal vaccines with cell culture vaccines, development of plant based vaccines for rabies, development of monoclonal antibodies for rabies.

Dr.Anita S.Desai, Associate Professor: Laboratory diagnosis of viral infections of the nervous system, molecular virology of neurotropic viruses to understand pathogenesis.

NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF NURSING

Duration: 3 – 5 years

Eligibility: A candidate who has obtained a Master's degree in Nursing from NIMHANS or any recognized University, securing not less than 55% of marks in the aggregate of Master's degree.

Programme of study: During the first year, the candidate will be given training in the theoretical and practical aspects of the problem and the research methodology related to the proposed topic. The candidate will appear for pre - Ph.D. Examination after one year from the date of provisional registration. The candidate will have two years of supervised clinical work in nursing with special emphasis on areas of related to the topic of research. After the completion of the proposed research work, the candidate will submit the thesis for the award of Ph.D.

Exemption: Candidates who have obtained M.Phil. degree recognized by NIMHANS will be exempted from appearing for Pre-Ph.D. examination. For such candidates the duration of Ph.D. will be two years.

Research facilities: The department of Nursing has all the infrastructure for the teaching and research activities. There is good clinical facility and adequate reference books in the library for the students. The faculty members guide the research activities of the students in the areas of Neuro critical, infection control, effectiveness of structured teaching program, self care ability development among neurologically dependent and psychiatrically ill patients. Counselling psychiatric patients and their families, follow up work on domiciliary care services in OPD and community.

There are excellent clinical facilities in the areas of psychiatric nursing, neuro sciences nursing, community mental health – neuro nursing both in rural and urban and neuro-psychiatric rehabilitation nursing. The department has close collaboration with all other departments of the Institute for further support in the research activities and it is a part of multi-disciplinary team. The faculty members guide the research activities of the students in nursing.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.K.Reddemma, Professor: Job oriented stress, job satisfaction, manpower requirement, time-motion.

Dr.K.Lalitha, Professor: Mental health counseling and disaster intervention.

Dr.Nagarajaiah, Associate Professor: Non-pharmacological management of individuals suffering from Neurotic disorders, domiciliary care for Neuro-Psychiatric clients, family level interventions in the management of Schizophrenia.

Dr.Ramachandra, Assistant Professor: Electro convulsive therapy, Substance Abuse related problems, rehabilitation, HIV & Mental Health.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF PSYCHIATRIC</u> <u>SOCIAL WORK</u>

Duration: 3 years

Exemption: Candidates who have obtained M.Phil. degree from NIMHANS or a similar degree recognized as equivalent by NIMHANS will be exempted from appearing for Pre Ph.D. examination. For such candidates the duration of Ph.D. will be two years.

Programme of study: A candidate who has obtained MSW degree from any recognized University or any other University recognized as equivalent thereto by NIMHANS securing not less than 55% marks can register for Ph.D. examination after one year from the date of provisional registration. The candidate would be trained in research methodology, theoretical and practical aspects of the curriculum on Ph.D. for a duration of 3 years. The candidate has to complete Pre -Ph.D. examination after one year from the date of provisional registration.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.R.Parthasarathy, Professor: Student and Family Mental Health.

Dr.K.Sekar, Professor: Community Mental Health, Disaster, Psychosocial Support and Mental Health Care.

Dr.D.Muralidhar, Professor: Alcoholism and Interventions with Mental disorders.

Dr.N.Krishna Reddy, Associate Professor: Psychiatric Social Work Interventions in Neurosurgery.

Dr.Prakashi Rajaram, Associate Professor: Psychiatric Social Work Intervention in Neurology and Women issues.

Dr.V.Indiramma, Assistant Professor: Child Mental Health.

Dr.R.Dhanasekara Pandian, Assistant Professor: De-addiction Community Care, Counselling and Allied training programme.

Dr.A.Thirumoorthy, Assistant Professor: Counselling, Psychiatric Social Work in General Health Care.

Dr.Md.Ameer Hamza, Assistant Professor: Group work with schizophrenia and alcohol and substance abuse.

Dr.B.P.Nirmala, Assistant Professor: Neuro Psychiatric Rehabilitation, Correctional social work.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF</u> <u>PSYCHOPHARMACOLOGY</u>

Duration: 3 – 5 years

Programme of Study: 1. Theoretical applied aspects of fundamental systemic neurosciences and Molecular psychopharmacology. 2. Clinical Psychopharmacology. 3. Experimental psychopharmacology.

Fields of investigation: 1. Molecular modeling and computational biology. 2. Computational neuroscience involving nonlinear complex systems structure and dynamics. 3. Synchronization and coherence in neural systems. 4. Theoretical cognitive neuroscience. 5. Electroconvulsive therapy and psychopharmacology (using herbal or allopathic medications) in rodent models of anxiety, depression, locomotor activity and learning and memory. 6. Investigation of behavioral, neuropsychological, and other effects of medications in psychiatric disorders. 7. Psychosocial aspects of medication in psychiatric disorders.

Research facilities: Advanced computing and modeling environment (SGI ONYX 3200 Server, DEC Alpha 4100 Server Pentium 4 Fedora Linux Servers. MATLAB, MATHEMATICA, facilities of biomedical signal processing, image processing. Facilities for clinical and animal research, computerized ECT technology, instruments for the evaluation of the animal models listed above.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.N.Pradhan, Professor: Nonlinear dynamics, Complex systems, Molecular modelling, Behavioural psychopharmacology, Indigenous drug development.

Dr.Chittaranjan Andrade, Professor: Electroconvulsive Therapy, Drug trials, Herbal medicines.

<u>NAME OF THE COURSE: Ph.D. IN THE DEPARTMENT OF SPEECH</u> <u>PATHOLOGY & AUDIOLOGY</u>

Programme of study: After selecting the candidate through Entrance test and counseling, the candidate will be provisionally registered for Ph.D. For confirmation of registration, the candidate has to complete the pre-Ph.D. examination conducted after one year from the date of provisional registration. The candidate would be trained on theoretical and practical aspects of the doctoral course work and will also be trained on clinical evaluation and management of patients with particular emphasis in the area of the candidate's research topic. Following the satisfactory completion of the doctoral work and approval of the synopsis, the candidate shall submit the full thesis.

Research Facilities: Full fledged speech pathology and audiology laboratory. Multicisciplinary interaction. Excellent clinical material in the area of neuropsychiatric communication disorders.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.M.Jayaram, Professor: Neurogenic communication disorders, Stuttering, voice disorders, Speech perception and production, Instrumentation.

Dr.N.Shivashankar, Professor: Clinical neuroaudiology, Central auditory processing disorders, Adult and childhood speech-language disorders.

NAME OF THE COURSE: DM IN NEUROLOGY

Duration: For candidates with MBBS qualification the duration of the course will be for a period of five years. For candidates with MD/DNB in General Medicine or Pediatrics, the duration of the course will be for a period of three years.

Clinical & Research Facility: Department of Neurology has experienced faculty with varied research interest and offers research facilities in the areas of diagnosis and management of various neurological disorders. This is backed by well developed Electrodiagnostic Laboratory with facilities for EEG, Electroneuromyography, Evoked potentials, Long term Video EEG, Transcranial magnetic stimulation, Sleep laboratory, Doppler ultra sonography and Autonomic nervous system laboratory. In addition, the department has specialized stroke unit, neuro critical care and exclusive neuro infection wards. A well developed neurorehabilitation facility is also available apart from acute and chronic care neurology.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.D.Nagaraja, Professor & Director/Vice-Chancellor: Cerebrovascular diseases, Behaviour and cognitive neurology, Cerebral venous sinus thrombosis, Headache, Multiple sclerosis.

Dr.P.Satishchandra, Professor: Epilepsy, Neuroepidemiology, Neuroinfections, Neuro-AIDS, Epilepsy and genetics, Electroencephalography and evoked potentials.

Dr.A.B.Taly, Professor: Neurological disabilities and rehabilitation, Neurological complications of alcoholism, Neuromuscular disorders, Sleep and alternative medicine.

Dr.M.Veerendra Kumar, Professor: Neurocysticercosis, Clinical Electrophysiology, Advanced EMG.

Dr.A.Nalini, Associate Professor: Motor neurone disease, Neuro-AIDS, Neuro Muscular disorders.

Dr.Pramod Kumar Pal, Associate Professor: Transcranial magnetic stimulation and motor physiology, Parkinson's disease and other movement disorders, Ataxias.

Dr.Sanjib Sinha, Associate Professor: Epilepsy, Ataxias, Wilson's disease, Sleep.

Dr.P.S.Bindu, Assistant Professor: Pediatric neurology, Neurometabolic disorders, Leukodystrophies and Dysmorphic syndromes

Dr.Girish B.Kulkarni, Assistant Professor: Immune mediated neuropathies, Headache.

NAME OF THE COURSE: DM IN NEURORADIOLOGY

Duration: 3 years

Research Facilities: Spiral CT Scanner, 1.5 Tesla MRI Scanner with facilities for EPI studies, MR Angiography Perfusion, Proton and Phosphorous spectroscopy and functional MRI, Digital Substraction Angiographic facility for interventional management of neurovascular disorders including 3D CT Angiography and Virtual Angiographic endoscopy, 3 Tesla MRI system with functional imaging and Tractography and 16 slice CT Scanner.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.P.N.Jayakumar, Professor: MRI & MR Spectroscopy of "Schizophrenia" Brain tumours, Infections, Functional MRI, Epilepsy. Interventional treatment of tumors, Cerebral Aneurysm and AVM.

Dr.M.K.Vasudev, Professor: Co-Investigator in MRI & MRS in Schizophrenia MRI in Wilson's disease, MRI of Diffuse and perfusion in acute stroke. Latest MRI imaging protocols, Interventional techniques in the Aneurysm using GDC coil, Onyx Gel, Interventional techniques – Occlusion of AVM using Histoacryl Glue.

Dr.Jerry M.E.Kovoor, Associate Professor: Diffusion weighted MRI, Quantitative MR techniques, Epilepsy, Neuro interventions. Endovascular treatment of brain and spine vascular malformation. Aneurysm coiling, carotid and vertebral artery extracranial & intracranial stenting. Acute stroke neurointerventions, Vertebroplasty.

Dr.Dawn Thomas K.Puthumana, Assistant Professor:

NAME OF THE COURSE: M.CH. IN NEUROSURGERY

- **Duration**: (i) The duration of the course will be five years for candidates with MBBS Qualification.
 - (ii) The duration of the course will be three years for candidates with MS/DNB in General Surgery.

Training facilities: The Department of Neurosurgery offers comprehensive training in all aspects of this developing field. It has an advanced OT complex equipped with most modern microscopes, endoscopes, neuronavigation etc.

It also has a stereotaxy and Gammaknife radiosurgery unit, the first of its kind in South India. It manages a specialized head and spine trauma center with excellent facilities. In addition to this, the department has ongoing clinical and experimental research in basic and applied Neurosciences namely Head Injury, Glioma, Cerebral ischemia, Subarachnoid Haemorrhage, Peripheral Nerve and allo grafts and spinal dysraphism.

The Training includes:

1) Basic Neurosurgery, to be able to perform Neurosurgical procedures under supervision under assistance and independently.

2) Clerking the patients both in and outpatients and casualty.

3) Neurology and Neuroradiology and Neuropathology posting and training. In addition the Post MBBS candidates will undergo one year General Surgery training at the General Hospitals attached to Bangalore Medical College.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.R.M.Varma, Emeritus Professor:

Dr.B.A.Chandramouli, Professor: Surgery for craniovertebral junction anomalies, Cerebrovascular surgery, Skull base surgery, Epilepsy surgery.

Dr.B.Indira Devi, Professor: Surgery for Craniovertebral junction anomalies, Peripheral nerve repairs, Spinal dysraphism, Neurorehabilitation, Surgery for gliomas General Neurosurgery. Clinical and basic research on peripheral nerve, spinal dysraphism, sub arachnoid haemorrhage and cerebral ischemia, cortical plasticity and functional MRI.

Dr.S.Sampath, Professor: Spinal trauma, Instrumentation and stabilization procedures, Endoscopic neurosurgery, Cerebro vascular surgery, Surgery for supraseller lesions, Gamma Knife Radiosurgery.

Dr.Paritosh Pandey, Associate Professor: Neuro trauma, Stereotactic clinical research in glioma, Cranial infection.

Dr.Dhananjay I Bhat, Assistant Professor: Cerebro vascular surgery, Peripheral nerve injuries, Craniovertebral and spine fusions, Clinical and Basic research on Peripheral nerve and sub arachnoid haemorrhage.

Dr.Dwarakanath Srinivas, Assistant Professor: Functional and minimally invasive surgery, Skull base surgery, Paediatric neurosurgery.

Dr.Arivazhagan, Assistant Professor: Functional and minimally invasive surgery, Skull base surgery, Endoscopic surgery.

Dr.Nupur Pruthi, Assistant Professor: Surgery for spine and Gliomas, Clinical and basic research on Head Injuries and peripheral nerves.

Dr.Jagath Lal.G, Assistant Professor: Glioma surgery and research, Brachial plexus, Neurotrauma and Neuro re-habilitation, Gammaknife radiosurgery, Stereotaxy for tumours.

Dr.Manish Ranjan, Assistant Professor: Spine, Surgery for glioma and research, Gammaknife radiosurgery.

Dr.K.V.L.Narasinga Rao, Assistant Professor: Spine surgery, Meningioma and Glioma surgery.

NAME OF THE COURSE: (1) MD PSYCHIATRY

Duration: 3 years after MBBS/2 years after DPM.

The department of Psychiatry, NIMHANS is one of the largest in South East Asia. Clinical work in the department is through Outpatient Clinics and Inpatient Services. The General Outpatient runs 6 days a week with both evaluation and follow up services each day. **THERE ARE SPECIAL CLINICS.**

Child and Adolescent Psychiatry including Mental Retardation – Monday, Tuesday, Thursday, Friday, Saturday OCD Clinic – Tuesday Schizophrenia Clinic – Wednesday Perinatal Clinic – Friday Old Age Psychiatry – Saturday De-Addiction Clinic – Monday, Saturday Tobacco Cessation Clinic – Monday, Saturday The Metabolic Clinic in Psychiatry – Wednesday

The Department has a large inpatient set up with 550 beds including separate Child & Adolescent Psychiatry services, De-addiction services and Family Psychiatric Center.

NAME OF THE COURSE: (2) DIPLOMA IN PSYCHIATRY (DPM)

Duration: 2 years

Research facilities: As given in (page 39).

<u>NAME OF THE COURSE: (3) POST DOCTORAL FELLOWSHIP IN CHILD &</u> <u>ADOLESCENT PSYCHIATRY</u>

Duration: 1 year.

Programme of Study: (1) Clinical Child and Adolescent Psychiatry (2) Developmental and Child Neurology (3) Developmental Pediatrics (4) Clinical and Developmental Child Psychology (5) Socio-cultural dimensions of child and adolescent mental health (6) Allied basic sciences (7) Legal and Administrative perspectives on child and adolescent mental health.

A. Training

Under the aegis of NIMHANS Deemed University the Department of Psychiatry is involved in training in a continuous manner under MD, DPM, Ph.D. in Psychiatry and Post Doctoral Fellowship in Child & Adolescent Psychiatry courses. The department is active in the training of professionals from other disciplines in the Institute and from other parts of India and SAARC region. Other training activities of the department include

- 1. PHC doctors under the National Mental Health Program.
- 2. Certificate courses in Family Psychiatry, Child Psychiatry and Substance Abuse
- 3. Regular de-addiction training for both medical and non-medical health professionals
- 4. One week training program in students Counseling for college teachers
- 5. Regular workshops for teachers of secondary schools, Community Level Workers, volunteers, NGOs on Life Skills Education for adolescents
- 6. There are periodic training workshops on diverse topics like Communication Skills, Grief & Bereavement, Clinical Audits, Psychooncology, Chronic pain and Palliative care.
- 7. Newer training methods like Objective Structure Clinical Examination (OSCE), problem based learning, role play and Small Group Activities are being conducted on a regular basis.

The department of Psychiatry also has the Community Health services for the last three decades. This facility provides community based mental health services in 6 districts of Karnataka in addition to supporting several more districts.

B. Research Activities

The faculty of the department have diverse research interests. They include Clinical Psychiatry, Investigative Aspects of various psychiatric conditions – Neuro-imaging, Molecular Genetics, Electro-physiology and Interventions including Electro Convulsive Therapy, Yoga, Psychotherapy and Transcranial Magnetic Stimulation. There is active research work in special areas like Child Mental Health, Old Age Psychiatry, Women's Mental Health, Substance Abuse and Community Mental Health also. The department has liaison with other research centers nationally (example NCBS, SVYASA) and internationally.

The department works in collaboration and has consultative liaison towards clinical services with other departments of the institute – Neurology, Mental Health and Social Psychology, Psychiatric Social Work, Psychiatric Nursing, Psychopharmacology, Neurochemistry, Neuropathology, Neurophysiology, Neurovirology, Epidemiology, Psychiatric and Neurological Rehabilitation etc.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.S.M.Channabasavanna, Emeritus Professor: Forensic Psychiatry, Family Psychiatry, Biological Psychiatry.

Dr.R.S.Pandey, Professor: Biological Psychiatry and Mind Body Medicine.

Dr.C.R.Chandrashekar, Professor: Cultural issues, Somatisation, Legal and Community Psychiatry, Mental Health Education.

Dr.Shoba Srinath, Professor: Child Psychiatry, Mood Disorders, Autism, Epidemiology.

Dr.B.N.Gangadhar, Professor: Schizophrenia, Electro Convulsive Therapy, Yoga & Complimentary Medicine, Community Mental Health.

Dr.S.K.Chaturvedi, Professor: Cancer and Mental Health, Pain Psychosomatics, Quality of Life & Consultation – Liaison Psychiatry.

Dr.Satish Chandra Girimaji, Professor: Mental retardation, Child psychiatry.

Dr.Shekhar P. Seshadri, Professor: Child & Adolescent Psychiatry (Adolescent Mental Health) Therapy & Therapy training, Gender, Sexuality, Sexual Abuse, Mental Health of Street Children, Qualitative Research and Experiential Methodology, Life skills education, School programs.

Dr.Sanjeev Jain, Professor: Genetics of Psychiatric disorders, History of Psychiatry, Phenomenology, Biological Psychiatry.

Dr.Mathew Varghese, Professor: Family Issues and Mental Health, Geriatric Psychiatry.

Dr.Prabha S.Chandra, Professor: HIV and mental health, Women and mental health.

Dr.Pratima Murthy, Professor: Substance Abuse, History of Psychiatry, Psychiatric Training, Neuropsychiatry.

Dr.Srikala Bharath, Professor: Life skills education for Schools, Children at risk, Old age psychiatry, Disaster and Mental Health.

Dr.Y.C.Janardhan Reddy, Additional Professor: Obsessive Compulsive Disorders, Anxiety Disorders and Bipolar disorder.

Dr.Vivek Benegal, Associate Professor (De-Addiction Unit): Substance abuse related disorders, Neurobiology and genetics of addiction.

Dr.Jagadisha, Associate Professor: Schizophrenia, Somatic therapies (ECT, rTMS, Yoga).

Dr.Manjula Devi, Assistant Professor: Music Therapy, Community Psychiatry – conducting Mental Health camps.

Dr.John P.John, Assistant Professor: Phenomenology, Nosology and Neurobiology EEG, Structural and Functional MRI, Neuropathology, Neuropsychology, Molecular Genetics of Schizophrenia.

Dr.B.M.Suresh, Assistant Professor: Obsessive compulsive disorder: Genetics, Forensic Psychiatry & Community Psychiatry.

Dr.G.Venkatasubramanian, Assistant Professor: Evolutionary Psychiatry, Psychoneuroendocrinology, Psychoneuroimmunology, Metabolic Disorders in Psychiatry, Neuroimaging (MRI, fMRI, DTI & MRS) and Genetics in Psychiatry, Schizophrenia, Biology of Obsessive Compulsive Disorder, Human Evolutionary Genetics, Evolutionary Biology.

Dr.Om Prakash, Assistant Professor: Dementia evaluation, depression in the elderly, Seizures in Alcoholism, Alcohol Pharmacoprophylaxis, 'Culture Bound Syndromes', Community Mental Health.

Dr.P.T.Sivakumar, Assistant Professor: Geriatric Psychiatry, Community Psychiatry.

Dr.Geetha Desai, Assistant Professor: Women's Mental Health, Consultation Liaison Psychiatry, Adolescent Psychiatry.

Dr.Muralidharan.K, Assistant Professor: Vulnerability to Alcoholism and Substance use disorders, Treatment of substance use disorders, Transcranial Magnetic Stimulation, Electro-Convulsive therapy.

Dr.Y.P.Mukesh, Assistant Professor: Child and Adolescent Psychiatry, anxiety disorders, School related Mental Health problems, pediatric Psychopharmacology, Autism and Mental reterdation.

Dr.Shivrama Varambally, Assistant Professor: Early onset psychosis and Schizophrenia, Neurological Signs in Schizophrenia, Yoga in Psychiatry, Electro Convulsive Therapy.

Dr.Prabhat Kumar Chand, Assistant Professor: Substance/Drug abuse related disorders, Bipolar disorder and dual diagnosis.

Dr.Harish.T, Assistant Professor: Electro Convulsive Therapy, Acute Psychosis.

<u>NAME OF THE COURSE: POST DOCTORAL FELLOWSHIP IN</u> <u>NEUROPATHOLOGY</u>

Duration: 1 year

Programme of Study: To train diagnostic Neuropathologist. Training offered to Postgraduate in Pathology (Medical only).

Research facilities: Well established Histopathology laboratory for processing Muscle, Peripheral Nerve, Brain, Spinal cord human and animal with special stains and Immunohistochemistry, Transmission Electron Microscopy Facility, Human Brain Tissue Repository for Neurobiological Studies (Human Brain Brain Brain Brain) – A National Facility, Transfusion Medicine Centre.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.S.K.Shankar, Professor: Neuropathology of Viral Infections with special reference to HIV/AIDS, CJD, Rabies, Neurodegenerative diseases, Pathology of epilepsy.

Dr.Vani Santosh, Additional Professor: Biology of Brain Tumours, Developmental pathology of brain.

Dr.T.C.Yasha, Additional Professor: Pathology of Peripheral Nerves, Neurodegenerative diseases, Pathology of Neurometabolic disorders.

Dr.Sunder Periyavan, Additional Professor: Tranfusion Medicine and Immunohematology.

Dr.N.Gayathri, Associate Professor: Pathology of Neuromuscular diseases, Ultrastructural Pathology.

Dr.B.K.Chandrasekhar Sagar, Assistant Professor in Electron Microscopy: Ultrastructural Pathology, In-charge Electron Microscopy Laboratory, a Common Research Facility.

Dr.Anita Mahadevan, Assistant Professor: Pathology of Neuroinfections, AIDS/CJD/Rabies, etc., Pathology of Peripheral Nerves, Brain Banking.

<u>NAME OF THE COURSE: POST DOCTORAL FELLOWSHIP IN</u> <u>NEUROANAESTHESIA</u>

Duration: 1 year

Programme of study: The course envisages to train the candidates in the following areas: (i) Basic sciences related to neuroanaesthesia (ii) Clinical neuroanaesthesia for neurosurgery (iii) Anaesthesia for neuroradiological procedures including interventional neuroradiology and magnetic resonance imaging (iv) Neuromedical and neurosurgical intensive care (v) Principles of research in neuroanaesthesia (vi) Experience in handling modern anaesthesia and intensive care equipment.

Research facilities: The clinical material of the department offers a wide scope for investigation. The department is also equipped with extensive cardiovascular and respiratory monitoring facilities including pulmonary function testing and cerebral monitoring including Transcranial Doppler & BIS which may be used for clinical research. Other facilities include blood gas analysis and anaesthetic agent monitoring. In collaboration with other clinical departments, it is possible to study Intracranial pressure.

ACADEMIC FACULTY AND RESEARCH INTERESTS

Dr.G.S.Umamaheswara Rao, Professor: Intensive care, Head injury, mechanical ventilation, Cerebral blood flow studies.

Dr.V.Bhadrinarayan, Additional Professor: Head injury, Intensive care.

Dr.T.S.Devaragudi, Additional Professor: Infections in intensive care units, Intraoperative haemodilution.

Dr.K.R.Madhusudan Reddy, Associate Professor: Neuroendoscopy, Studies in intraoperative ICP measurement.

Dr.V.J.Ramesh, Associate Professor: Outcome in intensive care, Mechanical ventilation.

Dr.M.Radhakrishnan, Assistant Professor: Clinical investigation in Neuroanaesthesia.

Dr.Smita.V, Assistant Professor: Cerebro Vascular Physiology.

NAME OF THE COURSE: M.PHIL. IN BIOPHYSICS

Duration: 2 years

Programme of study: The course has been designed to build up the general background in the major areas of biophysics such as molecular biophysics, membrane biophysics, neurobiophysics, biophysical techniques, bioenergetics, medical biophysics. In the second year of the course emphasis is given to specialization and research. The candidate will carry out a research project to be presented in the form of a dissertation. The laboratories are well equipped to conduct research on cellular and molecular aspects of nervous system.

ACADEMIC FACULTY AND RESEARCH INTERESTS: (Please refer page 22)

<u>NAME OF THE COURSE: M.PHIL. IN MENTAL HEALTH AND SOCIAL</u> <u>PSYCHOLOGY</u>

Duration: 2 years

The department of Mental Health & Social Psychology is the first department to start a teaching programme in the field of Clinical Psychology in the country. The Diploma in Medical Psychology was started in the year 1955. The M.Phil. in Mental Health and Social Psychology aims to train clinical practitioners with an orientation to research. The course gives a comprehensive coverage of (1) Psychodiagnostic assessment (2) Counseling and psychotherapy (3) Family & Martial therapies (4) Behaviour Medicine and Behaviour therapy (5) CAMH (6) Management of Substance Abuse (7) Psychosocial Rehabilitation & (8) Neuropsychology. The didactic lectures, clinical teaching through case conferences and topics discussion are held regularly. The seminars and Journal clubs provide additional input. The research orientation is given through the dissertation on the clinical topic. Candidates work under supervision, with adult and child populations with a range of psychiatric and neurological problems, thereby gaining clinical expertise.

ACADEMIC FACULTY AND RESEARCH INTERESTS: See under Ph.D. in Mental Health and Social Psychology (page 25).

NAME OF THE COURSE: M.PHIL. IN NEUROPHYSIOLOGY

Duration: 2 years

Programme of study: The course consists of lectures, seminars, laboratory work and dissertation. The course aims at training students to acquire a comprehensive knowledge of Neurophysiology from the organism to the cellular level. The areas to be covered include: (i) cellular and developmental neurobiology, (ii) mechanisms of the systems of sensation, movement and posture, (iii) mechanisms of nervous systems governing visceral and endocrinal processes, (iv) neurophysiology of consciousness and higher nervous activity, (v) clinical neurophysiology, electroencephalography and neural imaging and (vi) research methodology covering research techniques in neurophysiology.

The candidates will take active participation in seminars and journal clubs and acquire skills in critically evaluating research findings. They would be exposed to research methodologies covering various aspects of Neurophysiology through postings in several laboratories of the department. Each candidate is expected to acquire a wide range of experience in experimental skills, which will be achieved by regular participation in practicals.

The candidates will carry out specific research project, which will be presented in the form of a dissertation.

Research Facilities: Research facilities to carryout dissertation work are available in the department. It has well equipped laboratories to carry out research in cellular neurophysiology, synaptic physiology, behavioral neurobiology, learning and memory, neuroanatomy, growth and differentiation of CNS, regeneration and degeneration, brain chemistry, neurobiology of stress, depression and brain stimulation reward, Stem cells and neurogenesis, neurobiology of motor neuron disease, neuronal plasticity, Autonomic and pulmonary functions etc.

The laboratory facilities include electrophysiology, neuromorphology, psychophysiology, neuronal culture and biochemistry to investigate the functioning of nervous system through electrophysiological, morphological, behavioral and biochemical approaches.

ACADEMIC FACULTY AND RESEARCH INTERESTS: See under Ph.D. in Neurophysiology (page 30)

NAME OF THE COURSE: M.PHIL. IN NEUROSCIENCES

Duration: 2 years

Programme of study: The course consists of theory lectures on structure and function of the nervous system at molecular, cellular and systems level. In addition, candidates will have an exposure to pathological and applied aspects of the nervous system. The importance of computational neuroscience in understanding brain function also will be stressed. Theory lectures will be followed by practical demonstration of various techniques used in different disciplines. Each candidate is required to carry out research work, which will result in a dissertation.

COURSE COMMITTEE: The course will be coordinated by a Course Committee consisting of five faculty members nominated by the Director/Vice-Chancellor, NIMHANS from the participating departments. The current members of the course committee are:

Dr.T.R.Raju, Professor & Head of the Department of Neurophysiology - Chairman

Dr.V.Ravi, Professor & Head of the Department of Neurovirology - Member

Dr.Shobini L.Rao, Professor & Head of the Department of Mental Health & Social Psychology - Member

Dr.Vani Santosh, Additional Professor of the Department of Neuropathology - Member

Dr.Rita Christopher, Additional Professor of the Department of Neurochemistry - Member

NAME OF THE COURSE: M.PHIL. IN PSYCHIATRIC SOCIAL WORK

Duration: 2 years

Research facilities: Research facilities are available. The candidate will complete research work through partial fulfillment during Part II of the programme. Eligible candidates are encouraged to register for Ph.D. The department has faculty and Staff members who have cultivated special interests in fields like Marriage and Family, Theoretical Framework, Marriage and Family Intervention techniques, Psychosocial Rehabilitation, Community based mental health activities, Alcohol and drug abuse, Social Work interventions in Neurology and Neurosurgery and Collaboration with educational, correctional and industrial organizations. The department's active collaboration with voluntary agencies, governmental agencies, schools of social work and Universities facilitates the process of undertaking interdisciplinary research in priority areas of mental health in general and Psychiatric Social Work in particular.

ACADEMIC FACULTY AND RESEARCH INTERESTS: Please refer (page 32)

NAME OF THE COURSE: M.SC. IN PSYCHIATRIC NURSING

Duration: 2 years

ACADEMIC FACULTY AND RESEARCH INTERESTS: Please refer (page 32)

NAME OF THE COURSE: B.Sc. IN NURSING

Duration: 4 years

ACADEMIC FACULTY AND RESEARCH INTERESTS: Please refer (page 32)

NAME OF THE COURSE: B.Sc. IN RADIOGRAPHY

Duration: 3 years

ACADEMIC FACULTY AND RESEARCH INTERESTS: Please refer (page 36)

DIPLOMA COURSES

DIPLOMA IN PSYCHIATRIC NURSING (DPN)

Duration: 1 year

DIPLOMA IN NEUROLOGICAL & NEUROSURGICAL NURSING (DNN)

Duration: 1 year

All the applications received shall be considered by a Committee constituted by the Director. Weightage in selection shall be given to those candidates sponsored by the Government and other Institutions. The selected/ sponsored candidates shall be informed directly by Registered Post Acknowledgement Due.

ACADEMIC FACULTY AND RESEARCH INTERESTS: Please refer (page 32)

<u>DIPLOMA COURSE IN CLINICAL NEUROPHYSIOLOGY TECHNOLOGY</u> (DCNT)

Duration: 1 year

All applications received shall be considered by a Committee constituted by the Director and the applicants fulfilling the basic qualifications shall appear before the committee constituted by the Director. The selected candidates shall be informed directly by Registered Post Acknowledgement Due.

CENTRAL ANIMAL RESEARCH FACILITY: At central animal research facility, we are conducting a short-term course on laboratory animal care, breeding and management. The course is of 30 hour programme in power point presentation. In addition to this, there will be practical training programme in routine laboratory animal techniques.

METHOD OF SELECTION

- A. The Selection procedure for all the postgraduate courses listed under A (page 9) will be as follows:
 - 1. Selection will be purely based on merit as determined in the Entrance test only. There will be counseling for students to ascertain their preference of subject, verification of documents and to implement statutory reservation provisions. General candidates securing less than 50% of marks and SC/ST candidates securing less than 44% of marks in the Entrance test shall not be eligible to be called for counseling.

- 1a. If no eligible candidiates are available against reserved seats, they shall be filled up from general merit category students.
- 2. The question paper for Entrance test will contain multiple choice objective type questions. The duration of the test for each course will be determined by the concerned departments. A single Common Entrance Test will be conducted for MD and DPM in Psychiatry courses for candidates with MBBS degree. A single Common Entrance Test will be conducted for DM in Neurology and M.Ch. in Neurosurgery courses for candidates with MBBS degree. Separate Entrance tests will be conducted for Candidates with MD/MS/DNB qualification applying for DM in Neurology and M.Ch. in Neurosurgery courses. The Entrance test for candidates applying for DM in Neurology course will be conducted separately.
- 3. A merit list will be prepared course wise and reserved category wise based on the marks scored by the candidates in the Entrance test. Eligible candidates will be called for counseling until all the seats are filled up in all the categories. Counseling will be stopped as soon as the last seat is filled. Waiting list will be based on the merit list so prepared. A separate list will be prepared for Diploma in Psychiatry & M.Phil. in Mental Health and Social Psychology for the seats reserved for Karnataka domiciles.

In case of two or more candidates obtaining equal marks in the Entrance test, then, their inter se merit will be determined as under:

- a. No. of attempts in the previous qualifying exam.
- b. If the number of attempts are same, candidates securing higher marks in the pervious qualifying exam will be considered.
- c. If marks are also same, then, age will be the criterion i.e., person who is senior in age shall rank higher.

Such eligible candidates in each category shall be called to appear before a duly constituted Selection Committee for the counseling.

4. The admission will be on the basis of Merit as determined by the marks secured in Entrance test. The list of selected candidates will be prepared separately for each course and displayed in the order of merit on the notice boards of the Institute and the NIMHANS website.

B. Admission to B.Sc. Courses listed under B (page 10)

The admission will be on the basis of Merit as determined by the marks secured in Entrance test. The list of selected candidates will be prepared separately for each course and displayed in the order of merit on the notice boards of the Institute and the NIMHANS website.

B (1). Admission to Diploma Courses listed under B (page 10)

All applications received shall be considered by a Committee constituted by the Director. Weightage in selection shall be given to those candidates sponsored by the Government and other Institutions. The selected candidates shall be informed directly by Registered Post Acknowledgement Due

DATE OF JOINING

Selected candidates must join the course, after paying the necessary fees on or before the dates stipulated in the selection letter failing which the selection shall automatically stand cancelled. The Institute shall offer such seats to the candidates in the waiting list in the order of merit.

PRIZES

The following prizes are awarded by NIMHANS to the best outgoing students in various examinations:

- 1. **Dr.D.L.N.Murthy Rao Memorial Prize** for the best outgoing student in Diploma in Psychiatry (DPM) examination.
- 2. **Dr.M.V.Govindaswamy Memorial Prize** for the best outgoing student (for securing the highest marks in the aggregate of Part I and Part II in M.Phil. in Mental Health & Social Psychology examination.
- 3. **Dr.M.V.Govindaswamy Memorial Prize** for the best outgoing student (for securing the highest marks in the aggregate of Part I and Part II in M.Phil. in Psychiatric Social Work examination.
- 4. **Dr.M.V.Govindaswamy and Dr.D.L.N.Murthy Rao Memorial Prize** for the candidate who secures the highest marks in the examination of Diploma in Psychiatric Nursing (DPN).
- 5. **Infosys Foundation Award** for excellence in Diploma in Psychiatric Nursing (DPN) and Diploma in Neurological and Neurosurgical Nursing (DNN) for securing highest marks.

- 6. Shri.Mukund Memorial Prize for the candidate who secures the highest marks in Diploma in Neurological and Neurosurgical Nursing (DNN) examination.
- 7. Silver Jubilee Award for the best outgoing student in DM in Neurology.
- 8. Silver Jubilee Award for the best outgoing student in M.Ch. Neurosurgery.
- 9. Silver Jubilee Award for the best outgoing student in MD in Psychiatry.
- 10. **Dr.R.N.Moorthy Award** for the candidates who secures the highest marks (in the aggregate of Part I and Part II) of M.Phil. in Neurophysiology, M.Phil. in Biophysics and M.Sc. in Psychiatric Nursing examinations.
- 11. **Dr.Anisya Vasanth Memorial Award** for the best Postgraduate Resident in Neurology.
- 12. Golden Jubilee Award for the best outgoing student in DM Neuroradiology.

GENERAL INSTRUCTIONS

- 1. Applications received after the closing date or which are not complete in all respects will not be considered.
- 2. Candidates are advised to send their application form(s) preferably by registered post. The Institute takes no responsibility for any delay in the receipt or loss of application in transit.
- 3. All claim made in the application must be supported with documentary proof
- 4. Employees of State or Central Government or of any Public Sector Undertaking of State or Central government should send their applications through their employers. However, the advance copy of the application (complete in all respects) can be sent. In case the application is not received through the employer before the date of the Entrance test, a NO OBJECTION CERTIFICATE from the employer should be produced at the time of Entrance test failing which the candidate will not be allowed for Entrance test.
- 5. Candidates called for Entrance test and counseling will have to make their own arrangements for stay at Bangalore (minimum 2 3 days). No TA/DA will be paid by NIMHANS.
- 6. The decision of the Director of the Institute shall be final in matters of selection of candidates for admission to the various courses and no appeal shall be entertained on this subject.

- 7. No individual intimation will be sent to candidates who are not selected and no correspondence on this subject will be entertained.
- 8. All courses are conducted on full time basis. Private practice in any form is prohibited. The candidates are strictly not permitted to undertake any other part time or correspondence courses.
- 9. All candidates admitted to the Institute shall maintain good conduct, attend their classes regularly and abide by the regulations of the Institute.
- 10. Selected candidates shall have to submit migration certificate and TC from the University from which they have passed the last qualifying examination, at the time of joining the Institute.
- 11. All the Junior/Senior Residents receiving emoluments from the Institute and admitted to any course will be on contract service for the duration of the studies. They are required to submit a contract bond on a non-judicial stamp paper of the value of Rs.100/-. The bond, duly completed in all respects, shall be submitted at the time of joining, failing which they will not be allowed to join the course. Similarly, all candidates for Ph.D., M.Phil. and M.Sc in Psychiatric Nursing are required to submit a bond on a non-judicial stamp paper of the value of Rs.100/-. The bond, duly completed in all respects, shall be submitted at the time of joining, failing which they will not be allowed to join the course. Similarly, all candidates for Ph.D., M.Phil. and M.Sc in Psychiatric Nursing are required to submit a bond on a non-judicial stamp paper of the value of Rs.100/-. The bond, duly completed in all respects, shall be submitted at the time of joining, failing which they will not be allowed to join the course.

A Copy of the bond to be executed will be provided at the time of joining.

- 12. Eligible candidates for Entrance Test will be intimated about their eligibility by post and Institute will not take any responsibility for non-receipt of the call letters.
- 13. Qualified candidates list for counseling will be notified on the Institute's Notice Board and the Website. No separate individual intimation will be given. Non receipt of notice by any individual candidate will not vitiate the selection process having regard to publication of result as also schedule on the notice board and the website. The decision of the Director in all matter regarding selection will be final and no representation in any form will be entertained.
- 14. Any changes in date, time, venue and or schedule of the Entrance Tests, Counseling will be announced on our website and notice boards, no individual intimation will be given to the candidates.
- 15. The candidates are requested to keep themselves updated by visiting our website regularly from time to time or keeping in touch with the Academic section of NIMHANS.

16. The rules and regulations in this prospectus are subject to change in accordance with the decision of the Institute from time-to-time.

WARNING

In case any candidate is found to have supplied false information or certificate or is found to have withheld or concealed some information, he/she shall be debarred from continuing the course and shall face such appropriate action initiated against him/her by the Director of the Institute.

RAGGING

Ragging is banned in this institution and if any incident of ragging comes to the notice of the authority, the concerned student shall be given liberty to explain and if his/her explanation is not found satisfactory, the authority would expel him/her from the Institute.

The candidates along with the parents/guardians of the candidates have to sign a declaration that they are aware about ragging being banned at this Institution and if found indulging in ragging, the concerned student shall be given liberty to explain and if his/her explanation is not found satisfactory, the authority would expel him/her from the Institute.

ACCOMMODATION

There are six hostels attached to the Institute – Kabini hostel, Staff hostel, hostel for men, hostel for ladies and two hostels for female nurses. The junior residents admitted for various courses are required to stay in the hostels, subject to availability.

Students admitted to post-graduate courses, or the Ph.D. programme or to M.Phil courses are provided accommodation in either men's or ladies hostels. The accommodation generally will be a single room facility and is partially furnished. Family accommodation is not available. The accommodation is free for junior residents. However, they are required to pay Rs.250/- per month towards electricity and water charges. Candidates who are admitted to the Ph.D and M.Phil courses are required to pay Rs.250/- per month towards accommodation, electricity and water charges. Candidates admitted to the nursing course are provided rent free and partially furnished accommodation.

Those residing in the hostels should compulsorily join the mess, which is run on a sharing basis. The warden appointed by the Director shall have general supervision over the hostels. Those residing in the hostel are required to adhere to hostel rules and regulations.

NIMHANS LIBRARY

Library and Information Centre, NIMHANS, is recognized as National Neurosciences Information Centre (NNIC) functioning as national clearing-house for mental health and neurosciences information in India. It has 51,000 volumes and subscribes to 325 journals. Library and Information Centre has published two full text databases on CD viz., (1) 'Neurology India on CD' which has full text of 45 years covered from Vol.1 – Vol.45 (1953-1997) (2) 'NeuroMed on CD' covers three Indian Journals for 15 years. Library is equipped with 64 KBPS RF link and connected to 512 KBPS leased line from VSNL has internet proxy server, e-mail server, internet web domain, CD-NET server and Library Automation server. Library is connected to campus wide network which has fiber optic back bone with more than 400 nodes. The Library has a functional spacious independent building with 240 seat capacity, with 12 terminals for users to have internet access, e-mail and database access.

More than 1780 e-Journals have been included in the field of Neurosciences, Mental Health & Allied Sciences enhancing access to the literature. The majority of the journals are on-line access on campus network. The full text of the journals are integrated to single interface and bibliographical database for easy access to the users on any topic of interest for academic, research and health care.

ALUMNI ASSOCIATION

All graduates of NIMHANS are requested to become members of the NIMHANS Alumni Association.

KANNADA LANGUAGE LEARNING PROGRAMME

Kannada is one of the oldest Dravidian languages. It is the state's official language. It is desirable that NON Kannada speaking PG students make efforts to learn this language for better communication with patients and their family members. Department of Publication organizes 3 months Kannada language programme in collaboration with the Department of Kannada & Culture, Government of Karnataka to learn and to speak in Kannada. Students are required to attend these sessions.

PUBLICATION

The Publication department in the Institute brings out reports of activities, research publications, health education materials periodically. More than 66 publications have been brought out so far. In addition, translation of material from English to other Indian languages are enabled. The implementation of official language in the Institute as per the directions of the Union Ministry of Health & Family Welfare is undertaken here.

Publications of NIMHANS				
1.	Biomembranes : Proceedings of National Symposium on Biological Membranes and Model Systems, NIMHANS (1977)	Rs. Ps. 90.00		
		30.00		
2.	Psychotherapeutic Process: Proceedings of the National on Psychotherapeutic Process, NIMHANS (1978)	20.00		
3.	Proceedings of the Seminar on Neuro-Oncology (1979)	100.00 (Rs.50 for students)		
4.	Proceedings of the first National Seminar on Neuroanaesthesia (1983)	25.00		
5.	Profiles of Research in Neurosciences in India (1984)	15.00		
6.	Evoked Potentials (1985)	50.00		
7.	Mind and Mental III health (Kannada – 2 nd edition) (1998)	50.00		
8.	Social Beliefs and Mental Health (Kannada-2 nd Edition) (1994)	15.00		
9.	NIMHANS JOURNAL (Supplement Issue) Proceedings of Symposium on Cervical Spine (1988)	35.00		
10.	Health Education Series No.1 – Epilepsy (Kannada and English) (Available at the Health Education Deptt)	1.00		
11.	Mental Health in Ayurveda (Reprinted-2001)	25.00		
12.	Proceedings of the National Workshop on ECT : Priorities for Research and Practice in India	100.00		
13.	Proceedings of the Symposium on Humanity and Medicine	50.00		
14.	Proceedings of the Indo US Symposium on Child Mental Health	75.00		
15.	Mental Health Care by Primary Care Doctors (Available in Director's Office)	100.00		
16.	Psychotherapy Training in India (Revised edn – 2001)	200.00		
17.	ECT Administration Manual (1997)	50.00		
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