17.05.2024

Academic Codes of Practice

होमी भाभा राष्ट्रीय संस्थान

Homi Bhabha National Institute

(परमाणु ऊर्जा विभाग की एक सहायता प्राप्त संस्था और यूजीसी अधिनियम 1956 की धारा 3 के तहत विश्वविद्यालय माना जाता है)

(An aided institution of the Department of Atomic Enerygy and a Deemed to be University under section 3 of the UGC Act, 1956)

Academic Codes of Practice

Homi Bhabha National Institute

Training School Complex

Anushaktinagar

Mumbai 400094

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Academic Codes of Practice: General

1. Introduction

1.1   Academic Codes of Practice shall come into force with effect from the date of approval by the Academic Council of the Institute.

1.2   The word 'HBNI' and the word 'Institute' refer to 'Homi Bhabha National Institute'.

1.3   The abbreviation 'CI' refers to any 'Constituent Institution' of the HBNI.

1.4   The abbreviation 'OCC' refers to 'Off Campus Centre' of the HBNI.

1.5   The abbreviation 'HEI' refers to 'Higher Educational Institute'.

1.6   The academic affairs of the Institute will primarily be conducted with the approval of its Academic Council. The constitution and functions of the Academic Council are as defined in the Memorandum of Association (MoA) and the Rules of the Institute.

1.7   The Academic Council shall ensure that every academic programme leading to the award of a degree/diploma as appropriate to the programme, conforms to the Ordinances and Codes of Practices of the Institute.

1.8   Without any prejudice to the provisions of the Academic Codes of Practice, Chairman of the Academic Council of the Institute is empowered to approve any minor deviations from the Academic Codes of Practice that may sometimes arise. All such decisions will be ratified in the next immediate meeting of the Academic Council.

1.9   Without any prejudice to the provisions of the Academic Codes of Practice, Vice Chancellor is empowered to take appropriate action in consultation with other authorities to maintain high academic standard of the Institute.

2. Academic Programmes

2.1   The Academic Programmes of the Institute shall be:

    i.   Doctor of Philosophy (Ph.D.),

ii.   Integrated Doctor of Philosophy (IPh.D.) (Single Degree & Two Degree),

iii.   Master of Technology (M.Tech.),

iv.   Master of Science in Engineering by Research, (M.Sc. (Engg)),

v.   Master of Science with specializations viz. M.Sc. (Physical Sciences), M.Sc. (Medical and Radiological Physics), M.Sc. (Nursing), M.Sc. (Clinical Research), M.Sc. (Nuclear Medicine and Molecular Imaging Technology), M.Sc. (Hospital Radiopharmacy), M.Sc. (Public Health and Epidemiology), M.Sc. (Patient Navigation),

vi.   Masters in Occupational Therapy (Oncology),

vii.   Integrated M.Sc.,

viii.   Post graduate and super-specialty degrees in medicine (M.D., D.M. and M.Ch.),

ix.   Post Graduate Diploma in Nuclear Science and Engineering Disciplines (PGDSE),

x.   Post M.Sc. Diploma in Radiation Protection (DipRP),

xi.   Certified Fellowship in Oncology.

2.2   Each proposal for introduction of a new Academic Programme at any CI/OCC shall be examined by the Academic Council on the recommendation of the Board of Studies (BoS) of concerned discipline.

2.3   The curriculum of each programme or a change therein shall require approval of the Academic Council.

3. CI/OCC Level Authorities

3.1   Each CI/OCC shall designate one or more Dean (Academic) for interaction with Dean, HBNI. It is desirable that an individual who has been recognized by HBNI as a Professor is designated as Dean (Academic). The Directors of all the CI/OCC shall communicate the name of the Dean (Academic) at their Institution to central office and also keep informed whenever a new Dean (Academic) is appointed.

3.2   The Dean (Academic) of CI/OCC is responsible for ensuring that the academic programmes at the respective CI/OCC are conducted as per the ordinances.

3.3 Director of a CI/OCC will constitute discipline wise Standing Academic Committee and/or equivalent committee. The committee shall be responsible for the admission of the students to academic programmes by carrying out interview (wherever required), decide guides, co-guides (if any), course work, credit requirement and constitution of doctoral/ monitoring committees or any such committee involved in academic administration.

4. Admission

4.1 Director of a CI/OCC will constitute various academic committees with the faculty members of HBNI, viz., Screening Committees, Selection Committees, Standing Academic Committees (or its equivalent committees), or any such academic administrative committees as per requirements of academic programmes in the CI/OCC. In the following part of this document, all such committees are referred as 'Standing Academic Committee (SAC)'.

4.2 Selection of candidates for various academic programmes at a CI/OCC shall be as per the selection process formulated by the CI/OCC and approved by Academic Council of HBNI. For the academic programmes administered directly by HBNI, the selection process shall be formulated by HBNI.

4.3 A student enrolled in one CI/OCC may attend a part of the course work or perform part of the research work in another CI/OCC or at any other Institute or University with which HBNI has signed a Memorandum of Understanding (MoU) or HBNI approved list of Institute or University for the purpose.

4.4 Student can have a guide and/or a co-guide from another CI/OCC. Recognized research supervisors from an Institute or University with which HBNI has signed a MoU can act only as co-guides.

4.5 **Student Transfer:** Transfer of a student from one CI/OCC to another CI/OCC of HBNI in the same academic year under the same academic programme is permitted with the due approval of Directors of the concerned CI/OCC, following the procedure as outlined in Academic Codes of Practice of individual Academic programme. Students from approved list of Institute or University for the purpose is also permitted.

4.5.1 In case a Ph.D. student from any other institute, which is not a CI/OCC of HBNI, desires to join Ph.D. programme in HBNI, he/she will in general be enrolled in first year of Ph.D. programme after passing admission process approved by the Academic Council. In exceptional cases, Vice Chancellor may consider the proposal from Director of CI/OCC with firm justification to admit the student in higher years.

In such cases following points need to be considered for student transfer from HEI:

4.5.1.1 In case the HEI has signed a MoU with HBNI for academic collaboration, credits earned by the student in preceding institute may also be transferred with the recommendation by SAC.

4.5.1.2 In case of HEI with which HBNI has not signed a MoU, the transferring institute needs to satisfy one of the following criteria for credit transfer:
i. the institute has current NAAC grading of A+ or above;
ii. the institute has NIRF ranking within top 50 in university category;
iii. the institute is an Institute of National Importance (INI), as recognized by the Govt of India.

4.5.2 For Integrated M.Sc. programme offered by HBNI, vacancies, if any, in the 2nd to 5th year may be filled by lateral entry for students from other recognized HEI.

In such cases the following points need to be considered:

4.5.2.1 HEI recognized by HBNI for lateral entry/credit transfer meets one of the following criteria:

i. the institute with which HBNI has signed an MoU for academic collaboration;
ii. the institute has current NAAC grading of A+ or above;
iii. the institute has NIRF ranking within top 50 in university category;
iv. the institute is an Institute of National Importance (INI), as recognized by the Govt. of India.

4.5.2.2 The student must have been enrolled in a programme at the parent Institute which is equivalent to the programme of the CI/OCC of HBNI where vacancy exists.

4.5.2.3 There should be more than 75% overlap in the syllabus of the courses based on which the student has earned credits in the parent institute.

4.5.2.4 The selection will be based on a test at the respective CI/OCC of HBNI with appropriate cut-offs corresponding to the appropriate existing batch. To be eligible for the test, the student must have a CGPA greater than or equal to 7.5 in the equivalent year/ programme at the parent institute.

4.5.2.5 The student intending to enroll must be enrolled at the new CI/OCC for at least one full academic year.

4.5.2.6 Eligible students can apply and be enrolled, if selected, only at the beginning of an academic year.

4.5.2.7 The student must earn a minimum of 50% of the total credits in core courses required under the programme from the CI/OCC for the award of a degree by HBNI.

4.5.2.8 The student needs to follow HBNI Academic Codes of Practice during the entire academic programme.

4.5.3 Vacant seats for the second year of 2-year M.Sc. (Physical Science) or equivalent programmes may be filled by lateral entry in the 2nd year for the students who have successfully completed similar 1st year course from other HEI. The selection will be based on a national level test with appropriate cut-offs corresponding to the continuing batch, and subsequently clearing the entrance test conducted by CI/OCC. Such lateral entry shall not be permitted for specialized M.Sc. programmes in Medical and Health Sciences.

4.6 **Academic Tenure:** Tenure of the academic programme refers to the period between the date of enrolment and the date of submission of thesis, wherever a thesis is the final product of the programme, or the date of the final examination. The period pertaining to approved academic

leave/break will not be counted while calculating the academic tenure. However, for completing the academic programme, the maximum tenure for individual academic programme shall be as mentioned in the Codes of Practice of individual academic programme.

5. Academic Credit

5.1 **Credit definition:** One credit means the standard methodology of calculating one hour of theory or one hour of tutorial or two hours of laboratory work, per week for a duration of a semester (15 weeks).

5.2 **Credit requirement:** The credit requirements for various academic programmes are as follows.

Academic Programme	Entry level qualification	Minimum credits required
Ph.D.	M.Tech/M.Sc.(Engg)/M.Phil/M.V.Sc./ M.Pharm./M.D./DM/MCh/equivalent	12
	M.Sc. /equivalent	18
	4-year BS(Research)	18
Integrated Ph.D.	B.E./B.Tech./B.V.Sc./ B.Pharm./M.B.B.S./ equivalent	72
	B.Sc./equivalent	72
M.Tech./M.Sc.(Engg)/PGD	B.E./B.Tech./M.Sc./equivalent	36
M.Sc.	B.Sc. or equivalent	72
Integrated M.Sc.	Class 12	180

5.3 Where a student is not satisfied about the marks awarded to him/her in a written examination, he/she shall be permitted to apply for a one-time revaluation of the answer sheet as per the procedure adopted by the CI/OCC. The application for revaluation shall be made within 15 days of declaration of the marks, and the result of revaluation shall be declared within one month of the application, and shall be taken as the final result.

6. Academic Calendar

6.1 There shall be an academic calendar for HBNI with the approval of Academic Council. All CIs/OCC/Students shall follow the calendar. Enrolment is liable to be terminated, in case milestones in academic

calendar, such as, completion of course work, OGCE, seeking extensions (if any), etc. are not met within the stipulated period.

6.2   In addition to this, there shall be a calendar for the academic processes in every CI/OCC of the Institute. The exact dates of important academic events shall be specified in the academic calendar.

7. Attendance

Minimum 75% attendance is required to be eligible to appear in the final examination for the subject during the course work, unless specified in the ordinance. Exemption may be granted in specific cases subject to approval of competent authority.

8. Leave rules

During the course work, employee as well as non-employee students will be governed by the leave rules of the respective CI/OCC. The CI/OCC will update leave rules following the guidelines issued by statutory bodies and the department. Students absenting themselves beyond the permitted period during the academic period may face academic/administrative penalty as decided by the competent authority of CI/OCC.

9. Exit from Academic Programme

9.1   If a doctoral student likes to exit the academic programme before completion, but after significant progress, a lower degree/ diploma may be awarded provided the required criteria is fulfilled. If a student has completed the minimum research period and acquired the minimum course credits required/ passed OGCE/ published at least one research paper in SCOPUS, PubMED, Medline and equivalent indexed journals but whose research work is not adequate for the Ph.D. degree, may be considered for the award of a Post Graduate Diploma (Research) in the same subject area based on recommendation of the doctoral committee.

9.2   After successful completion of all the prescribed courses in the stream up to 3rd year within no more than 5 years of the 5-year integrated M.Sc. programme, a student can exit the 5-year integrated M.Sc. programme with a B.Sc. (major stream subject) degree. Similarly, after successful

completion of all the prescribed courses in the 1st year, a student can exit the 2-year M.Sc. (Physical Science) programme with a PG Diploma.

10. Declaration of results and issue of certificates

10.1 The semester wise mark sheet shall be issued by CI/OCC using the template approved by the Academic Council.

10.2 After successful completion of the academic programme by the student, Dean (Academic) shall forward all related documents to Dean HBNI, who will put up to the competent authority in HBNI for declaration of results. Subsequently, the Provisional Degree Certificate shall be issued by HBNI and transcript of marks will be issued by concerned CI/OCC as per the template approved by the Academic Council.

Document Type	Timeline	Issuing Authority	LOGO to be used	Signatories
Annual/ Semester marksheets	At the end of every semester or academic year	CI/OCC	CI/OCC	a) Head of Graduate School/ Training School b) Dean (Academic) of CI/OCC
Transcript	After the declaration of results by Central Office	CI/OCC	HBNI	a) Dean (Academic) of CI/OCC b) Director at CI/OCC
Provisional Degree Certificate		Central Office, HBNI	HBNI	Dean, HBNI
Final Degree Certificate	After approval by Council of Management	Central Office, HBNI	HBNI	a) Chairman, AC b) Chairman, CoM

11. Code of Conduct

11.1. Each student shall conduct in a manner befitting one's association with CI/OCC. The student is expected not to indulge in any activity which is likely to bring down the prestige of the CI/OCC and HBNI. The student should also show due respect and courtesy to the teachers, administrators, officers and employees of the Institute, and good behaviour to fellow students. Due attention and courtesy are expected to be paid to visitors to the CI/OCC.

11.2. Lack of courtesy and decorum, unbecoming conduct (both within and out-side the CI/OCC), willful damage and/ or removal of CI/OCC's property or belongings of fellow students, disturbing others in their studies, adoption of unfair means during examinations, breach of rules and regulations of the CI/OCC, noisy and unseemly behaviour and similar other undesirable activities shall constitute violation of the Code of Conduct for students. In such cases, disciplinary action may be initiated as deemed appropriate by the highest academic authority of the CI/OCC.

11.3. Ragging in any form is strictly prohibited and is considered a serious offense.

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Academic Codes of Practice: Ph.D.

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: Ph.D.' are framed to implement the 'Ordinances: Ph.D.' towards conduct of the Ph.D. programmes in HBNI. These codes of practice are mandatory and apply to all students and faculty. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: Ph.D. are applicable to following Ph.D. programmes of HBNI.

    i. Ph.D. in Chemical Sciences (CHEM04)
    ii. Ph.D. in Engineering Sciences (ENGG04)
    iii. Ph.D. in Life Sciences (LIFE04)
    iv. Ph.D. in Mathematical Sciences (MATH04)
    v. Ph.D. in Medical and Health Sciences (HLTH04)
    vi. Ph.D. in Physical Sciences (PHYS04)
    vii. Ph.D. in Applied Systems Analysis (APSA04)
    viii. Ph.D. in Computational Biology (LIFE24)
    ix. Ph.D. in Earth and Planetary Sciences (PHYS25)
    x. Ph.D. in Humanities & Social Sciences (APSA27)
    xi. Ph.D. in Computer Science (MATH28)
    xii. Ph.D. in Theoretical Computer Science (MATH29)

1.3 **Additional Pertinent Document:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification:** Minimum qualification for admission to various Ph.D. programmes will be as shown in the following table.

Sr. No.	Programme Code	Entry Level Minimum Qualification
i.	CHEM04	BS$^+$/ M.Sc./ M.Tech./ M.Phil. or equivalent
ii.	ENGG04	M.E./ M.Tech./ M.Sc. (Engg) or equivalent
iii.	LIFE04	BS$^+$/ M.Sc./ M.Phil./ M.Tech./ M.V.Sc./ M.Pharm./ M.D./ D.M./ M.Ch. or equivalent
iv.	MATH04	BS$^+$/ M.Sc./ M.Tech./ M.Phil. or equivalent

v.	HLTH04	M.Sc./ M.Phil./ M.V.Sc./ M.Pharm./ M.D./ D.M./ M.Ch. or equivalent
vi.	PHYS04	BS$^+$/ M.Sc./ M.Phil. or equivalent
vii.	APSA04	BS$^+$/ M.Sc./ M.A./ M.Phil. or equivalent
viii.	LIFE24	B.E./ B.Tech./ M.Sc./ M.E./ M.Tech. or equivalent
ix.	PHYS25	BS$^+$/ M.Sc./ M.E./ M.Tech./ M.Phil. or equivalent
x.	APSA27	M.E./ M.Tech./ M.Sc./ M.A. or equivalent
xi.	MATH28	B.E. /B.Tech. /M.Sc. /M.E. /M.Tech. /M.C.A. or equivalent in Computer Science and related disciplines
xii	MATH29	B.E. /B.Tech. /M.Sc. /M.E. /M.Tech. /M.C.A. or equivalent in Computer Science and related disciplines

BS$^+$: 4-year/8-semester Bachelor's degree in Science including 1 year research

2.2 **Qualifying Marks:** The entry level qualifying degree should be from a recognized university or institute with minimum 55% in aggregate or an equivalent grade in a point scale wherever grading system is followed. In case of candidates having an equivalent qualification from a foreign educational institution, guidelines issued by appropriate statutory authority of India will be followed. In case of 4-year BS (Research) degree, minimum 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed, is essential.

2.3 **Academic Flexibilities**: Some of the academic flexibilities related to the admission process are as follows:

i. A candidate having BS (Research)/ M.Sc./ M.Phil. or equivalent degree in a particular Science discipline and having aptitude for research in another Science (including Medical & Health Science, Humanities and Social Sciences) or Engineering discipline, may also be considered for admission to Ph.D. programme in the chosen discipline of the applicant.

ii. A candidate having M.E./ M.Tech./ M.Sc. (Engg) or equivalent degree in a particular Engineering discipline and having aptitude for research in another Engineering, Science or Humanities and Social Sciences discipline, may also be considered for admission to Ph.D. programme in the chosen discipline of the applicant.

iii. A candidate having M.A. or equivalent degree in a particular discipline of Humanities and Social Sciences (HSS) and having aptitude for research in another discipline of HSS/ Sciences, may also be considered for admission to Ph.D. programme in a particular discipline of HSS/ Sciences in the chosen discipline of the applicant.

In all such cases additional credit requirements as prescribed in the clause 3.1.2 shall be applicable.

2.4 **Standing Academic Committee:** The Standing Academic Committee or equivalent committee, hereafter referred to as 'SAC', constituted by Director of CI/OCC with the members recognized as HBNI faculty shall select the applicants for joining Ph.D. program. It will ratify the selection of research topic, guide(s), course work and doctoral committee of the student.

2.5 **Mode of Selection:** Admission to Ph.D. programme will be done through one of the following modes of selection.

   i. Admission of DAE employees shall be through a written examination followed by interview of the applicants conducted by SAC. Applicants who have M.Tech./ M.Sc. (Engg)/ M.Phil./ PGDSE from HBNI or who have graduated from earlier batches of BARC Training Schools and meeting the academic performance required for PGDSE, may be exempted from screening through a written examination. Concerned SAC shall take decision on case-by-case basis.

   ii. Applications may be sought for admission through open advertisements from candidates having 4-year BS (Research) or Post Graduate degrees. Such candidates should have qualified CSIR-UGC NET JRF/ GATE/ JGEEBILS/ DBT-JRF/ DBT-BINC-JRF/ NBHM/ JEST/ ICMR-JRF/ ICAR-JRF/ GPAT or equivalent National level written tests and have a valid score as prescribed in the advertisement. In addition, CI/OCC may conduct a national level written examination for the same. SAC shall conduct interviews of screened-in candidates for admission to Ph.D. programme.

2.6 **Selection Process:** SAC will make recommendation to HBNI about the admissibility of the candidate into the programme for all the above cases.

Final list of selected candidates may be based on marks secured in written test and interview marks by all candidates with suitable weightages as prescribed by the Academic Council. SAC will also make recommendation about the specific programme listed under clause 1.2 to which the candidate is to be admitted. It will also make recommendation for the cases falling under clause 2.3 utilizing academic flexibilities with additional credits.

2.7 **Formation of Monitoring Committee:** For each student, SAC will constitute a Monitoring Committee (Clause 4) or a Doctoral Committee (Clause 5). The Monitoring Committee constituted, shall be replaced by a Doctoral Committee immediately after successful completion of the Oral General Comprehensive Examination (OGCE) by the student.

2.8 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in an academic programme of HBNI. In case, a student does not submit final marksheet and final degree certificate of entry level qualification at the time of registration, the registration will be treated as interim. Students should submit all the necessary documents for confirmation of the registration within a period of six months from the date of joining the program. In case of non-submission of the documents, the highest academic authority of HBNI will decide about the continuation of the registration of the student.

3. Academic Programme

3.1 **Course Work and Credit Requirements:** SAC will identify coursework to be carried out to meet credit requirements of the admitted students.

3.1.1 For the students enrolling with a 4-year BS (Research)/ M.Sc./ M.A./ M.C.A. or equivalent degree, a minimum of 18 credits is required towards partial completion of credit requirements for Ph.D. program. A minimum of 12 credits is required for the students who have successfully graduated from BARC training school on or before 2006 or having PGDSE or M.E./ M.Tech./ M.Sc. (Engg)/ M.Phil./ D.M./ M.Ch./ M.V.Sc./ M.Pharm./ M.D. or equivalent degree.

3.1.2 Additional, 8 HBNI credits may be prescribed by SAC for the students who opted to join the Ph.D. programme in a discipline other than

his/her basic discipline, utilizing academic flexibilities provided under clause 2.3.

3.1.3   In addition to classroom courses, students may be assigned self-study courses or credit seminars or mini projects to cater to the subjects which are not covered by the conventional courses. These non-classroom courses will be considered for awarding credits.

3.1.4   Mandatory requirement of the mini-project as a part of a Ph.D. program, if any, may be decided by CI/OCC at the time of approval of the curriculum by Academic Council.

3.1.5   Students may take online courses available in NPTEL/ SWAYAM to meet credit requirements. Registration for such courses may be done after taking approval from Monitoring/Doctoral Committee.

3.1.6   Towards partial completion of the credit requirement of the program, a maximum of 40% can be met through non-classroom courses, such as, credit seminar, self-study course and online course.

3.1.7   Online courses conducted by HBNI, which are of interactive in nature, may be considered as classroom courses.

3.1.8   It is mandatory for the students to pass credit courses on 'Research Methodology' and 'Research and Publication Ethics' and credits awarded will be accounted for the total credit requirements prescribed in 3.1.1 to 3.1.3.

3.1.9   For successful completion of the course work, a minimum score of 60% in aggregate and a minimum of 50% marks in individual course is required. Only one re-examination is permitted. In case of failure in the re-examination, the case shall be referred back to SAC, which may decide about permitting additional chance for reexamination or discontinuation of the registration of the student or any other alternative deemed fit.

3.2 **Online Self-Study Course/ Mini project, Credit Seminar and Research Project:**

3.2.1 **Online Self-Study Course/ Mini project:** It is strongly recommended to select Self-study courses from the list of online courses available in HBNI/ NPTEL/ SWAYAM or any other similar platforms. The student has to submit the final transcript/ marksheet after successful completion of the course to the Dean (Academic) of the CI/OCC for further consideration by HBNI.

In case of mini-project, the topic of the project will be assigned by the SAC and evaluated by the Monitoring/Doctoral Committee.

3.2.2 **Credit Seminar:** The Monitoring/ Doctoral Committee will identify the topic of the credit seminar along with the syllabus to be covered. Guide or a faculty member will be identified to provide necessary academic support to the student during the preparation of the seminar. Student will deliver the seminar in a Monitoring/Doctoral Committee meeting followed by question answer session. Monitoring/Doctoral Committee will then take a decision regarding marks to be given to the student.

3.2.3 **Research Project:** The Monitoring/Doctoral Committee will identify the title of research project along with scope of the project and assign credit for it. Student may be assigned maximum of two projects and each project can have maximum 12 HBNI credits. The committee will also identify a project guide among HBNI faculty members who is having expertise in the topic of the project. The guide will provide necessary academic support to the student during the project. At the end of the project, student will submit project report duly signed by the guide to the Monitoring/Doctoral Committee and deliver an oral presentation followed by question answer session. The Monitoring/ Doctoral Committee will then take a decision regarding marks to be given to the student. In case student secures less than 50% marks, the Monitoring/ Doctoral Committee may ask the student to improve quality of the project and resubmit the report, which will be once more followed by oral examination.

3.3 **Procedure to Change Coursework:** Any change in the coursework, which may sometimes be necessitated in practice, shall be done with the approval of Chairman, SAC.

3.4 **Oral General Comprehensive Examination (OGCE)**:

3.4.1 A candidate shall appear in an OGCE to be conducted by the Monitoring/ Doctoral Committee after the successful completion of all credit requirements. The scope of OGCE will include the topics related to the domain of research and the course work undergone by the student to meet the credit requirements. The doctoral/ monitoring committee will inform the student in advance about the details of topics to be covered in OGCE. Monitoring/ Doctoral Committee will then take a decision regarding marks to be given to the student through a question answer session. Participations of the student, Monitoring/ Doctoral Committee Chairman, Guide(s) (if appointed by that time) and two members are mandatory.

3.4.2 Successful completion of OGCE is required to continue further for doctoral programme. If unsuccessful, Monitoring/ Doctoral Committee may give specific suggestions and further time period (maximum six months) to the student for preparation before reappearing for OGCE. In case of failure in the second attempt, the case shall be referred back to SAC, which may decide about the discontinuation of the registration of the student or permit additional chance or any other alternative deemed appropriate. Clause 9.3 should be followed in case of cancellation of registration.

3.5 **Timeline to complete course work and OGCE:** All the credit requirements and OGCE should be completed within 2 years of the registration. This period can be extended by the Dean (Academic) of CI/OCC with valid justification by a maximum period of six months. In case of not meeting this timeline, the case shall be referred back to SAC, which may decide about the discontinuation of the registration of the student or permit extra time or any other alternative deemed appropriate.

3.6 **Allotment of Ph.D. Guide and other Authorities:** The process of identifying a topic of research and allotment of Guide has to be done based on mutual interest of the student and the faculty member, duly approved by the SAC. Allotment of research topic in an interdisciplinary area of research is highly encouraged. Guide and, where applicable co-guide, may also be from another CI/OCC of HBNI. The co-guide can also be from an Institute or University with which HBNI has signed MoU. To get guidance on issues related to the technology, a student may have a Technology Adviser. The

Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in the areas which are related to the research topic of the student. Technology Advisor need not be among HBNI faculty members.

3.7 **Formulation of Research Work:** The student shall prepare, in consultation with the guide and co-guide (if applicable), a plan of research work and submit an abstract based on the topic of research approved by SAC.

3.8 **Number of Ph.D. students per Faculty:** At any point, the total number of Ph.D. scholars under a faculty member, either as a supervisor or a co-supervisor, shall not exceed the number prescribed.

   3.8.1 An eligible Professor/ Associate Professor/ Assistant Professor can guide/ co-guide up to eight (8) / six (6) / four (4) Ph.D. scholars, respectively, at any given time. HBNI recognized research guides cannot supervise research scholars in other institutions, where they can only act as co-guide. Further, a faculty shall not increase the number of Ph.D. scholars by using recognition from multiple universities/ colleges.

   3.8.2 International student guidance: Each guide can supervise up to two international research scholars on a supernumerary basis over and above the permitted number of Ph.D. scholars as specified in 3.8.1. The selection procedure for Ph.D. admission of international students shall be framed by CI/ OCC duly approved by HBNI, keeping in view the guidelines/ norms in this regard issued by statutory/ regulatory bodies concerned from time to time.

   3.8.3 At any point, the total number of Ph.D. scholars under a faculty member, either as a guide or a co-guide, shall not exceed the number prescribed in clauses 3.8.1 and 3.8.2.

   3.8.4 One additional student can be allotted to each faculty member over and above the allotted number mentioned in clause 3.8.3, provided the faculty and the student are jointly implementing a major research project of national interest, duly certified by Director of CI/ OCC.

3.9 **Minimum Periods of Residency and Submission of Thesis:** Minimum period of residency shall be two years after successful clearance of OGCE. The minimum period for submission of thesis shall be three years from date of enrolment to the programme.

3.10 **Programme Tenure and Extensions:** The normal period for completion of Ph.D. programme till submission of thesis shall be five years from the date of registration. The period can be extended by one year with the recommendation of Doctoral Committee. Any further extension up to a maximum of one year will additionally require recommendation of concerned Board of Studies. Recommendation of the Doctoral Committee/ Board of Studies shall be put up to competent authority at HBNI for approval. Registration will normally be cancelled at the end of second extension. In exceptional cases, based on adequate justification and recommendation of Director of CI/ OCC, a one-time further extension for a limited period may be considered by the competent authorities of HBNI.

The period pertaining to academic break, medical leave, internship or any other similar approved break during doctoral programme of the student will not be accounted while calculating total tenure of the Ph.D. programme of the student.

Relaxation as prescribed by statutory authorities, may be provided to women/ differently abled candidates with the recommendation of Director of CI/ OCC. Clause 9.3 will be followed in case of cancellation of registration.

3.11 **Criteria and Procedure for Off-Campus Research:** Students may get employment offers even before they complete the Ph.D. program. To facilitate students for availing such opportunities, off-campus research provision is being made available by HBNI. This option can be opted by students only if, (i) the student has successfully completed credit requirements and OGCE, (ii) finished all experimental/ theoretical research work, and (iii) completed the minimum residency period as per clause 3.9.

To avail this opportunity, the student has to submit a written request to the Guide and Co-guide (if any), enclosing (i) the appointment letter and, (ii) NOC/ concurrence from the prospective employer allowing continuation in the present Ph.D. programme. If the Guide and Co-guide (if any) are satisfied that the student can complete the remaining work *viz.* analysis of data, interpretation of results, publications, writing thesis and so on, by working off-campus, the Guide may forward the request to HBNI through Dean (Academic) with the approval of Chairman, Doctoral Committee.

The student is expected to submit the thesis within the tenure available at the time of leaving the campus. Further extension for completion of academic programme will not be granted to students in such cases.

3.12 **Annual Reviews:** During the research work, the Doctoral Committee will conduct annual reviews to monitor the progress made. For this purpose, student will submit annual progress report duly forwarded by guide to the doctoral committee. Submission of biannual report is strongly recommended for the students who are under academic extension. Participations of the Student, Guide, Chairperson and one Member of Doctoral Committee are mandatory during the annual review. During the review, the student should make a presentation followed by question and answer (Q & A) session. The committee shall monitor progress and advise the student as appropriate including permission to appear in pre-synopsis seminar. The Ph.D. registration is liable for cancellation on two consecutive "Poor" grading during annual review at any stage of the program. For the continuation of registration, it is mandatory for every doctoral student to upload the annual progress report duly signed by doctoral committee members on the corresponding HBNI portal. This will help the competent authority at central office to monitor the progress and take necessary action if needed.

3.13 **Publications**: Each Ph.D. student will suitably publish research work in peer reviewed journals indexed by Scopus/ Web-of-Science/ PubMed or equivalent indexed journals. The discipline-specific required number of such publications to complete the Ph.D. programme will be as per the decision of the Academic Council.

3.14 **Pre-Synopsis Seminar:** An open pre-synopsis seminar shall be held as per directive of the Doctoral Committee on completion of research work and on meeting publication requirements as stipulated by Academic Council. Participations of the Student, Guide, Chairman and two Members of the Doctoral Committee shall be mandatory during the seminar. Students will make a detailed presentation of the research work, chapter wise content of the thesis and list of publications. In case, Doctoral Committee is satisfied with the quality as well as extent of research work and list of publications, it can permit student to submit synopsis within two-week. The synopsis should be written in the format approved by the Academic Council. The academic contents of the synopsis are representative of the contributions of the Ph.D. thesis being submitted.

3.15 **Procedure to Recommend Names of Reviewers:** Doctoral Committee will forward confidentially, in the prescribed HBNI format and following HBNI guidelines, names of six to eight reviewers to Dean (Academic). All reviewers should be renowned academicians/ researchers in the respective domain of research. They should not be faculty members of HBNI CI/OCC. It is desirable to have at least two foreign reviewers in the suggested list forwarded by Doctoral Committee. <u>The names of the proposed reviewers shall not be revealed to the student.</u>

4. Monitoring Committee

4.1 **Composition of Monitoring Committee:** Progress of each student shall be monitored by a Monitoring Committee to be constituted by SAC or equivalent committee at the time of admission. However, as soon as the research topic and guide are identified, a Doctoral Committee (see clause 5 below) shall be constituted, which will replace Monitoring Committee. The composition of the Monitoring Committee shall be as follows:

   a. A senior faculty member of HBNI shall be the Chairperson.
   b. Up to two faculty members having expertise in the domain of Board of Studies to which the student is enrolled.
   c. Up to two faculty members involved in teaching course work that the student is attending.

4.2 **Duties of Monitoring Committee:** The Committee will mentor the student and evaluate his/her performance until a Doctoral Committee is constituted.

5. Doctoral Committee

5.1 **Composition of Doctoral Committee:** To monitor progress of a student, SAC will suggest composition of Doctoral Committee as soon as research topic and Guide are identified. The recommendation of the SAC shall be communicated to HBNI Central Office for approval by filling relevant part of registration forms. The composition of each doctoral committee shall be as follows:

   i. A Professor or an Associate Professor of HBNI shall be the Chairperson,
   ii. The Guide shall be the Convener, and, where applicable, Co-Guide shall be Co-convener (in case the Guide has less than three years of service, a Co-Guide who has more than 5 years of service has to be there),

iii. Two/ Three faculty members of the Institute specializing in a domain encompassing the topic of research,

iv. One faculty member preferably from any other CI/ OCC or any other university/ institute in an allied domain as the topic of research,

v. A Technology Adviser, if any, shall be a permanent invitee.

5.2 **Duties of Doctoral Committee:** Committee will mentor the student and evaluate the performance through periodic reviews, not less than once in a year, until the submission of the thesis. Doctoral committee will perform obligations as shown in clauses 3.12, 3.14 and 3.15.

5.3 **Change in Composition of Doctoral Committee and other SAC Decisions:** Any change in the composition of doctoral committee members, Guide/ Co-Guide or research topic shall be forwarded to HBNI for approval by Dean (Academic) with the recommendation of Chairperson, SAC or equivalent committee. Such approval should be obtained, if required, before the ensuing annual progress review.

6. Thesis Review Process

6.1 **Prioritized Names of Reviewers:** Identification of thesis reviewers will be done as per the procedure mentioned below:

6.1.1 Dean (Academic) of a CI/OCC will upload the synopsis; list of publications and suggested list of reviewers as per clause 3.15 onto the appropriate HBNI web portal. In addition, Dean (Academic) will also forward hard copies of (i) the synopsis, (ii) list of publications including printout of first page of relevant publications, (iii) suggested names of reviewers, and (iv) receipt of payment of thesis evaluation fee to HBNI Central Office. It is expected that the Dean (Academic) will exclude any reviewer from the list who has already reviewed another Ph.D. thesis from respective CI/OCC of HBNI during previous one year period. Convener Board of Studies (BoS), in consultation with BoS members will evaluate synopsis for its adequacy for awarding degree. In addition to this, BoS will also recommend four to six reviewers, who may or may not be from the list suggested by Doctoral Committee. Convener, BoS will then forward decision on the adequacy of research work and shortlisted names of reviewers to Dean, HBNI in confidence.

6.1.2 In case of non-adequacy of research work, Dean HBNI will communicate the same to Dean (Academic) for further action at CI/OCC.

6.1.3 HBNI central office will communicate the list of minimum four reviewers as prioritized by Vice Chancellor to Dean (Academic) to start the review process. The names in the prioritized list may or may not be from the list recommended by Doctoral Committee or Board of Studies.

6.1.4 In case of clarifications, if any, Dean, HBNI will get back to Convener, BoS. After getting clarifications, procedures described in clause 6.1.2 and 6.1.3 will be repeated.

6.2 **Submission of Thesis for Review:** Student shall submit to Dean (Academic) the required number of hard copies of the thesis and a soft copy within three months from the date of pre-synopsis seminar through the guide. The thesis should be written in the format as prescribed by HBNI or Dean (Academic) may ask to resubmit. The period of three-months may be relaxed by Dean (Academic) in exceptional cases. However, in case the thesis is not submitted within six months from the date of pre-synopsis seminar, Dean (Academic) shall refer the case back to doctoral committee for repeating pre-synopsis seminar after the thesis is ready for the submission. In such case, Doctoral committee will repeat pre-synopsis seminar and forward the report along with the thesis to Dean (Academic) for carrying out review process.

6.3 **Review Process:** Dean (Academic) shall conduct review process as per the procedure mentioned below.

6.3.1 It is desirable to contact the first two reviewers as soon as the prioritized list from HBNI and thesis from the student are received, to obtain their consent to review the thesis. If the reviewer's consent is not obtained within two-weeks period, then the next prioritized reviewer should be contacted.

6.3.2 The thesis shall be forwarded to the reviewer who have provided their consent, indicating a period not more than six weeks to complete the review process and submit the duly signed recommendation in the prescribed format.

6.3.3 In case less than two reviewers indicate their concurrence, of the prioritized reviewers, Dean (Academic) will contact HBNI Central Office

to obtain additional names of reviewers and continue with the review process after getting new names.

6.4 **Review Comments by Guide/Co-Guide:** Dean (Academic) should contact the Guide/ Co-Guide to submit their Thesis Evaluation Report to him/her.

6.5 **Decision on Reviewer's Comments by Dean (Academic):** After receiving comments from at least two external reviewers and Guide/ Co-Guide, Dean (Academic) will take the following actions to conclude the review process.

6.5.1 In case the thesis is accepted by both the reviewers in its present form or with minor revisions (option '1' or '2' of Ph.D. Thesis Evaluation Report), Dean (Academic) will send the review comments to the Guide and Co-Guide (if any) and Doctoral Committee Chairperson. In that case, student can proceed with the final viva voce examination after revising thesis based on the comments.

6.5.2 In case one or both reviewers suggest revisions (option '3' of Ph.D. Thesis Evaluation Report), the suggested revisions shall be communicated to the student as well as Guide and Co-Guide (if any). After having been duly revised, the thesis shall be re-sent to reviewer(s) for recommendation on the revised thesis. In case thesis is not found acceptable by both the reviewers even after revisions are made, registration of the student will be cancelled.

6.5.3 In case thesis is rejected by one reviewer (option '4' of Ph.D. Thesis Evaluation Report) after step '6.5.1' or '6.5.2', then the student should thoroughly modify the thesis taking into consideration all the issues raised by the reviewer. Dean (Academic) will then get it reviewed by next reviewer from the prioritized list, and follow the procedures listed in clauses 6.5.1 and 6.5.2 accordingly.

6.5.4 In case the thesis is rejected by both the reviewers (option '4' of Thesis Evaluation Report), the registration of the student will be cancelled.

6.5.5 Notwithstanding above clauses and option indicated by any reviewer on Thesis Evaluation Report, in case any reviewer has made adverse

remarks about the content of the thesis, Dean (Academic) shall refer the case to the Central Office for advice before taking any further action.

7. Final Viva-Voce Examination

7.1 **Viva-Voce Board and Preparatory Work:** In case the thesis is accepted for award of the degree, each student must defend thesis at an open viva-voce examination as a requirement in partial fulfillment of Ph.D. degree. One of the Thesis reviewers, as suggested by Dean (Academic), shall be the external examiner of the viva-voce board. The Doctoral Committee responsible for conducting pre-synopsis seminar along with the external examiner shall act as the viva-voce board and conduct viva-voce examination at the earliest. The members must receive soft copy of the revised thesis along with pointwise reply to the comments from the reviewers. Both the documents should be sent to members at least seven working days before the scheduled viva-voce examination.

7.2 **Quorum for Viva-Voce Examination:** Participation of the Guide and Co-Guide (if any), External Examiner, Doctoral Committee Chairman and two Members are mandatory in the final viva-voce examination. One of them can participate over video conference mode. In-person participation of the student is mandatory. In case of difficulty in meeting the quorum, Dean-Academic of CI/OCC of the student or one of the Associate Deans from HBNI can attend the meeting with the permission of the HBNI authority to meet the quorum. Dean, HBNI may be contacted for this purpose.

7.3 **Timeline for Viva-Voce Examination:** Viva-voce examination of the student shall be held within six months of communication of list of reviewers prioritized by Vice Chancellor (as per section 6.1.3) to the Dean Academic. Special permission from Vice Chancellor, HBNI is mandatory if it is delayed by more than six months. The requisite request letter for the approval of Vice Chancellor, HBNI must be submitted to Dean, HBNI within 15 days of the expiry of 6 months period from the date of submission of thesis.

7.4 **Conduct of Viva-Voce Examination:** Viva-voce examination will be open to all. Student will make a presentation on the research work and response to the reviewers' comments, followed by a question answer session.

Board along with the external examiner will then hold discussion separately to decide about successful defense of the thesis and suitability of the student for award of the degree. It has the following options:

(i) To accept thesis without changes as submitted to the board and recommend award of the degree.

(ii) To recommend revisions to the thesis. Student shall make all changes suggested, get the revised thesis duly certified by guide and submit the same for approval of the board. Board members will recommend award of degree if they are satisfied with the revised thesis.

(iii) To rule thesis and viva-voce examination unsatisfactory and student fails in that circumstance.

7.5 **Declaration of viva voce result**: Report of the board will be signed by all the members, who have attended the viva voce, with names and date. Student passes if all members of the board accept thesis and final viva-voce examination as satisfactory. Any negative comment constitutes a failure of the candidate to meet the requirement. In case of failure, board must specify in detail and in writing the nature of deficiencies in the thesis and/or in the viva-voce examination that led to the failure. A second examination may be permitted and this should be held within six months. Registration of the student is terminated in case the second examination is not permitted or student again fails in the second examination.

Following examination, board chairperson must inform student about the outcome of the examination indicating which of the above alternatives has been decided.

8. Award of Degree

8.1 **Forwarding documents to Central Office:** Report of the board signed by all members must reach office of Dean, HBNI through Dean (Academic) of CI/OCC for award of degree. In addition, student shall upload the required documents on appropriate HBNI portal as per the updated list available in the office of Dean (Academic).

8.2 **Declaration of result by Central Office**: Vice Chancellor (HBNI) will declare the result of the student based on the recommendations of Dean (HBNI). Student will be issued a Provisional Degree Certificate by HBNI at the earliest after declaration of result. The case will be put up to Council of Management (HBNI) in its ensuing meeting for ratification. Subsequently, student will be awarded Final Degree Certificate by HBNI and a Transcript by CI/OCC in the approved format.

9. Additional Ph.D. Regulations

9.1 Student Transfer

9.1.1 During an ongoing Ph.D. programme in any CI/OCC of HBNI, transfer of a student from one CI/OCC to another CI/OCC of HBNI in the same academic year under the same academic programme is permitted, with due approval of Directors of the concerned CI/OCC. The records on credits earned, OGCE and publication(s) by student, if any, during his/her stay in proceeding CI/OCC will also be transferred in case research topic remains the same. It will be desirable that former Guide/ Co-Guide continues to be the Guide/ Co-Guide of the student. Continuation of same research topic under a new Guide or Co-Guide (if any) will be accepted only with the consent of earlier Guide/ Co-Guide. In that case, written consent shall also be taken from earlier Guide or Co-Guide (if any) to consider research work and publications done under his/her guidance to be the part of the research under new Guide or Co-Guide (if any).

9.1.2 In case a Ph.D. student from any other institute, which is not a CI/OCC of HBNI, desires to join Ph.D. programme in HBNI, he/she will in general be enrolled in first year of Ph.D. programme after passing admission process approved by the Academic Council. In exceptional cases, Vice Chancellor may consider the proposal from Director of CI/OCC with firm justification to admit the student in higher years.

Following points need to be considered for student transfer from HEI:
(i) In case the HEI has signed a MoU with HBNI for academic collaboration, credits earned by the student in preceding institute may also be transferred with the recommendation by SAC.

(ii) In case of HEI with which HBNI has not signed a MoU, the transferring institute needs to satisfy one of the following criteria for credit transfer:
  (a) the institute has current NAAC grading of A+ or above;
  (b) the institute has NIRF ranking within top 50 in university category;
  (c) the institute is an Institute of National Importance (INI), as recognized by the Govt of India.

9.2 **Change of Guide/ Co-Guide**: Under exceptional circumstances change of Guide/ Co-Guide shall be permitted on the recommendation of SAC after obtaining the consent from (i) the student, (ii) the present Guide/ Co-Guide and (iii) the proposed Guide/ Co-Guide. If the research programme and/ or area of the work requires major modification due to this change, the SAC may take decision on additional course works and conducting fresh OGCE as per the procedure.

9.3 **Withdrawal/ Cancellation/ Termination of Ph.D. Program:** In case a Ph.D. student desires to withdraw from Ph.D. programme due to personal reasons, or registration is cancelled/ terminated due to under performance, the student will be issued a mark-sheet by CI/OCC showing the courses completed, credits earned and marks secured. The mark-sheet will be issued as per the approved format of the Academic Council. Concerned Dean (Academic) of CI/OCC shall inform HBNI Central Office regarding cancellation of registration of the student. If desired, credits earned by the student can be deposited in Academic Bank of Credits (ABC) after converting to equivalent UGC credits following the procedure approved by Academic Council.

9.4 **Conversion of Ph.D. Programme to PGD Programme:** If a doctoral student likes to exit the academic programme before completion, but after significant progress, a lower degree/ diploma may be awarded if the required criteria is fulfilled. If a student has completed the minimum research period and acquired the minimum course credits required /passed OGCE/ published at least one research paper in SCOPUS, PubMED, Medline and equivalent indexed journals but whose research work is not adequate for the Ph.D. degree, may be considered for the award of a Post Graduate Diploma (Research) in the same subject area based on recommendation of the doctoral committee.

9.5 **Leave Rules:** All Ph.D. students are entitled for leave for a maximum period of 30 days per year in addition to Public Holidays. Also 10 days leave on

medical reasons is permitted per year. Woman students are entitled for maternity leave/ CCL for a period of not exceeding 240 days, once during the tenure of their studentship. This should be supported by a medical certificate. Male students are entitled for 15 days paternity leave once during the tenure. This should be supported by a medical certificate. Leave rules of DAE will be applicable in case of employee students.

9.6 **Research Involving Classified Work**: Some students of HBNI are involved in strategic programs. In such cases, two important issues arise (a) Some of the work cannot be published because of the classified nature of the research, (b) The thesis would contain classified information, and the thesis cannot be displayed in public domain and cannot also be defended in a public viva voce information. These two issues need to be addressed so as to enable the student to complete the academic programme without violating confidentiality requirements and at the same time, meeting the UGC guidelines in principle. The procedure to be followed in this regard is given below.

9.6.1 The Doctoral Committee constituted by SAC or equivalent committee with suitable members, at the time of registration, should have due approval of Director of CI/OCC and Vice Chancellor.

9.6.2 The student is advised to publish some component of the thesis work that is permitted for dissemination in the form of an indexed journal paper. The student should also make a presentation in a National/ International conference based on this part of the work.

9.6.3 The Doctoral Committee will send the list of suitable reviewers within the country, signed only by the members of the Doctoral Committee, along with all the documents required for synopsis submission directly to Vice Chancellor after closed door pre-synopsis seminar. Vice Chancellor will make due arrangements maintaining confidentiality to send the submitted hard copies of the thesis to the reviewers. Similarly, review comments and the copies of thesis will be sent back to the Guide/ Co-Guide and doctoral committee chairperson for further action along the line of clause 6.5.

9.6.4 In case of positive recommendations from reviewers, closed-door final viva voce examination will be conducted. For the purpose clauses 7 and 8 of the present Codes of Practices will be followed.

9.6.5 A short version of the thesis deleting all classified work will be submitted to HBNI for uploading to INFLIBNET. A complete hard copy of the final thesis will be submitted to Vice Chancellor in sealed envelope for record.

9.7 **Research Involving Patentable Results**: Some students of HBNI may produce intellectual property that may be patentable. Some of the research results cannot be published in journal because of the patentable nature of the research. The procedure to be followed in this regard is given below.

9.7.1 At the time of submission of the synopsis, the student / guide shall record the patentability of the results of the work and get it endorsed by the doctoral committee.

9.7.2 It is the responsibility of the student and guide to ensure that BoS requirement regarding publication is met; they will also be responsible for ensuring that the patentable results are not published.

9.7.3 The student/guide shall submit the patent to the DAE patent cell and obtain its decision on patentability as far as possible before submission of thesis.

9.7.4 At the time of submission of thesis, if the decision on patentability is yet to be obtained, the thesis can be withheld by the Dean, based on a request from the guide endorsed by Doctoral Committee, for a period not exceeding two months.

9.7.5 If the DAE patent cell advises that the results are patentable, the thesis will be uploaded on HBNI website as well as INFLIBNET website after the patent application is filed.

9.7.6 In all other respects, the usual process for thesis evaluation shall apply.

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Academic Codes of Practice: Integrated Ph.D.

Contents:

1. General

1.1 Prelude: The present 'Academic Codes of Practice: Integrated Ph.D.' are framed to implement the 'Ordinances: Integrated Ph.D.' towards conduct of the Integrated Ph.D. programmes in HBNI. These codes of practice are mandatory and apply to all students and faculty. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 Applicability: The present Academic Codes of Practice: Integrated Ph.D. are applicable to following Integrated Ph.D. programmes of HBNI.

1.2.1 Single degree program
  i.   Integrated Ph.D. in Computational Biology (LIFE18)
  ii. Integrated Ph.D. in Applied Systems Analysis (APSA18)
  iii. Integrated Ph.D. in Engineering Sciences (ENGG18)
  iv. Integrated Ph.D. in Physical Sciences (PHYS18)

1.2.2 Two-degree program
  i.   Integrated Ph.D. in Chemical Sciences (CHEM05)
  ii. Integrated Ph.D. in Engineering Sciences (ENGG05)
  iii. Integrated Ph.D. in Life Sciences (LIFE05)
  iv. Integrated Ph.D. in Mathematical Sciences (MATH05)
  v.   Integrated Ph.D. in Medical and Health Sciences (HLTH05)
  vi. Integrated Ph.D. in Physical Sciences (PHYS05)
  vii. Integrated Ph.D. in Theoretical Computer Science (MATH30)

1.3 Additional Pertinent Document: Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 Minimum qualification: Minimum qualification for admission to various Integrated Ph.D. programmes will be as shown in the following table. Required minimum mark in the qualifying degree is 55% in aggregate or equivalent.

Sr. No.	Programme Code	Entry Level Minimum Qualification
i.	CHEM05	BS[+]/ B.E./B.Tech. /B.Sc./ B.Pharm. or equivalent degree from a recognized university or institute
ii.	ENGG05 & ENGG18	BS[+]/ B.E./B.Tech. /B.Sc./ B.Pharm. or equivalent degree from a recognized university or institute
iii.	LIFE05 & LIFE18	BS[+]/ B.E./B.Tech. /B.Sc./ B.V.Sc./ B.Pharm./ M.B.B.S. or equivalent degree from a recognized university or institute
iv.	MATH05 & MATH30	BS[+]/ B.E./B.Tech. /B.Sc./ B.Pharm./ B.C.A. or equivalent degree from a recognized university or institute
v.	HLTH05	BS[+]/ B.E./B.Tech. /B.Sc./ B.V.Sc./ B.Pharm./ M.B.B.S. or equivalent degree from a recognized university or institute
vi.	PHYS05 & PHYS18	BS[+]/ B.E./B.Tech. /B.Sc./ B.Pharm. or equivalent degree from a recognized university or institute
vii.	APSA18	BS[+]/ B.E./B.Tech. /B.Sc./ B.A./ B.B.A. or equivalent degree from a recognized university or institute

BS[+]: 4-year/8-semester Bachelor's Degree in Science including 1 year research.

2.2 Qualifying Marks: Minimum qualification for admission to Integrated Ph.D. program shall be B.E./B.Tech. /B.Sc./ BS[+] / B.V.Sc./ B.Pharm. or equivalent degree from a recognized university or institute with minimum 55% in aggregate or an equivalent grade in a point scale whenever grading system is followed.

2.3 Academic Flexibilities: A candidate having B.E./B.Tech. or equivalent degree and having aptitude for research in any science discipline may also be considered for admission to Integrated Ph.D. Programme in Sciences. In such cases additional credit requirements as prescribed in the clause 3.1.2 shall be applicable.

2.4 Standing Academic Committee: The Standing Academic Committee or equivalent committee, hereafter referred to as 'SAC', constituted by Director of CI/OCC with the members recognized as HBNI faculty shall select the applicants for joining Integrated Ph.D. programme (single / two degree). It will ratify the selection of research topic, allocation of guide(s), course work and doctoral committee of the student.

2.5 Mode of Selection: Admission to Integrated Ph.D. programme will be done through one of the following modes of selection.

2.5.1 For DAE employees, admission shall be by interview of the applicants conducted by SAC after being short listed by a written examination approved by Academic Council. Applicants having PGDNSE from HBNI or those who have passed out from BARC training school on or before 2006, academic performance as required for PGDNSE may be exempted from screening through a written examination. Concerned SAC of the CI/OCC should take a decision in such case based on the past academic credentials of the candidate.

2.5.2 Candidates who have been screened through all India national examination and who have appeared in the selection interview of 'Orientation Course for Engineering Graduates and Science Postgraduates' (OCES), may be selected by CI/OCC based on a cut-off interview mark as decided by SAC of concerned discipline.

2.5.3 For all other candidates, applications may be sought through open advertisements from candidates who have qualified appropriate national level tests conducted by Government bodies, provided the score is valid on the date of application. SAC will conduct interviews of such candidates for admission to Integrated Ph.D. program. CI/OCC

may conduct written tests for such candidates before the interview to further shortlist the names with the approval of Academic Council.

2.6 **Selection Process:** SAC will make recommendation to HBNI about the admissibility of the candidate into the programme. Final list of selected candidates will be based on marks secured in written examination (clause 2.5.3) and interview with suitable weightages as prescribed by the Academic Council. SAC will also make recommendation about the specific programme listed under clause 1.2 to which the candidate is to be admitted. It will also make recommendation for the cases falling under clause 2.3 utilizing academic flexibilities with additional credits.

2.7 **Formation of Monitoring/Doctoral Committee:** For each student, SAC will constitute a Monitoring Committee (Clause 4) or a Doctoral Committee (Clause 5). The Monitoring Committee constituted, shall be replaced by a Doctoral Committee immediately after successful completion of the Oral General Comprehensive Examination (OGCE) by the student.

2.8 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in an academic programme of HBNI. In case, a student does not submit final marksheet and final degree certificate of entry level qualification at the time of registration, the registration will be treated as interim. Students should submit all the necessary documents for confirmation of the registration within a period of six month from the date of joining the program. In case of non-submission of the documents, the highest academic authority of HBNI will decide about the continuation of the registration of the student.

3. Academic Programme

3.1 Course Work and Credit Requirements: SAC will identify coursework to be carried out to meet credit requirements of the admitted students.

3.1.1 For the science students, a minimum of 72 credits and for engineering students a minimum of 36 credits is required for the program. A minimum of 12 credits is required for the students having PGDNSE and also for those

who have successfully graduated from BARC training school on or before 2006 with academic performance as required for PGDNSE.

3.1.2 Additional 4 credits may be prescribed by SAC for the students who opted to join the Integrated Ph.D. programme in a discipline other than the student's basic discipline, utilizing academic flexibilities provided under clause 2.3.

3.1.3 Students may be assigned self-study courses or credit seminars to cater to the subjects which are not covered by the conventional courses. Credits acquired through self-study courses and credit seminars shall not be more than 40% of the total credit requirements. It is desirable to take self-study courses from the courses available in SWAYAM, NPTEL or other similar portals. Students need to pass additional courses with assigned credits on 'Research Methodology' and 'Research and Publication Ethics'.

3.1.4 Online courses conducted by HBNI, which are of interactive in nature, may be considered as classroom courses.

3.1.5 In case of two-degree option, the science students will carry out M.Sc. project work in the second year. The normal period of completion of project work and course work for M.Sc. degree is two years. Extension may be given based on the recommendation of the monitoring/doctoral committee.

3.1.6 Similarly, in case of two-degree option, engineering students will start M.Sc. (Engg) project work in the semester. The normal period of completion of project work and course work for M.Sc. (Engg) degree is two and a half years. Extension may be given based on the recommendation of the monitoring/doctoral committee.

3.1.7 For successful completion of the course work, a minimum score of 60% in aggregate and a minimum of 50% marks in individual course is required. Only one re-examination is permitted. In case of failure in the re-examination, the case shall be referred back to SAC, which may decide about permitting additional chance for re-examination or continuation of the registration of the student or any other alternative deemed fit.

3.2 Online Self-Study Course/ Mini project, Credit Seminar and Research Project:

3.2.1 **Online Self-Study Course/ Mini project:** It is strongly recommended to select Self-study courses from the list of online courses available in HBNI/ NPTEL/ SWAYAM or any other similar platforms. The student has to submit the final transcript/ marksheet after successful completion of the course to the Dean (Academic) of the CI/OCC for further consideration by HBNI.

In case of mini-project, the topic of the project will be assigned by the SAC and evaluated by the Monitoring/Doctoral Committee.

3.2.2 **Credit Seminar:** The Monitoring/Doctoral Committee will identify the topic of the credit seminar along with the syllabus to be covered. A faculty member will be identified to provide necessary academic support to the student during the preparation of the seminar. Student will deliver the seminar in a Monitoring/Doctoral Committee meeting followed by question answer session. Monitoring/Doctoral Committee will then take a decision regarding marks to be given to the student.

3.2.3 **Research Project:** The Monitoring/Doctoral Committee will identify the title of research project along with scope of the project and assign credit for it. Student may be assigned maximum of two projects and each project can have maximum 12 HBNI credits. The committee will also identify a project guide among HBNI faculty members who is having expertise in the topic of the project. The guide will provide necessary academic support to the student during the project. At the end of the project, student will submit project report duly signed by the guide to the Monitoring/Doctoral Committee and deliver an oral presentation followed by question answer session. The Monitoring/ Doctoral Committee will then take a decision regarding marks to be given to the student. In case a student secures less than 50% marks, the Monitoring/ Doctoral Committee may ask the student to improve quality of the project and resubmit the report, which will again be evaluated by the committee in an oral examination.

3.3   Procedure to Change Coursework: Any change in the coursework, which may sometimes be necessitated in practice, shall be done with the approval of Chairman, SAC.

3.4   Oral General Comprehensive Examination (OGCE):

3.4.1   A candidate shall appear in an OGCE to be conducted by the Monitoring/ Doctoral Committee after the successful completion of all credit requirements. The scope of OGCE will include the topics related to the domain of research and the course work undergone by the student to meet the credit requirements. The doctoral/ monitoring committee will inform the student in advance about the details of topics to be covered in OGCE. Monitoring/ Doctoral Committee will then take a decision regarding marks to be given to the student through a question answer session. Participations of the student, Monitoring/ Doctoral Committee Chairman, Guide(s) (if appointed by that time) and two members are mandatory.

3.4.2   Successful completion of OGCE is required to continue further for doctoral programme. If unsuccessful, Monitoring/ Doctoral Committee may give specific suggestions and further time period (maximum six months) to the student for preparation before reappearing for OGCE. In case of failure in the second attempt, the case shall be referred back to SAC, which may decide about the continuation of the registration of the student or permit additional chance or any other alternative deemed appropriate. Clause 9.2 should be followed in case of cancellation of registration.

3.5 Timeline to complete course work and OGCE:

All the prescribed course work, credit seminars, self-study courses and oral general comprehensive examination should be completed within 2 years of enrolment in case of single-degree program or within 6 months of completion of the first degree in case of two-degree program. This period can be extended, with the permission of Dean (Academic) by a maximum period of six months. OGCE should be conducted only after completion of the first degree in case of two-degree programme. In case of not meeting this timeline, the case shall be referred back to SAC, which may decide about the continuation of the registration of the student or permit extra time or any other alternative deemed appropriate.

3.6 Allotment of Guide for doctoral research and other Authorities: The process of identifying a topic of research and allotment of Guide has to be done based on mutual interest of the student and the faculty member, duly approved by the SAC. Allotment of research topic in an interdisciplinary area of research is highly encouraged. Guide and, where applicable co-guide, may also be from another CI/OCC of HBNI. The co-guide can also be from an Institute or University with which HBNI has signed MoU. To get guidance on issues related to the technology, a student may have a Technology Adviser. The Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in the areas which are related to the research topic of the student. Technology Advisor need not be a HBNI faculty member.

3.7 Formulation of Research Work: The student shall prepare, in consultation with his/her guide and co-guide (if applicable), a plan of research work and submit an abstract based on the topic of research approved by SAC. M.Sc. (Engg) research work cannot be included in the doctoral thesis in case of two-degree programme.

3.8 Number of Ph.D. students per Faculty: The maximum number of Ph.D. students guided and/ or co-guided by each faculty is as prescribed by the statutory authority. An eligible Professor/ Associate Professor/ Assistant Professor can guide/ co-guide up to eight (8) / six (6) / four (4) Ph.D. scholars, respectively, at any given time. HBNI recognized research guides cannot supervise research scholars in other institutions, where they can only act as co-guide. Further, he/she shall not increase the number by using recognition from multiple universities/colleges. At any point, the total number of Ph.D. scholars under a faculty member, either as a guide or a co-guide, shall not exceed the number as mentioned above.

3.9 Minimum Periods of Residency and Submission of Thesis: In case of single-degree program, the minimum period of residency is three and a half years and minimum period for submission of doctoral thesis shall be four years from the date of enrolment. However, in case of two-degree program, the minimum period of residency is four and a half years and minimum period for submission of thesis shall be five years from the date of enrolment.

3.10 Programme Tenure and Extensions:

The normal period of completion of research and submission of thesis shall be six-years for single-degree programs and seven-years in case of two-degree option. In case of two-degree option, the first-degree program needs to be completed within the normal period applicable to that degree. If the first degree is not completed within the stipulated period, a time extension may be granted based on the recommendation of the Dean (Academic). However, such extension shall not increase the normal period of completion of the two-degree academic program.

The period can be extended by one year with the recommendation of Doctoral Committee. Any further extension up to a maximum of one year will additionally require recommendation of concerned Board of Studies. Recommendation of the Doctoral Committee/ Board of Studies shall be put up to competent authority at HBNI for approval. Registration will normally be cancelled at the end of second extension. In exceptional cases, based on adequate justification and recommendation of Director of CI/ OCC, a one-time further extension for a limited period may be considered by the competent authorities of HBNI.

The period pertaining to academic break, medical leave, internship or any other similar approved break during doctoral programme of the student will not be accounted while calculating total tenure of the Ph.D. programme of the student

3.11 Criteria and Procedure for Off-Campus Research: Students may get employment offers even before they complete the Ph.D. program. To facilitate students for availing such opportunities, off-campus research provision is being made available by HBNI. This option can be opted by students only if, (i) the student has successfully completed credit requirements and OGCE, (ii) finished all experimental/ theoretical research work, and (iii) completed the minimum residency period as per clause 3.9.

To avail this opportunity, the student has to submit a written request to the Guide and Co-guide (if any), enclosing (i) the appointment letter and, (ii) NOC/ concurrence from the prospective employer allowing continuation in the present Ph.D. programme. If the Guide and Co-guide (if any) are satisfied that the student can complete the remaining work *viz.* analysis of data, interpretation of results, publications, writing thesis and so on, by working off-

campus, the Guide may forward the request to HBNI through Dean (Academic) with the approval of Chairman, Doctoral Committee.

The student is expected to submit the thesis within the tenure available at the time of leaving the campus. Further extension for completion of academic programme will not be granted to students in such cases

3.12 Annual Reviews: During the doctoral research work, the Doctoral Committee will conduct annual reviews to monitor the progress made. For this purpose, student will submit annual progress report duly forwarded by guide to the doctoral committee. Submission of biannual report is strongly recommended for the students who are under academic extension. Participations of the Student, Guide, Chairperson and one Member of Doctoral Committee are mandatory during the annual review. During the review, the student should make a presentation followed by question and answer (Q & A) session. The committee shall monitor progress and advise the student as appropriate including permission to appear in pre-synopsis seminar. The Ph.D. registration is liable for cancellation on two consecutive "Poor" grading during annual review at any stage of the program. For the continuation of registration, it is mandatory for every doctoral student to upload the annual progress report duly signed by doctoral committee members on the corresponding HBNI portal. This will help the competent authority at central office to monitor the progress and take necessary action if needed.

In case of Engineering students enrolled for two-degree Integrated Ph.D. program, biannual review of the research work as mentioned under clause 3.1.6 shall be undertaken for the first degree. The evaluation report of this project review duly signed by the monitoring committee should be uploaded on the corresponding HBNI portal.

3.13 Publications: Each student will suitably publish research work in peer reviewed journals indexed by Scopus/ Web-of-Science/ PubMed or equivalent indexed journals. The discipline-specific required number of such publications to complete the Integrated Ph.D. programme will be as per the decision of the Academic Council.

3.14 Pre-Synopsis Seminar: An open pre-synopsis seminar shall be held as per directive of the Doctoral Committee on completion of research work and on meeting publication requirements as stipulated by Academic Council.

Participations of the Student, Guide, Chairman and two Members of the Doctoral Committee shall be mandatory during the seminar. Student will make a detailed presentation of the research work, chapter wise content of the thesis and list of publications. In case, Doctoral Committee is satisfied with the quality as well as extent of research work and list of publications, it can permit student to submit synopsis within two-week. The synopsis should be written in the format approved by the Academic Council. The academic contents of the synopsis are representative of the contributions of the doctoral thesis being submitted.

3.15 Procedure to Recommend Names of Reviewers: Doctoral Committee will forward confidentially, in the prescribed HBNI format, names of six to eight reviewers to Dean (Academic). All reviewers should be renowned academicians/ researchers in the respective domain of research. They should not be faculty members of HBNI CI/OCC. It is desirable to have at least two foreign reviewers in the suggested list forwarded by Doctoral Committee. The names of the proposed reviewers shall not be revealed to the student.

4. Monitoring Committee

4.1 **Composition of Monitoring Committee:** Progress of each student shall be monitored by a Monitoring Committee to be constituted by SAC or equivalent committee at the time of admission. However, as soon as the research topic and guide are identified, a Doctoral Committee (see clause 5 below) shall be constituted, which will replace Monitoring Committee. The composition of the Monitoring Committee shall be as follows:

i)   A senior faculty member of HBNI shall be the Chairperson.
ii)   Up to two faculty members having expertise in the domain of Board of Studies to which the student is enrolled.
iii) Up to two faculty members involved in teaching course work that the student is attending.

4.2 **Duties of Monitoring Committee:** The Committee will mentor the student and evaluate his/her performance until a Doctoral Committee is constituted.

5. Doctoral Committee

5.1 **Composition of Doctoral Committee:** To monitor progress of a student, SAC will suggest composition of Doctoral Committee as soon as research

topic and Guide are identified. The recommendation of the SAC shall be communicated to HBNI Central Office for approval by filling relevant part of registration forms. The composition of each doctoral committee shall be as follows:

i. A Professor or an Associate Professor of HBNI shall be the Chairperson,

ii. The Guide shall be the Convener, and, where applicable, Co-Guide shall be Co-convener,

iii. Two/ Three faculty members of the Institute specializing in a domain encompassing the topic of research,

iv. One faculty member preferably from any other CI/ OCC or any other university/ institute in an allied domain as the topic of research,

v. A Technology Adviser, if any, shall be a permanent invitee.

5.2 **Duties of Doctoral Committee:** Committee will mentor the student and evaluate his/her performance through periodic reviews, not less than once in a year, until the submission of the thesis. Doctoral committee will perform obligations as shown in clauses 3.12, 3.14 and 3.15.

5.3 **Change in Composition of Doctoral Committee and other SAC Decisions:** Any change in the composition of doctoral committee members, Guide/ Co-Guide or research topic shall be forwarded to HBNI for approval by Dean (Academic) with the recommendation of Chairperson, SAC or equivalent committee. Such approval should be obtained, if required, before the ensuing annual progress review.

6. Thesis Review Process

6.1 Prioritized Names of Reviewers: Identification of thesis reviewers will be done as per the procedure mentioned below:

6.1.1 Dean (Academic) of a CI/OCC will upload the synopsis; list of publications and suggested list of reviewers as per clause 3.15 onto the appropriate HBNI web portal. In addition, Dean (Academic) will also forward hard copies of (i) the synopsis, (ii) list of publications including printout of first page of relevant publications, (iii) suggested names of reviewers, and (iv) receipt of payment of thesis evaluation fee to HBNI Central Office. It is expected that the Dean (Academic) will exclude any

reviewer from the list who has already reviewed another Ph.D. thesis from respective CI/OCC of HBNI during previous one year period. Convener Board of Studies (BoS), in consultation with BoS members will evaluate synopsis for its adequacy for awarding degree. In addition to this, BoS will also recommend four to six reviewers, who may or may not be from the list suggested by Doctoral Committee. Convener, BoS will then forward decision on the adequacy of research work and shortlisted names of reviewers to Dean, HBNI in confidence.

6.1.2 In case of non-adequacy of research work, Dean HBNI will communicate the same to Dean (Academic) for further action at CI/OCC.

6.1.3 HBNI central office will communicate the list of minimum four reviewers as prioritized by Vice Chancellor to Dean (Academic) to start the review process. The names in the prioritized list may or may not be from the list recommended by Doctoral Committee or Board of Studies.

6.1.4 In case of clarifications, if any, Dean, HBNI will get back to Convener, BoS. After getting clarifications, procedures described in clause 6.1.2 and 6.1.3 will be repeated.

6.2 Submission of Thesis for Review: Student shall submit to Dean (Academic) two hard copies of the thesis and a soft copy within three months from the date of pre-synopsis seminar. The thesis should be written in the format as prescribed by HBNI. The period of three-months may be relaxed by Dean (Academic) in exceptional cases. However, in case the thesis is not submitted within six months from the date of pre-synopsis seminar, Dean (Academic) shall refer the case back to doctoral committee for repeating pre-synopsis seminar after the thesis is ready for the submission. In such case, Doctoral committee will repeat pre-synopsis seminar and forward the report along with the thesis to Dean (Academic) for carrying out review process.

6.3 Review Process: Dean (Academic) shall conduct review process as per the procedure mentioned below.

6.3.1 It is desirable to contact the first two reviewers as soon as the prioritized list from HBNI and thesis from the student are received, to

obtain their consent to review the thesis. If the reviewer's consent is not obtained within two-weeks period, then the next prioritized reviewer should be contacted.

6.3.2 The thesis shall be forwarded to the reviewer/s who has/have provided consent to review, indicating a period not more than six weeks to complete the review process and submit the duly signed recommendation in the prescribed format.

6.3.3 In case less than two reviewers of the prioritized reviewers list, indicate their concurrence, Dean (Academic) will contact HBNI Central Office to obtain additional names of reviewers and continue with the review process after getting new names.

6.4 Review Comments by Guide/Co-Guide: Dean (Academic) should contact the Guide/ Co-Guide to submit the Thesis Evaluation Report to him/her.

6.5 Decision on Reviewer's Comments by Dean (Academic): After receiving comments from at least two external reviewers and Guide/ Co-Guide, Dean (Academic) will take the following actions to conclude the review process.

6.5.1 In case the thesis is accepted by both the reviewers in its present form or with minor revisions (option '1' or '2' of Ph.D. Thesis Evaluation Report), Dean (Academic) will send the review comments to the Guide and Co-Guide (if any) and Doctoral Committee Chairperson. In that case, student can proceed with the final viva voce examination after revising thesis based on the comments.

6.5.2 In case one or both reviewers suggest revisions (option '3' of Ph.D. Thesis Evaluation Report), the suggested revisions shall be communicated to the student as well as Guide and Co-Guide (if any). After having been duly revised, the thesis shall be re-sent to reviewer(s) for recommendation on the revised thesis. In case the thesis is not found acceptable by both the reviewers even after the revisions, registration of the student will be cancelled.

6.5.3 In case thesis is rejected by one reviewer (option '4' of Ph.D. Thesis Evaluation Report) after step '6.5.1' or '6.5.2', then the student should

thoroughly modify the thesis taking into consideration all the issues raised by the reviewer. Dean (Academic) will then get it reviewed by next reviewer from the prioritized list, and follow the procedures listed in clauses 6.5.1 and 6.5.2 accordingly.

6.5.4 In case the thesis is rejected by both the reviewers (option '4' of Thesis Evaluation Report), the registration of the student will be cancelled.

6.5.5 Notwithstanding above clauses and option indicated by any reviewer on Thesis Evaluation Report, in case any reviewer has made adverse remarks about the content of the thesis, Dean (Academic) shall refer the case to the Central Office for advice before taking any further action.

7. Final Viva-Voce Examination

7.1 Viva-Voce Board and Preparatory Work: In case the thesis is accepted for award of the degree, each student must defend thesis at an open viva-voce examination as a requirement in partial fulfillment of Ph.D. degree. One of the Thesis reviewers, as suggested by Dean (Academic), shall be the external examiner of the viva-voce board. The Doctoral Committee responsible for conducting pre-synopsis seminar along with the external examiner shall act as the viva-voce board and conduct viva-voce examination at the earliest. The members must receive soft copy of the revised thesis along with pointwise reply to the comments from the reviewers. Both the documents should be sent to members at least seven working days before the scheduled viva-voce examination.

7.2 Quorum for Viva-Voce Examination: Participation of the Guide and Co-Guide (if any), External Examiner, Doctoral Committee Chairman and two Members are mandatory in the final viva-voce examination. One of them can participate over video conference mode. In-person participation of the student is mandatory. In case of difficulty in meeting the quorum, Dean-Academic of CI/OCC of the student or one of the Associate Deans from HBNI can attend the meeting with the permission of the HBNI authority to meet the quorum. Dean, HBNI may be contacted for this purpose.

7.3 Timeline for Viva-Voce Examination: Viva-voce examination of the student shall be held within six months of communication of list of

reviewers prioritized by Vice Chancellor (as per section 6.1.3) to the Dean Academic. Special permission from Vice Chancellor, HBNI is mandatory if it is delayed by more than six months. The requisite request letter for the approval of Vice Chancellor, HBNI must be submitted to Dean, HBNI within 15 days of the expiry of 6 months period from date of communication of list of prioritized examiners.

7.4 **Conduct of Viva-Voce Examination:** Viva-voce examination will be open to all. Student will make a presentation on the research work and response to the reviewers' comments, followed by a question answer session.
Board along with the external examiner will then hold discussion separately to decide about successful defense of the thesis and suitability of the student for award of the degree. It has the following options:

(i) To accept thesis without changes as submitted to the board and recommend award of the degree.

(ii) To recommend revisions to the thesis. Student shall make all changes suggested, get the revised thesis duly certified by guide and submit the same for approval of the board. Board members will recommend award of degree if they are satisfied with the revised thesis.

(iii) To rule thesis and viva-voce examination unsatisfactory and student fails in that circumstance.

7.5 **Declaration of viva-voce result**: Report of the board will be signed by all the members, who have attended the viva voce, with names and date. Student passes if all members of the board accept thesis and final viva-voce examination as satisfactory. Any negative comment constitutes a failure of the candidate to meet the requirement. In case of failure, board must specify in detail and in writing the nature of deficiencies in the thesis and/or in the viva-voce examination that led to the failure. A second examination may be permitted and this should be held within six months. Registration of the student is terminated in case the second examination is not permitted or student again fails in the second examination.

Following examination, board chairperson must inform student about the outcome of the examination indicating which of the above alternatives has been decided.

8. Award of Degree

8.1 **Forwarding documents to Central Office:** Report of the board signed by all members must reach office of Dean, HBNI through Dean (Academic) of CI/OCC for award of degree. In addition, student shall upload the required documents on appropriate HBNI portal as per the updated list available in the office of Dean (Academic).

8.2 **Declaration of results by Central Office**: Vice Chancellor (HBNI) will declare the result of the student based on the recommendations of Dean (HBNI). Student will be issued a Provisional Degree Certificate by HBNI at the earliest after declaration of result. The case will be put up to Council of Management (HBNI) in its ensuing meeting for ratification. Subsequently, student will be awarded Final Degree Certificate by HBNI and a Transcript by CI/OCC in the approved format. In case of two-degree programme, once all the requirements are fulfilled for the first degree, degree will be awarded by HBNI following due procedure once the relevant documents are forwarded/ uploaded,

9. Additional Regulations

9.1 **Student Transfer**

9.1.1 During an ongoing doctoral thesis work of the Integrated Ph.D. programme in any CI/OCC of HBNI, transfer of a student from one CI/OCC to another CI/OCC of HBNI in the same academic year under the same academic programme is permitted, with due approval of Directors of the concerned CI/OCC. The records on credits earned, OGCE and publication(s) by students, if any, during their stay in proceeding CI/OCC will also be transferred in case research topic remains the same. It will be desirable that former Guide/ Co-Guide continues to be the Guide/ Co-Guide of the student. Continuation of same research topic under a new Guide or Co-Guide (if any) will be accepted only with the consent of earlier Guide/ Co-Guide. In that case, written consent shall also be taken from

earlier Guide or Co-Guide (if any) to consider research work and publications done under his/her guidance to be the part of the research under new Guide or Co-Guide (if any).

9.2 **Change of Guide/ Co-Guide**: Under exceptional circumstances change of Guide/ Co-Guide shall be permitted on the recommendation of SAC after obtaining the consent from (i) the student, (ii) the present Guide/ Co-Guide and (iii) the proposed Guide/ Co-Guide. If the research programme and/ or area of the work requires major modification due to this change, the SAC may take decision on additional course works and conducting fresh OGCE as per the procedure.

9.3 **Withdrawal/ Cancellation/ Termination of Integrated Ph.D. Program:** In case a student desires to withdraw from Integrated Ph.D. programme due to personal reasons, or registration is cancelled/ terminated due to under performance, the student will be issued a mark-sheet by CI/OCC showing the courses completed, credits earned and marks secured. The mark-sheet will be issued as per the approved format of the Academic Council. Concerned Dean (Academic) of CI/OCC shall inform HBNI Central Office regarding cancellation of registration of the student. If desired, credits earned by the student can be deposited in Academic Bank of Credits (ABC) after converting to equivalent UGC credits following the procedure approved by Academic Council.

In case the student had enrolled in two-degree Integrated Ph.D. programme and successfully completed academic requirements of the first degree, HBNI will issue the Master's degree to the student.

9.4 **Leave Rules:** All students are entitled for leave for a maximum period of 30 days per year in addition to Public Holidays. Also 10 days leave on medical reasons is permitted per year. Woman students are entitled for maternity leave/ CCL for a period not exceeding 240 days, once during the tenure of their studentship. This should be supported by a medical certificate. Male students are entitled for 15 days paternity leave once during the tenure. This should be supported by a medical certificate. Latest leave rules of statutory authorities in this regard will be followed. Leave rules of DAE will be applicable in case of employee students.

9.5 **Research Involving Classified Work**: Some students of HBNI are involved in strategic programs. In such cases, two important issues arise (a) Some of the work cannot be published because of the classified nature of the research, (b) The thesis would contain classified information, and the thesis cannot be displayed in public domain and cannot also be defended in a public viva voce information. These two issues need to be addressed so as to enable the student to complete the academic programme without violating confidentiality requirements and at the same time, meeting the UGC guidelines in principle. The procedure to be followed in this regard is given below.

9.5.1 The Doctoral Committee constituted by SAC or equivalent committee with suitable members, at the time of registration, should have due approval of Director of CI/OCC and Vice Chancellor.

9.5.2 The student is advised to publish some component of the thesis work that is permitted for dissemination in the form of an indexed journal paper. The student should also make a presentation in a National/ International conference based on this part of the work.

9.5.3 The Doctoral Committee will send the list of suitable reviewers within the country, signed only by the members of the Doctoral Committee, along with all the documents required for synopsis submission directly to Vice Chancellor after closed door pre-synopsis seminar. Vice Chancellor will make due arrangements maintaining confidentiality to send the submitted hard copies of the thesis to the reviewers. Similarly, review comments and the copies of thesis will be sent back to the Guide/ Co-Guide and doctoral committee chairperson for further action along the line of clause 6.5.

9.5.4 In case of positive recommendations from reviewers, closed-door final viva voce examination will be conducted. For the purpose clauses 7 and 8 of the present Codes of Practices will be followed.

9.5.5 A short version of the thesis deleting all classified work will be submitted to HBNI for uploading to INFLIBNET. A complete hard copy of the final thesis will be submitted to Vice Chancellor in sealed envelope for record.

9.6 **Research Involving Patentable Results**: Some students of HBNI may produce intellectual property that may be patentable. Some of the research results cannot be published in journal because of the patentable nature of the research. The procedure to be followed in this regard is given below.

9.6.1 At the time of submission of the synopsis, the student / guide shall record the patentability of the results of the work and get it endorsed by the doctoral committee.

9.6.2 It is the responsibility of the student and guide to ensure that BoS requirement regarding publication is met; they will also be responsible for ensuring that the patentable results are not published.

9.6.3 The student/guide shall submit the patent to the DAE patent cell and obtain its decision on patentability as far as possible before submission of thesis.

9.6.4 At the time of submission of thesis, if the decision on patentability is yet to be obtained, the thesis can be withheld by the Dean, based on a request from the guide endorsed by Doctoral Committee, for a period not exceeding two months.

9.6.5 If the DAE patent cell advises that the results are patentable, the thesis will be uploaded on HBNI website as well as INFLIBNET website after the patent application is filed.

In all other respects, the usual process for thesis evaluation shall apply.

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Academic Codes of Practice: Doctor of Medicine (D.M.) and Master of Chirurgiae (M.Ch.)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice**:** D.M./M.Ch.' are framed to implement the 'Ordinances: D.M./M.Ch.' towards conduct of D.M./M.Ch. programmes. D.M./M.Ch. programme is a three-year programme designed to educate students to gain knowledge in theoretical, practical and clinical practices. The programme shall consist of (i) theory, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work carried out under the supervision of a guide leading to a thesis. The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences following National Medical Commission **(**NMC) guidelines. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: D.M./M.Ch. (HLTH22) are applicable to the D.M./M.Ch. programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Minimum qualification for admission to the D.M./M.Ch. programme in various specializations shall be M.D./M.S. or equivalent degree viz. DNB, or equivalent degree from a University recognized by the National Medical Commission. Minimum percentage of marks/ percentile as stipulated by Statutory Authorities shall be followed. Number of seats in various specialties shall be as approved by the National Medical Commission.

2.2 **Modes of Selection:** The selection of candidates for admission to D.M./M.Ch. programme in a CI/OCC shall be through a selection process (at present through All India NEET, conducted by National Board of Examinations, NBE) in accordance with the applicable guidelines of the Central Government and the Government of the State where the Institute is located.

2.3 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided

the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

3.1 **Programme duration:** Normal duration of this programme shall be three academic years.

3.2 **Course work:** The programme shall consist of (i) theory courses, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work to be carried out under the supervision of a guide leading to a thesis. The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Medical and Health Sciences following NMC guidelines.

3.3 **Conduct of programme:** The conduct of the programme and progress of the student during the entire programme shall be monitored by a Standing Academic Committee (SAC) or equivalent committee constituted by Director of CI or OCC. The details of conduct of the programme are given below.

3.3.1 During the programme the student shall attend regular theory classes as per the academic schedule of individual department, make ward rounds, make presentations and participate in seminars as well as Continuing Medical Education Programmes (CMEs) organized by the CI/OCC. 3.4 The syllabus shall be as approved by the Academic Council meeting NMC Norms.

3.3.2 Annual internal assessment (both in theory, practical and clinical practice) of a student shall be conducted with the assistance of external experts identified by Dean Academic of the CI/OCC in consultation with the Head of the concerned Department.

3.3.3 Every student shall be assigned to a guide in accordance with the stipulations of the Medical Council of India (keeping in mind the student-teacher ratio as prescribed by NMC norms) and shall prepare in consultation with his/ her guide a plan of research work. The topic of thesis, which may lead to publication of a research paper, will be approved by the Institutional Ethics Committee (IEC). The thesis is to be submitted by the student six-months prior to the Theory and Clinical/ Practical examination. This thesis will be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examinations. A candidate shall be allowed to appear for the Theory and Practical/Clinical

examination only after the acceptance of the thesis by the examiners. The final approval is subject to incorporation of necessary changes addressing the comments, if any.

3.3.4 Every CI shall set up an Academic Cell or a Curriculum Committee, under the chairmanship of a senior faculty member, which shall work out the details of the training programme in each specialty in consultation with other department faculty staff and also coordinate and monitor the implementation of these training programmes. The committee will also oversee the running of programme and meet the students on a regular basis to monitor their progress.

3.3.5 University examinations will be conducted two times in a year

3.3.6 The students will be evaluated following a continuous evaluation process. Minimum passing mark is 50% in each subject and 50% in aggregate.

3.3.7 In case of failure, the student will be permitted to appear in re-examinations following procedure as prescribed by the Academic Codes of Practice.

4. Award of Degree

4.1 **Evaluation Process:** The students will be evaluated following continuous evaluation process as per NMC guidelines.

4.2 **Passing Marks:** The passing marks shall be 50% in theory and associated practical examination separately, of each subject. If a student fails either in theory or in practical examination of a subject, the student has to re-appear in both theory and practical examinations. Maximum number of attempts is three including the first attempt.

4.3 **Forwarding Documents to Central Office:** The examination result of all the candidates shall be communicated to the Dean HBNI through Dean Academic of the CI/OCC. The successful candidates will be awarded D.M./ M.Ch. Degree.

4.4 **Declaration of Results by Central Office:** Every student will be issued following documents on successful completion of the MD Programme:
   i. 'Provisional Degree Certificate' after declaration of results by Vice Chancellor to be issued by Central Office of HBNI.

ii. 'Final degree certificate' after the ratification of results by Council of Management, to be issued by Central Office of HBNI.

iii. 'Transcript of Marks' in the approved format to be issued by Constituent Institution or Off Campus Centre, as the case may be.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: Doctor of Medicine (M.D.)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.D.' are framed to implement the 'Ordinances: M.D.' towards conduct of M.D. programmes. M.D. programme is a three-year programme designed to educate students to gain knowledge in theoretical, practical and clinical practices. The programme shall consist of (i) theory, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work carried out under the supervision of a guide leading to a thesis. The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Medical & Health Sciences following National Medical Commission (NMC) guidelines. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: M.D. (HLTH21) are applicable to the M.D. programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Minimum qualification for admission to the M.D. programme in various specializations shall be M.B.B.S. or equivalent degree from a University recognized by the National Medical Commission. Minimum percentage of marks/percentile as stipulated by Statutory Authorities shall be followed. Number of seats in various specialties shall be as approved by the National Medical Commission.

2.2 **Modes of Selection:** The selection of candidates for admission to M.D. programme in a CI/OCC shall be through a selection process (at present through all India NEET, conducted by National Board of Examinations, NBE) in accordance with the applicable guidelines of the Statutory Authorities.

2.3 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

3.1 **Programme duration:** Normal duration of this programme shall be three academic years.

3.2 **Course work:** The programme shall consist of (i) theory courses, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work to be carried out under the supervision of a guide leading to a thesis. The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Medical and Health Sciences following NMC guidelines.

3.3 **Conduct of programme:** The conduct of the programme and progress of the student during the entire programme shall be monitored by a Standing Academic Committee (SAC) or equivalent committee constituted by Director of CI or OCC. The details of conduct of the programme are given below.

3.3.1 During the programme the student shall attend regular theory classes as per the academic schedule of individual department, make ward rounds, make presentations and participate in seminars as well as Continuing Medical Education Programmes (CMEs) organized by the CI/OCC. 3.4   The syllabus shall be as approved by the Academic Council meeting NMC Norms.

3.3.2 Annual internal assessment (both in theory, practical and clinical practice) of a student shall be conducted with the assistance of external experts identified by Dean Academic of the CI/OCC in consultation with the Head of the concerned Department.

3.3.3 Every student shall be assigned to a guide in accordance with the stipulations of the Medical Council of India (keeping in mind the student-teacher ratio as prescribed by NMC norms) and shall prepare in consultation with his/ her guide a plan of research work. The topic of thesis, which may lead to publication of a research paper, will be approved by the Institutional Ethics Committee (IEC). The thesis is to be submitted by the student six-months prior to the Theory and Clinical/ Practical examination. This thesis will be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examinations. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the thesis by the examiners. The final approval is subject to incorporation of necessary changes addressing the comments, if any.

3.3.4 Every CI shall set up an Academic Cell or a Curriculum Committee, under the chairmanship of a senior faculty member, which shall work out the details of the training programme in each specialty in consultation with other department faculty staff and also coordinate and monitor the implementation of these training programmes. The committee will also oversee the running of programme and meet the students on a regular basis to monitor their progress.

3.3.5 University examinations will be conducted two times in a year

3.3.6 The students will be evaluated following a continuous evaluation process. Minimum passing mark is 50% in each subject and 50% in aggregate.

3.3.7 In case of failure, the student will be permitted to appear in re-examinations following procedure as prescribed by the Academic Codes of Practice.

4. Award of Degree

4.1 **Evaluation Process:** The students will be evaluated following continuous evaluation process as per NMC guidelines.

4.2 **Passing Marks:** The passing marks shall be 50% in theory and associated practical examination separately, of each subject. If a student fails either in theory or in practical examination of a subject, the student has to re-appear in both theory and practical examinations. Maximum number of attempts is three including the first attempt.

4.3 **Forwarding Documents to Central Office:** The examination result of all the candidates shall be communicated to the Dean HBNI through Dean Academic of the CI/OCC. The successful candidates will be awarded MD Degree.

4.4 **Declaration of Results by Central Office:** Every student will be issued following documents on successful completion of the MD Programme:
   i. 'Provisional Degree Certificate' after declaration of results by Vice Chancellor to be issued by Central Office of HBNI.
   ii. 'Final degree certificate' after the ratification of results by Council of Management, to be issued by Central Office of HBNI.
   iii. 'Transcript of Marks' in the approved format to be issued by Constituent Institution or Off Campus Centre, as the case may be.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc.(Engg)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc.(Engg)' are framed to implement the 'Ordinances: M.Sc.(Engg)' towards conduct of the M.Sc.(Engg) programmes in HBNI. These codes of practice are mandatory and apply to all students and faculty. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** Present ordinance is applicable to standalone M.Sc. (Engg) program. For integrated Ph.D. program in Engineering, PGDEG8 may be referred. This program will be under the purview of the Board of Studies in Engineering Sciences.

1.3 **Additional Pertinent Document**: Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification:** Minimum qualification for admission to the M.Sc. (Engg) shall be Bachelor's degree B.E./ B.Tech./ B.Sc.(Engg) or equivalent in Engineering/ Technology or a Master's degree in Science (M.Sc.) from a recognized University / Institute with minimum 60% marks. However, whenever the stipulation by MoE/ UGC/ Statutory Authority is higher than 60%, the stipulated percentage shall be followed.

2.2 **Academic Flexibilities**: Some of the academic flexibilities related to the admission process are as follows:

(a) An employee, earlier recruited through BARC Training School programmes at BARC/ IGCAR/ RRCAT or the Technical Training Programme of IPR after 2015, shall also be eligible for enrolment in the M.Sc. (Engg). programme. In addition, the performance of the applicant in the above-mentioned training programmes must be above a threshold specified by the Board of Studies of concerned science discipline.

(b) An employee/ non-employee not falling in the category 2.2(a) but satisfies minimum qualification criteria of 2.1 and is screened in through a written test and/ or interview, shall be considered for admission to the M.Sc. (Engg) programme.

2.3 **Standing Academic Committee:** The Standing Academic Committee or equivalent committee, hereafter referred to as 'SAC', constituted by Director of CI/OCC with the members recognized as HBNI faculty shall select the applicants for joining M.Sc.(Engg) program. It will ratify the selection of research topic, course work, guide(s), and Monitoring committee of the student. Director of a CI shall constitute Standing Academic Committee (SAC) consisting of members recognized as its faculty by HBNI.

The SAC will make recommendations about the admissibility of the candidate into the programme based on the performance of candidate in the written test and/or interview conducted for the purpose. The selection procedure shall have the approval of the Academic Council.

3. Academic Programme

3.1 **Programme Duration:** Normal duration of the M.Sc.(Engg) programme, including the course work and research leading to a thesis shall be two and a half years.

3.2 **Course work and credit requirements:** For the students admitted under category 2.2(a), the extent of the course work and the subjects will be determined by SAC. A minimum of 8 credits (equivalent to two courses of 3 credits each and a credit seminar of 2 credits) is required for successful completion of the program. For the students admitted under category 2.2(b), a minimum of 36 credits is required for successful completion of the program. The course work shall comprise classroom teaching, practical, viva-voce and/or mini projects. The syllabus for the course work shall be as approved by the Academic Council on the recommendation of the Board of Studies.

In case, a student needs to repeat a course work or appear in reexamination, it must be completed in no more than two years from the date of enrolment without changing the total duration of the academic program.

3.3 **Guide and Research Project:** The SAC will evaluate each research proposal, assign research guide, constitute M.Sc. (Engg). monitoring committee and suggest additional course work, if any. For valid reasons, the duration of the research work can be extended by one calendar year in two stages (6-months each) based on the recommendation of M.Sc. (Engg). Monitoring Committee. Further extension for a limited period up

to six months may be considered by competent authorities of HBNI in the exceptional cases based on the recommendation of the Director of CI or his/her Nominee. The SAC by taking into consideration aspects like the aptitude, work experience, courses already studied and the interest of the student, and in consultation with the student, shall identify a topic of research and a guide and, if necessary, a co-guide for every M.Sc. (Engg). student. The guide and, wherever applicable co-guide, can also be from a CI other than where the candidate has enrolled. The co-guide can be also from an Institution or University with which HBNI has agreement of cooperation.

4. Performance Assessment and Research Work

Performance Assessment is carried out on the basis of examinations – written test, viva voce, seminars and internal assessment. To qualify for carrying out research work in the second year, a student must score not less than 50% in each subject and not less than 60% in aggregate during the course work. Re-examinations are held for students missing examinations on medical grounds or in case of students who score less than 50% marks in a subject or less than 60% in aggregate. However, in case of not meeting the aggregate requirement, student can appear for reexamination only for a maximum of five subjects.

5. Monitoring Committee

5.1 **Composition of Monitoring Committee:** To monitor the progress, the Standing Academic Committee at the CI/OCC, shall constitute M.Sc. (Engg) Monitoring Committee for each student. The composition of each committee shall be as follows:

   a. A Professor or an Associate Professor shall be the Chairman of the Committee,
   b. The guide shall be the convener of the committee,
   c. Two faculty members of the Institute specializing in a domain encompassing the topic of research,
   d. A Technology Adviser, if any, shall be a permanent invite

   (To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development

or engineering design in areas related with the research topic of the student.)

5.2 **Duties of Monitoring Committee:** During the research work, the student shall give periodic seminars, at least once in every six months before the M.Sc. (Engg) Monitoring Committee on the progress. The committee shall assess the progress and advise the student as appropriate including permission to submit the thesis. Till the submission of the thesis, enrolment of the student should be valid.

6. Thesis Evaluation and Final Viva Voce Examination

6.1 **Thesis Evaluation:** Each student must defend his/her thesis at an oral examination as a requirement in partial fulfillment of the M.Sc. (Engg) degree. The M.Sc. (Engg) Committee will function as Final Examination Committee. All members must receive the thesis at least seven working days before the scheduled oral examination.

The M.Sc thesis examiner shall be approved by the M.Sc Monitoring Committee and the thesis shall be sent to the examiner by respective Guide of the student or Chairman of the Monitoring Committee to obtain the evaluation report. Report should be obtained within 3 weeks of sending the thesis for evaluation.

6.2 **Viva Voce Examination:** The Viva-voce examination of the student shall be held within three months of submission of thesis. Special permission from Vice Chancellor, HBNI is mandatory if it is delayed by more than three months from the date of submission of thesis. The requisite request letter for the approval of Vice Chancellor, HBNI must be submitted to Dean, HBNI within 15 days of the expiry of 3 months period from the date of submission of thesis. The following procedure will be applicable for viva voce examination:

(i) Physical participation of the student is mandatory. In addition to this, participation of Chairman, Guide, External Examiner and one member is mandatory in the final examination. Out of these, one of them can participate by means of video.

(ii) The examination will be open to all. The student will make a presentation. The members of the committee will ask questions and seek

clarifications, if any. Student will also respond to questions from the audience.

(iii) The Examination Committee will then hold a separate discussion to decide about successful defense of the thesis and suitability of the candidate for award of the degree. It has the following options:

a. To accept the thesis without any changes and recommend award of the degree.
b. To recommend revisions to the thesis. The student shall make all the changes suggested, get the revised thesis duly certified by the guide and submit the same for the approval of the committee. The Examination Committee recommends award of the degree if they are satisfied with the revised thesis.
c. To declare the thesis or viva-voce unsatisfactory. In that circumstance, the student fails.

(iv) The report of the Examination Committee will be signed by all the members (present either physically or by means of video) with names and date.

(v) In case a member is unable to participate in the examination, the Convener shall arrange to obtain his/her comments on the thesis prior to examination for discussion during the meeting. The Convener shall also obtain signature of absent member after the examination on the recommendation sheet of the committee with a declaration that "I was absent during the final examination. I agree with the decision of the examination committee"

(vi) The Chair signs the report of the committee indicating which of the alternatives indicated at 6.4 above has been adopted. The Chair shall inform the student of the outcome of the examination.

(vii) The student passes if all members of the Final Examination Committee accept the thesis and oral examination as satisfactory. One or more negative votes constitute a failure of the candidate to meet the requirement. In case of failure, the Final Examination Committee must specify in detail and in writing the nature of deficiencies in the thesis and/or in the oral examination that led to the failure. A second examination may be permitted. If the student fails in the second examination or if the second examination

is not permitted, the student's admission to the programme is terminated.

7. Award of Degree

7.1 **Forwarding documents to Central Office**: Report of the Final Examination Committee signed by all members must reach office of Dean, HBNI through Dean (Academic) of CI/OCC for award of degree. In addition, student shall upload the required documents on appropriate HBNI portal as per the updated list available in the office of Dean (Academic).

7.2 **Declaration of result by Central Office:** Vice Chancellor (HBNI) will declare the result of the student based on the recommendations of Dean (HBNI). Student will be issued a Provisional Degree Certificate by HBNI at the earliest after declaration of result. The case will be put up to Council of Management (HBNI) in its ensuing meeting for ratification. Subsequently, student will be awarded Final Degree Certificate by HBNI and a Transcript by CI/OCC in the approved format.

8. Additional Regulations

8.1 **Leave Rules:** Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

8.2 **Research Involving Classified Work:** Some students of HBNI are involved in strategic programs. In such cases, the thesis would contain classified information, and the thesis cannot be reviewed by an expert outside DAE. The thesis cannot also be defended in a public viva voce examination. The procedure to be followed in this regard is given below:

(i) The Monitoring Committee constituted by SAC or equivalent committee in consultation with Chairman, SAC should declare the thesis to be classified.

(ii) The Monitoring Committee should suggest a suitable domain expert from DAE (present/ former) to be the reviewer.

In case of positive recommendations from reviewer, closed-door final viva voce examination will be conducted.

(iii) A short version of the thesis deleting all classified work will be uploaded on Anuvidhya web portal. A complete hard copy of the final thesis will be submitted to Vice Chancellor in sealed envelope for record.

8.3 Research Involving Patentable Results: Some students of HBNI may produce intellectual property that may be patentable. The procedure to be followed in this regard is given below.

(i) The student/guide shall submit the patent to the DAE patent cell and obtain its decision on patentability as far as possible before submission of thesis.

(ii) At the time of submission of thesis, if the decision on patentability is yet to be obtained, the thesis can be withheld by the Dean, based on a request from the guide endorsed by Doctoral Committee, for a period not exceeding two months.

(iii) If the DAE patent cell advises that the results are patentable, the thesis will be uploaded on HBNI website after the patent application is filed.

In all other respects, the usual process for thesis evaluation shall apply.

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Academic Codes of Practice: M.Tech.

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Tech.' are framed to implement the 'Ordinances: M.Tech.' towards conduct of the M.Tech. programmes in HBNI. These codes of practice are mandatory and apply to all students and faculty. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Additional Pertinent Document**: Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Applicability

HBNI offers M.Tech. programme in various engineering disciplines related to nuclear technology. Engineers joining BARC Training School (BARCTS) at BARC/ IGCAR/ RRCAT campus or Technical Training Programme (TTP) of IPR have the option of enrolling for M.Tech. programme at the beginning of the session. In some applied disciplines, science students may also enroll for M.Tech. Engineering graduates enrolled for M.Tech. in the BARCTS have the option of discontinuing and receiving a Post Graduate Diploma in Nuclear Science and Engineering (PGDSE) on successful completion of one year of course work provided he/she applies for the same within 6-months of the completion of the course work.

3. Admission

Selection of candidates for admission to M.Tech. programme shall be through a selection process formulated by the CI with the approval of Academic Council and in line with guidelines issued by the statutory authorities.

3.1 **Minimum qualification:** Minimum qualification for admission to the M.Tech. shall be Bachelor's degree B.E./ B.Tech. or equivalent in Engineering/ Technology or a Master's degree in Science (M.Sc.) from a recognized University / Institute with minimum 60% marks. However, whenever the stipulation by MoE/AICTE/Statutory Authority is higher than 60%, the stipulated percentage shall be followed.

4. Academic Programme

4.1 **Programme Duration:** Normal duration of the M.Tech. programme,

including the course work and project work leading to a thesis shall be two years.

4.2 Course work and credit requirements: A minimum of 36 credits is required for successful completion of the program. The course work shall comprise classroom teaching, practical, viva-voce and/or mini projects. The syllabus for the course work shall be as approved by the Academic Council on the recommendation of the Board of Studies.
In case, a student needs to repeat a course work or appear in reexamination, it must be completed in no more than two years from the date of enrolment without changing the total duration of the academic program.

4.3 Standing Academic Committee: The Standing Academic Committee or equivalent committee, hereafter referred to as 'SAC', constituted by Director of CI/OCC with the members recognized as HBNI faculty shall select the applicants for joining M.Tech. program. It will ratify the selection of project work, course work, M.Tech. guide, and M.Tech. Monitoring committee of the student. Director of a CI shall constitute Standing Academic Committee (SAC) consisting of members recognized as its faculty by HBNI. HBNI faculty or HBNI recognized M.Tech. guide can guide a student for the project work.
The SAC or its nominee will make recommendations about the admissibility of the candidate into the programme based on the performance of candidate in the course work. The selection procedure shall have the approval of the Academic Council.

4.4 Project Topic and M.Tech. Guide: The SAC or its nominee will evaluate each research proposal, assign M.Tech guide, constitute M.Tech. monitoring committee. For valid reasons, the duration of the project work can be extended by 6-months based on the recommendation of M.Tech. Monitoring Committee. Further extension for a period of six months may be considered by competent authorities of HBNI in the exceptional cases based on the recommendation of the Director of CI or his/her Nominee.

4.5 Academic Break: An academic break upto a period of two years (in multiple of one year) is allowed provided the student has completed all the course works required towards the fulfilment of mandatory minimum credit requirements of M.Tech. Programme. A request for the same shall be made by the student within six months from the date of start of requested academic

break. The application for joining the M.Tech. Programme after availing of the said academic break shall be made to HBNI at least 2 months before the expiry of break period. Joining back in the academic after availing HBNI approved break has to be on 1st January or 1st August of a year.

5. Performance Assessment and Research Work

Performance Assessment is carried out on the basis of examinations – written, viva voce, seminars and internal assessment. To qualify for carrying out project work in the second year, a student must score not less than 50% in each subject and not less than 60% in aggregate during the course work. Re-examinations are held for students missing examinations on medical grounds or in case of students who score less than 50% marks in a subject or less than 60% in aggregate. However, in case of not meeting the aggregate requirement, student can appear for reexamination only for a maximum of five subjects.

6. M.Tech. Monitoring Committee

6.1 **Composition of Monitoring Committee:** To monitor the progress, the Standing Academic Committee at the CI/OCC, shall constitute M.Tech Monitoring Committees with various domain experts and assign each student to one of the committes. The composition of each committee shall be as follows:

(i) A Professor or an Associate Professor shall be the Chairman of the Committee,
(ii) The guide shall be the convener of the committee,
(iii) Two faculty members or recognized M.Tech. guides of the Institute specializing in a domain encompassing the topic of project,
(iv) A Technology Adviser, if any, shall be a permanent invitee (To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in areas related with the topic of the project.)

6.2 **Duties of Monitoring Committee:** During the project work, the student shall give periodic seminars, at least once in every six months before the M.Tech. Monitoring Committee on the progress. The committee shall

assess the progress and advise the student as appropriate including permission to submit the thesis.

7. Thesis Evaluation and Final Viva Voce Examination

7.1 Thesis Evaluation: Each student must defend his/her thesis at an oral examination as a requirement in partial fulfillment of the M.Tech. degree. The M.Tech. Monitoring Committee will function as Final Examination Committee. All members must receive the thesis at least seven working days before the scheduled oral examination.

The M.Tech. thesis examiner shall be approved by the M.Tech. Monitoring Committee and the thesis shall be sent to the examiner by respective M.Tech. guide or Chairman of the M.Tech Monitoring committee to obtain the evaluation report.

7.2 Viva Voce Examination: The Viva-voce examination of the student shall be held within three months of submission of thesis to the Guide or chairman of the Monitoring Committee. Till the submission date of the thesis, the enrolment of the student needs to be valid. Special permission from Vice Chancellor, HBNI is mandatory if it is delayed by more than three months. The requisite request letter for the approval of Vice Chancellor, HBNI must be submitted to Dean, HBNI within 15 days of the expiry of 3 months period from the date of submission of thesis. The following procedure will be applicable for viva voce examination:

(i) Physical participation of the student is mandatory. In addition to this, participation of Chairperson, Guide, External Examiner and one member is mandatory in the final examination. Out of these, one of them can participate by means of video.

(ii) The examination will be open to all. The student will make a presentation. The members of the committee will ask questions and seek clarifications, if any. Student will also respond to questions from the audience.

(iii) The Examination Committee will then hold a separate discussion to decide about successful defense of the thesis and suitability of the candidate for award of the degree. It has the following options:

a) To accept the thesis without any changes and recommend award of the degree.

b) To recommend revisions to the thesis. The student shall make all the changes suggested, get the revised thesis duly certified by the guide and submit the same for the approval of the committee. The Examination Committee recommends award of the degree if they are satisfied with the revised thesis.

c) To declare the thesis or viva-voce unsatisfactory. In that circumstance, the student fails.

(iv) The report of the Examination Committee will be signed by all the members (present either physically or by means of video) with names and date.

(v) In case a member is unable to participate in the examination, the Convener shall arrange to obtain his/her comments on the thesis prior to examination for discussion during the meeting. The Convener shall also obtain signature of absent member after the examination on the recommendation sheet of the committee with a declaration that "I was absent during the final examination. I agree with the decision of the examination committee"

(vi) The Chair signs the report of the committee indicating which of the alternatives indicated at 6.4 above has been adopted. The Chair shall inform the student of the outcome of the examination.

(vii) The student passes if all members of the Final Examination Committee accept the thesis and oral examination as satisfactory. One or more negative votes constitute a failure of the candidate to meet the requirement. In case of failure, the Final Examination Committee must specify in detail and in writing the nature of deficiencies in the thesis and/or in the oral examination that led to the failure. A second examination may be permitted. If the student fails in the second examination or if the second examination is not permitted, the student's admission to the programme is terminated.

8. Award of Degree

8.1 Forwarding documents to Central Office: Report of the Final Examination Committee signed by all members must reach office of Dean, HBNI through Dean (Academic) of CI/OCC for award of degree. In addition, student shall upload the required documents on appropriate HBNI portal as per the updated list available in the office of Dean (Academic).

8.2 Declaration of result by Central Office: Vice Chancellor (HBNI) will declare the result of the student based on the recommendations of Dean (HBNI). Student will be issued a Provisional Degree Certificate by HBNI at the earliest after declaration of result. The case will be put up to Council of Management (HBNI) in its ensuing meeting for ratification. Subsequently, student will be awarded Final Degree Certificate by HBNI and a Transcript by CI/OCC in the approved format.

9. Additional Regulations

9.1 Leave Rules: Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

9.2 Research Involving Classified Work: Some students of HBNI are involved in strategic programs. In such cases, the thesis would contain classified information, and the thesis cannot be reviewed by an expert outside DAE. The thesis cannot also be defended in a public viva voce examination. The procedure to be followed in this regard is given below:

(i) The Monitoring Committee constituted by SAC or equivalent committee in consultation with Chairperson, SAC should declare the thesis to be classified.

(ii) The Monitoring Committee should suggest a suitable domain expert from DAE (present/ former) to be the reviewer.

In case of positive recommendations from the reviewer, closed-door final viva voce examination will be conducted.

(iii) A short version of the thesis deleting all classified work will be uploaded on Anuvidhya web portal. A complete hard copy of the final thesis will be submitted to Vice Chancellor in sealed envelope for record.

9.3 Research Involving Patentable Results: Some students of HBNI may produce intellectual property that may be patentable. The procedure to be followed in this regard is given below.

(i) The student/guide shall submit the patent to the DAE patent cell and obtain its decision on patentability as far as possible before submission of thesis.

(ii) At the time of submission of thesis, if the decision on patentability is yet to be obtained, the thesis can be withheld by the Dean, based on a request from the guide endorsed by M.Tech. Monitoring Committee, for a period not exceeding two months.

(iii) If the DAE patent cell advises that the results are patentable, the thesis will be uploaded on HBNI website as well as INFLIBNET website after the patent application is filed.

In all other respects, the usual process for thesis evaluation shall apply.

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Academic Codes of Practice: M.Sc.

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc.' are framed to implement the 'Ordinances: M.Sc.' towards conduct of the M.Sc. programmes. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: M.Sc. are applicable to the following M.Sc. programmes of HBNI.

    i.   M.Sc. in Physical Sciences (PHYS08)
    ii.   M.Sc. in Mathematical Sciences (MATH08)

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

A student will be admitted to the programme on successfully fulfilling the following criteria:

2.1. **Minimum Qualification**: Candidates who have successfully completed one of the following educational qualifications are eligible to apply for M.Sc. programme:

2.1.1 Candidates with three years of an undergraduate Degree in Science discipline or those who have earned prescribed number of credits for an undergraduate degree through the examinations conducted by a recognized University/ Institute.

2.1.2 Candidates having B.Tech. or equivalent degree from any recognized University / Institute and having aptitude for sciences will also be considered for admission to the programme.

2.1.3 Candidates with 4-year / 8-semester Bachelor's Degree in Science including one year of research are eligible for M.Sc. programme.

2.2. **Qualifying Marks**: The student should have minimum 55% marks in aggregate at the Bachelors level.

2.3. **Academic Flexibilities:**

2.3.1 Change of discipline from undergraduate to M.Sc. programme may be permitted as per the terms and conditions laid down by CI/OCC. In such cases additional credit may be prescribed by SAC of the CI/OCC.

2.3.2 In case a M.Sc. student from any other institute, which is not a CI/OCC of HBNI, desires to join M.Sc. program in HBNI in any CI/OCC if vacancy exist, the student may be enrolled in 2nd year of M.Sc. program following criteria as laid down by clause 4.5 of 'Academic Codes of Practices: General'.

2.4. **Selection Process**: The CI/OCC shall select students from the Joint Entrance Screening Test (JEST)/ JAM or any other equivalent National Level test. Candidates scoring marks in any of these tests above a certain cut-off set by the CI/OCC, will have to appear for a written test and an interview conducted by theCI/OCC. Based on the performance in the written test and the interview, candidates will be selected for this programme. The selection procedure shall have the approval of the Academic Council.

2.5. **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI. In case, a student does not submit final marksheet and final degree certificate of entry level qualification at the time of registration, the registration will be treated as interim. Students should submit all the necessary documents for confirmation of the registration within a period of six month from the date of joining the program. In case of non-submission of the documents, the highest academic authority of HBNI will decide about the continuation of the registration of the student.

3. Academic Programme

3.1 **Course Work and Credit Requirements**: This two-year programme will have four semesters. The programme includes mandatory theory courses, laboratory courses, electives and project work. The syllabus for the coursework shall be as approved by the Academic Council on the recommendation of the Board of Studies. The academic credits will be assigned as per clause 5 of 'Academic Codes of Practices: General'.

3.2 **Standing Academic Committee:** The Director of the CI/OCC shall constitute a Standing Academic Committee or equivalent committee, hereafter referred to as SAC, consisting of faculty members of the CI/OCC. The SAC will oversee the conduct of the programme and meet the students on a regular basis to monitor their progress.

4. Award of Degree

i   The students will be evaluated following a continuous evaluation process. Performance in all courses will be graded following guidelines given by UGC on a ten-point scale. The CI/OCC can decide on the percentage of marks required to pass in a course and also the CGPA required to qualify for a degree with the approval of Academic Council.

ii   In case of failure in the examination, the student will appear in re-examination as per the policy of the CI/OCC framed with the approval of Academic Council.

iii   The student shall be awarded M.Sc. degree by HBNI on successful completion of the academic programme requirements.

iv   In case of underperformance, student may be terminated from the programme following the policy of the CI/OCC as approved by the Academic Council.

v   The examination result of all the candidates shall be communicated to the Dean, HBNI through Dean-Academic of the CI/OCC for the award of degree to the successful candidates.

5. Withdrawal/ Cancellation

After successful completion of all the prescribed courses in the 1st year, a student can exit the 2-year M.Sc. (Physical Science) programme with a PG Diploma as per the clause 9.2 of 'Academic Codes of Practices: General'. However, the student must exercise the option at the beginning of the registration of the 2nd Semester of this 4-semester academic program. In such a case, the student will be issued a mark-sheet by CI/OCC showing the courses completed, credits earned and marks secured as per the approved format of the Academic Council. Concerned Dean-Academic of CI/OCC shall inform HBNI Central Office regarding cancellation of registration of the student. If desired, credits earned by the student can be deposited in Academic Bank of Credits (ABC) after converting to equivalent UGC credits following the procedure approved by Academic Council.

6. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: 5 - year Integrated M.Sc. (IMSc)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: IMSc' are framed to implement the 'Academic Ordinances: IMSc' towards conduct of the 5-year Integrated M.Sc. programmes under HBNI. These codes of practice are mandatory and apply to all students and faculty. The Academic Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: IMSc are applicable to following Integrated M.Sc. programmes of HBNI.
   i. Integrated M.Sc. in Chemical Sciences (CHEM13)

   ii. Integrated M.Sc. in Computer Sciences

   iii. Integrated M.Sc. in Life Sciences (LIFE13)

   iv. Integrated M.Sc. in Mathematical Sciences (MATH13)

   v. Integrated M.Sc. in Physical Sciences (PHYS13)

1.3 **Additional Pertinent Document:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification:** For admission to the 5-year Integrated M.Sc. programme the minimum qualification shall be 10 + 2 years of schooling or equivalent from any recognized board in India. Students who have passed 10 + 2 examination in the last two years or are appearing in the current year are eligible for appearing in the national level eligibility test.

2.2 **Qualifying Marks:** Minimum percent of marks in 10 + 2 to get admitted into the programme is 60% for general category and for Scheduled Caste (SC), Scheduled Tribes (ST) and Divyangjan candidates, the minimum requirement is 55% in aggregate (or equivalent grade). The minimum percentage of qualifying marks may be revised by CI/OCC with the approval of Academic Council, HBNI. Age limit and other reservations may be specified by the CI/OCC based on applicable orders of the statutory authorities.

2.4 **Standing Academic Committee:** Director of a CI/OCC will constitute various SAC or equivalent academic committees with the faculty members of HBNI towards smooth conduct of the admission process.

2.5 **Modes of Selection:** Admission shall be through a national level screening test conducted by the CI/OCC or any national level eligibility test recognized by the CI/OCC for this purpose, with the approval of Academic Council, HBNI. Candidate should secure a position in the merit list of the eligibility test. Students should have studied science subjects preferably, Physics, Chemistry, Mathematics and Biology at 10 + 2 level.

2.6 **Selection Process:** Selection of candidates for the 5 year Integrated M.Sc. programme at a CI/OCC shall be as per the selection process formulated by the CI/OCC duly approved by Academic Council of HBNI. Based on the recommendations of the SAC or equivalent academic committees of the CI/OCC, students will be enrolled in the Institute.

3. Academic Programme

3.1 Course Work and Curriculum

3.1.1   A student can specialize in one of the disciplines viz. Life Sciences, Chemical Sciences, Mathematical Sciences or Physical Sciences. CI/OCC with the recommendation from Board of Studies and approval of Academic Council of HBNI, shall decide details of curriculum, its implementation and mode of assessment.

3.1.2   The program at CI/OCC will follow choice based credit system. Each student has to select and register for the courses at the beginning of every semester before the deadline, as announced in the Academic Calendar of CI/OCC. Failing to register for the courses, the enrolment is liable to be cancelled. However, late registration may be permitted by the Dean Academic of the CI/OCC, only for valid reasons, on payment of a late registration fees.

3.1.3   After joining the IMSc programme, in the first year (1st and 2nd semester) students have to undertake compulsory courses from all disciplines of basic sciences, viz. Life Sciences, Chemical Sciences, Mathematical Sciences and Physical Sciences. In addition, it is compulsory to undertake introductory courses in Humanities and Social Sciences as well as in Computer programming.

3.1.4   Following successful clearance of all the courses in the first year, a student will be allotted a specific stream viz. Life Sciences, Chemical Sciences, Computer Sciences, Mathematical Sciences or Physical Sciences, for the

major, based on the academic performance in the first two semesters and following procedures as approved by the SAC or equivalent academic committees of the CI/OCC. In addition, the student has the option to choose a minor in another discipline. Both the major and minor disciplines would offer core and elective courses for registration. While core courses are compulsory and may form a pre-requisite for registering to elective courses, elective courses as the name suggests, can be chosen by the student based on his/ her interest.

3.1.5 If a student fails to complete the five-year Integrated M.Sc. programme but satisfies all criteria of 3-year B.Sc. degree (in respective subject) or 4-year BS degree (in respective research-subject), at the end of the programme period, the student may be awarded suitable degree as per NEP 2020 provisions. This can only be availed at the end of the regular 5-year Integrated M.Sc. programme.

3.2 Credit Requirements

3.2.1 Uniform credit system of UGC will be followed. One credit refers to the standard methodology of calculating one hour of theory or one hour of tutorial or two hours of laboratory work, per week for a duration of a semester (15-16 weeks).

3.2.2 Total credits to be earned by a student for an academic programme will be summation of credits of several components, such as, theory classroom courses, lab-based course work and dissertation projects. A minimum of 200 credits (as per the NEP-2020) has to be earned by a student for successful completion of the program.

3.2.3 A grade point average system shall be implemented for this program. Semester Grade Point Average (SGPA) will summarize the performance of the student in the semester and Cumulative Grade Point Average (CGPA) will summarize the performance of the student at the end of any semester.

3.3 Evaluation Process

3.3.1 The students will be evaluated following a continuous evaluation process.

Performance in all courses will be graded following guidelines given by UGC on a ten-point scale. The letter grades and the corresponding "absolute grade point" are as follows:

Letter Grade	Grade Point	Absolute grade Range
AA	10	90-100
AB	9	80-89
BB	8	70-79
BC	7	60-69
CC	6	50-59
CD	5	40-49
DD	4	30-39
FR	0	<30

In addition, a course instructor has the freedom of deciding on relative grading based on the performance of the entire class in the respective course. SAC or equivalent academic committees of the CI/OCC may decide on awarding letter grades for exceptional cases.

3.3.2 If a student fails in the examination, the student will appear in re-examination as per the policy of the CI/OCC framed with the approval of Academic Council of HBNI.

3.3.3 As a part of the curriculum, student shall undertake guided research project. The outcome of the research shall be submitted in the form of a dissertation. SAC or equivalent academic committees of the CI/OCC may decide on method of its evaluation.

3.4 Timeline for completion

3.4.1 This program shall have normal duration of five academic years.

3.4.2 The maximum period allowed for completing the course is seven years.

3.4.3 In case of underperformance, student may be terminated from the program following the policy of the CI/OCC as approved by the Academic Council, HBNI. In such cases, any other degree/diploma as outlined under clause 3.1.5 may be awarded to the student. In this regard guidelines as issued by the Institute from time to time will be followed.

4. Award of Degree

4.1 Forwarding Documents to Central Office

The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI/OCC for the award of degree to the successful candidates.

4.2 Declaration of Results

On successful completion of the academic program requirements, Vice Chancellor will declare the result and the student shall be awarded M.Sc. (5-year Integrated programme) degree in concerned discipline by HBNI. Transcript of marks will be issued to the student by the CI/ OCC as per the HBNI approved format.

5. Additional Clauses

5.1 Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

5.2 Lateral entry options

It is possible to transfer student to one CI/OCC from another Institute or University with which HBNI has an agreement of cooperation provided the academic programmes are similar in nature. In such cases, credit earned during the previous enrolment can be transferred.

5.3 Exit options

Exit option is available to the students of 5 year Integrated M.Sc. programme and the procedure to be followed is given below:

i. After successful completion of all the prescribed courses in the programme up to 1st year within no more than 2 years of joining the programme, a student can exit the 5-year Integrated M.Sc. programme with a Certificate (Basic Sciences). However, the student must exercise this option at the beginning of the registration in the 2nd semester of this 10 semesters academic programme. Maximum duration for completion of all academic requirements for this option is 2 years.

ii. After successful completion of all the prescribed courses in the program up to 2nd year within no more than 3 years of joining the programme, a student can exit the 5- integrated M.Sc. programme with a Diploma (Basic Sciences). The student must exercise this option at the beginning of the registration in the 3rd semester of this 10 semesters academic programme. Maximum duration for completion of all academic requirements for this option is 3 years.

iii. After successful completion of all the prescribed courses in the stream up to 3rd year within no more than 5 years of joining the programme, a student can exit the 5-year Integrated M.Sc. program with a B.Sc. (Major subject) degree. The student must exercise this option at the beginning of the registration in the 5th semester of the 5-year Integrated M.Sc. program. Maximum duration for completion of all academic requirements for this option is 5 years.

iv. A student can be granted 4-year BS (Research-subject) degree after successful completion of all prescribed courses in a discipline. Such cases can be considered provided the student through proper channel exercise option at the beginning of 4th year (7th semester). Once such an option is exercised it cannot be reverted. Maximum duration for completion of all academic requirements for this exercised option is 6 years. The SAC or equivalent academic committees of the CI/OCC can modulate the course structure for such students by incorporating additional research/ dissertation components.

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Academic Codes of Practice: M.Sc. (Clinical Research)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. (Clinical Research)' are framed to implement the 'Ordinances: M.Sc. (Clinical Research)' towards conduct of the M.Sc. (Clinical Research) programmes. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute. The two year Post graduate M.Sc. degree in Clinical Research has a goal to build capacity for quality research by equipping researchers with classroom and practical teaching in the principles of good clinical research practice, regulations and guidelines.

1.2 **Applicability:** The present Academic Codes of Practice: M.Sc. (Clinical Research) are applicable to the M.Sc. (Clinical Research) (HLTH17) programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum Qualification**: Candidates should have a Bachelor degree in Bioscience/Life Sciences (Botany, Zoology, Biochemistry, Microbiology, Genetics, Biotechnology), Chemistry, Clinical Research, Clinical Nutrition, Pharmacy or Pharmaceutical Science, Medicine (Allopathy, Homeopathy, Ayurveda, Unani, Siddha), Dentistry, Occupational therapy, Physiotherapy, Nursing and Paramedical technology from a university/institute recognized by UGC.

2.2 **Qualifying Marks**: Candidates should have scored a minimum of 55% marks in aggregate in Bachelor Degree or as stipulated by statutory authorities. Relaxation of marks for reserved categories candidates may be given as per statutory guidelines issued from time to time.

2.3 **Modes of Selection**: The selection of candidates for admission to M.Sc. (Clinical Research) programme shall be through a selection process approved by the Academic Council. It will include a written test followed by interview.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   Normal duration of this program shall be two academic years. The program will consist of (a) didactic lectures on aspects of clinical research, (b) practical work in Disease Management Groups (DMGs) at various concerned departments (c) working with Ethics Committees and Phase 1 trial Unit of the CI/OCC. These postings will assist the students to gain practical knowledge in all aspects of clinical research and its guidelines and regulations. All students will undergo evaluation at the end of each posting, followed by annual exam.

ii   The Director of the CI/OCC shall constitute a Standing Academic Committee or equivalent committee, hereafter referred to as SAC, consisting of faculty members of the CI/OCC. The SAC will oversee the conduct of the programme and meet the students on a regular basis to monitor their progress.

4. Award of Degree

i   During the annual examination, a student has to pass in all theory and viva examinations held at the end of first as well as second year.

ii   The minimum marks to be secured shall be 40% in each theory paper with an aggregate of 50% in all the theory papers. In addition, student shall secure minimum 50% aggregate across all the heads in the viva examinations.

iii   In case of failure in the examination in a subject, the student has to reappear in both theory and viva examination of that particular subject. Maximum number of attempts for each subject is three including the first attempt.

iv   A student failing in more than two subjects in the first year examination shall not be promoted to the second year. Examination will be held after 6 months for those who do not clear the annual examination.

v   A student cannot appear in the second year examination, unless the student has completed all assigned DMG postings and passed all the subjects of first year examination.

vi   A candidate must have 75% attendance, irrespective of kind of absence, in each theory and practical courses for appearing in the examination.

vii   The maximum period allowed for completing the course is four years.

viii The student shall be awarded M.Sc. (Clinical Research) degree by HBNI on successful completion of the academic programme.

ix The examination result of all the candidates shall be communicated to the Dean, HBNI through Dean-Academic of the CI/OCC. The successful candidates will be awarded Master's Degree.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc. Nursing (Oncology)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. Nursing (Oncology).' are framed to implement the 'Ordinances: M.Sc. Nursing (Oncology)' towards conduct of the M.Sc. Nursing (Oncology)programmes in HBNI. M.Sc. Nursing (Oncology) is a two years academic program, which is recognized by Indian Nursing Council (INC) and concerned statutory body of the state government. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** These are applicable to the M.Sc. Nursing (Oncology) (HLTH15) programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Candidates should have a Bachelor's degree in Nursing, B.Sc. (Nursing) or equivalent degree from university recognized by UGC. The following criteria will be applicable.

2.1.1 The candidate should be a Registered Nurse and Registered midwife or equivalent with any State Nursing Registration Council.

2.1.2 The candidate should have undergone in B.Sc. Nursing / B.Sc. Hons. Nursing / Post Basic B.Sc. Nursing in an institution which is recognized by Indian Nursing Council.

2.1.3 Minimum one year of work experience after Basic B.Sc. Nursing.

2.1.4 Minimum one year of work experience prior or after Post Basic B.Sc. Nursing.

2.2 **Qualifying Marks:** The minimum education requirements shall be the passing of B.Sc. Nursing / B.Sc. Hons. Nursing / Post Basic B.Sc. Nursing with minimum of 55% aggregate marks or as stipulated by statutory authorities. Relaxation of marks for reserved categories candidates may be given as per statutory guidelines issued from time to time.

2.3 **Modes of Selection:** The selection of candidates for admission to M.Sc. Nursing (Oncology) programme in the CI/OCC shall be through a written test, group discussion followed by an interview, as formulated by the CI/OCC and approved by the Academic Council.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   Normal duration of this programme shall be of two academic years.

ii   The programme shall consist of (a) theory and practical courses as prescribed by the Indian Nursing Council and (b) project work carried out under the supervision of a Guide and Co-Guide, if any. Conduct of the project work shall be approved by the Institutional Review Board (IRB) constituted by the CI/OCC.

iii   The syllabus for the course work along with credits shall be as approved by the Academic Council.

4. Award of Degree

i   A student has to appear in all theory and associated practical examinations in each year.

ii   The passing marks shall be 50% in theory and associated practical examination separately, for each subject. If a student fails either in theory or in practical examination of a subject, the student has to re-appear in both theory and practical examinations. Maximum number of attempts is three including the first attempt or as per the INC guidelines issued from time to time.

iii   A student failing in more than two subjects shall not be permitted to join the second year. A student cannot appear in the second-year examination, unless the student has passed the first-year examination. The maximum period allowed for completing the program is four years.

iv   A student enrolled for M.Sc. Nursing (Oncology) has to carry out dissertation work as a part of academic curriculum. Each student will be assigned a guide and a co-guide, wherever required, for this purpose. Student along with the guide(s) will identify a topic of the dissertation. The approval of the

topic of the dissertation will be obtained from the research committee of the department constituted by the competent authority of the CI/OCC. The conduct of the dissertation will have to be approved by the IRB of the CI/OCC. Dissertation evaluation committee appointed by Dean-Academic will evaluate the dissertation and submit its report to the office of Dean-Academic prior to the beginning of the theory and practical examination in the final year. The dissertation evaluation committee should include an external examiner and the Guide and Co-Guide, if any. A student can appear in the final examination only if the dissertation has been adjudged to be satisfactory.

v   A candidate must have 75% attendance, irrespective of kind of absence, in each theory and practical courses for appearing in the examination. However, the student must have 100% attendance in each of the practical area before awarding degree.

vi   The examination results of all the students shall be communicated by the office of the Dean-Academic of the CI/OCC to the Dean HBNI for the award of the degree to the successful students.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc. (Hospital Radiopharmacy)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. (Hospital Radiopharmacy)' are framed to implement the 'Ordinances: M.Sc. (Hospital Radiopharmacy)' towards conduct of the M.Sc. (Hospital Radiopharmacy) programme in HBNI**.** The two-year M.Sc. programme is designed to educate students in both theoretical and experimental sciences. This course equips candidates for working as Radiopharmacist / Faculty at Nuclear Medicine Centres and Medical Cyclotron facilities. These codes of practice are mandatory and apply to all students and faculty. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: M.Sc. are applicable to the M.Sc. in Hospital Radio Pharmacy (HLTH20)

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1. **Minimum qualification:** Candidates should have a Bachelor's degree in any discipline with Chemistry as one of the subject or B.Pharm. degree from university recognized by UGC. In addition, candidates should have Physics, Chemistry and Maths / Biology as subjects at H.S.C. level.

2.2. **Qualifying Marks**: Candidates should have scored a minimum of 60% marks in aggregate in Science Subjects at B.Sc./B.Pharm. level or as stipulated by statutory authorities.

2.3. **Modes of Selection:** The selection of candidates for admission to M.Sc. (Hospital Radiopharmacy) programme in a CI/OCC shall be through a selection process formulated by the CI/OCC. The selection procedure shall have the approval of the Academic Council.

2.4. **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   This two year programme will have four semesters.

ii   The programme includes mandatory theory courses, practicals, electives

and project work. Mandatory work posting may also be prescribed by a CI/OCC for the programme. The Director of the CI/OCC shall constitute a Standing Academic Committee (SAC) which shall consist of faculty members of the CI/OCC. The SAC will oversee the running of the programme, meet the students on a regular basis to monitor their progress and keep the competent authorities informed.

iii   The syllabus for the coursework shall be as approved by the Academic Council on the recommendation of the Board of Studies.

4. Award of Degree

i   The student shall be assessed during on-job training and awarded marks for achieving expected outcomes. These marks shall be reflected as internal assessment marks in the final results.

ii   The minimum qualifying marks shall be 50% for each subject. In case of failure in the examination, the student will appear in re-examination as per the policy of the CI/OCC framed with the approval of Academic Council of HBNI. Maximum number of attempts allowed is three including the first attempt.

iii   A student has to clear all theory subjects, practicals and viva-voce of the first three semester to be eligible to appear for fourth semester examination. The maximum period allowed for completing the course from the date of joining the course is four years.

iv   The examination results of all the students shall be communicated by the officeof the Dean-Academic of the CI/OCC to the Dean HBNI for the award of the degree to the successful students.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc.
(Nuclear Medicine & Molecular Imaging Technology)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. (Nuclear Medicine & Molecular Imaging Technology)' are framed to implement the 'Ordinances: M.Sc. (Nuclear Medicine & Molecular Imaging Technology)' towards conduct of the M.Sc. (Nuclear Medicine & Molecular Imaging Technology) programmes. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute. The two year Post graduate M.Sc. degree in Nuclear Medicine & Molecular Imaging Technology has a goal to build capacity for equipping students with classroom and practical teaching in the principles of good Nuclear Medicine & Molecular Imaging Technology practice, regulations and guidelines.

1.2 **Applicability:** The present Academic Codes of Practice: M.Sc. (Nuclear Medicine & Molecular Imaging Technology) are applicable to the M.Sc. (Nuclear Medicine & Molecular Imaging Technology) (HLTH19) programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum Qualification**: Graduation with minimum 60% marks in aggregate in any of the following subjects from an University recognized by UGC:
B.Sc.(Nuclear Medicine) / Physics / Chemistry / Mathematics / Zoology / Botany / Microbiology / Biochemistry / Bioinformatics/ Biotechnology, with Physics or Chemistry as one of the subjects in B.Sc. Correspondence course will not be considered.

2.2 **Qualifying Marks**: Candidates should have scored a minimum of 60% marks in aggregate in Bachelor Degree or as stipulated by statutory authorities. Relaxation of marks for reserved categories candidates may be given as per statutory guidelines issued from time to time.

2.3 **Modes of Selection**: The selection of candidates for admission to M.Sc. (Nuclear Medicine & Molecular Imaging Technology) programme shall be through a selection process approved by the Academic Council. It will include a written test followed by interview.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

3.1 **Conduct of Programme:** Normal duration of this program shall be two academic years. The program will consist of (a) didactic lectures on aspects of Nuclear Medicine & Molecular Imaging Technology, (b) practical work in Disease Management Groups (DMGs) at various concerned departments. These postings will assist the students to gain practical knowledge in all aspects of Nuclear Medicine & Molecular Imaging Technology and its guidelines and regulations. All students will undergo evaluation at the end of each posting, followed by annual examination.

3.2 **Standing Committee:** The Director of the CI/OCC shall constitute a Standing Academic Committee or equivalent committee, hereafter referred to as SAC, consisting of faculty members of the CI/OCC. The SAC will oversee the conduct of the programme and meet the students on a regular basis to monitor their progress.

4. Award of Degree

4.1 **Evaluation Process:** During the annual examination, a student has to pass in all theory and viva examinations held at the end of first as well as second year.

4.2 **Passing Marks:** The minimum marks to be secured shall be 40% in each theory paper with an aggregate of 50% in all the theory papers. In addition, student shall secure minimum 50% aggregate across all the heads in the viva examinations. In case of failure in the examination in a subject, the student has to reappear in both theory and viva examination of that particular subject. Maximum number of attempts for each subject is three including the first attempt. A student failing in more than two subjects in the first year examination shall not be promoted to the second year. Examination will be held after 6 months for those who do not clear the annual examination.

A student cannot appear in the second year examination, unless the student has completed all assigned DMG postings and passed all the subjects of first year examination. The maximum period allowed for completing the course is four years.

4.3 **Forwarding Documents to Central Office:** The examination result of all the candidates shall be communicated to the Dean, HBNI through Dean-Academic of the CI/OCC.

4.4 **Declaration of Results by Central Office:** The student shall be awarded M.Sc.

(Nuclear Medicine & Molecular Imaging Technology) degree by HBNI on successful completion of the academic programme. Every student will be issued following documents on successful completion of the M.Sc. (Nuclear Medicine & Molecular Imaging Technology) programme.

i. 'Provisional Degree Certificate' after declaration of results by Vice Chancellor to be issued by HBNI Central Office.

ii. 'Final degree certificate' after the ratification of results by Council of Management, to be issued by HBNI Central Office.

iii. 'Transcript of Marks' to be issued by constituent Institution or Off Campus Centre, as the case may be.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc. (Medical and Radiological Physics)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. (Medical and Radiological Physics)' are framed to implement the 'Ordinances: M.Sc. (Medical and Radiological Physics)' towards conduct of the M.Sc. (Medical and Radiological Physics) programme in HBNI. M.Sc. (Medical and Radiological Physics) is a two years academic program. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** These are applicable to the M.Sc. (Medical and Radiological Physics) (HLTH26) programme of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Candidates should have a Bachelor's degree in Science with Physics as a main course or equivalent degree from university recognized by UGC.

2.2 **Qualifying Marks:** Candidates should have minimum of 60% marks aggregate in science subjects at B.Sc. or equivalent level.

2.3 **Modes of Selection:** The selection of candidates for admission to M.Sc. Medical and Radiological Physics) programme shall be through a selection process as formulated by the CI/OCC and approved by the Academic Council.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   Normal duration of this programme shall be of two academic years.

ii   The programme includes mandatory theory courses, practicals, electives and project work. The Director of the CI/OCC shall constitute a Standing

Academic Committee (SAC) which shall consist of faculty members of the CI/OCC. The SAC will oversee the running of the programme, meet the students on a regular basis to monitor their progress and keep the competent authorities informed.

iii   The syllabus for the course work along with credits shall be as approved by the Academic Council.

4. Award of Degree

i   A student has to appear in all theory and associated practical examinations in each year.

ii   The minimum qualifying marks shall be 50% for each subject. In case of failure in the examination, the student will appear in re-examination as per the policy of the CI/OCC framed with the approval of Academic Council of HBNI. The maximum period allowed for completing the program is three years.

iii   On successful completion of the academic program requirements, the student shall be awarded M.Sc. degree in Medical and Radiological Physics by HBNI.

iv   The examination results of all the students shall be communicated by the office of the Dean-Academic of the CI/OCC to the Dean HBNI for the award of the degree to the successful students.

5   Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: M.Sc.
(Public Health and Epidemiology)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: M.Sc. (Public Health and Epidemiology).' are framed to implement the 'Ordinances: M.Sc. (Public Health and Epidemiology).' towards conduct of M.Sc. (Public Health and Epidemiology) programmes. M.Sc. (Public Health and Epidemiology) programme is a two year programme designed to educate students in both theoretical knowledge and practical work. The practical work will also include visits to field and in community to understand Public Health Problem. The main objective of the programme is to generate skilled workforce which could implement various Public Health Programme including Cancer. Registries, Screening programme, Create awareness regarding risk factors for non-communicable diseases and undertake counseling for tobacco cessation/alcohol de-addiction etc. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice is applicable to M.Sc. (Public Health and Epidemiology) (HLTH21).

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Student with Bachelor degree in Science /Social Science / Social work / Biological Sciences (Biochemistry, Zoology, Microbiology Biotechnology, Life Sciences & Genetics) from any Indian University/Institute recognized by the UGC. Students with some experience of field work/conducting community activities during graduate course will be given preference.

2.2 **Qualifying Marks:** The students should have a minimum of 50% marks. However, whenever stipulation by Statutory Authority is higher than 50%, the stipulated % shall be followed. Relaxation of marks for reserved categories candidates may be given as per statutory guidelines issued from time to time.

2.3 **Modes of Selection:** The selection of candidates for admission to M.Sc. (Public Health and Epidemiology) programme in the CI/OCC shall be through a

written test, group discussion followed by an interview, as formulated by the CI/OCC and approved by the Academic Council.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   Normal duration of this programme shall be of two academic years with four semesters. The programme includes mandatory theory courses, field/community work, elective and project work.

ii The Director of the CI/OCC shall constitute a Standing Academic Committee (SAC) or equivalent Committee which shall consist of faculty members of CI/OCC. The CI/OCC will oversee the running of programme, meet the students on a regular basis to monitor their progress.

iii The syllabus for the course work along with credits shall be as approved by the Academic Council.

4. Award of Degree

i   The students will be evaluated following continuous evaluation process. Performance in all courses will be graded following guidelines given by UGC on ten points scale. The CI/OCC can decide on percentage of marks required to pass in a course and also the CGPA required to qualify for the degree with the approval of Academic council.

ii The passing marks shall be 50% in theory and associated practicalexamination separately, of each subject. If a student fails either in theory or in practical examination of a subject, the student has to reappear in both theory and practical examinations. Maximum number of attempts is three including the first attempt.

iii In case of failure in the examination in a subject, the student has to reappear in both theory and viva examination of that particular subject. Maximum number of attempts for each subject is three including the first attempt.

iv A candidate must have 75% attendance, irrespective of kind of absence, in each theory and practical courses for appearing in the examination.

v   The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI/OCC. The successful candidates will be awarded Master's Degree.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice:
Master of Occupational Therapy in Oncology (MOT Oncology)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: Master of Occupational Therapy in Oncology (MOT Oncology).' are framed to implement the 'Ordinances: Master of Occupational Therapy in Oncology (MOT Oncology)' towards conduct of Master of Occupational Therapy in Oncology (MOT Oncology) programme. Master of Occupational Therapy in Oncology (MOT Oncology) programme is a two-year programme designed to impart both theoretical and practical knowledge. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice is applicable to the Master of Occupational Therapy in Oncology (MOT Oncology) programme of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Candidate with a bachelor's degree in Occupational Therapy (BOT/BOTh) are eligible for the admission process. The bachelor's degree programme should be a full time programme, with minimum 4 ½ years duration (including 6 months of internship) from a university/institute in India that is recognized by UGC and/or "All India Occupational Therapists' Association" and/or the Occupational Therapy and Physiotherapy Council of the respective state, with not less than 50% of marks in aggregate. Candidates who have passed BOT through correspondence or Distance Education program are not eligible.

2.2 **Qualifying Marks:** The students should have a minimum of 50% marksm or as stipulated by Statutory authorities from time to time. Relaxation of marks for reserved categories candidates may be given as per statutory guidelines issued from time to time.

2.3 **Modes of Selection:** The selection of candidates for admission to Master of Occupational Therapy in Oncology (MOT Oncology) programme in the CI/OCC shall be through a written test, group discussion followed by an interview, as formulated by the CI/OCC and approved by the Academic Council.

2.4 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be enrolled in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i   Normal duration of this programme shall be of two academic years. The programme includes mandatory theory courses, field/community work, elective and project work.

ii   The Director of the CI/OCC shall constitute a Standing Academic Committee (SAC) or equivalent Committee which shall consist of faculty members of CI/OCC. The above committee will oversee the conduct of programme, meet the students on a regular basis to monitor their progress.

iii   The syllabus for the course work along with credits shall be as approved by the Academic Council.

iv   A student enrolled for MOT Oncology has to carry out dissertation work as a part of academic curriculum. Each student will be assigned a guide and a co-guide, wherever required for this purpose. Student along with the guide (s) will identify a topic of the dissertation. The approval of the topic of the dissertation will be obtained from the Standing Academic Committee (SAC) or equivalent committee constituted by the competent authority of the CI/OCC. The conduct of the dissertation will have to be approved by the above committee. Thesis evaluation committee appointed by the Dean Academic will evaluate the thesis and submit its report to the office of Dean Academic prior to the beginning of the theory and practical examination in the final year. The thesis evaluation committee will constitute of an external examiner and the respective guide. A student can appear in the final examination only if the thesis has been adjudged as satisfactory.

4. Award of Degree

i   The students will be evaluated following continuous evaluation process. The passing marks shall be 50% in theory and associated practical examination separately of each subject.

ii   In case of failure in either theory or practical/viva examination of a subject, the student has to reappear in both theory and practical/viva examination of that particular subject. Maximum number of attempts for each subject is three including the first attempt.

iii   The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI/OCC. The successful candidates will be awarded Master's Degree.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: Post Graduate Diploma in Nuclear Science and Engineering (PGDNSE)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: Post Graduate Diploma in Nuclear Science and Engineering (PGDNSE)' is framed to implement the 'Ordinances: Post Graduate Diploma in Nuclear Science and Engineering' towards conduct of PGDNSE programmes. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: Post Graduate Diploma in Nuclear Science and Engineering (PGDNSE) are applicable to Post Graduate Diploma in Nuclear Science and Engineering programmes of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

A student will be admitted to the programme on successfully fulfilling the following criteria:

2.1. **Minimum Qualification**: Candidates who have successfully completed one of the following educational qualifications are eligible to apply for PGDSE programme:

   2.1.1 Candidates with Bachelor's degree in Engineering / Technology or equivalent in Engineering / Technology from a recognized University/ Institute.

   2.1.2 Candidates having a Master's degree in Science (M.Sc.) from any recognized University / Institute.

2.2. **Qualifying Marks**: The student should have minimum 60% marks in aggregate in the qualifying degree listed in criteria 2.1

2.3. **Selection Process**: Selection of candidates for admission shall be through a selection process formulated by the CI/OCC with the approval of Academic Council and in line with guidelines issued by statutory authority.

2.4. **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI. In case, a student does not submit final marksheet and final degree certificate of entry level qualification at the time of registration, the registration will be treated as provisional. Students should submit all the necessary documents for confirmation of the registration within a period of six months from the date of joining the program. In case of non-submission of the documents, competent

authority in HBNI will decide about the continuation of the registration of the student.

3. Academic Programme

3.1 **Duration of the Programme:** Normal duration of the PGDNSE programme shall be one academic year.

3.2 **Course Work and Credit Requirements**: The course work shall comprise prescribed theory courses, laboratory courses, electives, viva-voce and mini projects. The syllabus for the course work shall be as approved by the Academic Council on the recommendation of the Board of Studies.

3.3 **Evaluation Process:** The students will be evaluated following a continuous evaluation process. Performance in all courses will be graded following guidelines given by the statutory authorities and approved by Academic Council. Minimum passing mark is 50% in each subject and 60% in aggregate. The minimum credit requirement for the award of the postgraduate diploma in Nuclear Science and Engineering is 36.

In case of failure in the examination, the student will appear in re-examination as per the policy of the CI/OCC framed with the approval of Academic Council. To qualify for diploma, a student must score more than 50% in each subject and more than 60% in aggregate. In case of not meeting the aggregate requirement, student can appear for reexamination only for a maximum of five subjects.

4. Award of Diploma

4.1 **Forwarding documents to Central Office:** The final mark sheets of all the students shall be communicated to the Dean, HBNI through Dean-Academic of the CI/OCC for the award of the diploma to the successful candidates.

4.2 **Declaration of result by Central Office:** Vice Chancellor (HBNI) will declare the result of the student. Student will be awarded Diploma by HBNI and a Transcript will be issued by CI/OCC in the format approved by Academic Council.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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Academic Codes of Practice: DipRP
(Diploma in Radiological Physics)

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: DipRP (Diploma in Radiological Physics)' are framed to implement the 'Ordinances: DipRP (Diploma in Radiological Physics)' programme in HBNI. DipRP is a Post M.Sc. diploma course. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute. The one-year Diploma course is designed to educate students in both theoretical, experimental sciences and field training. This course equips candidates for working as Medical Physicist and are eligible for Radiological Safety Officer (RSO) certification in medical, industrial and research institutions.

1.2 **Applicability:** The present Academic Codes of Practice: DipRP is applicable to the DipRP (Diploma in Radiological Physics) (HLTH11) programme of HBNI.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Candidates should have a Masters in Science (M.Sc.) in Physics from a University recognized by the UGC.

2.2 **Qualifying Marks:** Candidates should have minimum of 60% marks in aggregate. In addition, the candidate shall possess Bachelor Degree of Science (B.Sc.) majoring in Physics from a University recognized by the UGC with not less than 60% marks in aggregate. Whenever stipulation by Statutory Authority is higher than 60%, the stipulated percentage of marks shall be followed.

2.3 **Modes of Selection:** The selection of candidates for admission to DipRP programme in a CI/OCC shall be through a selection process formulated by the CI/OCC and approved by the Academic Council of HBNI.

2.1 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i Normal duration of the DipRP programme shall be of one academic year.

ii The DipRP shall comprise theoretical and laboratory course works and on the job work experience (field training). The duration of each component of the programme shall be determined by the Board of Studies in Health Sciences.

iii The syllabus for the DipRP courses shall be as approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences

4. Award of Degree

i A student has to appear in all written, viva voce, seminars, internal assessment and practical examinations.

ii The minimum qualifying marks shall be 50% in each written examination, at least 60% in all other forms of examinations and at least 60% in aggregate. In case of medical grounds of missing exams or failure, the student will appear in re-examination for the maximum of five subjects as per the policy of the CI/OCC framed with the approval of Academic Council of HBNI. If a student does not score the required marks even on reexamination, Director of the CI/ Head of the Institution or his/her nominees may interview the student and make recommendations regarding continuation of the program by the student.

iii The student may be permitted one more year beyond normal duration for appearing in reexaminations.

iv. On successful completion of the academic program requirements, the student shall be awarded Diploma in Radiological Physics by HBNI.
The examination results of all the students shall be communicated by the officeof the Dean-Academic of the CI/OCC to the Dean HBNI for the award of the diploma to the successful students.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'

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Academic Codes of Practice: Certified Fellowship in Oncology

Contents:

1. General

1.1 **Prelude:** The present 'Academic Codes of Practice: Certified Fellowship in Oncology' are framed to implement the 'Ordinances: Certified Fellowship in Oncology' towards conduct of Certified Fellowship programme in Oncology for those having post-graduate degree in Medical & Health Sciences. It is a two-year programme designed to educate to gain knowledge in theoretical, practical and clinical practices. The programme shall consist of (i) theory, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization. The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Medical & Health Sciences. These codes of practice are mandatory and apply to all students. The Ordinances shall take precedence over the Academic Codes of Practice in the matter of any dispute.

1.2 **Applicability:** The present Academic Codes of Practice: Certified Fellowship in Oncology are applicable to the Certified Fellowship programmes with all specialties.

1.3 **Additional Pertinent Documents:** Relevant clauses of the 'Academic Codes of Practice: General' shall also be applicable to the present document.

2. Admission

2.1 **Minimum qualification**: Minimum qualification for admission to two-year Certified Fellowship in Oncology programme in various specializations shall be as approved by the Academic Council of HBNI based on recommendations of Board of Studies of Medical & Health Sciences as per medical standards. Minimum percentage of entry level marks and number of seats in various specialties shall be as approved by the Academic Council of HBNI.

2.2 **Modes of Selection:** The selection of candidates for admission to two year Certified Fellowship in Oncology programme in a CI/OCC shall be through a selection process as decided by respective CI/OCC (National level written test followed by interview) in accordance with the guidelines of the Academic Council of HBNI.

2.3 **Submission of Documents:** Subsequent to the admission in CI/OCC, each student shall be registered in the academic programme of HBNI provided the candidates submit the necessary documents to support minimum entry level qualification prescribed.

3. Academic Programme

i Normal duration of this programme shall be of two academic years. The programme shall consist of (i) theory, clinical practices, practical training in advanced diagnostics, therapeutic and laboratory techniques relevant to the subject of specialization, The curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Medical & Health Sciences.

ii The syllabus of each course shall be as approved by the Academic Council of HBNI based on the recommendation of BOS (Medical & Health Sciences).

iii The Director of the CI/OCC shall constitute a Standing Academic Committee (SAC) or equivalent Committee which shall consist of faculty members of CI/OCC. The committee will oversee the running of programme, meet the students on a regular basis to monitor their progress.

iv During the programme the student shall attend regular theory classes as per the academic schedule of individual department, make ward rounds, make presentations and participate in seminars as well as Continuing Medical Education Programmes (CMEs) organized by the CI/OCC.

v Annual internal assessment (both theory and practical) of a student shall be conducted with the assistance of external experts identified by Dean-Academic in consultation with Head of the concerned Department.

vi Every student shall be assigned to respective department (specialty) in accordance with the stipulations of the regulations issued by the Academic Council of HBNI. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination (as applicable) only after the completion of rotational postings in the required areas of expertise.

4. Award of Degree

i The students will be evaluated following continuous evaluation process.

ii The passing marks shall be 50% in theory and associated practical examination separately, of each subject. If a student fails either in theory or in practical examination of a subject, the student has to reappear in both theory and practical examinations. Maximum number of attempts is three including the first attempt.

iii The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI/OCC. The successful candidates will be awarded degree in two-year Certified Fellowship in Oncology with respective specialties.

5. Attendance and Leave Rules

Attendance and leave rules will be governed as mentioned under clauses 7 and 8 of 'Academic Codes of Practices: General'.

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होमी भाभा राष्ट्रीय संस्थान

Homi Bhabha National Institute

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