INDIAN INSTITUTE OF TECHNOLOGY KANPUR

eMasters Programs

Procedures and Requirements

CONTENTS

1. INTRODUCTION

1.1 Preamble

In a rapidly changing world, working professionals are required to continually upgrade their knowledge and keep up with the latest developments in diverse fields in order to be effective and remain relevant. To meet such needs of the industry professionals, online certification programs all over the world have grown rapidly in the last decade and have matured into formal degree-granting programs in many Universities in USA and Europe. Several top-ranking universities like Stanford, UC Berkeley, Purdue, UCLA, USC in the USA and Imperial, Warwick in UK have already started offering formal online degree programs. Since there exists a large and growing ecosystem in India for online learning and certification, and since there is a great demand from working professionals for such quality programs in contemporary disciplines, it has, therefore, become imperative for practicing professionals to have access to a complete ecosystem of knowledge. The eMasters program of IIT Kanpur has been designed to fulfil this requirement. Given the high reputation of IIT Kanpur in its teaching and evaluation standards, these formal degree courses with its intended high quality and standard will help professionals in their vertical carrier growth and improve their employment potential during a later movement.

1.2 eMasters Program

eMasters is a new graduate-level program at IIT Kanpur. It is a completely online program, with all lectures, discussions, quizzes and assignments available through a professionally designed learning management system. The course content will be delivered by the faculty of IIT Kanpur. The program offers several flexible tracks, with multi-disciplinary modules, to facilitate learning for the professional. All modules are designed to be intellectually challenging and state-of-the-art – the hallmark of IIT Kanpur. eMasters is not equivalent to an MTech program nor it is an online version of MTech. A mention of this will be made on the final transcript given to the graduating student and at other appropriate places. Unlike MTech, eMasters does not have a thesis component and the structure and nature of the courses may be different from those of MTech. It can be considered as a work-integrated program since professional experience in the relevant areas are considered for admission into the program.

2. ADMISSIONS

2.1 Eligibility for Admission

Bachelor's degree (4 years program) or a Master's degree in appropriate discipline with at least 55% marks or 5.5/10 CPI + 2 years of work experience (an applicant need not be employed to be eligible). Candidates with relevant experience will be preferred.

2.2 Admission Calendar

Admissions may be offered twice a year. Some programs may admit students once a year only. The admission process is to be held during Feb - April and optionally during Oct-Dec.

2.3 Admission Procedure

The admission process will be as follows:

- Admission process will be as rigorous as the admission process in our graduate programs and will happen in multiple phases.
- Shortlisting will be based on certain minimum criteria as mentioned in the Senate Online Program Committee (SOPC) Manual.
- An admission test designed to thoroughly evaluate the applicant's domain knowledge and competence will be conducted by IIT Kanpur.
- Admission test will be followed by an interview conducted by a departmental committee. An admission committee for each program will be constituted by the Convener, Departmental Online Program Committee (all participating Departmental Online Program Conveners, in case of multi-department programs) and will be approved by Chairman, Senate Online Program Committee.
- It will be ensured that only professionals from authentic and reputed companies/organizations will be shortlisted for consideration to the program.

3. ACADEMICS

3.1 Academic Year

An academic year is divided into four quarters; each quarter is of 10 weeks duration. The following is an example academic year with four quarters

- 1st Quarter: August to October
- 2nd Quarter: November to January
- 3rd Quarter: February to April
- 4th Quarter: May to July

3.2 Program Structure

The generic program template to be filled in by departments offering the eMasters program is illustrated in the Table 1. Each teaching unit in a quarter is defined as a module. A module entails 8 weeks of teaching followed by an examination period of 2 weeks. Each Module will carry 5 credits.

Table 1 : Program Template to be filled by the Departments

Quarter 1 Modules	Quarter 2 Modules	Quarter 3 Modules	Quarter 4 Modules
Core / Elective	Core / Elective	Core / Elective	Core / Elective
Core / Elective	Core / Elective	Core / Elective	Core / Elective
Core / Elective	Core / Elective	Core / Elective	Core / Elective

There are two types of modules- core and electives. A program may have a set of core modules defined that are compulsory and a set of modules as electives. A student must take all core modules and obtain a grade other than X. A student must take sufficient electives to fulfil the credit requirements for the program. For courses requiring pre-announced laboratory component, students may be required to be present on campus, for a pre-defined period. Teaching material for week one will be made available to admitted students at least eight weeks prior to commencement of each quarter to facilitate selection of modules.

3.3 Program Registration

An admitted student registers for the program once at the beginning of the program. Program registration is valid for three years. A student may apply to extend the program registration if he/she has not completed all requirements of the program. A student is required to register for every module that he/she plans to take in a quarter. Students must register during the registration period for the selected modules subject to credit load constraints. There will be no provision to add/drop modules. The registration process involves submitting a duly approved module/s registration form for the quarter and payment of fees for the quarter and clearance of any outstanding dues

3.4 Academic Requirements

The minimum duration of the program will be 4 quarters, and the maximum duration will be 12 quarters. A student must earn 60 credits to get an eMasters degree. All students will undergo a mandatory contact program of 15 days with IIT Kanpur since the association with IIT Kanpur is an important part of any degree program offered by IIT Kanpur

3.5 Load Requirements

Minimum duration for the program is 4 quarters, and maximum duration will be 12 quarters. Normal load per quarter is 15 credits where each Module is of 5 credits. Each module will be of 10 weeks' duration: the first 8 weeks will be used for teaching and exams will be held in 9/10 week. A student may opt for 0, 5, 10 or 15 credits in a quarter, depending on his/her professional work load, as long as they have registered for the program and paid the fee for each quarter - thus there is no minimum load requirement. Overload may be permitted by the Departmental Online Program Committee up to a maximum of 4 modules in exceptional circumstances.

3.6 Academic Advising

Relevant member of the DOPC representing that particular program will serve as an academic adviser. In case of a multi-department program, one of the relevant members for that particular program, will be designated as an academic adviser by all participating Departmental Conveners.

3.7 Graduation Requirements

A student should have completed 60 credits, earned a minimum CPI of 6.5, paid all the dues to the Institute, and should have no pending cases of indiscipline against him/her to graduate.

3.8 Credit Transfer

Some of these students graduating from the eMasters may subsequently wish to join other programs like MTech or PhD at IIT Kanpur after going through the regular admission process and subject to fulfilling the eligibility requirements as specified by the respective programs. If admitted, a student with an eMasters degree may request for a waiver of up to 60 credits of coursework during MTech/PhD programs and a waiver of two semesters of residential requirements to the Senate Post-graduate Committee through the Departmental Post Graduate Committee. The credit transfer will be approved by the Senate Post-Graduate Committee as per the prevailing PG Manual.

4. EVALUATION

4.1 Module Evaluation

The module evaluation policies (attendance, grading, marks distribution etc.) need to be announced prior to the commencement of a module in that particular quarter. The evaluation process will be designed to ensure that the high standards of IIT Kanpur processes are maintained. A continuous mode of evaluation will be followed with online assessments like in video quizzes, tests, and mid-quarter examination. The end-of-quarter proctored examination will be conducted at pre-designated centers where the students appear in person and validate their identity to take the examination.

4.2 Suggested Evaluation Policy

The suggested evaluation policy is illustrated in Table 2.

Table 2 : Suggested Evaluation Policy

Component	Description	Role
In video questions	For checking the alertness of the student	Not used in grading
Online quizzes	At least two Quizzes	Shall be used in grading

Assignments/ Projects	Graded by Teaching Assistants	May be used in grading
End Quarter Exam	Proctored (by a third party), minimum duration 2 hours Or a Take Home	Shall be used in grading
Analytics	Monitors all student activity on the platform (attendance, participation etc.)	May have minimum thresholds set for grading

4.3 Grading Structure

Seven letter grades: A*, A, B, C, D, E, F can be awarded. The correspondence between grades and points (on a 10-point scale) is as follows:

A*: 10, A: 10, B: 8. C: 6, D: 4, E: 2. F: 0

In every registered module, a student is awarded one of the letter grades indicating his/her overall performance in the module and earns 5 credits except when awarded grade is F in which case no credits are earned. If a student does not complete sufficient requirements for a module, the instructor may award grade I (Incomplete). The student must complete the module requirements within 2 quarters. Then the instructor must convert an I grade to a regular letter grade, failing which it will be automatically converted to an F grade. A student getting an E or a F grade in a module must either repeat it or substitute it by another module as suggested by DOPC. A student getting a D grade in a module may be allowed to repeat it.

The minimum CPI requirement for continuing in the programme or for graduation will be 6.5.

5. GOVERNANCE

5.1 Department Online Program Committee (DOPC)

Each participating Department/IDP constitutes this committee that consists of a Convener from amongst the members representing different programs offered by the Department, nominated by the Head of the department (in consultation with the faculty of the department), Head of the department, and as many members of the faculty as necessary for different programs offered by the Department. The tenure of the committee is one year. The DOPC advises the students about their curriculum and handles any problem faced by students in their academic program

5.2 Senate Online Program Committee (SOPC)

Senate Online Program Committee (SOPC) will consist of the following members:

- DOPC Conveners from participating departments/IDPs
- Two Nominees of the Senate
- Head CCE as a special invitee

A Chairman is elected amongst the DOPCs whose tenure is one year.

SOPC will operate through the DOPC to administer all academic aspects of the eMasters program. SOPC while approving a Program, will consider the program completion requirements and offering of appropriate courses.

5.3 Record Keeping

The record keeping of all documents related to the eMasters program will be done and managed by the Dean of Academic Affairs (DOAA) Office.

APPENDIX

Sample Academic Calendar

Activity	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Admission Process	8 Feb 24 April 2021 4 Oct -17 Dec 2021			
Program Registration	5-10 July 2021 3-8 Jan 2022			
Sample contents for module available	16 June 2021	16 Sep 2021	15 Dec 2021	16 Mar 2022
Module Registration	16 July 2021	16 Oct 2021	15 Jan 2022	16 April 2022
Teaching commences	16 Aug 2021	16 Nov 2021	15 Feb 2022	17 May 2022
Teaching ends	10 Oct 2021	9 Jan 2022	10 April 2022	10 July 2022
Exam Period	12-24 Oct 2021	11-23 Jan 2022	12-24 April 2022	12-24 July 2022

Summary of eMasters Program

Preamble

In a rapidly changing world, working professionals are required to continually upgrade their knowledge and keep up with the latest developments in diverse fields in order to be effective and remain relevant. To meet such needs of the industry professionals, online certification programs all over the world have grown rapidly in the last decade and have matured into formal degree-granting programs in many Universities in USA and Europe. Several top-ranking universities like Stanford, UC Berkeley, Purdue, UCLA, USC in the USA and Imperial, Warwick in UK have already started offering formal online degree programs. Since there exists a large and growing ecosystem in India for online learning and certification, and since there is a great demand from working professionals for such quality programs in contemporary disciplines, it has, therefore, become imperative for practicing professionals to have access to a complete ecosystem of knowledge. The eMasters program of IIT Kanpur has been designed to fulfil this requirement. Given the high reputation of IIT Kanpur in its teaching and evaluation standards, these formal degree courses with its intended high quality and standard will help professionals in their vertical carrier growth and improve their employment potential during a later movement.

eMasters (eMS) Program

eMasters is a new graduate-level program at IIT Kanpur. It is a completely online program, with all lectures, discussions, quizzes and assignments available through a professionally designed learning management system. The course content will be delivered by the faculty of IIT Kanpur. The program offers several flexible tracks, with multi-disciplinary modules, to facilitate learning for the professional. All modules are designed to be intellectually challenging and state-of-the-art – the hallmark of IIT Kanpur. eMasters is not equivalent to an MTech program nor it is an online version of MTech. A mention of this will be made on the final transcript given to the graduating student and at other appropriate places. Unlike MTech, eMasters does not have a thesis component and the structure and nature of the courses may be different from those of MTech. It can be considered as a work-integrated program since professional experience in the relevant areas are considered for admission into the program.

Admissions

Admission Process

The admission process will be as follows:

- Admission process will be as rigorous as the admission process in our graduate programs and will happen in multiple phases.
- Shortlisting will be based on certain minimum criteria as mentioned in the Senate Online Program Committee (SOPC) Manual.
- An admission test designed to thoroughly evaluate the applicant's domain knowledge and competence will be conducted by IIT Kanpur.

- Admission test will be followed by an interview conducted by a departmental committee. An admission committee for each program will be constituted by the Convener, Departmental Online Program Committee (all participating Departmental Online Program Conveners, in case of multi-department programs)   and will be approved by Chairman, Senate Online Program Committee.
- It will be ensured that only professionals from authentic and reputed companies/organizations will be shortlisted for consideration to the program.
- The institute would review the success of the program in the near future, and may consider 3 year bachelor's degree as an eligible degree.

Academics

Contact Program

All students will undergo a mandatory contact program of 15 days with IIT Kanpur since the association with the IIT Kanpur campus is an important part of any degree program offered by IIT Kanpur.

Intellectual Property Issues

All material generated will be considered Intellectual Property and appropriately protected through IIT Kanpur's IPR Cell. The learning platform, video lectures and the reading materials will also display statutory warning on the copyright infringement. The Institute would also periodically monitor for copyright infringement, if any.

Evaluation

The assessment process will be designed to ensure that the high standards of IIT Kanpur admission process are maintained. A continuous mode of evaluation will be followed with online assessments like in video quizzes, tests, and mid-quarter examination. The end-of-quarter proctored examination will be conducted at pre-designated centers where the students appear in person and validate their identity to take the examination.

Minimum and Maximum Load per Semester

Minimum duration for the program is 4 quarters, and maximum duration will be 12 quarters. Normal load per quarter is 15 credits where each Module is of 5 credits. Each module will be of 10 weeks' duration: the first 8 weeks will be used for teaching and exams will be held in 9/10 week. A student may opt for 0, 5, 10 or 15 credits in a quarter, depending on his/her professional work load, as long as they have registered for the program and paid the fee for each quarter - thus there is no minimum load requirement. Overload may be permitted by the Departmental Online Program Committee up to a maximum of 4 modules in exceptional circumstances.

Grading Structure

Seven letter grades: A*, A, B, C, D, E, F can be awarded. The correspondence between grades and points (on a 10-point scale) is as follows:

A*: 10

A: 10

B: 8

C: 6

D: 4

E: 2

F: 0

Credit Requirements

Each module is equivalent to 5 credits. The credit requirement to earn an eMasters is 60 credits as mentioned in the Senate Online Program Committee Manual.

Credit Transfer

Some of these students graduating from the eMasters may subsequently wish to join other programs like MTech or PhD at IIT Kanpur after going through the regular admission process and subject to fulfilling the eligibility requirements as specified by the respective programs. If admitted, a student with an eMasters degree may request for a waiver of up to 60 credits of coursework during MTech/PhD programs and a waiver of two semesters of residential requirements to the Senate Post-graduate Committee through the Departmental Post Graduate Committee. The credit transfer will be approved by the Senate Post-Graduate Committee as per the prevailing PG Manual.

Example Disciplines

The program can be offered by any department on approval by SOPC and Senate. Some example disciplines are Data Science, Cyber Security, Financial Engineering, Telecommunications, Power Sector Regulation Economics and Management.

Economic Viability

The fee structure will be such that the program will not only be self-sufficient but also will generate revenue to the Institute.

The Chairman Senate,

IIT Kanpur

Dear Sir,

The Senate Rules Committee (SRC) has vetted the eMasters proposal in accordance with the Senate directive.

The changes to be made in the Ordinances (page 2), the Senate Manual (page 3) and the SOPC manual are attached herewith.

In particular, the major changes to the SOPC manual have been summarized on page 4, whereas the detailed changes to the SOPC manual have been highlighted in the SOPC manual itself for ease of implementation. The associated comments be incorporated within the SOPC manual.

This new eMasters program and these changes may be forwarded to the Board for its approval and also reported to the Senate.
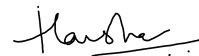
With best wishes,

Prof. S. Kamle	Prof. Vinay K. Gupta	Prof. M.K. Das	Prof. H. Wanare

All statements within quotes need to go into the Ordinances/Senate Manual/SOPC Manual.

Changes in the Ordinances:

3.7: eMasters needs to be added to the list.

"The eligibility requirements and frequency of admission to eMasters, MS (Research), M. Tech., M. Sc. (Two Year), M.B.A., M. Des., MS-Ph.D. (Dual Degree), Ph.D. and any other approved Postgraduate Programmes, shall be decided by the Senate, taking into consideration any requirements that may be specified by the IITs Council."

6.4: eMasters needs to be added to the list:

"The Senate shall prescribe the structure of courses to be successfully completed in the B.Tech./BS /eMasters/ MS(Research) /M.B.A./ M.Sc. (Two Year) and all Dual Degree Programmes."

7.8: No change is required as the same grading system should be adopted by the eMasters program. This will ease the transfer of credits to the regular programs (such as M.Tech, Ph.D) that a candidate might pursue at a later stage.

10.1: Need to add eMasters to the list:

"An eMasters/M.Tech./D.IIT/MBA/M. Des. /MS(Research) student with a CPI below 6.5 is not eligible for graduation."

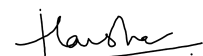**11.1:** Need modification in the last line:

"Part time and eMasters students are not eligible for accommodation in the Halls of residences."

Glossary: Entry for "Postgraduate" needs to be modified.

"Postgraduate - a student enrolled for the eMasters / DIIT / MS(Research) / M.Sc. (Two Year)/ M. Tech./M. Des. / Ph.D. / MSPD Programme"

Changes in the Senate Manual:

Add a new paragraph in:

Chapter 3. Entry no. 24. (last paragraph)

The Senate Online Program Committee (SOPC) will consist of DOPC Conveners from participating departments/IDPs, two Nominees of the Senate and Head CCE will be a special invitee. A Chairman will be elected amongst the DOPCs for a tenure is one year. The SOPC would operate through the DOPC to administer all academic aspects of the eMasters program. SOPC while approving a specific Program, will also consider the program completion requirements and offering of appropriate courses. The Departmental Online Program Committee (DOPC) will be constituted in each participating department/IDP consisting of a Convener, from amongst the members representing different programs offered by the Department, nominated by the Head of the department (in consultation with the faculty of the department), the Head of the department, and as many members of the faculty as necessary for different programs offered by the Department. The tenure of the committee will be one year.

Major Changes in the SOPC Manual

1. In the Introduction, the following disclosure needs to be added as directed by the Senate.

"The eMasters program is not a regular Master's program and is specifically designed for working professionals."

3.1 The tenure of the SOPC committee will be one year, like other committees in the Institute.

7.2 Module evaluation needs to be modified. The new section 7.2 would read as the following:

"There are six letter grades: A, B, C, D, E, F. The correspondence between grades and points (on a 10-point scale) is as follows:

A: 10
B: 8
C: 6
D: 4
E: 2
F: 0

In every registered module, a student is awarded one of the letter grades indicating his/her overall performance in the module and earns 5 credits except when awarded grade is F in which case no credits are earned.

If a student does not complete sufficient requirements for a module, the instructor may award grade I (Incomplete). The student must complete the module requirements within 2 quarters. Then the instructor must convert an I grade to a regular letter grade, failing which it will be automatically converted to an F grade.

A student getting an E or a F grade in a module must either repeat it or substitute it by another module as suggested by DOPC.

A student getting a D grade in a module may be allowed to repeat it.

The minimum CPI requirement for continuing in the programme or for graduation will be 6.5."

8. Graduation requirements:

"A student should have earned a minimum CPI of 6.5, paid all the dues to the Institute and, should have no pending case of indiscipline."