RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

'Established by Government of Central Provinces Education Department by Notification No. 513 dated the 1st of August, 1923 & presently a State University governed by Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of2017)

DIRECTION NO.36 OF 2024

ADMISSION AND EXAMINATIONS OF STUDENTS IN THE FULL TIME, SEMESTER PATTERN (CHOICE BASED CREDIT SYSTEM) PROGRAMMES LEADING TO THE AWARD OF THE DEGREE OF BACHELOR OF TECHNOLOGY (B.Tech.), DIRECTION, 2024.

Whereas, The Maharashtra Public Universities Act,2016(VI of 2017) has come into force from 1st March 2017;

AND

Whereas, Rashtrasant Tukadoji Maharaj Nagpur University(hereinafter "the University") is now being governed by the Maharashtra Public Universities Act,2016 (VI of 2017) (hereinafter the Act);

AND

Whereas, the Board of Studies in Applied Science and Humanities and Ad-hoc Committee in General Engineering, in the Faculty of Science and Technology, at their meetings held on 11/12/2020 and 14/1/2021, keeping the guidelines of All India Council of Technical Education(AICTE) in mind have decided to make uniform guidelines to design new 160 credits curriculum for the Bachelor of Engineering (B.E.) and Bachelor of Technology (B.Tech.) Programmes leading to the award of degrees of Bachelor of Engineering & Bachelor of Technology (Full time), in the Faculty of Science and Technology;

AND

Whereas, Hon'ble Vice-Chancellor in exercise of his powers under section 12(7) of the Act has on behalf of the Faculty of Science & Technology and also the Academic Council approved the structure of the Bachelor of Engineering (B.E.) and Bachelor of Technology (B.Tech.) programmes, having 160 credits and also the draft Direction in that regard, as required by the provisions of sections 35(d) and 33 (s) and (t) of the Act;

AND

Whereas, introduction of new academic programme requires making of an Ordinance as per the provisions of section 73(1) of the Act however, since Ordinance making is a time consuming process and there is urgency in introducing the new 160 credit based Full time Bachelor of Engineering and Bachelor of Technology programmes in the faculty of Science and Technology from the academic session 2020-21 a Direction by the Vice-Chancellor, as an interim measure was issued as Direction no. 2 of 2021;

AND

Whereas, in the meetings of Board of Studies of various subject in the Engineering in its meeting dated 7.6.2022 have prepared and accepted the guidelines for Honors (Major) and (Minor) for B.Tech. Programs, the said Guidelines are also accepted and approved in the meeting of the Faculty of Science and Technology on 23.06.2022 and approved by the Academic Council in its meetings dates 8.7.2022 respectively.

AND

Whereas the University has meanwhile issued a Direction no. 32/2021 regarding change of nomenclature of the erstwhile under graduate programme in Engineering, Bachelor of Engineering (B.E.) to Bachelor of Technology (B.Tech.) the said changes are also required to be incorporated, taking all these development in consideration Direction no. 38 of 2022 was issued on 14.09.22;

AND

Whereas, The Direction No.43/2023 was issued said Direction could not be converted into an Ordinance within six months from the date of its issuance and is therefore now lapsed by virtue of provisions of the proviso to section 12(8) of the Act;

AND

Whereas, the issuance of an Ordinance is now therefore necessary incorporating the provisions of the Direction no. 43/2023 incorporating the provision 38/2022 so lapsed but issuance of an Ordinance is a time consuming process and there is an urgency with respect to admission and examination in the under graduate programmes of Engineering;

Now, therefore , I, **Dr. Prashant Bokare, Vice-Chancellor** of Rashtrasant Tukadoji Maharaj Nagpur University, in exercise of my powers under section 12(8) of the Act, do hereby issue the following Directions:-

1. This Direction shall be called "Admission and examinations of students in the full time, semester pattern (Choice Based Credit System) Programmes leading to the award of the Bachelor of technology (B. Tech.), Direction 2024."
2. This Direction shall come in to force from the date of its issuance.
3. In this Direction unless the context requires otherwise:-

   a. **"ATKT"** means "Allowed to keep Term" in the higher semester, as per the rules herein.

   b. **"Board of Studies"** means the Board of Studies in Applied Science and Humanities and General Engineering, in the Faculty of Science and Technology.

   c. **"Course"** a unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work / field work per week.

   d. **"Credit"** means the unit by which the course work is measured. It is measured in terms of weekly class hours assigned to a Course.

e. **"Credit Point"** (CP) It is the product of grade point and number of credits for a course.

f. **"Cumulative Grade Point Average (CGPA)"** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

g. **"Degree"** means the Degrees of the Bachelor of Technology (B.Tech.) (full time) (Semester Pattern) (Choice Based Credit System).

h. **"Letter Grade"** It is an index of the performance of the students in a said course. Grades are denoted by the letters O, A+, A, B+, B, C, P and F.

i. **"Grade Point"** It is a numerical weight allotted to each letter grade on a 10-point scale..

j. **"Programme"** means and includes both the Bachelor of Engineering(B.E.) and the Bachelor of Technology (B.Tech.) (Full time) (Semester Pattern) (Choice Based Credit System) programmes under this Direction **(for short the 160 credit programmes).**

k. **"Student"** means a student admitted to the programme under this Direction.

l. **"Semester Grade Point Average(SGPA)"** It is a measure of performance of work done in a semester. It is a ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed upto two decimal places.

m. **"University"** means Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

5. **Admission and eligibility to the Programmes**:

(a) Subject to the compliance with the provisions of this Direction and other Ordinances/Directions, in force from time to time, an applicant for admission to Semester-I of the programme shall have passed 12th (Science)

examination with subjects specified in Director of Technical Education (Maharashtra)" s circulars issued from time to time

(b) The students having Diploma in Technical Education and also the students who are B.Sc. graduates are eligible for the lateral entry in the second year of the programmes.

(c) The minimum percentage of marks in the qualifying examination shall be as per the applicable governing rules Framed by Government of Maharashtra from time to time.

(d) The students having Diploma of Board of Technical Education and taking lateral admission to direct B.E./B.Tech at second year level are not required to appear for any subjects of the first year of B.E./B.Tech of new 160 credit pattern. Their SGPA and CGPA will be considered from second year.

(e) The students with B.Sc. degree taking admission to second year level shall have to appear, additionally, for theory and practical (if applicable) examination of Engineering Graphics-I, Basics of Civil and Mechanical Engineering, Basics of Electrical Engineering, Computational Skill and Engineering Mechanics of First year in new 160 credit pattern.

6. Duration of the Programmes:

   i. The B.Tech programme shall consist of 4 Years (Eight Semesters)

7. Medium of Instructions: The medium of instructions and examinations shall be English.

8. Structure of the Programmes:

   I. The detail structure of the B.Tech programmes shall be as given in Annexures A to H-xii.

   II. The B.E. /B.Tech programme shall also be of two more types i.e. B.E./B.Tech with Minor and Major (Honor), Guidelines for Honors, Major

and Minor are given under Annexure -I

A) B.Tech Degree with a Minor/Major (Honor)

a) A student who fulfills the requirements of the B.E./B.Tech. program of the discipline in which he/she is admitted, will be awarded with B.E./B.Tech. degree in that discipline. The flexibility is offered for students to successfully complete additional 18 to 20 credits by passing the courses through online mode from the specified platforms. Such students shall be awarded B.E./B.Tech Degree with Minor.

b) If a student is unable to earn additional 18 to 20 credits along with all the prescribed credits of the program in which he/she is admitted within the stipulated allowed duration of the original program he/she will not be awarded Minor/Major (Honor) degree.

B) B.Tech. with Minor :

a) Minor scheme aims for additional knowledge in any other branch for enhancement of employability. During the span of Four years (Three Years in case of lateral entry) on completion of 18 to 20 additional credits in another discipline, the B.Tech. degree with "Minor Specialization in ---------" (concerned discipline/subject) will be awarded to the student on completion of final semester.

[The detailed guidelines for Honors (Major) and Minor for B.Tech. Programme are annexed herewith as Annexure "I"]

b) A student having final CGPA of more than or equal to 7 in regular programme with no backlog in any semester, during the span of his/her degree will be eligible to get Degree with Minor.

C) B.Tech. with Major (Honor) :

a) Honor (Major) scheme aims at growth of vertical knowledge of the

student in his/her parent branch which may have advance knowledge or research orientation. During the span of four years (Three Years in case of lateral entry) on completion of 18 to 20 additional credits, through online mode, in the same discipline, the B.Tech. degree with "Major in....."(concerned Discipline) or Honor " will be awarded to the student on completion of Final semester.

b) A student having final CGPA of more than or equal to 7 and no backlog subjects, in any semester, during the span of his/her degree programme will be eligible to get Degree with "Honor", otherwise the student will be eligible to get Degree with "Major" specialization in the discipline, under this category.

The detailed guidelines for Honors (Major) and (Minor) for B.Tech. Programme are annexed herewith as Annexure "I"

Detailed curriculam of Major (Honor)/ Minor is available on RTMNU website.

9. Curriculum of the Programmes:-

The detail content of the courses prescribed for each semester of the B.Tech. programmes shall be as determined by the relevant Board of Studies and notified by the University from time to time.

10. Scheme of Examinations: -

i) Subject to the provisions of the general rules of the University with respect to conduct of examinations and in particular the rules regarding payment of examination fees, award of grace marks, and the maximum and minimum passing marks and eligibility for getting exemption in any passing heads, as shown in the relevant Annexures herein, there shall be end semester examination to be conducted by the University as per the scheme and modalities to be notified from time to time.

ii) An examinee who does not pass or who fails to present himself/herself for the

examination(s) shall be eligible for reappearing in the same examination on payment of a fresh fee and such other fees as may be prescribed from time to time. However, re-admission to the semester would be allowed only when a regular session is running for a particular semester.

iii) In the case of unsuccessful examinees, the marks obtained in the college assignment in the subjects, he/she has failed, shall be carried forward. However, the student has option to forgo the college assignment marks.

I. **Annexure A: B.Tech** 1st Semester Scheme of Examination

II. **Annexure B: B.Tech** 2nd Semester Scheme of Examination

III. **Annexure C: B.Tech 3rd** Semester Scheme of Examination.

i. Civil Engineering 3rd Semester Scheme of Examination.
ii. Mechanical Engineering 3rd Semester Scheme of Examination.
iii. Electrical Engineering 3rd Semester Scheme of Examination.
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 3rd Semester Scheme of Examination.
v. Chemical Engineering 3rd Semester Scheme of Examination.
vi. Chemical Technology 3rd Semester Scheme of Examination.
vii. Fire Engineering 3rd Semester Scheme of Examination.
viii. Artificial Intelligence & Data Science 3rd Semester Scheme of Examination.
ix. Artificial Intelligence 3rd Semester Scheme of Examination.
x. Robotics &Artificial Intelligence 3rd Semester Scheme of Examination.
xi. Industrial IOT 3rd Semester Scheme of Examination.
xii. Artificial Intelligence and Machine Learning 3rd Semester Scheme of Examination.
xiii. Information Technology 3rd Semester Scheme of Examination.
xiv. Computer Technology 3rd Semester Scheme of Examination.
xv. Computer Engineering 3rd Semester Scheme of Examination.
xvi. Computer Science Engineering 3rd Semester Scheme of Examination.
xvii. Bio-Technology 3rd Semester Scheme of Examination.
xviii. Aeronautical Engineering 3rd Semester Scheme of Examination.

IV. **Annexure D: B.Tech 4th** Semester Scheme of Examination

i. Civil Engineering 4th Semester Scheme of Examination
ii. Mechanical Engineering 4th Semester Scheme of Examination
iii. Electrical Engineering 4th Semester Scheme of Examination
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 4th Semester Scheme of Examination
v. Chemical Engineering 4th Semester Scheme of Examination

vi. Chemical Technology 4th Semester Scheme of Examination
vii. Fire Engineering 4th Semester Scheme of Examination
viii. Artificial Intelligence & Data Science 4th Semester Scheme of Examination
ix. Artificial Intelligence 4th Semester Scheme of Examination
x. Robotics & Artificial Intelligence 4th Semester Scheme of Examination
xi. Industrial IOT 4th Semester Scheme of Examination.
xii. Artificial Intelligence and Machine Learning 4th Semester Scheme of Examination.
xiii. Information Technology 4th Semester Scheme of Examination.
xiv. Computer Technology 4th Semester Scheme of Examination.
xv. Computer Engineering 4th Semester Scheme of Examination.
xvi. Computer Science Engineering 4th Semester Scheme of Examination.
xvii. Bio-Technology 4th Semester Scheme of Examination.
xviii. Aeronautical Engineering 4th Semester Scheme of Examination.

V. **Annexure E: B.Tech** 5th Semester Scheme of Examination
i. Civil Engineering 5th Semester Scheme of Examination
ii. Mechanical Engineering 5th Semester Scheme of Examination
iii. Electrical Engineering 5th Semester Scheme of Examination
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 5th Semester Scheme of Examination
v. Chemical Engineering 5th Semester Scheme of Examination
vi. Chemical Technology 5th Semester Scheme of Examination
vii. Fire Engineering 5th Semester Scheme of Examination
viii. Artificial Intelligence & Data Science 5th Semester Scheme of Examination
ix. Artificial Intelligence 5th Semester Scheme of Examination
x. Robotics & Artificial Intelligence 5th Semester Scheme of Examination
xi. Industrial IOT 5th Semester Scheme of Examination.
xii. Artificial Intelligence and Machine Learning 5th Semester Scheme of Examination.
xiii. Information Technology 5th Semester Scheme of Examination.
xiv. Computer Technology 5th Semester Scheme of Examination.
xv. Computer Engineering 5th Semester Scheme of Examination.
xvi. Computer Science Engineering 5th Semester Scheme of Examination.
xvii. Bio-Technology 5th Semester Scheme of Examination.
xviii. Aeronautical Engineering 5th Semester Scheme of Examination.

VI. **Annexure F: B.Tech** 6th Semester Scheme of Examination
i. Civil Engineering 6th Semester Scheme of Examination
ii. Mechanical Engineering 6th Semester Scheme of Examination
iii. Electrical Engineering 6th Semester Scheme of Examination
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 6th Semester Scheme of Examination
v. Chemical Engineering 6th Semester Scheme of Examination
vi. Chemical Technology 6th Semester Scheme of Examination
vii. Fire Engineering 6th Semester Scheme of Examination

viii. Artificial Intelligence & Data Science 6th Semester Scheme of Examination
ix. Artificial Intelligence 6th Semester Scheme of Examination
x. Robotics & Artificial Intelligence 6th Semester Scheme of Examination
xi. Industrial IOT 6th Semester Scheme of Examination.
xii. Artificial Intelligence and Machine Learning 6th Semester Scheme of Examination.
xiii. Information Technology 6th Semester Scheme of Examination.
xiv. Computer Technology 6th Semester Scheme of Examination.
xv. Computer Engineering 6th Semester Scheme of Examination.
xvi. Computer Science Engineering 6th Semester Scheme of Examination.
xvii. Bio-Technology 6th Semester Scheme of Examination.
xviii. Aeronautical Engineering 6th Semester Scheme of Examination.

VII. **Annexure G: B.Tech** 7th Semester Scheme of Examination
i. Civil Engineering 7th Semester Scheme of Examination
ii. Mechanical Engineering 7thSemester Scheme of Examination
iii. Electrical Engineering 7th Semester Scheme of Examination
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 7th Semester Scheme of Examination
v. Chemical Engineering 7th Semester Scheme of Examination
vi. Chemical Technology 7th Semester Scheme of Examination
vii. Fire Engineering 7th Semester Scheme of Examination
viii. Artificial Intelligence 7th Semester Scheme of Examination
ix. Robotics & Artificial Intelligence 7th Semester Scheme of Examination
x. Industrial IOT 7th Semester Scheme of Examination.
xi. Artificial Intelligence and Machine Learning 7th Semester Scheme of Examination.
xii. Bio-Technology 7th Semester Scheme of Examination.

VIII. **Annexure H: B.Tech** 8th Semester Scheme of Examination
i. Civil Engineering 8th Semester Scheme of Examination
ii. Mechanical Engineering 8th Semester Scheme of Examination
iii. Electrical Engineering 8th Semester Scheme of Examination
iv. Electronics Engineering/ Electronics & Telecommunication Engineering/ Electronics & Communication Engineering 8th Semester Scheme of Examination
v. Chemical Engineering 8th Semester Scheme of Examination
vi. Chemical Technology 8th Semester Scheme of Examination
vii. Fire Engineering 8th Semester Scheme of Examination
viii. Artificial Intelligence 8th Semester Scheme of Examination
ix. Robotics & Artificial Intelligence 8th Semester Scheme of Examination
x. Industrial IOT 8th Semester Scheme of Examination.
xi. Artificial Intelligence and Machine Learning 8th Semester Scheme of Examination.
xii. Bio-Technology 8th Semester Scheme of Examination.

11. Calculation of SGPA and CGPA

Degree will be based on SGPA and CGPA calculations since First Semester (Third semester in case of lateral entry students)

a) SGPA and CGPA will be calculated on the basis of the grades as detailed below

i) Conversion of Marks to Grades and Grade Points using Absolute Grading system.

- For each course taken, the student will be assigned with a grade based on the combined performance in all the assessments.
- Table -1 shows the various grades, grade points awarded to students with mark range as indicated. Table-1: Award of Grades and Grade Points for Theory Courses

(a) Course/Subject carrying maximum 100 marks

Marks Range)	Grade	Grade Point	Performance
X ≥ 91	O	10	Outstanding
91 >X ≥ 85	A+	9	Excellent
85 >X ≥ 76	A	8	Very Good
76 >X ≥ 66	B+	7	Good
66 >X ≥ 56	B	6	Average
56 >X ≥ 45	P	5	Pass
X<45	F	0	Fail
Absent	AB	0	Absent

X = Marks obtained out of 100

(b) : Course/Subject carrying maximum 50 marks

Marks Range(for Max 50 marks)	Grade	Grade Point	Performance
X ≥ 46	O	10	Outstanding
46 >X ≥ 42	A+	9	Excellent
42 >X ≥ 38	A	8	Very Good
38 >X ≥ 33	B+	7	Good
33>X ≥28	B	6	Average
28>X ≥ 23	P	5	Pass
X<23	F	0	Fail
Absent	AB	0	Absent

X = Marks obtained out of 50

(c) : Award of Grades and Grade Points for Practical Courses

Marks Range (for Max 50 marks)	Grade	Grade Point	Performance
$X \geq 46$	O	10	Outstanding
$46 > X \geq 42$	A+	9	Excellent
$42 > X \geq 38$	A	8	Very Good
$38 > X \geq 34$	B+	7	Good
$34 > X \geq 30$	B	6	Average
$30 > X \geq 25$	P	5	Pass
$X < 25$	F	0	Fail
Absent	AB	0	Absent

X = Marks obtained out of 50

- Audit Course does not carry any credit, hence, will not be considered in the SGPA/CGPA calculation. But the grade card will reflect "Audit course" and will be awarded with grade as in Table-1(a or b or c). However, the student will have to pass the course with minimum required attendance and evaluation result to clear the semester.

ii) Obtaining Grade Point

- The academic performance of a student will be graded on Ten pointscale.
- The qualitative assessment of student's performance will be indicatedby these grades.
- Each grade is associated with a grade point as listed in Table-1.

iii) Calculating SGPA and CGPA

- The grades upto"P"awarded to student in all the courses shall be converted into a Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).
- The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

  SGPA (Si)= $\sum$(Ci X Gi)/ $\sum$Ci

  Where Ci is the number of Credits of the ith course and Gi is the Grade point scored by the

student in the ith course.

- The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

  CGPA = ∑(Ci X Si)/ ∑Ci

  Where Si is the SGPA of the ith semester and Ci is the Total number of credits in that semester.

- The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

iv) Incentive credits to the students participating in NCC/NSS/ Games &Sports/Cultural Activities/Curricular and Co-curricular Activities willbe awarded as per the University prevailing ordinance"

12. **Class/Division**

The class/division in academic performance of the student for thecomplete duration of program to be classified as follows:

a. First Class with distinction: CGPA 7.5 and above,
b. First Class: CGPA 6.0 and above, but less than 7.5, and
c. Second Class: CGPA less than 6.0

As per requirements, the conversion of the performance index CGPAinto equivalent percentage of marks, the formula shall be used is-

Percent marks = (CGPA)*10.

13. Award of Merit Ranks

The students admitted to the programmes governed by this Direction on successful completion of the programme shall be eligible to be awarded a merit rank as per the general rules of the University in this regard.

14. Exit Policy for Failure/Dropout Students:

i). Student who wish to exit before the completion of the program duration, may be issued Certificate/Diploma/Advance Diploma as pertheir acquired levels of learning with additional skill as mentioned below.

Table-3: Additional online/off line Courses required to qualify

Award	Year of Completion	Additional online/offline courses required.
Certificate	Certificate on exit afterFirst year	1 Certificate course of30 hours duration (2 Credits)
Diploma	Diploma on exit after Second year	1 Diploma Course of 60 hours duration. (4 Credits) in specialized area.
Advance Diploma	Advance-Diploma onexit after Third year	1 Diploma Course of 90 hours duration (6 credits)inspecialized area

Note:- Students may opt for MOOC or specified platforms for onlinecourses with prior permission of University

ii). Student who wish to exit without completing First year and who is not eligible for award of "certificate/Diploma/Adv Diploma" should undergo hands on training for getting Certificate.

	Exit Policy for Failure Students	: Hands on Training
i	Orientation	- Engineering Based - Skill Development based - Atmanirbhar - Self employable
ii	Duration	6 Months
iii	Areas of Training	Automobile Workshop, Machine Shop, Welding Shop, Motor Winding, Electric Fittings, TV Repairing, Mobile Repairing, Hardware Repairing, Networking, Road constructions, building constructions, Physician Course, X Ray Technician, Biomedical Instrumentation, etc (Skill Development Courses from Jivan Shikshan Abhiyan, NSQF)
iv	Credits	10-15
v	Nature of award	Certificate
a) Institute and University should have a joint MOU with workshops/Shops/Service Providers/Contractors/Entrepreneurs etc. at local level b) Certificate to be issued on the basis of regular monitoring and handson training report from concerned agency after 6 month. c) In case student is not interested to undertake any above mentioned training then certificate to be issued on the basis of credits earned. d) Students must earn 20credits and above out of subjects he/she hasto pass in First year. This can be provided with credit certification for multidisciplinary entry.		

15 A.T.K.T Rules

i.) For calculation of passing heads, any decimal fraction should be rounded off to lower digit.

ii) Passing the semester shall include all the credit and audit subject heads.

iii) For getting promotion in the higher class (under ATKT) a student shall have passed minimum 50 % heads prescribed for a particular year, comprising two semesters.

iv) For moving to third year (5^{th} Sem.) a student must be passed in all subjects of first year, similarly for moving to forth year student must pass all the subjects of second year.

v) This clause is applicable to all those students who are admitted under direction No. 02 of 2021 & 38 of 2022

16. ABSORPTION SCHEME

i. After introduction of the 160 credit programmes under this Direction existing B.E. and B.Tech. programmes shall be discontinued in a phase-wise (progressive) manner and the failure students of the said programmes shall be provided maximum five attempts to clear all the courses/subject(s) of the said programmes after which they shall be absorbed in the 160 credit programmes under this Direction as per the absorption scheme hereunder.

ii. The students of the existing programmes shall also be entitled to join the 160 credit programmes as per the absorption schemes provided by relevant Board of Studies. However, student will have to appearfor the examinations under new 160 Credit Scheme for the matchablesubjects in which student has not cleared the subject in the existing programmes.

iii. a) A student having passed in particular course/subject heads of the existing programme at any semester level shall be exempted from such subject heads at any level (lower/higher) of the new 160 Credit programme. If any course/subject is named with a new nomenclature but is having similar contents it shall also be exempted. The respective Board of Studies shall prepare and notify the list of such subjects. Wherever a student is absorbed in the new 160 creditcourse with benefit of exemption in courses/subjects, in anysemester, proportionate marks/grades shall be awarded in the concerned course/subject heads.

b) Wherever a new course/subject has been introduced in the new 160 Credit

programme in any semester which was not to be found in the existing programmes the internal marks shall be awarded inproportion to the marks/grades earned by a student in the university/external examination in the concerned new course/subject head.

c) Student being absorbed in new 160 Credit Pattern shall be exempted from the subject/s which he/she has cleared in the existing semester pattern as per the absorption scheme provided by the concern B.O.S.However the subject/s which he/she has not cleared in the old semester pattern and having no equivalent subject at any level ofnew 160 Credit Pattern shall not be considered during the absorption irrespective of the status of the result of that subject.

17. If any difficulty in implementation of the scheme of this Direction is encountered or any doubt regarding interpretation of any provision of this Direction arises the matter shall be referred for decision of the Vice- Chancellor whose decision shall be final and binding on all the concerned people.

Nagpur
Date: 12.8.2024

(Dr. PRASHANT BOKARE)
VICE-CHANCELLOR

Annexure – I

R.T.M. Nagpur University, Nagpur

Guidelines for HONORS (MAJOR) & MINOR

For B.Tech. Programs of all the ~~Non-Autonomous~~ Engineering Colleges

1.0 PREAMBLE

Apart from the minimum credit requirements as per the scheme of exam for the award of the undergraduate engineering degree, these Honors (Major), Minor Programs offered by RTMNU provide opportunities for supplementing the learning experience. These programs offered are in parent as well as in diverse areas. These credits when are in a focused branch would earn the students' credentials like Honors (Major)/Minor. Honors (Major) scheme aims for vertical knowledge growth in his/her own branch which may have research orientation while Minor scheme aims for additional knowledge in any other branch for enhancing the employability.

On successful completion of the requirements of Honors (Major), the UG student will receive B. Tech. (Honors) degree with the mention of Honors' specialisation. Similarly on successful completion of the requirements of minors the UG student will receive B. Tech. degree with the mention of minors' specialisation. Additionally, the concerned college shall also issue the certificate of completion of Honors (Major) or Minors.

Participation of students in these programs shall not be mandatory. Aspiring students will register for courses mentioned in the program and acquire 18 (minimum) to 20 credits. A student opting for 'Honors' will not be entitled to register for 'Minor' and vice-versa. It is expected that the students with good academic standing, utilize their surplus time for enhancing their academic learning experience and gain a wide exposure.

These schemes are implemented progressively from the batch of UG students admitted in 2020-21 onwards. No additional fee would be charged for Honors/Minor courses by the college or University. However, SWAYAM-NPTEL will charge the fees for proctored examination and certification.

2.0 CREDITS to be earned by students for Honors (Major) / Minor degree

Total credits to be earned for Honors (Major) or Minor will be 18 to 20 along with all the prescribed credits of the regular B.Tech. program in which he/she is admitted.

Examples:

a) Student who has completed regular B.Tech. in stipulated time schedule and also earned all prescribed Honor (Major) or Minor credits at the time of declaration of final year result, is eligible to get regular + Honor (Major) or Minor degree.

b) Student who has completed regular B.Tech. in stipulated time schedule but fail to earn all prescribed Honor (Major) or Minor credits at the time of declaration of final year result, is eligible to get only regular degree.

3.0 DEGREE WITH HONORS, MAJOR & MINOR:

Technically there is no difference between the Title, Scheme of Examination and Syllabus between Honors and Major programs as far as number of credits and syllabus is concerned. A student will be conferred with:

a) Honors Degree (e.g., **"BE in Mechanical Engineering with Honors in Advanced Dynamics"**) only if he/she is having a final CGPA of more than or equal to 7 in regular Program with no backlog in any semester, during the span of his/her degree (including Honors program).

b) Degree with Major (e.g., **"BE in Mechanical Engineering with Majors in Advanced Dynamics"**) if he/she is not having a final CGPA of more than or equal to 7 in regular Program and /or had backlog subjects, in any semester, during the span of his/her degree (including Major program).

c) Degree with Minor (e.g., **"BE in Mechanical Engineering with Minor in Electrical Engineering"**) if he/she is having a final CGPA of more than or equal to 7 in regular Program with no backlog in any semester, during the span of his/her degree (including Minor program).

Note: 1. It is expected that every department of the college/institution offering Major/Minor should appoint one Honors (Major)/Minor coordinator to help students sort out academic as well as administrative issues. Also, one Single Point of Contact (SPoC) be appointed at college/institute level.

2. The scheme shall ideally begin from the fourth semester of UG for the students admitted in the session 2020-21 onwards. However, it is flexible to the extent that student interested may start it from first semester also.

4.0 SWAYAM-NPTEL:

1. This platform is indigenously developed by seven IITs and IISc together under the umbrella of Ministry of Education, Govt. of India. Website address of NPTEL is ***www.nptel.ac.in*** and SWAYAM has its website address as ***swayam.gov.in***.
2. SWAYAM-NPTEL platform has its own assessment system consisting of CIE (25 marks) and SEE (75 marks). For successful completion, 40 marks are required (min. 10 marks in CIE and 30 in SEE). SEE is a proctored exam which is conducted at designated centres at national level. Nagpur is one of such centres for SWAYAM-NPTEL exam.
3. SWAYAM-NPTEL follows the CBCS system. Every course is allotted credits based on the number of hours of the course duration. Students are given the choice to select the courses from core and elective courses under a particular Major/Minor which a student opts.
4. SWAYAM-NPTEL charges fee of Rs. 1000/- (500/- for SC/ST) for conducting proctored examination and certification.

   CIE: Continuous Internal Evaluation SEE: Semester End Examination (Proctored Exam)

5.0 CERTIFICATE OF HONORS (MAJOR)

Each Board of Studies is offering minimum three Honors (Major) Programs. All these Honors (Major) Programs are offered through SWAYAM - NPTEL platform

a) Eligibility of student:

Students having CGPA more than or equal to 6 (for regular students CGPA of third semester and for lateral entry students SGPA of third semester will be considered) and no backlogs shall be eligible to register for Honors courses of their parent discipline from the list prescribed by the University.

b) Implementation:

1. RTM Nagpur University has prescribed "branch wise – specialisation wise" list of courses (core & elective) for Honors (Major), with all details including course name, course code, name of subject matter expert (SME) with affiliation, credits, teaching & evaluation scheme, course outcomes, detail syllabus and list of references.
2. While giving the scheme of all such specialisations which course is to be completed in which semester is given, but it is only suggestive not compulsory. Semester wise course list is given with the logic of i) lower semester – lower level of difficulty and ii) lower semester courses are sometimes prerequisite to the higher semester courses.
3. University will check whether a student has i) earned 18-20 credits & ii) the credits earned are by clearing the courses mentioned in the list of same specialisation pertaining to the parent branch of B.Tech.
4. The HoD of the parent department will identify and appoint one faculty member as "Honors/Minor Coordinator" who shall be responsible for all coordination, record keeping and guidance to the students.
5. All applications of concerned students shall be verified and forwarded to the SPoC with remarks by the Honors/Minor Coordinator and HoD of the parent department.

c) Students' Attendance:

Completing the assignments, giving the proctored examination and earning the certificate of requisite credits with prescribed percentage via SWAYAM – NPTEL platform is considered as satisfactory attendance for students.

d) Examination:

The complete assessment and evaluation scheme is prescribed by SWAYAM-NPTEL platform, which students need to follow and abide by. If a student is not able to pass the course, can go for another attempt as and when the course is made available for exam by SWAYAM-NPTEL.

Certificates worth 18-20 credits of Honors courses must be produced on or before the last date/paper of 8th semester examination. Credits mentioned on such certificates will be final and binding.

e) Duration of Program with Honors:

All requirements of the regular program and Honors have to be completed within the stipulated period of the regular program i.e.,04 years for UG students who were admitted in the First Year of the program and 03 years for those

who got lateral entry in second year of the program. No additional period will be permitted. If a student is unable to earn additional 18-20 credits along with all the prescribed credits of the parent program within the stipulated allowed duration, he/she will not be awarded Honors. The partial completion of Honors courses, if any, shall not be adjusted or converted into program credits anywhere in the credits structure of the curriculum of the regular program in which they were admitted and such additional credits will remain extra.

f) Certificate:

1. For an Honors course completed successfully by the student, he/she shall be issued a certificate of completion of that course by SWAYAM-NPTEL. The passing of individual Honors courses shall not be mentioned on the Grade Cards.
2. After earning 18-20 credits of Honors, a separate certificate of **"Honors in** _____ (name of specialisation/domain of Honors)" shall be awarded to the student by the college on completion of final semester. University will provide B.Tech. degree in parent branch with **"Honors in** _____ (name of specialisation/domain of Honors)".
3. After earning 18-20 credits of Major, a separate certificate of **"Major in** _____ (name of specialisation/domain of Major)" shall be awarded to the student by the college on completion of final semester. University will provide B.Tech. degree in parent branch with **"Major in** _____ (name of specialisation/domain of Major)".

g) Dropping/Withdrawal/Termination from Honors:

If a student drops or withdraws from the Honors scheme at any stage, the additional credits earned through Honors courses shall not be converted into program credits (core/electives/lab/project etc) and they will remain extra.

h) Class & Medal:

Successful completion of the Honors scheme will not indicate any Class or Division. For the award of a Medal to meritorious students, in case of a tie, student who has earned the Honors will be preferred.

6.0 CERTIFICATE OF MINOR

Each Board of Studies is offering minimum one MINOR program which is made available through SWAYAM – NPTEL platform. The program for MINOR offered by a department (for example CSE), shall be offered to all other departments except for the students of the parent department (CSE).

a) Eligibility of student:

Students having CGPA more than or equal to 6 (for regular students CGPA of third semester and for lateral entry students SGPA of third semester will be considered) and no backlogs shall be eligible to register for Minor courses of other than their parent discipline from the list prescribed by the University.

b) Implementation:

1. RTM Nagpur University has prescribed "branch wise" list of Minor courses (core & elective), with all details including course name, course code, name of subject matter expert with affiliation, credits, teaching & evaluation scheme, course outcomes, detail syllabus and list of references.
2. While giving the scheme of branch wise Minor courses, which course is to be completed in which semester is given, but it is only suggestive not compulsory. Semester wise course list is given with the logic of i) lower semester – lower level of difficulty and ii) lower semester courses are sometimes prerequisite to the higher semester courses.
3. University while deciding to give Minor degree will check whether B.Tech. student has i) earned 18-20 credits & ii) the credits earned are from the list of courses of the same Minor prescribed by the University. List of the courses leading to Minor is prescribed by the University for every department/program.

c) Student Attendance:

Completing the assignments, giving the proctored examination and earning the certificate of requisite credits with prescribed percentage via SWAYAM-NPTEL platform is considered as satisfactory attendance for students.

d) Examination:

The complete assessment and evaluation scheme is prescribed by SWAYAM-NPTEL platform, which students need to follow and abide by. If a student is not able to pass the course, can go for another attempt as and when the course is made available for exam by SWAYAM-NPTEL platform.

Certificates worth 18-20 credits of Honors courses must be produced on or before the last date/paper of 8th semester examination. Credits mentioned on such certificates will be final and binding.

e) Duration of Program with Minor:

All requirements of the Minor program have to be completed within the stipulated period of the original program i.e., 04 years for UG students who were admitted in the First Year of the program and 03 years for those who got lateral entry in second year of the program. No additional period will be permitted. If a student is unable to earn 18-20 credits along with all the prescribed credits of a program in which he/she is admitted within the stipulated allowed duration of the original program he/she will not be awarded degree with Minor. The Minor courses completed partially, shall not be adjusted or converted into program credits anywhere in the credits structure of the regular curriculum of the parent program and they will remain extra.

f) Certificate:

1. For Minor courses completed successfully by the student, he/she shall be issued a certificate of completion of that course by SWAYAM-NPTEL. The passing of individual Minor courses shall not be mentioned on the Grade Cards.
2. After earning 18-20 credits of Minor, a separate certificate of **"Minor Specialization in _____ Engineering"** shall be awarded to the student by the college on completion of final semester. University will provide B.Tech. degree in parent branch with **"Minor Specialization in _____ Engineering"**.
3. After earning 18-20 credits of Minor in interdisciplinary courses a separate certificate of **"Minor in Multidisciplinary Courses"** shall be awarded to the student by the college on completion of final semester. University will provide B.Tech. degree in parent branch with **"Minor in Multidisciplinary Courses"**.

g) Dropping/Withdrawal/Termination from Minors:

If a student drops or withdraws from the Minor scheme at any stage, the additional credits earned through Minor courses shall not be converted into program credits (core/electives/lab/project etc) and they will remain extra.

h) Class & Medal:

Successful completion of Minor scheme will not indicate any Class or Division. For the award of a Medal to meritorious students, in case of a tie, students who have completed the Minor scheme will be preferred.

7.0 CREDIT TRANSFER

On the basis of proctored examination conducted by NPTEL / SWAYAM, full credits shall be transferred only after submission of successful course completion certificates along with admit cards of examination.

8.0 GRADE CONVERSION

The grade conversion and credit transfer of proctored examination conducted by NPTEL-SWAYAM shall be considered as below,

Table 1

Score	Equivalent Grade	Equivalent Term	Grade Point
91 to 100	O	Outstanding	10
81 to 90.99	A+	Excellent	9
71 to 80.99	A	Very Good	8
61 to 70.99	B+	Good	7
51 to 60.99	B	Above Average	6
41 to 50.99	C	Average	5
40 to 40.99	P	Pass	4
<40	F	Fail	0

Ab	Ab	Absent	0

9.0 GENERAL GUIDELINES FOR AWARENESS OF HONORS (MAJOR)/MINOR PROGRAMS:

1. Under each BoS, a steering committee shall be formed for smooth conduct of the Honors / Minor Program being offered by the department. The proposed composition shall be,

   HoD (Chairman) + three senior teachers
2. The steering Committee will conduct a meeting with all Fourth Semester students to explain the Honors (Major)/Minor programs including their contents, advantages, employability, specialization and any other related future aspects.
3. The committee shall be responsible for proper publicity of Honors (Major)/Minor programs, allocation of facilitators, smooth implementation of the mentoring scheme of NPTEL and liaising with students who have opted for the program.
4. Each department shall prepare an Honors (Major)/Minor brochure containing Scheme of Examination and Syllabus as prescribed by the University. Honors (Major)/Minor brochure so prepared shall be uploaded on the website of the college.
5. The Honors (Major)/Minor Brochure shall also be mailed to each 4th Semester student and their parents by the department.
6. A video clip explaining the features of all Honors (Major)/Minor programs shall also be made available on the college website by each department.
7. The feedback and response related to Honors (Major)/Minor programs offered by each department shall be conducted immediately after the presentation of the steering committee and any action if required shall be taken immediately.

10.0 GRIEVANCE REDRESSAL MECHANISM

A committee constituted under the Chairmanship of the Dean will be responsible to address the grievances of students, teachers, institution and other concerned stake holders.

Dean (Science & Technology)