

**Minutes of
XL SENATE MEETING**

HELD ON

**11th January, 2020
(Saturday)
10:00 AM**



**मौलाना आजाद राष्ट्रीय प्रौद्योगिकी संस्थान
भोपाल (मध्य प्रदेश)**

**MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY
BHOPAL (M.P.)**

Minutes of XL Senate Meeting,11.01.2020

The 40th Special Senate Meeting was held on 11th Jan 2020 at 10AM in Room No G-9 of the Institute. The followings were present in the meeting:

1. Prof. N S Raghuwanshi Chairman
2. Prof. N D Mittal Dean (Academic)
3. Dr Nilay Khare
4. Dr Kavita Khare
5. Dr Ruchi Khare
6. Dr Vishnu Prasad
7. Dr Anupama Sharma
8. Dr J L Bhagoria
9. Dr Ajay Somkunwar
10. Dr G Dixit
11. Dr R N Yadav
12. Dr Siraj Ahmed
13. Dr Tripta Thakur
14. Dr Mukul Kulshreshta
15. Dr Shuchi Shrivastava
16. Dr Rajesh Gupta
17. Dr Jyoti Singhai
18. Dr Aditya Goel
19. Dr S K Katiyar
20. Dr K R Aharwal
21. Dr Yogendra Kumar
22. Dr Arvind Rajawat
23. Dr Manisha Dubey
24. Dr N P Patidar
25. Dr Charu Parashar
26. Dr A K Sharma
27. Dr Rajesh Purohit
28. Dr R K Nema
29. Dr Meenu Chawla

Apart from above 14 more faculty members were present during presentation and expressing their views but did not take part in discussion because they were not members of the Senate.

Nes

Item S-40.2020-I-2.1 Structure of schemes for B. Tech. III semester to VIII semester.

The proposed structure of scheme for B Tech III semester to VIII semester was presented by Dean (Academic) to all, along with salient features, comparison with NITSER, AICTE and NIT Trichy and Calicut. Non-members present made the suggestion first and then all features were discussed amongst the members of Senate.

The members pointed out some corrections and made useful suggestions. All suggestions were considered and incorporated upto maximum extent. The corrected scheme with guidelines are attached in Annexure-1.

Decision: *The proposed structure of scheme for B Tech III sem to VIII sem with corrections (possible) was approved*

TKL

Group – A (Civil, Mechanical and MME and Chemical) (7)
 Group – B (Electrical, ECE, CSE) (7)

SCHEME

Third Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH-2301to2307	Mathematics - 3	3	1		4
	Fundamentals of Entrepreneurship (B-IV, A-III)	3	1		4
	Departmental Core-1	3	1		4
	Departmental Core-2	3	1		4
	Departmental Core-3	3	1		4
	Lab-1			2	1
	Lab-2			2	1
	Project based lab/design		2		2
	Minor-1(From core above)	3	1		4 (Extra)
Total Hours – 26		Total Credit			24

(Extra for other deptt not for parent)

Fourth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
- 2401to2407	Mathematics - 4	3	1		4
	Fundamentals of Design methods (A-IV, B-III)	3	1		4
	Departmental Core-4	3	1		4
	Departmental Core-5	3	1		4
	Departmental Core-6	3	1		4
	Lab-3			2	1
	Lab-4			2	1
	Project based lab/design		2		2
	Minor-2(From core above)	3	1		4 (Extra)
Total Hours – 26		Total Credit			24

(Extra for other deptt not for parent)

B.Tech Scheme & Syllabus (Third Year only)

SCHEME

Fifth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
	Other Departmental Course	3	1		4
CSE-352	Data Structures (B-V, A-VI)	3	1		4
	Departmental Core-7	3	1		4
	Departmental Core-8	3	1		4
	Departmental Core-9	3	1		4
	Lab-5			2	1
	Lab-6			2	1
	Project based lab/design		2		2
	Internship/Training				1
	Minor-3(From core above)	3	1		4(Extra)
Total Hours – 26				Total Credit	25

(Extra for other deptt not for parent)

Sixth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
	Project -1			4	2
	Departmental Core-10	3	1		4
	Departmental Core-11	3	1		4
	Departmental Core-12	3	1		4
	Department Elective-1(A)	3	1		4
MECH-365	Engineering Management (A-V, B-VI)	3	1		4
	Lab-7			2	1
	Lab-8			2	1
	Minor-4(From core above)	3	1		4(Extra)
Total Hours – 28				Total Credit	24

(Extra for other deptt not for parent)

B.Tech Scheme & Syllabus (Fourth Year only)

SCHEME

Seventh Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
	Project-2 phase-1			2	1
	Engineering Economics & IPR	3	1		4
	Department Elective-2(A)	3	1		4
	Departmental Core-13	3			3
	Departmental Core-14	3			3
	Open Elective – 1(B)	3			3
	Lab-9			2	1
	Internship/Training				1
	Minor-5(From core above)	3			3(Extra)
Total Hours – Credit	21			Total	20

(Extra for other deptt not for parent)

Eighth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
	Project-2 phase-2			4	2
	Department Elective-3(A)	3			3
	Department Elective-4(A)	3			3
	Department Elective-5(A)	3			3
	Department Elective-6(A)	3			3
	Elective-Other-1(C)	3			3
	General Proficiency			2	1
	Minor-6(From above)	3			3(Extra)
Total Hours – Credit	21			Total Credit	18

(Extra for other deptt not for parent)

Essential Guidelines for the semesters from III to VIII B.Tech. (To be followed)

1. All branches have to include the following subjects as per NIT council guidelines:

- (a) Engineering Management
- (b) Sustainable Engineering (Elective)

2. Total Credits = 135 + 45 (first year) = 180 out of which 45 are allotted in I and II semester.

3. The number of courses:

Essential Program Requirements 07 (Except First Year)

[Mathematics – 02

Humanities & Engineering Economics – 01

Engineering Management – 01

Entrepreneurship & IPR - 01

Project Work – 02]

Program Core 14 + Basic Design Principles 01

Elective Courses 08 (Deptt-06, Open-01, Other-01)

(A) Departmental Electives are essentially from the deptt.

(B) Open Elective offered by the deptt but may include others also.

(C) Elective (Others) are essentially from other deptt.]

Total courses 30 in III to VIII semester.

4. All laboratory courses must have proper laboratory and students must be examined by performing the experiments.

5. The total number of credits must be uniform in all disciplines. Thus it may be restricted to 180.

6. The provision of tutorial should be made with courses depending upon requirements

7. Total number of electives offered must be 08 out of 25. Equal weightage must be given to all sub discipline. For example in case of Mechanical Engineering it is thermal, design and production.
8. All practical classes will be of duration 2 hours with 1 credit. (If any laboratory class requires 3 hours then it may be considered but credit assigned will be only 1)
9. The detail syllabus must be prepared strictly as per NBA guidelines i.e. objectives, outcomes, mappings and lecture plan with list of text & reference books. The course files must be maintained.
10. The fractional number of credits must not be allocated.
11. The department may offer courses for obtaining minor specialization. One course in each semester from III to VIII which will be core to their course and its classes may be allotted by the Institute (04hrs). The subject for minor is to be notified in scheme itself. The classes for minors may be allotted by institute.

Initially the minor courses will be offered by CSE, ECE and Mechanical Engineering Department only. However the students from any discipline may opt these minor courses.

The student whose CGPA is more than 8.5 and willing may offer these additional courses in the beginning of III semester only. They will not be allowed to change discipline after words. Students will be given additional certificate with marks sheet at the end of the program. Maximum seats for a minor course will be 10.

12. Similarly the department has to offer the course for open elective which may be core to their course in VII and VIII semester and its classes may be allotted by the Institute.
13. The courses offered as departmental electives may be core courses in M Tech program so that classes could be engaged simultaneously. It will reduce the teaching load also.
14. The departments are required to encourage inter-disciplinary teaching and learning. It is proposed to involve the experts from other departments, atleast in their UG and PG projects.

15. The code numbers and names may be followed as per circular sent by Registrar. The codes of different courses may be same as required.
16. Tutorial hours are to be assigned to the courses which are not having the laboratory classes. The balance credits may be used to have additional lab courses.
17. The courses of Mathematics-3 and Mathematics-4 are as follows:
 - 2301 & 2401 Civil Engineering
 - 2302 & 2402 Mechanical Engineering
 - 2303 & 2403 Electrical Engineering
 - 2304 & 2404 ECE
 - 2305 & 2405 CSE
 - 2306 & 2406 MME
 - 2307 & 2407 Chemical Engineering
18. The Mathematics-4 may be opted from individual department or Mathematics Department depending upon requirements. However numeric code will be as above (2401 to 2407)

Flexible Guidelines for the semesters from III to VIII B.Tech.

1. Two industrial visits/lectures in each semester must be arranged (may be without credit and attendance must).
2. The scheme should be such that both A-B and B-A option can be implemented.
3. The duration of total internship may be 12 weeks (6 weeks each).
4. Total Hours must be 25-30 in each semester.
5. The list of electives must include product design and development, Rural Engineering, artificial intelligence, data mining, project management, Sustainable Engineering, Industrial Psychology, Organizational behavior,

Principles of Sociology and Industrial Management. (Industrial Management is essential for Mechanical Engineering).

6. Similarly the department has to offer the course for open elective which may be core to their course in VII and VIII semester and its classes may be allotted by the Institute.
7. The courses offered as departmental electives may be core courses in M Tech program so that classes could be engaged simultaneously. It will reduce the teaching load also.
8. The additional laboratory courses may be offered in place of tutorial which may not be required.