MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, West Bengal

(Formerly known as West Bengal University of Technology)

MOOCS For B. Tech (Hons) (1st Year)Jan 2020

Module	Course	Provider	Duration (Weeks)	Credits
Ethics	Ethics in Engineering Practice	NPTEL	8	2
	Ethics and Law in Data and Analytics	edX	6	2
	A Life of Happiness and Fulfilment	Coursera	6	2
	Introduction to Philosophy	Coursera	5	2
	Ethical Leadership Through Giving Voice	Coursera	4	1
Soft Skills	Enhancing Soft Skills and Personality	NPTEL	8	2
	Soft Skill Development	NPTEL	8	2
	Psychology at Work	Coursera	6	2
	Communication in the 21st Century Workplace	Coursera	4	1
	Successful Career Development	Coursera	7	2
	Working in Teams: A Practical Guide	edX	4	1
	Communication theory: bridging academia and practice	Coursera	9	3
	Write Professional Emails in English	Coursera	5	2
	Effective Writing	NPTEL	4	1
	Technical Writing	Coursera	5	2
	Interpersonal Communication for Engineering Leaders	Coursera	4	1
	Enhancing Soft Skill and Personality	NPTEL	8	2
	Employment Communication A Lab based course	NPTEL	8	2
	Speaking Effectively	NPTEL	8	2
	English Language for Competitive Exams	NPTEL	12	3
Programming	Introduction to Programming with MATLAB	Coursera	9	3
Skills	Introduction to Computer Science and Programming	edX	9	3
	Using Python			
	Introduction to R for Data Science	edX	4	1
	Java Programming: Solving Problems with Software	Coursera	4	1
	Responsive Website Basics: Code with HTML, CSS, and JavaScript	Coursera	4	1
	Joy of computing using Python	NPTEL	12	3
	Programming, Data Structures and Algorithm Using Python	NPTEL	8	2
	Web Design for Everybody (Basics of Web Development and Coding) Specialization	Coursera	15	4
Statistics	Inferential Statistics	Coursera	7	2
	Introduction to Data Analysis using Excel	edX	4	1
	Multivariable Calculus	NPTEL	8	2
Environmental	The Science of Well Being	Coursera	6	2
Studies	Ecology: Ecosystem Dynamics and Conservation	Coursera	5	2
ocaures	Effective Problem-solving Decision- Making	Coursera	4	1
	Moralities of Everyday Life			_
		Coursera	6	2
	Introduction to Logic	Coursera	10	3
	Digital Security and Human Rights	edX	3	1

Annexure-II

Guidelines regarding Mandatory Induction Program for the new students

Date: 06.12.2017

Maulana Abul Kalam Azad University of Technology, West Bengal Guidelines regarding Induction Programme for the new students

(As per Model Curriculum for 1st Year UG degrees courses in Engineering & Technology, November 2017)

To be followed from the 2018-19 academic session

Preamble: Engineering education has evolved globally in a continuous manner to address the twin needs of industry and society. It is now an accepted fact that the institutions imparting technical education should aspire to create manpower who will possess strong technical knowledge and skill, have leadership qualities and be a team player, capable of coming up with innovative solutions and be alive to societal and community concerns.

The aim of the Induction Programme is to acclimatize the students to the environment of their engineering institution, give them a flavour of the exciting new world of education that they are entering, provide them with mentoring schemes, and make them aware of their neighbourhood, society and people. This will allow them to evolve as well rounded individuals.

The following schedule is laid down by the University to implement the three week long Induction Programme:

Week 1	1" Half	Day 1	Overall introduction of the new students to the Institution, its different Departments & Faculty Members
	2 nd Half	Day 1	(a) Assignment of faculty mentors to the new students (b) Assessment and allotment for mentoring by senior students preferably from the second year
	2 hrs	Day 2, 3, 4, 5	Lectures by eminent personalities on different areas such as (a) Introduction to Engineering (b) Various topics of science and technology (c) Innovation and entrepreneurship (d) Creative and performing arts (e) Social issues
	2 hrs.	Day 2, 3, 4, 5	Participation in Games, Yoga, Meditation etc.
	2 hrs	Day 2, 3, 4, 5	Visit to the different Departments of the Institute
Week 2 (All Days)	2hrs		Scheduled class lectures as per time table.
	2hrs		Students to be conducted through proficiency modules to be prepared by respective Colleges for ascertaining English skills & Computer knowledge of the students

			and to prepare a report on the same
	2hrs		Participation in Games, Sports, Yoga, Creative arts etc.
Week 3	2hrs		Scheduled class lectures as per time table
	13	Day 1	Visits to neighbourhood locations
		Day 2	Visits to natural spots in adjoining areas to understand the effect of nature on society
		Day 3	Visits to Science Museum / laboratories
		Day 4 Day 5	Visits to NGOs
		N.	

Any other activity, as deemed fit by the Director/Principal of the affiliated Colleges, may be proposed and discussed with the Academic Coordinator of the University, by sending email to the following address: academics.makaut@gmail.com.

Note: 1) If necessary, networking may be established with NGOs to facilitate the different components and aspects of the Induction Programme.

Annexure-III

Mandatory Additional Requirement for earning B. Tech Degree

Maulana Abul Kalam Azad University of Technology, West Bengal BF-142, Sector-I, Saltlake

Notice

Mandatory Additional Requirement for earning B.Tech Degree

Addressing the needs of the industry and the society: Globally, engineering education systems have continuously evolved, in order to address the needs of the industry and the society. It is becoming imperative that every University should create opportunities for the students to inculcate attributes, which are not restricted only to engineering knowledge and acumen. Industry needs professionals who can work successfully in teams, who have leadership qualities, who are alive to social and community needs and who can bring innovation and creativity to their work and who are also digitally proficient. Hence, in order to prepare its students to match these multiple requirements, MAKAUT,WB has created a unique mechanism of awarding 100 Activity Points over and above the academic grades. It is planned that the students at MAKAUT,WB will be able to reap benefits from these activities at their own pace and comfort. It is expected that by the time MAKAUT,WB's students reach their Final Year, they would have developed themselves so well both through their studies in the respective technological field and through their active participation in the co-curricular and extra-curricular activities as also through SAWYAM based learning activities that they would be well-prepared for contributing to building the India and the world of their dreams.

The additional requirement applies to: Every student, who is admitted to the 4 years B.Tech program from the academic year 2018-19 onwards, is required to earn minimum 100 Activity Points in addition to the required academic grades, for getting MAKAUT, WB's B.Tech degree. Similarly, it is mandatory to earn 75 Activity Points, in addition to the academic grades, for getting B.Tech degree by a student (Lateral Entry) who is admitted to the B.Tech program from the academic year 2018-19 onwards. (*Please see Table 1 for details.*) [Lateral Entry students will have a multiplying factor of 1.33 to bring uniformity in score].

Level of Entry in B.Tech Course	Total duration for	Minimum
	earning Points	Points
1st Year from the academic year 2018-19 onwards	1st to 4th Year	100
2 nd Year from the academic year 2018-19 onwards	2 nd to 4 th Year	75
(Lateral Entry)		

Table – I

For existing Students (except students in the 4th year): Every student, who is admitted to the 4 years B.Tech program prior to the academic year 2018-19, is required to earn minimum number of Activity Points as per Table 11 in addition to the required academic grades, for getting MAKAUT,WB's B.Tech degree.

Current Semester	Total Points to be carned During
	the full course
2 rd	100
4 th	75
6 th	50

Table –II

1 | Page

(Applicable from the academic session 2021-2022)

These points must be earned on the basis of active participation in co-curricular and extracurricular activities spanning through all the semesters of study. Every student may choose, as per his/her liking, activities in order to achieve the mandatory points (as per Table-III, depending on his/her entry level), before becoming eligible for award of the Degree. These activities can be spread over the years, as per convenience of the student.

Notes:

- Current 4th year students who are going to sit for Final Semester examination in May-June, 2018 are outside the preview of this Mandatory Additional Requirement
- Every student shall participate in the co-curricular and extra-curricular
 activities and produce documentary proof to the designated Faculty Members appointed
 by the Head of Department / Principal / Director in the respective college. Thereby the
 student should earn the required Points before her she appears for his/ her Final
 Examinations.
- A student's result of his/her Final Examinations will be withheld until he/she completes the minimum Activity Points by the end of his/her B.Tech Program.
- In every semester, every student is required to prepare a file containing documentary
 proofs of activities, done by him / her. This file will be duly verified and Activity Points
 will be assigned by the teachers as appointed above, at the end of every semester.
- The college will form a 3 members committee and finalize the Activity Points for each student before entering them into the Online Point Entry System (at the URL, as specified by the COE of the University).
- Every student has to earn at least 100 activity points. The points students has earned will be reflected in the student's marksheet.
- Activity points earned by Lateral Entry students will be multiplied by 1.33.

(Applicable from the academic session 2021-2022)

Table III provides a List of Activity Heads and Sub-Activity Heads along with their capping of the Activity Points that can be earned by the students during the entire B.Tech duration.

Sl. No.	Name of the Activity	Points	Maximum Points Allowed
1.	MOOCS (SWAYAM/NPTEL/Spoken Tutorial) (per course)	20	40
2.	Tech Fest/Teachers Day/Freshers Welcome		
	Organizer	5	10
	Participants	3	6
5.	Rural Reporting	5	10
6.	Tree Plantation (per tree)	1	10
7.	Participation in Relief Camps	20	40
8.	Participation in Debate/Group Discussion/ Tech quiz	10	20
9.	Publication of Wall magazine in institutional level (magazine/article/internet)	10	20
10.	Publication in News Paper, Magazine & Blogs	10	20
11.	Research Publication (per publication)	15	30
12.	Innovative Projects (other than course curriculum)	30	60
13.	Blood donation	8	16
	Blood donation camp Organization	10	20
15.	Participation in Sports/Games		
	College level	5	10
	University Level	10	20
	District Level	12	24
	State Level	15	30
	National/International Level	20	20
21.	Cultural Programme (Dance, Drama, Elocution, Music etc.)	10	20
22.	Member of Professional Society	10	20
23.	Student Chapter	10	20
24.	Relevant Industry Visit & Report	10	20
25.	Photography activities in different Club(Photography club, Cine Club, Gitisansad)	5	10
26.	Participation in Yoga Camp (Certificate to be submitted)	5	10
27.	Self-Entrepreneurship Programme	20	20
28.	Adventure Sports with Certification	10	20
29.	Training to under privileged/Physically challenged	15	30
30.	Community Service & Allied Activities	10	20

Suggestions from the College Principals will be considered to append in the above Table-III.

Sd/-

Registrar(Acting) MAKAUT,WB

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(Applicable from the academic session 2021-2022)

Annexure-I Rev:00

Maulana Abul Kalam Azad University of Technology, West Bengal Record of Activities for Mandatory Additional Requirement

3	Poor	College Name (College Code):						Donoutmo					
5	ollege	e name (Conege Cone):						Department	:				
St	nden	Student Name:	Iniver	University Roll No:	I No:			Registration No:	on No:				
ō	2		sau	nts med				P	Points Earned	p			
ō	OV IC	Activity	юĮ	M ioq ollA	Sem1	Sem2	Sem3	Sem4	Sem5	Sem6	Sem7	Sem8	Total
	1	MOOCS (SWAYAM/NPTEL/Spoken Tutorial) per course											
		For 12 weeks duration	20	,									
		For 8 weeks duration	16	9									
1500	2 1	Tech Fest/Teachers Day/Freshers Welcome											
		Organizer	S	10									
		Participants	3	9									
2554257	3 F	Rural Reporting	s	10									
	4	Tree Plantation and up keeping (per tree)	-	10									
25578	5 I	Participation in Relief Camps	20	40									
10000	9	Participation in Debate/Group Discussion/ Tech quiz	10	20									
S.	7	Publication of Wall magazine in institutional level (magazine/article/internet)											
		Editor	10	20									
		Writer	9	12									
15119	8	Publication in News Paper, Magazine & Blogs	10	20				×					
	9 E	Research Publication (per publication)	15	30		39				9			
- 12.7h	10 I	Innovative Projects (other than course curriculum)	30	99		9							
	-	Blood donation	œ	16						9			
		Blood donation camp Organization	10	20									

Page 1 of 2

(Applicable from the academic session 2021-2022)

Annexure-I Rev:00

Maulana Abul Kalam Azad University of Technology, West Bengal Record of Activities for Mandatory Additional Requirement

		st	SI				<u> </u>	Points Farned				
SI No	Activity	nioq	sM rioq vollA	Sem1	Sem2	Sem3	Sem4	Sem5	Sem6	Sem7	Sem8	Total
12	Participation in Sports/Games											
	College level	w	10									
	University Level	10	20									
	District Level	12	24									
	State Level	15	30									
	National/International Level	20	20									
13	Cultural Programme (Dance, Drama, Elocution, Music etc.)	10	20									
14	Member of Professional Society	10	20									
15	Student Chapter	10	20									
16	Relevant Industry Visit & Report	10	20									
17	Photography activities in different Club(Photography club, Cine Club, Gitisansad)	5	10									
18	Participation in Yoga Camp (Certificate to be submitted)	2	10								511 51	
19	Self-Entrepreneurship Programme	20	20									
20	Adventure Sports with Certification	10	20									
21	Training to under privileged / Differently abled	15	30									
22	Community Service & Allied Activities	10	20									
	Total Points											
	Signature of Mentor										3	
	Signature of HOD											
*Plea	*Please abide strictly to the Notes at the end of the Notice by Registrar, MAKAUT, WB regarding Mandatory Additional Requirement for earning B.Tech Degree	r, MA	KAUT,W	B regardi	ng Manda	tory Addi	tional Rec	uirement	for earnin	g B.Tech 1	Degree	

* Annexure-I is to be retained in the Institute records with all documentary proofs of activities (to be verified by the University as and when required).

Syllabus for B. Tech in Mechanical Engineering

(Applicable from the academic session 2021-2022)

Maulana Abul Kalam Azad University of Technology, West Bengal

NH-12, Simhat, Haringhata, Nadia- 741249 City Campus: BF-142, Sector-I, Saltlake, Kolkata-700064

Notice

Date: 12.03.2019

Mandatory Additional Requirements for earning AICTE/non-AICTE UG Degree

In partial modification with the notice dated 11 June 2018 regarding Mandatory Additional Requirement (MAR) for earning UG degree, the following modifications/clarifications have been made, which would be effective from the present semester.

- Previously no division of activity points of MAR which are to be earned by the students, has been scheduled year wise. A student should acquire a total of minimum 100/75 activity points throughout 4 year/3 year curriculum which should be acquired by earning a minimum of 20 activity points and maximum of 30 activity points in each year of his/her study, which is necessary for uniform distribution of MAR activities throughout the entire period of the academic curriculum of the students.
- MAR activities for the students admitted up to the session 2018-19 and for the new session starting from 2019-20, will be in accordance with the following table.

Level of Entry in B.Tech Course	Total duration for earning Points	Minimum Points to be earned
1st Year starting from the academic year 2019-20 onwards	1 st to 4 th Year	100
	L .	
2nd Year starting from the academic year 2019-20 onwards	2nd to 4th Year	75
(Eateral Entry)		

Table - I

Every student, who is admitted to the 4 years B.Tech program prior to the academic year 2019-20, is required to earn minimum number of Activity Points as per Table II in addition to the required academic grades, for getting MAKAUT, WB's B.Tech degree.

Current Semester	Total Minimum Number of Activity Points to be earned During the full course
2 nd	100
4 ^{ւի}	75
6 th	50

Table -II

The courses under MOOCs which have been already taken into consideration i.e., 20 credit courses
for awarding B.Tech degree with Honours and 16 credit courses for non-AICTE courses are not to be
considered again for awarding activity points for MAR.

(Applicable from the academic session 2021-2022)

 In addition to the existing activity point allotment for 12 weeks and 8 weeks MOOCs courses of short duration (4 weeks/2 weeks) can also be done. 10/5 activity points will be allotted, based on the short course duration of 4weeks/2 weeks respectively. The courses with duration ranging from 18-40 hours must also get proper weightage. (See the following table for details)

Weeks/Hours	Activity Points	Maximum Activity Points
12weeks/40hours	20	
8weeks/30hours	16	Ī
4weeks/20hours	10	- 40
2weeks/10hours	5	

Table-III

- Any MOOCS already done or registered before the introduction of MAR system is not to be considered again for awarding activity points for MAR. Those courses should not be taken into consideration with retrospective effect.
- A student can also select MOOCs from the MOOCs basket/repository as designed by the University
 for earning activity points for MAR. But the same course cannot be counted for Honours. There
 should not be any overlapping of MOOCs with regard to MAR and Degree with Honours.
- If any student is unable to get certificate from MOOCs platform after auditing the course, the college
 will extend facility for awarding point after evaluation in consultation with the University.
- The activity points allotted per research publication (Vide Serial No.9 of Table-V) shall carry equal full
 weights among joint authors, if any, to encourage the students in research work.
- In addition to SWAYAM/NPTEL/Spoken Tutorial the names of all available MOOCs can be included. At
 present, SWAYAM/NPTEL/Spoken Tutorial have only been mentioned (Vide Serial No. 1 of Table V).
- In Serial No. 15 of Table-V, 'Student Chapter' should be read as 'Active Participation in Student Chapter', that is, whether the concerned student is an active member of the same.
- A student may earn activity point, being a member of other professional bodies and by participating as a resource person.
- A separate dedicated server is needed for huge data on students' evaluation on the part of the colleges. Digital versions of all certificates regarding MAR can be uploaded in the college.
- Every student should upload his/her MAR activity data/certificate in the social media, viz.,
 Facebook/Instagram, which can be counted as part of the documentary evidence.
- Activities must be open-ended, that is, there can be many activities, other than the specified list by MAKAUT. College authorities may introduce new activities, with the prior approval of the University.
- The University has introduced new activities as part of MAR, which would encourage
 entrepreneurship ability of the students. Such activities are listed in the following table.
 New MAR Activities (In addition to the existing list, Vide Serial No. 22, Table-V)

	Name of the Activity	Points	Maximum Points Allowed
	Self-Entrepreneurship Progr	2mme	
a)	To Organize Entrepreneurship Workshop and	10	20
	Programmes		

(Applicable from the academic session 2021-2022)

b)	To take part in Entrepreneurship Workshop and get	5	10
	certificate		
c)	Video Film-Making on Entrepreneurship	10	20
d)	Submit Business Plan on any Project	10	20
e)	To work for start-up/as entrepreneur	20	40

Table-IV

- There must be a Single Point of Contact (SPOC) in each college, who will keep correspondences with
 the University on MAR activities and his/her name is to be informed to the University. In addition,
 there should also be a nominated SPOC on behalf of the University for liaison with the colleges.
- Random sample visits and check-ups of individual institutes, as well as digital survey may be conducted from time to time to ensure proper implementation of MAR.
- The colleges should maintain MAR files for individual students, preferably in digital format, which
 can be inspected periodically by the University authorities.
- Different levels of activities in relief camps should carry different weightage for allotting activity points in MAR (Vide Serial No. 5 of Table-V).
- Institutions should not raise any subscription from the students in the name of MAR activities.

Notes:

- 1) Every student shall participate in the cio-curricular and extra-curricular activities and produce documentary proof to the designated Faculty Members appointed by the Head of the Department/Principal/Director in the respective college. Thereby the student should earn the required points before he/she appears for the Final Examinations.
- 2) A student's result of his/her Final Examinations will be withheld until he/she completes the minimum activity points by the end of his/her Degree Programme.
- 3) In every semester, every student is required to prepare a file containing documentary proofs of activities, done by him/her. This file will be duly verified and activity points will be assigned by the teachers as appointed above, at the end of every semester.
- 4) Each institution will form a three members committee, the composition of which is to be notified to the University. The committee will finalize the activity points for each student before entering them into the Online Point Entry System (at the URL, as specified by the COE of the University).
- 5) Every student has to earn at least 75, 100 or 125 activity points for 3, 4 or 5 year courses respectively. The points earned by the students will be reflected in their mark sheets.

Table V provides a List of Activity Heads and Sub-Activity Heads along with their capping of the activity points that can be earned by the students during the entire course duration.

Si. No.	Name of the Activity	Points	Maximum Points Allowed
1.	MOOCs (SWAYAM, NPTEL, Spoken Tutorial, EdX, Coursera, etc.)	20 (per course)	40
2.	Tech Fest/Fest/Teachers' Day/Fresher's Welcome		
	a) Organizer	5	10
	b) Participant	3	6

(Applicable from the academic session 2021-2022)

3.	Rural Reporting	5	10
4.	Tree Plantation and up keeping (per tree)	1	10
5.	Participation in Relief Camps	-	
	a) Collection of funds/materials for the Relief Camp	5	102201
	b) To be a part of the Relief Work team	20	40
6.	Participation in Debate/Group Discussion/Tech Quiz/Quiz	10	20
7.	Publication of Wall Magazine in institutional level (magazine/article/internet)	10	20
8.	Publication in Newspaper, Magazine and Blogs	10	20
9.	Research Publication (per publication)	15	30
10.	Innovative Projects (other than course curriculum)	30	60
4.4	Blood donation	8	16
11.	Blood donation camp organization	10	20
	Participation in Sports/Games		
	a) College level	5	10
40	b) University level	10	20
12.	c) District level	12	24
	d) State level	15	30
	e) National/International Level	20	20
13.	Cultural Programme (Dance, Drama, Elocution, Music etc.)	10	20
14.	Member of Professional Society	10	20
15.	Student Chapter	10	20
16.	Relevant Industry Visit & Report	10	20
17.	Activities in different Clubs (Photography Club, Cine Club, Gitisansad)	5	10
18.	Participation in Yoga Camp (Certificate to be submitted)	5	10
19.	Adventure Sports with Certification	10	20
20.	Training to under-privileged/differently able	15	30
21.	Community Service & Allied Activities	10	20
	Self-Entrepreneurship Programme		
22.	a) To Organize Entrepreneurship Workshop and Programmes	10	20
	b) To take part in Entrepreneurship Workshop and get certificate	5	10
	c) Video Film-Making on Entrepreneurship	10	20
	d) Submit Business Plan on any Project	10	20
	e) To work for start-up/as entrepreneur	20	40

Table-V

For all communications in this regard, the following person can be contacted:

Ms. Rapti Ray

In-charge Mandatory Additional Requirement

Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT,WB)

E-mail: rapti.ray63@gmail.com

Mobile: 9433581801

(Applicable from the academic session 2021-2022)

Maulana Abul Kalam Azad University of Technology, West Bengal Haringhata, Nadia, 741249

City Campus: BF-142, Sector-I, Saltlake, Kolkata-700064

Notice Date: 10.06.2019

Re-Clarifications for MAR for earning AICTE/non-AICTE UG Degree

With regard to the queries of some colleges, regarding the Activity Points to be earned for Mandatory Additional Requirements (MAR), for the final year students of the academic year 2018-19 in AICTE and non-AICTE courses, a re-clarification is provided below:

Academic Year 2018-19	Activity Points
6th Semester (For all three year courses)	25
8th Semester (For all four year courses)	25
10th Semester (For five year course)	25

The total Activity points earned by the students will be reflected in a separate Certificate.

The previous notices are attached herewith for the convenience of the college authorities and students.

Notice Dated: 12.04.2019

Clarifications for MAR for earning AICTE/non-AICTE UG Degree

With regard to the queries of some colleges, regarding the Activity Points to be earned for Mandatory Additional Requirements (MAR), a clarification is provided below. It is expected that this would explain the discrepancy between previous and present year's MAR Notifications, regarding Activity Points to be earned for students of different Semesters.

REVISED TABLE FOR MAR ACTIVITY POINTS

CAME TO KNOW	CURRENT SEMESTER	MINIMUM ACTIVITY
(According to OLD NOTICE)		POINTS
1 st semester JUNE 2018	2 nd semester (Jan-June) 2019	100
3 rd Semester JUNE 2018 (at the end of 2 nd sem Univ. exam)	4th Semester (Jan-June) 2019	75
5th Semester JUNE 2018 (at the end of 4th sem Univ. exam)	6th Semester (Jan-June) 2019	50
7th Semester JUNE 2018 (at the end of 6th sem Univ. exam)	8th Semester (Jan-June) 2019	25

The colleges must also note that they have to upload the Activities performed by students, as well as the corresponding Activity Points achieved by them in each Semester in the Cloud Server which would be provided by the University. The University will continuously monitor, if there is any shortfall on the part of a student. At the end of the curriculum, a final certificate will be issued by the University to every student, where all MAR Activities and the corresponding Activity Points would be mentioned.

(Applicable from the academic session 2021-2022)

Notice Dated 12.03.2019

Mandatory Additional Requirements for earning AICTE/non-AICTE UG Degree

In partial modification with the notice dated 11 June 2018 regarding Mandatory Additional Requirement (MAR) for earning UG degree, the following modifications/clarifications have been made, which would be effective from the present semester.

- Previously no division of activity points of MAR which are to be earned by the students, has been
 scheduled year wise. A student should acquire a total of minimum 100/75 activity points throughout
 4year/3year curriculum which should be acquired by earning a minimum of 20 activity points and
 maximum of 30 activity points in each year of his/her study, which is necessary for uniform
 distribution of MAR activities throughout the entire period of the academic curriculum of the
 students.
- MAR activities for the students admitted up to the session 2018-19 and for the new session starting from

2019-20, will be in accordance with the following table.

Level of Entry in B.Tech Course	Total duration for earning Points	Minimum Points to be earned
1st Year starting from the academic year 2019-20 onwards	1 st to 4 th Year	100
2nd Year starting from the academic year 2019-20 onwards (Lateral Entry)	2nd to 4th Year	75

Table – I

Every student, who is admitted to the 4 years B.Tech program prior to the academic year 2019-20, is required to earn minimum number of Activity Points as per Table II in addition to the required academic grades, for getting MAKAUT, WB's B.Tech degree.

Current Semester	Total Minimum Number of Activity Points to be earned During the full course
2 nd	100
4 th	75
6 th	50

Table −II

- The courses under MOOCs which have been already taken into consideration i.e., 20 credit courses for awarding B.Tech degree with Honours and 16 credit courses for non-AICTE courses are not to be considered again for awarding activity points for MAR.
- In addition to the existing activity point allotment for 12 weeks and 8 weeks MOOCs courses of short duration (4 weeks/2 weeks) can also be done. 10/5 activity points will be allotted, based on the short course duration of 4weeks/2 weeks respectively. The courses with duration ranging from 18-40 hours must also get proper weightage. (See the following table for details)

Weeks/Hours	Activity Points	Maximum Activity Points
12weeks/40hours	20	
8weeks/30hours	16	40
4weeks/20hours	10	40
2weeks/10hours	5	

Table-Ⅲ

(Applicable from the academic session 2021-2022)

- Any MOOCS already done or registered before the introduction of MAR system is not to be considered again for awarding activity points for MAR. Those courses should not be taken into consideration with retrospective effect.
- A student can also select MOOCs from the MOOCs basket/repository as designed by the University
 for earning activity points for MAR. But the same course cannot be counted for Honours. There
 should not be any overlapping of MOOCs with regard to MAR and Degree with Honours.
- If any student is unable to get certificate from MOOCs platform after auditing the course, the college
 will extend facility for awarding point after evaluation in consultation with the University.
- The activity points allotted per research publication (Vide Serial No.9 of Table-V) shall carry equal full weights among joint authors, if any, to encourage the students in research work.
- In addition to SWAYAM/NPTEL/Spoken Tutorial the names of all available MOOCS can be included. At present, SWAYAM/NPTEL/Spoken Tutorial have only been mentioned (Vide Serial No. 1 of Table V).
- In Serial No. 15 of Table-V, 'Student Chapter' should be read as 'Active Participation in Student Chapter', that is, whether the concerned student is an active member of the same.
- A student may earn activity point, being a member of other professional bodies and by participating
 as a resource person.
- A separate dedicated server is needed for huge data on students' evaluation on the part of the colleges. Digital versions of all certificates regarding MAR can be uploaded in the college.
- Every student should upload his/her MAR activity data/certificate in the social media, viz.,
 Facebook/Instagram, which can be counted as part of the documentary evidence.
- Activities must be open-ended, that is, there can be many activities, other than the specified list by MAKAUT. College authorities may introduce new activities, with the prior approval of the University.
- The University has introduced new activities as part of MAR, which would encourage
 entrepreneurship ability of the students. Such activities are listed in the following table.

New MAR Activities (In addition to the existing list, Vide Serial No. 22, Table-V)

	Name of the Activity	Points	Maximum Points Allowed
	Self-Entrepreneurship Programm	ıe	
a)	To Organize Entrepreneurship Workshop and Programmes	10	20
b)	To take part in Entrepreneurship Workshop and get certificate	5	10
c)	Video Film-Making on Entrepreneurship	10	20
d)	Submit Business Plan on any Project	10	20
e)	To work for start-up/as entrepreneur	20	40

Table-IV

- There must be a Single Point of Contact (SPOC) in each college, who will keep correspondences
 with the University on MAR activities and his/her name is to be informed to the University. In
 addition, there should also be a nominated SPOC on behalf of the University for liaison with the
 colleges.
- Random sample visits and check-ups of individual institutes, as well as digital survey may be conducted from time to time to ensure proper implementation of MAR.
- The colleges should maintain MAR files for individual students, preferably in digital format, which
 can be inspected periodically by the University authorities.
- Different levels of activities in relief camps should carry different weightage for allotting activity points in MAR (Vide Serial No. 5 of Table-V).
- Institutions should not raise any subscription from the students in the name of MAR activities.

(Applicable from the academic session 2021-2022)

Notes:

- Every student shall participate in the cio-curricular and extra-curricular activities and produce documentary proof to the designated Faculty Members appointed by the Head of the Department/Principal/Director in the respective college. Thereby the student should earn the required points before he/she appears for the Final Examinations.
- A student's result of his/her Final Examinations will be withheld until he/she completes the minimum activity points by the end of his/her Degree Programme.
- 3) In every semester, every student is required to prepare a file containing documentary proofs of activities, done by him/her. This file will be duly verified and activity points will be assigned by the teachers as appointed above, at the end of every semester.
- 4) Each institution will form a three members committee, the composition of which is to be notified to the University. The committee will finalize the activity points for each student before entering them into the Online Point Entry System (at the URL, as specified by the COE of the University).
- 5) Every student has to earn at least 75, 100 or 125 activity points for 3, 4 or 5 year courses respectively. The points earned by the students will be reflected in their mark sheets.

(Applicable from the academic session 2021-2022)

Table V provides a List of Activity Heads and Sub-Activity Heads along with their capping of the activity points that can be earned by the students during the entire course duration.

SL No.	Name of the Activity	Points	Maximum Points Allowed
i	MOOCs (SWAYAM, NPTEL, Spoken Tutorial, EdX, Coursers, etc.)	20 (per course)	40
2.	Tech Fest/Fest/Teachers' Day/Fresher's Weicome		
· 	a) Organizer	5	10
	b) Participant	3	6
3.	Rural Reporting	5	10
4.	Tree Plantation and up keeping (per tree)	ī	10
5.	Participation in Relief Camps	•	10
	a) Collection of funds/materials for the Relief Camp	5	40
	b) To be a part of the Relief Work team	20	1 7
б.	Participation in Debate/Group Discussion/Tech Quiz/Quiz	10	20
 7.	Publication of Wall Magazine in institutional level	10	20
۲.	(magazine/article/internet)	10	20
8.	Publication in Newspaper, Magazine and Blogs	10	20
9.	Research Publication (per publication)	15	30
10.	Innovative Projects (other than course curriculum)	30	60
l 1.	Blood donation	8	16
	Blood donation camp organization	iö	20
12.	Participation in Sports/Games		
	a) College level	5	10
	b) University level	10	20
	c) District level	12	24
	d) State level	15	30
	e) National/International Level	20	20
l3.	Cultural Programme (Dance, Drama, Elocution, Music etc.)	10	20
14.	Member of Professional Society	10	20
15.	Student Chapter	10	20
16.	Relevant Industry Visit & Report	10	20
17.	Activities in different Clubs (Photography Club, Cine Club, Gitisansad)	5	10
18.	Participation in Yoga Camp (Certificate to be submitted)	5	10
19.	Adventure Sports with Certification	10	20
20.	Training to under-privileged/differently able	15	30
21.	Community Service & Allied Activities	10	20
22	Self-Entrepreneurship Programme		
	a) To Organize Entrepreneurship Workshop and Programmes	10	20
	b) To take part in Entrepreneurship Workshop and get certificate	5	10
	c) Video Film-Making on Entrepreneurship	10	20
	d) Submit Business Plan on any Project	10	20
	e) To work for start-up/as entrepreneur	20	40

Table V

For all communications in this regard, the following person can be contacted:

Ms. Rapti Ray, In-charge Mandatory Additional Requirement

Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT, WB)

E-mail: rapti.ray63@gmail.com

Mobile: 9433581801

(Applicable from the academic session 2021-2022)

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, West Bengal

(Formerly known as West Bengal University of Technology)

MOOCS For B. Tech (Hons) (1st Year)Jan 2020

	(1 1ta1)5an 2020		_	
Module	Course	Provider	Duration (Weeks)	Credits
Ethics	Ethics in Engineering Practice	NPTEL	8	2
	Ethics and Law in Data and Analytics	edX	6	2
	A Life of Happiness and Fulfilment	Coursera	6	2
	Introduction to Philosophy	Coursera	5	2
	Ethical Leadership Through Giving Voice	Coursera	4	1
Soft Skills	Enhancing Soft Skills and Personality	NPTEL	8	2
	Soft Skill Development	NPTEL	8	2
	Psychology at Work	Coursera	6	2
	Communication in the 21st Century Workplace	Coursera	4	1
	Successful Career Development	Coursera	7	2
	Working in Teams: A Practical Guide	edX	4	1
	Communication theory: bridging academia and practice	Coursera	9	3
	Write Professional Emails in English	Coursera	5	2
	Effective Writing	NPTEL	4	1
	Technical Writing	Coursera	5	2
	Interpersonal Communication for Engineering Leaders	Coursera	4	1
	Enhancing Soft Skill and Personality	NPTEL	8	2
	Employment Communication A Lab based course	NPTEL	8	2
	Speaking Effectively	NPTEL	8	2
	English Language for Competitive Exams	NPTEL	12	3
Programming	Introduction to Programming with MATLAB	Coursera	9	3
Skills	Introduction to Computer Science and Programming	edX	9	3
	Using Python			
	Introduction to R for Data Science	edX	4	1
	Java Programming: Solving Problems with Software	Coursera	4	1
	Responsive Website Basics: Code with HTML, CSS, and JavaScript	Coursera	4	1
	Joy of computing using Python	NPTEL	12	3
	Programming, Data Structures and Algorithm Using Python	NPTEL	8	2
	Web Design for Everybody (Basics of Web Development and Coding) Specialization	Coursera	15	4
Statistics	Inferential Statistics	Coursera	7	2
	Introduction to Data Analysis using Excel	edX	4	1
	Multivariable Calculus	NPTEL	8	2
Environmental	The Science of Well Being	Coursera	6	2
Studies	Ecology: Ecosystem Dynamics and Conservation	Coursera	5	2
	Effective Problem-solving Decision- Making	Coursera	4	1
	Moralities of Everyday Life	Coursera	6	2
	Introduction to Logic	Coursera	10	3
	Digital Security and Human Rights	edX	3	1

(Applicable from the academic session 2021-2022)

Maulana Abul Kalam Azad University of Technology, West Bengal Annexure-I
Common Record Sheet of Activities for Mandatory Additional Requirements applicable for all UG programs Rev: 01

Colle	ege Code & Name: 101, JALPAIGURI GOVERNMEN	T ENG	GINEER	ING C	OLL	EGE		irse: l ginee i		ch. in	Mecl	nanical
Student Name:		Roll no.:				Registration no.:						
Total no. of semesters:			Max.	Points earned:								
Sl. No.	Activity	Point	Pts. allowed	Sem1	Sem2	Sem3	Sem4	Sem5	Sem6	Sem7	Sem8	Total
1	MOOCS(SWAYAM/NPTEL/Spoken Tutorial) per course											
	For 12 weeks duration/40 hrs.	20										
	For 8 weeks duration/30 hrs.	16										
	For 4 weeks duration/20 hrs.	10	40									
	For 2 weeks duration/10 hrs.	5										
2	Tech. Fest/Teachers' Day/Fresher's welcome											
	Organizer	5	10									
	Participants	3	6									
3	Rural reporting	5	10									
4	Tree plantation & up keeping (per tree)	1	10									
5	Participation in Relief camps											
	a Collection of funds/materials for relief camp	5	40									
	b To be a part of the Relief camp	20	40									
6	Participation in debate /GD/Quiz/ Tech.Quiz/Seminar/ Painting/Music/Dance/Any Performing Arts workshop/ Lecture Series (Maximum 10 Points for 5 Lectures)	10	20									
7	Contribution to Charitable Trusts/ Institutions in any form	10	20									
8	Publication of wall magazine in college level (magazine/article/internet)											
	a Editor	10	20									
	b Writer	6	12									
9	Publication in Newspaper/Magazine/Blog	10	20									
10	Research publication (per publication)	15	30									
11	Innovative Project(other than course curriculum)	30	60									
12	Blood donation	8	16									
	Blood donation camp organization	10	20									

(Applicable from the academic session 2021-2022)

13	Par	rticipation in Sports/Games							
	a	College level	5	10					
	b	University level	10	20					
	c	District level	12	24					
	d	State level	15	30					
	e	National/International level	20	20					
14	Cu	ltural programme(Dance/Drama/Elocution/Music etc.	10	20					
15			10	20					
16	Student Chapter		10	20					
17	Relevant Industry Visit & Report/ Hostel Event Management Training & Report (Minimum 3 days with submitted Report)		10	20					
18	Ph	otography activities in different club (Photography lb, Cine Club, Gitisansad)	5	10					
19	Participation in Yoga Camp (Certificate should be submitted)		5	10					
20	Community Service & Allied Activities like: Caring for the Senior Citizens, Under-privileged/ Street Children/ Animal Care etc.		10	20					
21	Adventure Sports, including trekking, with certification		10	20					
22	Training to under privileged /Differently Abled		15	30					
23	Sel	f Entrepreneurship program							
	a	To organize entrepreneurship programmes and workshops	10	20					
	b	To take part in entrepreneurship workshop and get certificate	5	10					
	c	Video film making and entrepreneurship	10	20					
	d	Submit Business Plan on any project	10	20					
	e	To work for Start- up/ as entrepreneurship	20	40					
24	Re	ecial activities of Mandatory Additional quirements(MAR) during Lockdown period as stified by MAKAUT,WB (Details given in Annexure-	Given in Anne xure-II	25					
25	Ac	tivities based on University Programmes	Anne xure-II	15					
Tota	Total points:								
Sign	Signature of Mentor:								
Sign	Signature of HOD								

^{*}Please abide strictly to the Notes at the end of the Notice of MAKAUT,WB regarding Mandatory Additional Requirement for earning UG Degree

^{*}Activity Points are to be uploaded in the given format in the specific MAR portal of the University.

^{*}If any student performs activities outside the list enclosed, then he/she can do so with prior approval of the University.

(Applicable from the academic session 2021-2022)

Annexure-II

24. Special Activities of

Mandatory Additional Requirements (MAR)

during Lockdown period as Notified by MAKAUT, WB

(Maximum 25 Points)

Colle	ge Code & Name:101, JALPAIGURI GOVER	E Mechanic	Course: B.Tech. in Mechanical Engineering					
Student Name: Roll no.:				Registration no.:				
Sl. No.	Activities			Max. Points admissible	Points earned during Lockdown			
1	Theme Photography (photographs to be taken inside home, by selecting a particular theme) & publishing online			6				
2	Video Film Making inside house using mobile phone & Publishing online			10				
3	Writing of poetry, story, blog & publishing online			8				
4	Reviewing of story books ,novels, films, documentaries, YouTube videos			8				
5	Cooking recipes and/or cooking(with vio	deo documentation)	3	6				
6	Recording of Song/Music(with photos/video documentation) & publishing online			10				
7	Gardening within the house(with video	documentation	3	6				
8	Helping parents and family members in g., cleaning, reorganization of furniture,		1	3				
9	Creation of Social Networking Groups t Awareness and give message	o spread social	2	4				
10	Writing of technical(scientific & managarticle & publishing online	ement oriented) Review	5	10				
11	Mobile App development/ Coding Solut	ion & publishing	7	14				
12	Learning of Foreign Languages with cer	tification	6	12				
Tota	l points for Special Activities during Lock							
Sign	ature of Mentor:							
Sign	ature of HOD							
*Cei	rtification and awarding on the activition	es of MAR for outstandin	g activ	ities/special A	Achievements			

in these areas would be considered.

(Applicable from the academic session 2021-2022)

Annexure-III

25. Activities based on University Programmes

(Maximum 15 Points)

Colleg COLL	ge Code & Name: 101, JALPAIGURI G C Æ G E	INEERING	Course: B.Tech. in Mechanical Engineering				
Student Name: Roll no.:			Regi	Registration no.:			
Sl. No.	Activity		M. Poi	AR nts	Accrued Points		
1. Webinar/ Webinar Series							
a)	Attending		2				
b)	Performing						
2. I	Debate						
a)	Attending		2				
b)	Performing		5				
3. (Contributing to Digital Library	4					
4. F	Programmes on Environmental Issu	ies					
a)	Attending		2				
b)	Performing		5				
5. F	Programmes on Entrepreneurship						
a)	Attending		2				
b)	Performing		5				
Tota	l points for Activities on University F						
Sign	ature of Mentor:						
Sign	ature of HOD						