

Pre Revision

Study & Evaluation Scheme

Of

B.Sc.-B.Ed(Integrated)
[Applicable w.e.f. Academic Year 2017-18]



TEERTHANKER MAHAVEER UNIVERSITY

N.H.-24, Delhi Road, Moradabad, Uttar Pradesh-244001

Website: www.tmu.ac.in





TEERTHANKER MAHAVEER UNIVERSITY

(Established under Govt. of U. P. Act No. 30, 2008)
Delhi Road, Bagarpur, Moradabad (U.P)-244001

Study & Evaluation Scheme Of

B.Sc.-B.Ed. 4 Years (Integrated)

SUMMARY

Programme	:	B.Sc.-B.Ed. (Integrated)
Duration	:	Four year course
Medium	:	English And Hindi Both
Minimum Required Attendance	:	75%
Maximum credits	:	187
Minimum credits required for the degree	:	187
Evaluation of theory Papers	:	

External	Internal	Total
60	40	100

Internal Evaluation of theory Papers :

Class Test I	Class Test II	Class Test III	Attendance	Assignment	Total
Best two out of the three					
10	10	10	10	10	40

Evaluation of Practical :

External	Internal	Total
50	50	100

Duration of examination

External	Internal
3 hrs	1.5 hrs

To qualify the course a student is required to secure a minimum of 45% marks in aggregate including the semester end examination and teachers continuous evaluation.(i.e. both internal and external).

A candidate who secures less than 45% of marks in a course shall be deemed to have failed in that course. The student should have secured at least 45% marks in aggregate to clear the semester.

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Question Paper Structure

1. The question paper shall consist of six questions. All six are compulsory. First question shall be of short answer type (not exceeding 50 words). Question No. 1 shall contain 8 parts representing all units of the syllabus and students shall have to answer any five (weightage 2 marks each).
2. Remaining question will be one from each unit with internal choice. The student has to answer one of the two in each question. The weightage of Question No.2 to 6 shall be 10 marks each.
3. Usually each question in the examination should be designed to have a numerical component, where part of syllabus.

B.Sc- B.Ed. 4Years (Integrated) Syllabus Applicable w.e.f.



Study & Evaluation Scheme
Programme: B.Sc.–B.Ed. (Integrated) – Regular

Semester - I

Sr No	Course Code	Course Name (S & P)		Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
1	BSCEI102	Samanya Hindi	P	4	-	-	4	40	60	100
For PCM Group										
2	BSCEI103	Trigonometry & differential calculus	S	4	-	-	4	40	60	100
3	BSCEI104	Mechanics	S	4	-	-	4	40	60	100
4	BSCEI105	Organic Chemistry	S	4	-	-	4	40	60	100
5	BSCEI151	Mechanics(Lab)	S	-	-	2	1	50	50	100
6	BSCEI152	Organic Chemistry (Lab)	S	-	-	2	1	50	50	100
7	BCEI155	Skill Mathematics (Algebra)	S		-	2	1	50	50	100
For ZBC Group										
8	BSCEI105	Organic Chemistry	S	4	-	-	4	40	60	100
9	BSCEI106	Diversity of Microbes and Cryptogams (Thallophyta)	S	4	-	-	4	40	60	100
10	BSCEI107	Animal Diversity Part-I (Protozoa to Annelida)	S	4	-	-	4	40	60	100
11	BSCEI152	Organic Chemistry (Lab)	S	-	-	2	1	50	50	100
12	BSCEI153	Diversity of Microbes and Cryptogams (Thallophyta) (Lab)	S	-	-	2	1	50	50	100
13	BSCEI154	Animal Diversity (Lab)	S	-	-	2	1	50	50	100
Total				16	-	06	19	310	390	700

- S= Specialization Courses for B.Sc. P= Professional Course for B.Ed.



Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Semester – II

Sr. No	Course Code	Course Name (S & P)		Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
1	BSCEI 201	Environmental Studies	P	4	-	-	4	40	60	100
2	BSCEI 202	Computer Fundamentals, Internet & MS-Office	P	3	2	-	4	40	60	100
For PCM Group										
3	BSCEI 203	Partial Differential Equations	S	4	-	-	4	40	60	100
4	BSCEI 204	Electricity and Magnetism	S	4	-	-	4	40	60	100
5	BSCEI 205	Inorganic Chemistry	S	4	-	-	4	40	60	100
6	BSCEI 251	Electricity and Magnetism(Lab)	S	-	-	2	1	50	50	100
7	BSCEI 252	Inorganic Chemistry (Lab)	S	-	-	2	1	50	50	100
8	BSCEI 255	Skill Mathematics (Algebra And Matrices)	S	-	-	2	1	50	50	100
For ZBC Group										
9	BSCEI 205	Inorganic Chemistry	S	4	-	-	4	40	60	100
10	BSCEI 206	Diversity of Cryptogams (Bryophyta, Pteridophyta and Paleobotany)	S	4	-	-	4	40	60	100
11	BSCEI 207	Animal Diversity High non Chordata	S	4	-	-	4	40	60	100
12	BSCEI 252	Organic Chemistry (Lab)	S	-	-	2	1	50	50	100
13	BSCEI 253	Diversity of Cryptogams (Bryophyta, Pteridophyta and Paleobotany)(Lab)	S	-	-	2	1	50	50	100
14	BSCEI 254	Animal Diversity (Lab)	S	-	-	2	1	50	50	100
Total				19	2	06	23	350	450	800

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Study & Evaluation Scheme
Programme: B.Sc.–B.Ed. (Integrated) – Regular

Semester – III											
Sr.No	Course Code	Course Name (S & P)	Periods			Credit	Evaluation Scheme				
			L	T	P		Internal	External	Total		
Core Courses											
1	BSCEI 301	Childhood and Growing UP	P	4	-	-	4	40	60	100	
2	BSCEI302	Physical,Health & Yoga Education	P	2	-	4	4	40	60	100	
3	BSCEI 399	English Communication & Soft Skills – I	P	3	-	2	4	50	50	100	
4	BSCEI304	Physical Chemistry	S	4	-	-	4	40	60	100	
For PCM Group											
5	BSCEI 305	Real analysis	S	4	-	-	4	40	60	100	
6	BSCEI 306	Optics	S	4	-	-	4	40	60	100	
7	BSCEI 351	Optics Lab	S	-	-	2	1	50	50	100	
8	BSCEI 352	Physical Chemistry (Lab)	S	-	-	2	1	50	50	100	
9	BSCEI 355	Skill Mathematics (Integral calculus)	S	-	-	2	1	50	50	100	
For ZBC Group											
10	BSCEI 307	Plant Taxonomy And Embryology	S	4	-	-	4	40	60	100	
11	BSCEI 308	Chordata	S	4	-	-	4	40	60	100	
12	BSCEI 352	Physical Chemistry (Lab)	S	-	-	2	1	50	50	100	
13	BSCEI 353	Plant Taxonomy And Embryology(Lab)	S	-	-	2	1	50	50	100	
14	BSCEI 354	Chordata(Lab)	S	-	-	2	1	50	50	100	
Total					21	-	12	27	400	500	900

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Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Semester – IV										
Sr.No	Course Code	Course Name (S & P)	Periods			Credit	Evaluation Scheme			
			L	T	P		Internal	External	Total	
Core Courses										
1	BSCEI 401	Information and Communication Technology	P	4	-	-	4	40	60	100
2	BSCEI 402	Learning and Teaching	P	4	-	-	4	40	60	100
3	BSCEI 499	English Communication & Soft Skills – II	P	3	-	2	4	50	50	100
4	BSCEI 404	Organic & Inorganic Chemistry	S	4	-	-	4	40	60	100
For PCM Group										
5	BSCEI 405	Complex Analysis	S	4	-	-	4	40	60	100
6	BSCEI 406	Oscillations & Wave	S	4	-	-	4	40	60	100
7	BSCEI 451	Oscillations & Wave(Lab)	S	-	-	2	1	50	50	100
8	BSCEI 452	Organic & Inorganic Chemistry (Lab)	S	-	-	2	1	50	50	100
9	BSCEI 455	Skill Mathematics (Ordinary Differential Equations)	S			2	1	50	50	100
For ZBC Group										
10	BSCEI 407	Plant Physiology and Metabolism	S	4	-	-	4	40	60	100
11	BSCEI 408	Evolution and Developmental Biology	S	4	-	-	4	40	60	100
12	BSCEI 452	Organic & Inorganic Chemistry (Lab)	S	-	-	2	1	50	50	100
13	BSCEI 453	Plant Physiology and Metabolism(Lab)	S	-	-	2	1	50	50	100
14	BSCEI 454	Evolution and Developmental Biology (Lab)	S	-	-	2	1	50	50	100
Total				23	-	8	27	400	500	900

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Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Programme: B.Sc.–B.Ed. (Integrated) – Regular										
Semester – V										
Sr.N o	Course Code	Course Name (S & P)	P	Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
Core Courses										
1	BSCEI 501	Contemprary India and Educaton	P	4	-	-	4	40	60	100
2	BSCEI 502	Language Across the Curriculum	P	4	-	-	4	40	60	100
3	BSCEI 599	English Communication & Soft Skills – III	P	3	-	2	4	50	50	100
4	BSCEI 504	Physical & Inorganic Chemistry	S	4	-	-	4	40	60	100
For PCM Group										
5	BSCEI 505	Differential Geometry And Tensor	S	4	-	-	4	40	60	100
6	BSCEI 506	Semiconductor and Solid State Devices	S	4	-	-	4	40	60	100
7	BSCEI 551	Semiconductor and Solid State Devices(Lab)	S	-	-	2	1	50	50	100
8	BSCEI 552	Physical & Inorganic Chemistry (Lab)	S	-	-	2	1	50	50	100
9	BSCEI 555	Skill Mathematics (Statistics)	S	-	-	2	1	50	50	100
For ZBC Group										
10	BSCEI 507	Economic Botany and Plant Biotechnology	S	4	-	-	4	40	60	100
11	BSCEI 508	Cell Biology&Genetics	S	4	-	-	4	40	60	100
12	BSCEI 552	Physical & Inorganic Chemistry (Lab)	S	-	-	2	1	50	50	100
13	BSCEI 553	Economic Botany and Plant Biotechnology(Lab)	S	-	-	2	1	50	50	100
14	BSCEI 554	Cell Biology&Genetics(Lab)	S	-	-	2	1	50	50	100
Pedagogy Courses (Select Any One)										
15	BSCEI 521/621	Pedagogy of Mathematics	P	2	-	-	2	40	60	100
16	BSCEI 522/622	Pedagogy of Physical Science	P	2	-	-	2	40	60	100
17	BSCEI 523/623	Pedagogy of Biology	P	2	-	-	2	40	60	100
Total				25	-	8	29	440	560	1000

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Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Semester – VI										
Sr. No	Course Code	Course Name (S & P)	Periods			Credit	Evaluation Scheme			
			L	T	P		Internal	External	Total	
Core Courses										
1	BSCEI 601	Gender: School and Society	P	4	-	-	4	40	60	100
2	BSCEI 699	English Communication & Soft Skills – IV	P	3	-	2	4	50	50	100
3	BSCEI 603	Physical & Organic Chemistry	S	4	-	-	4	40	60	100
For PCM Group										
4	BSCEI 604	Applied Statistics	S	4	-	-	4	40	60	100
5	BSCEI 605	Thermal Physics and Statsticial Mechanics	S	4	-	-	4	40	60	100
6	BSCEI 651	Thermal Physics and Statsticial Mechanics(Lab)	S	-	-	2	1	50	50	100
7	BSCEI 652	Physical & Organic Chemistry(Lab)	S	-	-	2	1	50	50	100
8	BSCEI 655	Skill Mathematics (Operation Research)	S	-	-	2	1	50	50	100
For ZBC Guoup										
9	BSCEI 606	Environmental Biotechnology	S	4	-	-	4	40	60	100
10	BSCEI 607	Mammalian Physilogy	S	4	-	-	4	40	60	100
11	BSCEI 652	Physical & Organic Chemistry(Lab)	S	-	-	2	1	50	50	100
12	BSCEI 653	Environmental Biotechnology(Lab)	S	-	-	2	1	50	50	100
13	BSCEI 654	Mammalian Physilogy (Lab)	S	-	-	2	1	50	50	100
Pedagogy Course (Select any One Paper And Internship)										
14	BSCEI 521/621	Pedagogy of Mathematics	P	2	-	-	2	40	60	100
15	BSCEI 522/622	Pedagogy of Physical Science	P	2	-	-	2	40	60	100
16	BSCEI 523/623	Pedagogy of Biology	P	2	-	-	2	40	60	100
School Internship										
17	BSCEI 656	Preliminary School Engagement	P			6	3	50	50	100
Total				21	-	14	28	450	550	1000

• S= Specialization Courses for B.Sc. P= Professional Course for B.Ed.



Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Semester – VII							
S.No.	Course Code	Course Name (S & P)		Credits	Evaluation Scheme		
					Internal	External	Total Marks
Practical							
1.	BSCEI 751	School Internship	P	16	50	50	100
2	BSCEI 752	Evaluation Teaching Skill-I	P	1	50	50	100
3	BSCEI 753	Evaluation Teaching Skill-II	P	1	50	50	100
	Total			18	150	150	300

- S= Specialization Courses for B.Sc. P= Professional Course for B.Ed.




Study & Evaluation Scheme
Programme: B.Sc.-B.Ed. (Integrated) – Regular

Semester – VIII										
Sr.No	Course Code	Course Name (S & P)	Periods			Credit	Evaluation Scheme			
			L	T	P		Internal	External	Total	
Core Courses										
1	BSCEI 801	Guidance and Counseling	P	2	-	-	2	40	60	100
2	BSCEI 802	Knowledge and Curriculum	P	4	-	-	4	40	60	100
3	BSCEI 803	Assessment for Learning	P	4	-	-	4	40	60	100
4	BSCEI 804	Inclusive Education	P	2	-	-	2	40	60	100
5	BSCEI 805	Human Values And Ethics	P	2	-	-	2	40	60	100
Practicum										
6	BSCEI851	Reading and reflection text	P	-	-	2	1	50	50	100
07	BSCEI 852	Drama and Arts Education	P	-	-	2	1	50	50	100
Total				18		4	16	300	400	700

- S= Specialization Courses for B.Sc. , P= Professional Course for B.Ed.



Post Revision

New Course

Study & Evaluation Scheme

of

B.Sc.-B.Ed. (Integrated)

[Applicable w.e.f. Academic Session - 2019-20 till revised]
[As per CBCS guidelines given by UGC]



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Delhi Road, Bagarpur, Moradabad (U.P.)

<u>Study & Evaluation Scheme</u>	
<u>SUMMARY</u>	
Institute Name	TeerthankerKunthnath College of Education (TKCOE), Pakwara, Moradabad
Programme	B.Sc.-B.Ed.(Integrated)
Duration	Four Years full time(Eight Semesters)
Medium	English and Hindi
Minimum Required Attendance	75%
<u>Credits</u>	
Credits Required for Degree	213

Assessment:						
Evaluation				Internal	External	Total
Theory				40	60	100
Practical/ Dissertations/ Project Reports/ Viva-Voce				50	50	100
Class Test-1	Class Test-2	Class Test-3	Assignment(s)	Attendance& Participation	Total	
Best two out of three						
10	10	10				
				10	10	40
Duration of Examination				External	Internal	
				3 Hours	1.5 Hours	

To qualify the course a student is required to secure a minimum of 45% marks in aggregate including the semester end examination and teacher's continuous evaluation.(i.e. both internal and external).A candidate who secures less than 45% of marks in a course shall be deemed to have failed in that course. The student should have at least 45% marks in aggregate to clear the semester.

<u>Question Paper Structure</u>	
1	The question paper shall consist of six questions. Out of which first question shall be of short answer type (not exceeding 50 words) and will be compulsory. Question no. 2 to 6 (from Unit-I to V) shall have explanatory answers (approximately 350 to 400 words) along with having an internal choice within each unit.
2	Question No. 1 shall contain 8 parts from all units of the syllabus with at least one question from each unit and students shall have to answer any five, each part will carry 2 marks.
3	The remaining five questions shall have internal choice within each unit; each question will carry 10 marks.
<u>IMPORTANT NOTES:</u>	
1	The purpose of examination should be to assess the CourseOutcomes (CO) that will ultimately lead to the attainment of Programme Specific Outcomes (PSOs). A question paper must assess the following aspects of learning: Remember, Understand, Apply, Analyze, Evaluate & Create (reference to Bloom's Taxonomy).
2	There shall be continuous evaluation of the student and there will be a provision of fortnight progress report.



Program Structure-B.Sc.-B.Ed.(Integrated)

A. Introduction:

The four-year B.Sc. B.Ed. programme is designed to provide opportunities for students to extend as well as deepen their knowledge and understanding of teaching profession, and also develop research capacities leading to specialization at the secondary education. Dorasami subject committee report on development of Model Curriculum Framework for Four-Year Integrated Teacher Education Programme was also taken into consideration. The framework is based on the NCTE regulations, 2014 for B.Sc. B.Ed. programme.

The four year integrated programme aims at integrating general studies comprising science (B.Sc. B.Ed.) and professional studies comprising foundations or education, pedagogy of school subjects, and practicum related to the tasks and functions of school teachers. This programme maintains a balance between theory and practice, and coherence and integration among its various components, representing a wide knowledge base for a secondary school teacher. The programme aims at preparing teachers for Upper Primary and Secondary stages of education.

The B.Sc. B.Ed. programmes will be of four academic years consisting of eight semesters including school based experiences and internship in teaching. Student teachers will, however, be permitted to complete the programme within a maximum period of six years from the date of admission to the programme. This course provides an opportunity for the students to pursue science along with education in 4 years, which also helps them save one year of the degree . The students who want to pursue their carrer in the field of teaching science and other fields can apply for this course which includes knowledge of teaching expertise and pedagogies. This course will also be a foundation for those who would like to specialised as a senior secondary teacher as desire to go for post-graduation.

The institute emphasis on the following courses *balanced with core and programme specific courses*: The curriculum of B.Sc.-B.Ed.(Int.) program emphasizes an intensive, flexible management dictation with 72 credits of core courses (all types), 72 credits of Discipline Specific Elective Courses, 33 credits are allotted to ability enhancement courses (AECC), 20 credits of school internship projects, 08 credits are allotted for pedagogy elective, engagement with field are allotted 04 credit and enhancing professional capacities are allotted 04 credits.Total 213 credits are allotted for the B.Sc.-B.Ed. (Int.) degree.

Course handouts for students will be provided in every course. A course handout is a thorough teaching plan of a faculty taking up a course. It is a blueprint which will guide the students about the pedagogical tools being used at different stages of the syllabus coverage and more specifically the topic-wise complete plan of discourse, that is, how the faculty members treat each and every topic from the syllabus and what they want the student to do, as an extra effort, for creating an effective learning. It may be a case study, a role-play, a



classroom exercise, an assignment- home or field, or anything else which is relevant and which can enhance their learning about that particular concept or topic. Due to limited availability of time, most relevant topics will have this kind of method in course handout.

B.Sc.-B.Ed.(Int.) : Four-Year (8-Semester) CBCS Programme			
Basic Structure: Distribution of Courses			
S.No.	Type of Course	Credit Hours	Total Credits
1	Core Course (CC)	15 Courses of 4 Credit Hrs. each (Total Credit Hrs. 15X4) 6 Courses of 2 Credit Hrs. each (Total Credit Hrs. 6X2)	72
2	Ability-Enhancement Compulsory Course (AECC)	07 Courses of 3 Credit Hrs. each (Total Credit Hrs. 07X3) 03 Courses of 4 Credit Hrs. each (Total Credit Hrs. 03X4)	33
3	Program/Discipline Specific Elective Course (DSEC)	12 Courses of 4 Credit Hrs. each (Total Credit Hrs. 12X4) 12 Course of 4 Credit Hrs. each (Total Credit Hrs. 12X2)	72
4	Pedagogy Elective Course (PEC)	2 Courses of 4 Credit Hrs. each (Total Credit Hrs. 2X4)	08
5	Engage with the field (EWF)	1 Courses of 4 Credit Hrs. each (Total Credit Hrs. 1X4)	04
6	School Internship Course (SI)	3 Course of total Credit 20	20
7	Enhancing Professional Capacities (EPC)	2 Course of 2 Credit Hrs. each (Total Credit Hrs. 2X2)	04
Total Credits			213

Contact hours include work related to Lecture, Tutorial and Practical (LTP), where our institution will have flexibility to decide course wise requirements.

B. Choice Based Credit System (CBCS)

Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve his target number of credits as specified by the UGC and adopted by our University.

The following is the course module designed for the B.Sc.-B.Ed. (Int.) program:

Core Course (CC): Core courses of B.Sc.-B.Ed. (Int.) program will provide a holistic approach to basic science education, giving students an overview of the field, a basis to build and specialize upon. These core courses are the strong foundation to establish basic science knowledge and provide broad multi-disciplined knowledge can be studied further in depth during the elective phase.

The core courses will provide more practical-based knowledge, case-based lessons and collaborative learning models. It will train the students to analyze, decide, and lead rather than merely know while creating a common student experience that can foster deep understanding, develop decision-making ability and contribute to the basic education and community at large.

A wide range of core courses provides groundwork in the basic school education, Upper primary education and secondary education.

The integrated foundation is important for students because it will not only allow them to build upon existing skills, but they can also explore career options in a range of industries, and expand their understanding of various education field.

Ability Enhancement Compulsory Course (AECC): As per the guidelines of Choice Based Credit System (CBCS) for all Universities, including the private Universities, the Ability Enhancement Compulsory Course



(AECC) is a course designed to develop the ability of students in communication (especially English) and other related courses where they might find it difficult to communicate at a higher level in their prospective job at a later stage due to lack of practice and exposure in the language, etc. Students are motivated to learn the theories, fundamentals and tools of communication which can help them develop and sustain in the corporate environment and culture.

Program/Discipline Specific Elective Course (DSEC): The discipline specific elective courses chosen to make students specialist or having specialized knowledge of a specific domain like marketing, human resource, etc. It will be covered in 6 semester or in 3 year of the program relevant to chosen disciplines of core courses of the program. The student will have to choose any onespecialization out of the two specializations offered, i.e., PCM (Physics, Chemistry, Math's) and ZBC (Zoology, Botany, Chemistry).

Open Elective Course (OEC): Open Elective is an interdisciplinary additional subject that is compulsory in the fifth and Six semester of the program. Each student has to do two MOOC courses of minimum eight weeks each as an Open Electives. The students can choose MOOC Course from SWAYAM/ E-Pathshala/ NPTEL or any other online learning portal.

Pedagogy Elective Course (PEC): Pedagogy is the "art, science, or profession of teaching; especially: education." This definition covers many aspects of teaching, but pedagogy really comes down to studying teaching methods. The pedagogy elective course chosen to make students specialist or having specialized knowledge of a specific domain like art, science and social etc. We offer 2 pedagogy elective course to choose from a list.

Engage with the field (EWF) and Project: Engagement also refers to a "willingness, need, desire and compulsion to participate in, and be successful in, the learning process promoting higher level thinking for enduring understanding." Engagement with the field is also a usefully ambiguous term for the complexity of 'engagement' beyond the fragmented domains of cognition, behavior, emotion or affect, and in doing so encompass the historically situated individual within their contextual variables (such as personal and familial circumstances) that at every moment influence how engaged an individual (or group) is in their learning.

School Internship Course (SI): An internship is a period of work experience offered by an organization for a limited period of time. It empowers you to perform your rules in your respective level, subject area and discipline as well as to prepare you for personal and professional advancement. It gives you the chance to work under a second teacher who shall serve as your mentor. Students are motivated to learn the theories, fundamentals and tools of communication which can help them develop and sustain in the corporate environment and culture.

Enhancing Professional Capacities (EPC): "Professional development refers to activities to enhance professional career growth". Such activities may include individual development, continuing education, and in service education, as well as curriculum writing, peer collaboration, study groups, and peer coaching or mentoring. it difficult to communicate at a higher level in their prospective job at a later stage due to lack of practice and exposure in the language, etc. Students are motivated to learn specific tools of profession which can help them develop and sustain in the corporate environment and culture.

Value Added Course (VAC): A value added course is a non-credit course which is basically meant to enhance general ability of students in areas like soft skills, quantitative aptitude and reasoning ability - required for the overall development of a student and at the same time crucial for industry/corporate demands and requirements. The student possessing these skills will definitely develop acumen to perform well during the recruitment process of any premier organization and will have the desired confidence to face the interview. Moreover, these skills are also essential in day-to-day life of the corporate world. The aim is to nurture every student for making effective communication, developing aptitude and a general reasoning ability for a better performance, as desired



B.Sc.-B.Ed. (Integrated) Curriculum

B.Sc.-B.Ed.(Int.)-Semester I

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme				
				L	T	P		Internal	External	Total		
1	CC-1	BSCEIE101	Childhood and Growing up	4	0	0	4	40	60	100		
2	CC-2	BSCEI105	Physical Chemistry	4	0	0	4	40	60	100		
3	CC-3	BSCEI152	Physical Chemistry (Lab)	0	0	4	2	50	50	100		
4	AECC-1	BSCEI102	Samanya Hindi	3	0	0	3	40	60	100		
5	AECC-2	TMUGE199	English Communication-I	2	0	2	3	40	60	100		
PCM GROUP-1												
6	DSEC-1	BSCEI103	Discipline Specific Elective Courses	Trigonometry & differential calculus		4	0	0	4	40	60	100
7	DSEC-2	BSCEI104		Mechanics		4	0	0	4	40	60	100
8	DSEC-3	BSCEI151		Mechanics (Lab)		0	0	4	2	50	50	100
9	DSEC-4	BSCEI155		Skill Mathematics: Algebra		0	0	4	2	50	50	100
ZBC GROUP-1												
10	DSEC-1	BSCEI 106	Discipline Specific Elective Courses	Diversity of Microbes and Cryptogams Part-1		4	0	0	4	40	60	100
11	DSEC -2	BSCEI 107		Animal Diversity Part-I		4	0	0	4	40	60	100
12	DSEC -3	BSCEI 153		Diversity of Microbes and Cryptogams Part-1 (Lab)		0	0	4	2	50	50	100
13	DSEC -4	BSCEI 154		Animal Diversity Part-1 (Lab)		0	0	4	2	50	50	100
Total				21	0	14	28	380	520	900		



B.Sc.-B.Ed.(Int.)-Semester II

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme			
				L	T	P		Internal	External	Total	
1	CC-4	BSCEI208	Learning and Teaching	4	0	0	4	40	60	100	
2	CC-5	BSCEI205	Inorganic Chemistry	4	0	0	4	40	60	100	
3	CC-6	BSCEI252	Inorganic Chemistry(Lab)	0	0	4	2	50	50	100	
4	AECC-3	BSCEIX201	Environmental Studies	4	0	0	4	40	60	100	
5	AECC-4	TMUGE299	English Communication–II	2	0	2	3	40	60	100	
PCM GROUP – 2											
6	DSEC - 5	BSCEI203	Discipline Specific Elective Courses	Partial Differential Equations	4	0	0	4	40	60	100
7	DSEC - 6	BSCEI204		Electricity and Magnetism	4	0	0	4	40	60	100
8	DSEC - 7	BSCEI251		Electricity and Magnetism (Lab)	0	0	4	2	50	50	100
9	DSEC - 8	BSCEI255		Skill Mathematics: Algebra And Matrices	0	0	4	2	50	50	100
ZBC GROUP – 2											
10	DSEC - 5	BSCEI206	Discipline Specific Elective Courses	Diversity of Cryptogams Part-II	4	0	0	4	40	60	100
11	DSEC - 6	BSCEI207		Animal Diversity Part-II	4	0	0	4	40	60	100
12	DSEC - 7	BSCEI253		Diversity of Cryptogams Part-II(Lab)	0	0	4	2	50	50	100
13	DSEC - 8	BSCEI254		Animal Diversity Part-II (Lab)	0	0	4	2	50	50	100
Total					22	0	14	29	380	520	900

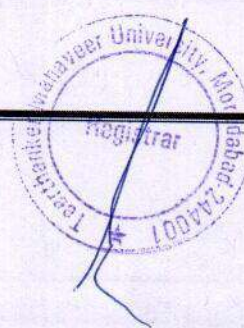


B.Sc.-B.Ed.(Int.)-Semester III

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme			
				L	T	P		Internal	External	Total	
1	CC-7	BSCEI301	Contemporary India and Education	4	0	0	4	40	60	100	
2	CC-8	BSCEI302	Organic Chemistry	4	0	0	4	40	60	100	
3	CC-9	BSCEI 352	Organic Chemistry(Lab)	0	0	4	2	50	50	100	
4	AECC-5	TMUGE399	English Communication–III	2	0	2	3	40	60	100	
5	AECC-6	BSCEI303	Physical, Health and Yoga Education	2	0	4	4	40	60	100	
PCM GROUP – 3											
6	DSEC – 9	BSCEI304	Discipline Specific Elective Courses	Optics	4	0	0	4	40	60	100
7	DSEC -10	BSCEI305		Real analysis	4	0	0	4	40	60	100
8	DSEC -11	BSCEI351		Optics(Lab)	0	0	4	2	50	50	100
9	DSEC -12	BSCEI355		Mathematical Skills: Integral calculus	0	0	4	2	50	50	100
ZBC GROUP – 3											
10	DSEC – 9	BSCEI306	Discipline Specific Elective Courses	Plant Taxonomy And Embryology	4	0	0	4	40	60	100
11	DSEC -10	BSCEI307		Chordata	4	0	0	4	40	60	100
12	DSEC -11	BSCEI353		Plant Taxonomy And Embryology(Lab)	0	0	4	2	50	50	100
13	DSEC -12	BSCEI354		Chordata (Lab)	0	0	4	2	50	50	100
Total					20	0	18	29	380	520	900

Value Added Course (VAC)										
Sr. N.	Course Type	Course Code	Course Name	Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
14,	VAC-1	TMUGS301	Managing Self	2	1	-	0	50	50	100

VAC is an Added course which will be compulsory to pass with 45% marks. However it will not be added towards overall result.



B.Sc.-B.Ed.(Int.)-Semester IV

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme			
				L	T	P		Internal	External	Total	
1	CC-10	BSCEI401	Gender: School and Society	4	0	0	4	40	60	100	
2	CC-11	BSCEI402	Organic and Inorganic Chemistry	4	0	0	4	40	60	100	
3	CC-12	BSCEI452	Organic and Inorganic Chemistry(Lab)	0	0	4	2	50	50	100	
4	AECC-7	TMUGE499	English Communication–IV	2	0	2	3	40	60	100	
5	AECC-8	BSCEI403	Computer Fundamentals, Internet & MS-Office	3	0	2	4	40	60	100	
PCM GROUP – 4											
6	DSEC -13	BSCEI404	Discipline Specific Elective Courses	Oscillations and Wave	4	0	0	4	40	60	100
7	DSEC -14	BSCEI405		Complex Analysis	4	0	0	4	40	60	100
8	DSEC -15	BSCEI451		Oscillations and Wave(Lab)	0	0	4	2	50	50	100
9	DSEC -16	BSCEI455		Mathematical Skills: Ordinary Differential Equations	0	0	4	2	50	50	100
ZBC GROUP – 4											
10	DSEC -13	BSCEI406	Discipline Specific Elective Courses	Plant Physiology and Metabolism	4	0	0	4	40	60	100
11	DSEC -14	BSCEI407		Evolution and Developmental Biology	4	0	0	4	40	60	100
12	DSEC -15	BSCEI453		Plant Physiology and Metabolism(Lab)	0	0	4	2	50	50	100
13	DSEC -16	BSCEI454		Evolution and Developmental Biology (Lab)	0	0	4	2	50	50	100
Total				21	0	16	29	380	520	900	

Value Added Course (VAC)										
Sr.N.	Value Course Type	Course Code	Course Name	Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
14	VAC-2	TMUGS401	Managing Work and Others	2	1	-	0	50	50	100

VAC is an Added course which will be compulsory to pass with 45% marks. However it will not be added towards overall result.

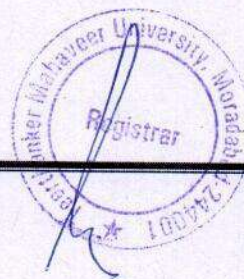


B.Sc.-B.Ed.(Int.)-Semester V

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme					
				L	T	P		Internal	External	Total			
1	CC-13	BSCEI502	Physical and Inorganic Chemistry	4	0	0	4	40	60	100			
2	CC-14	BSCEI552	Physical and Inorganic Chemistry(Lab)	0	0	4	2	50	50	100			
3	AECC-9	BSCEI 503	Human Values and Ethics	3	0	0	3	40	60	100			
PCM GROUP – 5													
4	DSEC -17	BSCEI504	Discipline Specific Elective Courses	Semiconductor and Solid State Devices			4	0	0	4	40	60	100
5	DSEC -18	BSCEI505		Differential Geometry and Tensor			4	0	0	4	40	60	100
6	DSEC -19	BSCEI551		Semiconductor and Solid State Devices(Lab)			0	0	4	2	50	50	100
7	DSEC -20	BSCEI555		Mathematical Skills : Statistics			0	0	4	2	50	50	100
ZBC GROUP – 5													
8	DSEC -17	BSCEI506	Discipline Specific Elective Courses	Economic Botany and Plant Biotechnology			4	0	0	4	40	60	100
9	DSEC -18	BSCEI507		Cell Biology and Genetics			4	0	0	4	40	60	100
10	DSEC -19	BSCEI553		Economic Botany and Plant Biotechnology(Lab)			0	0	4	2	50	50	100
11	DSEC -20	BSCEI554		Cell Biology and Genetics(Lab)			0	0	4	2	50	50	100
PEC : Select Any One													
12	PEC-1	BSCEI521/621	Pedagogy Elective Course	Pedagogy of Mathematics			4	-	-	4	40	60	100
13	PEC-1	BSCEI 522/622		Pedagogy of Physical Science			4	-	-	4	40	60	100
14	PEC-1	BSCEI 523/623		Pedagogy of Biology			4	-	-	4	40	60	100
Total				19	0	12	25	350	450	800			

Open Elective Course (OEC)										
Sr.N.	Course Type	Course Code	Course Name	Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
15	OEC-1	-	MOOC Course	-	-	-	-	-	-	-

* OEC is a MOOC course of eight weeks (Minimum). This course is mandatory to qualify for the award of degree. The students have to submit the certificate of the MOOC course to the university.



B.Sc.-B.Ed.(Int.)-Semester VI

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme				
				L	T	P		Internal	External	Total		
1	CC-14	BSCEI602	Physical and Organic Chemistry	4	0	0	4	40	60	100		
2	CC-15	BSCEI652	Physical and Organic Chemistry(Lab)	0	0	4	2	50	50	100		
3	AECC-10	BSCEI603	Information and Communication Technology	3	0	0	3	40	60	100		
PCM GROUP – 6												
4	DSEC -21	BSCEI604	Discipline Specific Elective Courses	Thermal Physics and Statistical Mechanics		4	0	0	4	40	60	100
5	DSEC -22	BSCEI605		Applied Statistics		4	0	0	4	40	60	100
6	DSEC -23	BSCEI651		Thermal Physics and Statistical Mechanics (Lab)		0	0	4	2	50	50	100
7	DSEC -24	BSCEI655		Mathematical Skills : Operation Research		0	0	4	2	50	50	100
ZBC GROUP – 6												
8	DSEC -21	BSCEI606	Discipline Specific Elective Courses	Environmental Biotechnology		4	0	0	4	40	60	100
9	DSEC -22	BSCEI607		Mammalian Physiology		4	0	0	4	40	60	100
10	DSEC -23	BSCEI653		Environmental Biotechnology (Lab)		0	0	4	2	50	50	100
11	DSEC -24	BSCEI654		Mammalian Physiology(Lab)		0	0	4	2	50	50	100
PEC : Select Any One												
12	PEC-2	BSCEI 521/621	Pedagogy Elective Course	Pedagogy of Mathematics		4	-	-	4	40	60	100
13	PEC-2	BSCEI 522/622		Pedagogy of Physical Science		4	-	-	4	40	60	100
14	PEC-2	BSCEI 523/623		Pedagogy of Biology		4	-	-	4	40	60	100
Engagement with the field												
15	EWf	BSCEI656	Preliminary School Engagement and Project		-	-	8	4	50	50	100	
Total				19	-	20	29	390	510	900		

Open Elective Course (OEC)										
Sr.N.	Course Type	Course Code	Course Name	Periods			Credit	Evaluation Scheme		
				L	T	P		Internal	External	Total
16	OEC-2	-	MOOC Course	-	-	-	-	-	-	-

* OEC is a MOOC course of eight weeks(Minimum). This course is mandatory to qualify for the award of degree. The students have to submit the certificate of the MOOC course to the university.



B.Sc.-B.Ed.(Int.)-Semester VII

S.N	Category	Course Code	Course	Credit	Evaluation Scheme			
					Internal	External	Total	
Internship Course :								
1	SI-1	BSCEI751	School Internship	School Internship	16	50	50	100
2	SI-2	BSCEI752		Evaluation of Teaching Skills -I	2	50	50	100
3	SI-3	BSCEI753		Evaluation of Teaching Skills -II	2	50	50	100
Total					20	150	150	300

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B.Sc.-B.Ed.(Int.)-Semester VIII

S.N	Category	Course Code	Course	Periods			Credit	Evaluation Scheme			
				L	T	P		Internal	External	Total	
1	CC-16	BSCEI801	Guidance and Counseling	4	0	0	4	40	60	100	
2	CC-17	BSCEI802	Knowledge and Curriculum	4	0	0	4	40	60	100	
3	CC-18	BSCEI803	Assessment for Learning	4	0	0	4	40	60	100	
4	CC-19	BSCEI804	Inclusive Education	4	0	0	4	40	60	100	
5	CC-20	BSCEI 805	Language Across the Curriculum	4	0	0	4	40	60	100	
Practical Course on											
6	EPC-1	BSCEI851	Enhancing Professional Capacities	Reading and reflection text	0	0	4	2	50	50	100
7	EPC-2	BSCEI852		Drama and Arts Education	0	0	4	2	50	50	100
Total					20		8	24	300	400	700



Course Code: TMUGS301	Value Added Course B.Sc.-B.Ed.(Int.) Semester-III Managing Self	L-2 T-1 P-0 C-0
Course Outcomes:	At the end of this course, the students will be-	
CO1.	Utilizing effective verbal and non-verbal communication techniques in formal and informal settings	
CO2.	Understanding and analyzing self and devising a strategy for self growth and development.	
CO3.	Adapting a positive mindset conducive for growth through optimism and constructive thinking.	
CO4.	Utilizing time in the most effective manner and avoiding procrastination.	
CO5.	Making appropriate and responsible decisions through various techniques like SWOT, Simulation and Decision Tree.	
CO6.	Formulating strategies of avoiding time wasters and preparing to-do list to manage priorities and achieve SMART goals.	
Course Content:		
Unit-1:	Personal Development Personal growth and improvement in personality Perception Positive attitude, Values and Morals High self motivation and confidence, Grooming	10 Hours
Unit-2:	Professional Development Goal setting and action planning Effective and assertive communication Decision making Time management Presentation Skills Happiness, risk taking and facing unknown	08 Hours
Unit-3:	Resume Building, Occupational Research Group discussion (GD) and Personal Interviews	12 Hours
Evaluation Scheme	Faculty led Continuous Evaluation <ul style="list-style-type: none">Students will be evaluated on the score of 100 in every course.Evaluation of soft skill will follow continuous evaluation method. <u>Details are as follows:</u> <ol style="list-style-type: none">Total Marks for each semester 100<ol style="list-style-type: none">Internal: 50 marks for Class Performance and class attendance.External: 50 marks for External evaluation at the time of external exams (Based on GD and PIs).	
Reference Books:	<ul style="list-style-type: none">Robbins, Stephen P., Judge, Timothy A., Vohra, Neharika, Organizational Behaviour (2018), 18th ed., Pearson EducationTracy, Brian, Time Management (2018), Manjul Publishing HouseHill, Napoleon, Think and grow rich (2014), Amazing ReadsScott, S.J., SMART goals made simple (2014), Createspace Independent Pubhttps://www.hloom.com/resumes/creative-templates/https://www.mbauniverse.com/group-discussion/topic.phpRathgeber, Holger, Kotter, John, Our Iceberg is melting (2017), MacmillanBurne, Eric, Games People Play (2010), Penguin UKhttps://www.indeed.com/career-advice/interviewing/job-interview-tips-how-to-make-a-great-impression	



Course Code: TMUGS401	Value Added Course B.Sc.-B.Ed.(Int.) Semester-IV Managing Work and Others	L-2 T-1 P-0 C-0
Course Outcomes:	At the end of this course, the students will be-	
CO1.	Communicating effectively in a variety of public and interpersonal settings.	
CO2.	Applying concepts of change management for growth and development by understanding inertia of change and mastering the Laws of Change.	
CO3.	Analyzing scenarios, synthesizing alternatives and thinking critically to negotiate, resolve conflicts and develop cordial interpersonal relationships.	
CO4.	Functioning in a team and enabling other people to act while encouraging growth and creating mutual respect and trust.	
CO5.	Handling difficult situations with grace, style, and professionalism.	
Course Content:		
Unit-1:	Intrapersonal Skills Creativity and Innovation Understanding self and others (Johari window) Stress Management, Managing Change for competitive success Handling feedback and criticism	08 Hours
Unit-2:	Interpersonal Skills Conflict management Development of cordial interpersonal relations at all levels Negotiation Importance of working in teams in modern organisations Manners, etiquette and net etiquette	12 Hours
Unit-3:	Interview Techniques Job Seeking, Group discussion (GD), Personal Interview	10 Hours
Evaluation Scheme	Faculty led Continuous Evaluation <ul style="list-style-type: none">Students will be evaluated on the score of 100 in course.Evaluation of soft skill will follow continuous evaluation method. <u>Details are as follows:</u> 2) Total Marks 100 <ul style="list-style-type: none">a) Internal: 50 marks for Class Performance and Class Attendance.b) External: 50 marks for External evaluation at the time of external exams (Based on GD and PIs).	
Reference Books:	<ol style="list-style-type: none">Robbins, Stephen P., Judge, Timothy A., Vohra, Neharika, Organizational Behaviour (2018), 18th ed., Pearson EducationBurne, Eric, Games People Play (2010), Penguin UKCarnegie, Dale, How to win friends and influence people (2004), RHUKRathgeber, Holger, Kotter, John, Our Iceberg is melting (2017), MacmillanSteinburg, Scott, Nettiquette Essentials (2013), Lulu.comhttps://www.hloom.com/resumes/creative-templates/https://www.mbauniverse.com/group-discussion/topic.phphttps://www.indeed.com/career-advice/interviewing/job-interview-tips-how-to-make-a-great-impression <p>* Latest editions of all the suggested books are recommended.</p>	

