



Karmaveer Bhaurao Patil University, Satara

Faculty of Science and Technology

B. Sc. (Seed Technology)

Programme and Credit Structure as per NEP 2020

{Ref. Government of Maharashtra letter no. □□□□□.□□□□/□□□.□.□□/□□□□-□□□ □□ □□ □□□□□□: □□ □□□□□ □□□□}

The degree shall be titled as 'Bachelor of Science [Seed Technology) under the faculty of Science and Technology

B. Sc. Sem. I & II from Academic Year 2024-25

B. Sc. Sem. III & IV from Academic Year 2025-26

B. Sc. Sem. V & VI from Academic Year 2026-27

B. Sc. Sem. VII&VIII from Academic Year 2027-28

Programme Outcomes for B. Sc. (Seed Technology)

PO. No.	Programme Outcomes After completing B. Sc. Programme the students will.....
PO-1	Graduate with proficiency in the subject.
PO-2	Develop scientific attitude and become open minded, critical and curious so that they enter research field with a positive approach.
PO-3	Develop skill in practical work, experiments and laboratory materials.
PO-4	Become eligible to continue higher studies in their subject in India as well as abroad.
PO-5	Become eligible to appear for the examinations for jobs in government organizations.
PO-6	Become eligible to appear for jobs with minimum eligibility as science graduate.
PO-7	Be able to establish their own entrepreneurial ventures.
PO-8	Acquire increased ability of critical thinking, development of scientific attitude, handling of problems and generating solution, improve practical skills, enhance communication skill, social interaction, increase awareness in judicious use of plant resources by recognizing the ethical value system
PSO. NO	Programme Specific Outcomes After completing B. Sc. (Seed Technology) Programme the students will.....
PSO-1	Recall the diversity, classification, evolution and developmental changes among the plants with reference to lower and higher plant groups and create a knowledge base in understanding the basis of Seed Science and Technology.
PSO-2	Acquire and utilize the skills of post-harvest, flower design, fruit processing and dehydration techniques, organic farming and various plant processing technologies for developing the economy to the growing world.
PSO-3	Know about the importance of seeds and its relevance in modern agriculture.
PSO-4	Become competent seed technologist who can employ and implement their gained knowledge in basic and applied aspects that will profoundly influence the prevailing paradigm of agriculture, industry, healthcare and environment to provide sustainable development.
PSO-5	Demonstrate knowledge and scientific understanding to identify research problems, design experiments, use appropriate methodologies, analyze and interpret data and provide solutions. Exhibit organizational skills and the ability to manage time and resources.
PSO-6	Become competent enough for doing jobs in Govt. and private sectors of academia, research and industry along with graduate preparation for national as well as international competitive examinations, especially UGC-CSIR NET, UPSC Civil Services Examination, IFS, NSC, FCI, FRI etc.

PSO-7	Achieve lifelong learning by drawing attention to the vast world of knowledge of plants, their domestication and propagation
PSO-8	Enhance their employability for jobs in different sectors.
PSO-9	Attain the ability to exercise intelligence of scientific knowledge for investigation and innovation and nourishment of the world.
PSO-10	Understanding of various analytical techniques of seed technology, use of plants as industrial raw material.
PSO-11	Apply the fruitful knowledge of seed sciences and plant resources for the sustainable development, betterment of society and environment by recognizing the ethical values.

Semester, Credit Framework, NSQF Level and Exit Points

Sr. No.	Semester	Year	Year	Credits	Level	Exit Points & Award
1	Sem. I & II	2024-25	1Year	44	4.5	UG Certificate in Seed Technology
2	Sem. III & IV	2025-26	2Year	88	5.0	UG Diploma in Seed Technology
3	Sem. V & VI	2026-27	3Year	132	5.5	B. Sc. in Seed Technology (UG Three Year Degree)
4	Sem. VII & VIII	2027-28	4Year	176	6.0	B. Sc. in Seed Technology [Honors/Research] (UG Four Year Degree)

Credit Distribution

Sr. No.	Course	3 Year Degree Programme			4 Year Honors Degree Programme			4 Year Honors with Research Degree Programme		
		Courses (3 Yr)	Credits (3 Yr)	%	Courses (4 Yr)	Credits (4 Yr)	%	Courses (4 Yr)	Credits (4 Yr)	%
1	Major	26	52	39.39	34	80	45.45	32	72	40.91
2	Elective	04	08	6.06	08	16	9.09	08	16	9.09
3	IKS	02	04	3.03	02	04	2.27	02	04	2.27
4	VSC	04	08	6.06	04	08	4.55	04	08	4.55
5	FP	01	02	1.52	01	02	1.14	01	02	1.14
6	OJT	01	04	3.03	02	08	4.55	01	04	2.27
7	RP	00	00	0.00	00	00	00	02	12	6.82
8	SEC	03	06	4.55	03	06	3.41	03	06	3.41
9	CEP	01	02	1.52	01	02	1.14	01	02	1.14
Total (Major) (A)		42	86	65.15	55	126	71.59	54	126	71.59
1	Minor & RM	12	24	18.18	13	28	15.91	13	28	15.91
Total (Minor) (B)		12	24	18.18	12	28	15.91	13	28	15.91
1	OE	04	08	6.06	04	08	4.55	04	08	4.55
2	AEC	04	08	6.06	04	08	4.55	04	08	4.55
3	VEC	02	04	3.03	02	04	2.27	02	04	2.27
4	CC	01	02	1.52	01	02	1.14	01	02	1.14
Total (C)		11	22	16.67	11	22	12.50	11	22	12.50
Grand Total (A+B+C)		65	132	100	79	176	100	78	176	100

Duration:

- The program shall be a full-time program.
- The duration of program shall be three years for Bachelor of Science and four years for Bachelor of Science with Honors or Bachelor of Science with Research.
- Every year students will have exist option with:
- (1st Year: Certificate, 2nd Year: Diploma, 3rd Year: Degree, 4th Year: Honors / Research)
- These students are allowed to re-enter the degree program within three years and complete the degree program within the stipulated maximum period of Seven Years.

Eligibility: 12th Pass with Science, or equivalent.

Medium of Instruction: The medium of instructions shall be in English.

Scheme of Examination & Standard of Passing (CCE and ESE):

- End Semester Exam (ESE): 30 Marks (Min 12 Marks for Passing)
- Continuous Comprehensive Evaluation (CCE): 20 Marks (Min 08 Marks for Passing)
- Total Marks = 50 Marks
- Minimum 40% Marks Required for Passing and there is separate head of Passing for End Semester Examination (ESE) and Continuous Comprehensive Evaluation (CCE).
- Scheme of Examination & Standard of Passing for ESE and CCE:
- As per the decision of the concern Board of Studies or Competent Authority.
- A candidate who acquire 32 credits or more during semester – I & II shall be admitted to B. Sc. II (appear for semester – III & IV examination).
- However the candidate shall not be admitted to B.Sc. III (Semester - V) unless he/she passed in all the subjects at B.Sc. I (Semester - I & Semester - II) and acquire 32 credits or more during semester – III & IV.
- However the candidate shall not be admitted to B. Sc. IV (Semester - VII) unless he/she passed in all the subjects at B. Sc.-I & III (Semester -III, IV V & Semester - VI).
- However under the National Education Policy the rules extended by KBP University, time to time regarding ATKKT will be applicable.

Eligibility of the Core Faculty:

- As per rules and regulations of Karmaveer Bhaurao Patil University, Satara and Govt. of Maharashtra.

Eligibility for Professor of Practice or Professional Trainer:

Any other eligibility as per the guidelines and regulations passed by concern board of studies, academic council of the autonomous college and rules & regulations of Karmaveer Bhaurao Patil University, Satara and Government of Maharashtra and UGC norms.



Karmaveer Bhaurao Patil University, Satara
Faculty of Science and Technology

B. Sc. (Seed Technology) Part-I

Semester I				
Sr. No.	Components	Course Code	Course Title	Credits
1	Course-I	BSTT 111	Seed Development and Morphology	02
		BSTT 112	Instrumentation and Techniques in Seed Technology	02
		BSTP 113	Lab-1 Practical based on Course-I & II	02
2	Course-II	-----	DSC I, DSC II, DSP I	06
3	Course-III	-----	DSC I, DSC II, DSP I	06
4	OE	BSTTOE1	Business Management P-I	02
5	IKS	BSTTIKS 1	Introduction to Indian Knowledge System	02
Total				22

Semester II				
Sr. No.	Components	Course Code	Course Title	Credits
1	Course-I	BSTT 221	Fundamentals of Seed Technology	02
		BSTT 222	Vegetable Seed Production	02
		BSTT 223	Lab-1 Practical based on Course-I & II	02
2	Course-II	-----	DSC III, DSC IV, DSP II	06
3	Course-III	-----	DSC III, DSC IV, DSP II	06
4	OE	BSTTOE2	Business Management P-II	02
5	VEC	BSTTVEC1	Democracy, Good Governance and Constitution of India	02
Total				22

EXIT OPTION: Award of UG Certificate in Major **with 44 credits** & an additional 4 credits core NSQF Course/Internship OR Continue with Major & Minor.

B. Sc. (Seed Technology) Part-II

Semester III				
Sr. No.	Components	Course Code	Course Title	Credits
1	Major	BSTT 231	Hybrid Seed Production: Principles and Practice (P-V)	02
2		BSTT 232	Seed Pathology and Seed Entomology (P-VI)	02
3	Major Lab	BSTP 233	Practical Based on Paper V and Paper VI	02
4	Minor	-----	DSC V, DSC VI, DSP III	06
5	OE	BSTTOE3	Business Management P-III	02
6	VSC	BSTPVSC 1	Seed Bank	02
7	SEC	BSTPSEC 1	Seed Processing Technology	02
8	AEC	BETAEC 1	English P-I	02
9	IKS	BSTTIKS 2	Indian Agriculture IKS P-II	02
Total				22

Semester IV				
Sr. No.	Components	Course Code	Course Title	Credits
1	Major	BSTT 241	Recent Trends in Seed Production (P-VII)	02
2		BSTT 242	Seed Biotechnology (P- VIII)	02

3	Major Lab IV	BSTP 243	Practical Based on Paper VII and Paper VIII	02
4	Minor	-----	DSC VII, DSC VIII, DSP IV	06
5	OE	BSTTOE 4	Business Management P-IV	02
6	VSC	BSTPVSC 2	Seed Aesthetics	02
7	SEC	BSTPSEC 2	Scientific writing	02
8	AEC	BETAEC 2	English P-II	02
9	VEC	BSTTVEC 2	Environmental Studies	02
Total				22

EXIT OPTION: Award of UG Diploma in Major and Minor with 88 Credits & an additional 4 credits core NSQF Course/ Internship OR Continue with Major & Minor

B. Sc. (Seed Technology) Part-III

Semester V				
Sr. No.	Components	Course Code	Course Title	Credits
1	Major	BSTT 351	Plant Breeding (P-IX)	02
2	Major	BSTT 352	Seed Legislation and Certification (P-X)	02
3	Major	BSTT 353	Seed Farm Management & Marketing (P-XI)	02
4	Electives (Any one out of two)	BSTT 354	Recent Trends in Seed Technology-I (P-XIII1)	02
		BSTT 354	Recent Trends in Seed Technology -II(P-XIII2)	
5	Major Lab	BSTP 355	Lab - V	02
6	Elective Lab	BSTP 356	Lab - I	02
7	VSC	BSTPVSC 3	Advanced Seed Processing & Packaging	02
8	AEC	BSTTAEC 3	English P-III	02
9	OJT	BSTTOJT 1	On Job Training in Seed Technology-I	04
10	CEP	BSTTCEP 1	Community Engagement Programme in Seed Technology	02
Total				22

Semester VI

Sr.	Components	Course Code	Course Title	Credits
1	Major	BSTT 361	Seed Physiology (P-XIII)	02
2	Major	BSTT 362	Recent Trends in Plant Breeding (P-XIV)	02
3	Major	BSTT 363	Laboratory Techniques in Seed Technology (P-XV)	02
4	Electives (Any one out of two)	BSTT 364	Economics of Seed Production & Marketing -I(P-XVIE1)	02
		BSTT 364	Economics of Seed Production & Marketing -II (P-XVIE2)	
5	Major Lab	BSTP 365	Lab - VI	02
6	Elective Lab	BBP 366	Lab - II	02
7	VSC	BSTPVSC 4	Recent trends/ Advances in Seed Propagation	02
8	SEC	BSTPSEC 3	AI in Seed Technology	02
9	FP	BSTTFP 1	Field Project in Seed Technology	02
10	CC	BSTTCC 1	Co-curricular Course in Seed Technology	02
11	AEC	BSTTAEC 4	English P-IV	02
Total				22

EXIT OPTION: Award of UG Degree in Major with 132 credits OR Continue with Major & Minor.

B. Sc. (Botany) Part-IV Honors Degree

Semester VII			
Sr. No.	Components	Course	Credits
1	Major	Seed Technology (P-XVII)	04

2	Major	Seed Technology (P-XVIII)	04
3	Major	Seed Technology (P-XIX)	04
4	Electives	Seed Technology (P-XXE1)/Seed Technology (P-XXE2)	02
5	Major Lab	Lab – VII	02
6	Elective Lab	Lab - III	02
7	Minor	Research Methodology	04
		Total	22

Semester VIII

Sr.	Components	Course	Credits
1	Major	Seed Technology (P-XXI)	04
2	Major	Seed Technology (P-XXII)	04
3	Major	Seed Technology (P-XXIII)	04
4	Electives	Seed Technology (P-XXIV1)/Seed Technology (P-XXIV2)	02
5	Major Lab	Lab – VIII	02
6	Elective Lab	Lab - IV	02
7	OJT	On Job Training in Seed Technology II	04
		Total	22

Award of Four year UG Honors Degree in Major and Minor with 176 credits.

B. Sc. (Seed Technology) Part-IV Honors with Research Degree

Semester VII

Sr. No.	Components	Course	Credits
1	Major	Seed Technology (P-XVII)	04
2	Major	Seed Technology (P-XVIII)	04
3	Electives	Seed Technology (P-XIX1)/Seed Technology (P-XIX2)	04
4	Major Lab	Lab – VII	02
5	Minor	Research Methodology	04
6	RP	Research Project in Seed Technology I	04
		Total	22

Semester VIII

Sr.	Components	Course	Credits
1	Major	Seed Technology (P-XX)	04
2	Major	Seed Technology (P-XXI)	04
3	Electives	Seed Technology (P-XXII1)/Seed Technology (P-XXII2)	04
4	Major Lab	Lab – VIII	02
5	RP	Research Project in Seed Technology II	08
		Total	22

Award of Four year UG Honors Degree in Major and Minor with 176 credits.

Chairman
BoS in Seed Technology

Secretary
Academic Council

Chairman
Academic Council