

RKMV LONGWOOD SHIMLA-1

**ONLY GIRLS' COLLEGE IN H.P** 

NAAC ACCREDITED B+
AICTE/UGC APPROVED





# **ADMISSION 2024-2025**

# BCA/PGDCA/Microbiology/Biotechnology

**3VIS PROFESSIONAL DEGREE PROGRAMMES** 

- ELIGIBILITY FOR BCA 10+2 (PLUS TWO) FOR ALL STREAMS
- ELIGIBILITY CRITERIEON FOR MICROBIOLOGY/BIOTECHNOLOGY 10+2 FOR MEDICAL STREAM



9418685117, 9418903200



www.rkmvshimla.edu.in

**Limited Seats** 

# Admission Schedule for BCA/Biotechnology / Microbiology (1ST SEM.)

Date	Time	Schedule
3 <sup>rd</sup> June 2024 to 15 <sup>th</sup> July 2024		Date of Online registration and submission of online application form
15 <sup>th</sup> July 2024	4.00 p.m.	Display of first merit list
16 <sup>th</sup> July 2024 to 18 <sup>th</sup> July 2024	11.00 a.m. to 3.00 p.m.	Counselling and fees to be deposited by selected students of the first merit list
18 <sup>th</sup> July 2024	5:00 p.m.	Display of 2 <sup>nd</sup> merit list
19 <sup>th</sup> July 2024 to 20 <sup>th</sup> July 2024	11.00 a.m. to 3.00 p.m.	Counselling and fees to be deposited by selected students of the 2 <sup>nd</sup> merit list

# **Admission Schedule for PGDCA**

Date	Time	Schedule
3 <sup>rd</sup> June 2024 to 15 <sup>th</sup> July 2024		Date of Online registration and submission of online application Form Availability of Prospectus & Application Form
18 <sup>th</sup> July 2024	4.00 p.m.	Display of merit list
19 <sup>th</sup> July 2024 to 22 <sup>th</sup> July 2024	11.00 a.m. to 3.00 p.m.	Counselling and admission for all applicants

# **VACATION SCHEDULE**

Summer vacation	18.06.2024 to 12.07.2024	25 Days
Diwali Break	29.10.2024 to 02.11.2024	05 Days
Winter Vacation	01.01.2025 to 04.02.2025	35 Days
	Total Vacation period	65 Days

**NOTE:**\*Admission to all programmes of the college is online.

\*The admission form, complete in all respects, along with copies of documents to be uploaded, is to be submitted through the college website:

#### **IMPORTANT LINKS**

➤ Official Website

https://rkmvshimla.edu.in/

> Admission Link

https://rkmvshimla.highalteducation.in/



Principal's Message

Every girl is unique and they learn in their unique style. Growing minds have an infinite capacity to understand and grasp various skills. We aim to develop knowledge, discipline, confidence, excellence, and a sense of responsibility among them. A conducive environment, good infrastructure, and ambiance on the campus encourage the effective teaching-learning process.

As a Principal, I can assure you that our college will continue to provide all the resources needed to further enhance student achievement. We are sincerely committed to educating and bringing up an emerging generation who possess a global perspective and will be positive contributors to the community as a whole.

Best Wishes

**Dr. Anurita Saxsena**Principal, RKMV



Prof. Rajesh Chauhan Co-ordinator B.C.A. & PGDCA



Dr. Bhagwati Charan
Co-ordinator
B.Sc. (Hon's) Biotechnology & B.Sc. (Hon's). Microbiology

# College Activities

















# RAJKIYA KANYA MAHAVIDYALAYA (R.K.M.V.)

# **A Brief Profile**



Rajkiya Kanya Mahavidyalaya, Shimla (R.K.M.V.) was established in 1977 when the erstwhile RPCSDB was taken over by the state government. It is a historical and premier institute of higher learning duly accredited with a B+ grade by NAAC and has also been awarded with Centre of Potential or Excellence status by the UGC. The college is an educational landmark of Himachal Pradesh which primarily aims at higher education of young women and offers undergraduate degree courses in Arts, Science, Commerce, Vocation and Computers. Since its inception in 1978 with the strength of 919 students, the college has been scaling great heights with student strength rising to more than three thousand in the session 2023-24. The job-oriented self-financed courses especially B.C.A., B.Sc.(Honours)in Microbiology and Biotechnology, P.G.D.C.A., Add-On courses, and value-added courses are also being offered to the students to keep pace with the demands of the globalized world.

The college is well equipped with lecture halls, a multi-purpose hall, an auditorium, laboratories, computer labs, a language lab, a computerized library, a common room, a gymnasium, a dispensary, and a canteen. Apart from these, a hostel facility is provided to tribal students in the Tribal Hostel and for general students in the Sainik Hostel based on merit. Besides sports, membership in many extension activities like NSS, NCC, Bharat Scouts and Guides, Eco Club, Energy Club, Youth Red Cross, Road Safety Club, Red Ribbon Club, and Rotaract Club can also be opted for by the students as per their interest to learn teamwork, discipline and a sense of responsibility. The college, with its commendable achievements, presents a series of orchestrated efforts on the academic and co-curricular fronts.

# **TEACHING FACULTY**

# **DEPARTMENT OF BCA & PGDCA**

- 1. Ms. Sonika Thakur
- 2. Ms. Anita Mandhotra
- 3. Ms. Neha Sawant
- 4. Mr. Rohit Kumar
- 5. Ms. Shruti Prashar
- 6. Ms. Priyanka Mokta

# **DEPARTMENT OF MICROBIOLOGY**

- 1. Dr. Kiran Bala Sharma
- 2. Dr. Poonam Kumari

# **DEPARTMENT OF BIOTECHNOLOGY**

- 1. Mr. Amit Sharma
- 2. Dr. Ambika Sharma

# **ADMISSION-CUM-ADVISORY COMMITTEE**

BCA & PGDCA.	B.Sc. (Hons.) Biotechnology and B.Sc. (Hons.) Microbiology
BCA LAB	IT LAB
Prof. Rajesh Chauhan & Teaching Staff of BCA & PGDCA	Dr.Bhagwati Charan & Teaching Staff of Biotechnology & Microbiology

# **CONTENTS**

S.No.	Headings	Page No.
1.	Admission Guidelines for BCA 1st year	5
2.	Eligibility Conditions	6
3.	Admission Procedure	7
4.	Fee Structure for 1st Semester	8
5.	Course outline for 1st year BCA	9-10
6.	Roll-on Admission Instruction	10
7.	Course Outline for 2 <sup>nd</sup> and 3 <sup>rd</sup> year BCA	10-12
8.	PGDCA	13-14
9.	Admission Guidelines B.Sc. (Hons.) Biotechnology	15
10.	Eligibility Condition	15
11.	Course outline	16-18
12.	General Guidelines B.Sc. (Hons.) Biotechnology	19-20
13.	Fee Structure	20
14.	Admission Guidelines B.Sc. (Hons.) Microbiology	20
15.	Eligibility Condition	21
16.	Course Outline	22-23
17.	General Guidelines B.Sc. (Hons.) Microbiology	24-26
18.	Fee Structure	26
19.	Eligibility conditions to appear in the annual examination	27
20.	Leave Rules For Students	27
21.	Identity Card	27

# ADMISSION GUIDELINES FOR B.C. A. 1st YEAR

- ➤ All the applicants are advised to see the College website for any change in the schedule.
- ➤ Claim to the admission will stand cancelled if a candidate fails to report for counselling on the date and time mentioned in the prospectus.
- ➤ If a candidate is selected for admission after counselling, she will be required to deposit the fee. immediately on the date and time mentioned, otherwise, her claim for admission will stand cancelled and the seat will be allotted to the next candidate in the merit list.
- ➤ Hostel Facility Available (only limited seats are available on a merit basis).

B.C.A. is a three-year degree course split over six Semesters leading to the award of the degree of Bachelor of Computer Applications from Himachal Pradesh University. The total number of seats in the BCA Course is 60. The distribution of seats is as under:

S.No.	Category	No. of Seats
1.	Subsidized Seats	30
2.	Non-Subsidized Seats	30
3.	Total	60

#### **Basis of Admission**

- ➤ The Admission to BCA-I semester shall be made based on merit.
- > Separate merit lists shall be prepared for the subsidized and non-subsidized categories.
- ➤ The 30 subsidized seats shall be filled-in first and the remaining 30 seats in the self-financing category shall be filled after all the seats in the subsidized category are filled.
- ➤ NRIs/NRI-sponsored candidates can apply for admission only in the non-subsidized category
- ➤ There is no provision for reservation in the non-subsidized category.

#### Admission to subsidized seats shall be subject to the following conditions:

- I. 15% and 7.5% of the seats shall be reserved for S.C. & S.T candidates respectively, who have passed their qualifying examination from H.P. Board of School Education or any other School affiliated to CBSE, ICSE, etc. located within the territorial jurisdiction of Himachal Pradesh or are bonafide residents of Himachal Pradesh.
- II. The remaining 77.5% of seats shall be filled as under:
  - i. 25% of seats will be filled on all-India basis.
  - ii. 75% of seats shall be filled out by the candidates who have passed their 10+2 examination from the schools situated in Himachal Pradesh irrespective of the Board subject to the following reservation rules.
  - iii. 5% of the seats shall be reserved for outstanding sports persons.
  - iv. 5% of the seats shall be reserved for outstanding students in cultural activities.
  - v. 3% of the seats shall be reserved for physically handicapped candidates and 2 seats for single girl child.

Note: The roster for reservation of seats for various categories shall be as per the rules of H.P. University.

# **ELIGIBILITY CONDITIONS**

## **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

Effective from 2015-16 onwards Duration: 3 Years (6 Semesters)

#### 1. About the Course

Bachelor of Computer Applications (BCA) is a three-year undergraduate course spread over six semesters under a self-financing scheme.

#### 2. Eligibility

Candidates who have passed the 10+2 examination from H.P. Board/CBSE/ICSE or any other examination considered equivalent to10+2, by the Himachal Pradesh University, Shimla-5, with 40%Marks (35% marks for SC/ST category), shall be eligible.

The maximum age limit for admission to the BCA course is 21 years for the general category, 24 years for the SC/ST category, and 23 years for girls candidates, as of the 1st July of the year concerned. The Vice Chancellor may permit age relaxation up to a maximum of three months.

### 3. Mode of Selection

The admission to the BCA course will be made based on the merit of the qualifying examination. As per H.P. University rules 75% of seats will be filled out by the candidates who have passed their 10+2 examination from the school situated in Himachal Pradesh irrespective of the Board. The remaining 25 % of seats will be filled on an India basis. Other reservation rules of H.P. University shall be applicable.

#### 4. Scheme of Examination

The pass percentage in each subject will be 40%.

# i). Theory Papers:

For Regular students, each paper will be of 100 marks (70 marks for END Semester theory examination and 30 marks for continuous comprehensive assessment) and the duration of each paper will be 3 hours.

#### ii). Practical Examination (Max. Marks 50)

CCA (Continuous Comprehensive Assessment): 35

**ESE (End Semester Examination): 15** 

**Duration:** 3 hours.

A practical exam will be conducted by the external examiner from the panel submitted to The Chairman, Computer Science Department Himachal Pradesh University and duly approved by the competent authority of the University, Himachal Pradesh University, Shimla.

## iii). Project Work: (Max. Marks: 50)

#### CCA (Continuous Comprehensive Assessment): 35

ESE (End Semester Examination): 15

In the 6<sup>th</sup> semester, the student has to develop one project, which will be evaluated by the external examiner from the panel submitted to The Chairman, of the Computer Science Department, Himachal Pradesh University, and duly approved by the university authority/evaluation branch, Himachal Pradesh University, Shimla on the following basis:

- 1. Project Report 10 Marks (To be evaluated externally)
- 2. Seminar 15Marks (To be evaluated internally)
- 3. Viva Voce 25 Marks (To be evaluated externally)

#### 5. Medium of Instruction

English will be the medium of instruction as well as examination.

#### 6. Promotion Rule

As per the University norms.

# **ADMISSION PROCEDURE**

**Step: 1** Application form duly filled in, with the following documents enclosed, and should be submitted online to the College Website on or before 15th July 2024.

#### On the date of counseling, the following documents should be deposited duly attested.

- ➤ One attested photocopy of the Matriculation certificate as proof of date of birth.
- ➤ One attested photocopy of the 10+2 certificate.
- ➤ Character-cum-school leaving certificate (issued by the Principal of the institution last attended for regular students or by a Gazetted officer in case of private candidates) in original.
- ➤ The character certificate should have been issued within the last 6 months on the day of submission of the application.
- ➤ Migration certificate in original for those candidates who have done 10+2 from School Boards other than H.P. Board, Dharamshala.
  - NRIs/NRI-sponsored candidates & foreign nationals are eligible only for non-subsidized seats. They are required to attach the following additional documents along with the application form. The following documents will be considered as proof of their status for this purpose:
- ➤ Copy of the Non-Resident Card/ Employment Card issued by the employer.
- ➤ Photocopy of the Immigration Card/ Employment Visa entry on the passport along with details of the passport.
- ➤ Certificate issued by the Indian Embassy/ High Commission in the country where NRI is residing.
- ➤ Photocopy of the latest assessment order of the Income Tax Authorities either in India or the country of employment field in the status of Non-Resident Indian.
- ➤ Certificate of sponsorship from a NRI in case of a NRI sponsored candidate along with proof of NRI status of the sponsor.
- ➤ Proof of nationality in the case of foreign Nationals.

#### Step: 2

- ➤ Short-listed candidates shall have to deposit the dues from 16th July, 2024 to 18th July, 2024 getting their certificates verified and admission approved from the admission committee.
- ➤ University Registration form is to be filled and a copy of each of the Matriculation and 10+2 certificates is to be attached. The migration certificate, in original, is to be attached to the registration form.
- ➤ Admission will finally be approved by the Principal.
- ➤ Students are also required to fill in the library membership form which is not to be attached to the admission form.
- ➤ Library- cum- identity card will be issued from the library to a student on the production of fee receipt and library membership form.

Course outline and information about the examination system for B.C.A. I Semester will be made available to students as and when the college authorities receive these from the H.P. University.

# FEE STRUCTURE FOR 1st SEMESTER

Subsidized seats:	
Consolidated fee:	Rs. 12,000
PTA Fund	Rs. 200
Library Security (Refundable)	Rs. 500
University Development Fund (For Non.Sub/Sub/IRDP/BPL As Per HPU Notification)	Rs. 500/- Rs. 250/- Rs. 100/-
Non-Subsidized seats:	
Consolidated fee	Rs. 25,000/-
PTA Fund	Rs.200
Library Security (Refundable)	Rs.500
University Development Fund (For Non.Sub /Sub/IRDP/BPL As Per HPU Notification)	Rs. 500/- Rs. 250/- Rs. 100/-
University Development Fund	Rs. 500

# BCA Ist YEAR (1st SEMESTER)

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA 0101	Mathematics-1	4	70	30	100	3
BCA 0102	Applied English	4	70	30	100	3
BCA 0103	Computer Fundamentals	4	70	30	100	3
BCA0104	C Programming	4	70	30	100	3
BCA 0105	Office Automation Tools	4	70	30	100	3
BCA0104(P)	C Programming Lab –I	3	35	15	50	3
BCA0105(P)	Office Automation Tools Lab -2	3	35	15	50	3
		Total			600	

## BCA Ist YEAR (2nd SEMESTER)

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA 0201	Mathematics-11	4	70	30	100	3
BCA 0202	Communicative English	4	70	30	100	3
BCA 0203	Digital Electronics	4	70	30	100	3
BCA0204	Data Structures	4	70	30	100	3
BCA 0205	Data Base Management	4	70	30	100	3
BCA0204(P)	Data Structures Lab-3	4	35	15	50	3
BCA0205(P)	Data Base Management Lab-4	4	35	15	50	3
		Total			600	

The above fee and funds are subject to change as per HPU /HP Govt. instructions.

#### **Roll-on Admission:**

Admission to the Third Semester and Fifth Semester of B.C.A shall be on a Roll-on basis. Without waiting for their university result, the students must fill in the admission form, attach relevant documents, and seek admission to the next higher class as per the admission schedule of H.P. University.

#### **Documents required:**

- ➤ Certificates of lower classes.
- ➤ Three passport-size photographs (To be pasted on the admission form, library membership form, and identity card) and a postage stamp of Rs. 6/- to be affixed on the Student Progress Card.
- ➤ Certificate as proof of SC/ST status, Excellence in sports, Excellence in cultural activities, Physical Disability.

#### **Important instructions:**

- ➤ All the students of B.C.A. Third Semester and Fifth Semester are directed to pay the college fee under the roll-on system well within the notified dates.
- ➤ No one will be permitted to attend the classes without depositing the prescribed fee.
- ➤ Lectures attended under the roll-on system will also be counted for determining eligibility to appear in the final examination.
- ➤ All admissions under the roll-on system are provisional and the admission of a student who fails to fulfill eligibility criteria after the declaration of the University result will stand automatically cancelled.
- ➤ Fee once deposited shall not be refunded.
- ➤ It is mandatory for all the students getting admission based on the roll-on system to get their admission regularised within ten days of the declaration of the University result.

## BCA Ist YEAR (2nd SEMESTER)

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA 0201	Mathematics-11	4	70	30	100	3
BCA 0202	Communicative English	4	70	30	100	3
BCA 0203	Digital Electronics	4	70	30	100	3
BCA0204	Data Structures	4	70	30	100	3
BCA 0205	Data Base Management	4	70	30	100	3
BCA0204(P)	Data Structures Lab-3	4	35	15	50	3
BCA0205(P)	Data Base Management Lab-4	4	35	15	50	3
		Total			600	

The above fee and funds are subject to change as per HPU /HP Govt. instructions.

#### **Roll-on Admission:**

Admission to the Third Semester and Fifth Semester of B.C.A shall be on a Roll-on basis. Without waiting for their university result, the students must fill in the admission form, attach relevant documents, and seek admission to the next higher class as per the admission schedule of H.P. University.

#### **Documents required:**

- ➤ Certificates of lower classes.
- ➤ Three passport-size photographs (To be pasted on the admission form, library membership form, and identity card) and a postage stamp of Rs. 6/- to be affixed on the Student Progress Card.
- ➤ Certificate as proof of SC/ST status, Excellence in sports, Excellence in cultural activities, Physical Disability.

#### **Important instructions:**

- ➤ All the students of B.C.A. Third Semester and Fifth Semester are directed to pay the college fee under the roll-on system well within the notified dates.
- ➤ No one will be permitted to attend the classes without depositing the prescribed fee.
- ➤ Lectures attended under the roll-on system will also be counted for determining eligibility to appear in the final examination.
- ➤ All admissions under the roll-on system are provisional and the admission of a student who fails to fulfill eligibility criteria after the declaration of the University result will stand automatically cancelled.
- ➤ Fee once deposited shall not be refunded.
- ➤ It is mandatory for all the students getting admission based on the roll-on system to get their admission regularised within ten days of the declaration of the University result.

# BCA 3<sup>rd</sup> SEMESTER

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA-301	Mathematics III	4	70	30	100	3
BCA-302	Business Practices & Mgt.	4	70	30	100	3
BCA-303	Computer Organization	4	70	30	100	3
BCA-304	Object Oriented Programming in C++	4	70	30	100	3
BCA-305	Desktop Publishing and Designing	4	70	30	100	3
BCA-304(P)	Object Oriented Programming in C++ Lab-5	3	35	15	50	3
BCA-305(P)	Desktop Publishing and Designing Lab-6	3	35	15	50	3
			TOTAL		600	

# BCA 4<sup>th</sup> SEMESTER

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA-401	Personal	4	70	30	100	3
BCA-402	Management Accounting	4	70	30	100	3
BCA-403	System Analysis & Design	4	70	30	100	3
BCA-404	Internet Technology & Web Page Design	4	70	30	100	3
BCA-405	Programming in Visual Basic	4	70	30	100	3
BCA-404(P)	Internet Technology & Web Page Design Lab-7	3	35	15	50	3
BCA-405(P)	Programming in Visual Basic Lab-8	3	35	15	50	3
			TOTAL		600	

# BCA 5<sup>th</sup> SEMESTER

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA-501	Operating					
	System	4	70	30	100	3
BCA-502	eCommerce	4	70	30	100	3
BCA-503	Management Information					
	System	4	70	30	100	3
BCA-504	ASP.net Technologies	4	70	30	100	3
BCA-505	Computer- Oriented Statistical					
	Method	4	70	30	100	3
BCA-504(P)	ASP.net Technologies-9	3	35	15	50	3
BCA-505(P)	Computer- Oriented Statistical					
	Method-10	3	35	15	50	3
			TOTAL		600	

# BCA 6<sup>th</sup> SEMESTER

Paper Code	Paper Title	Credit	University Examination	Internal Assessment	Maximum Marks	Exam. Duration Hours
BCA-601	Computer Networks	4	70	30	100	3
BCA-602	Numerical Methods	4	70	30	100	3
BCA-603	Multimedia Technology	4	70	30	100	3
BCA-604	Computer Graphics	4	70	30	100	3
BCA-605	Software Engineering	4	70	30	100	3
BCA-604(P)	Computer Graphics-11	3	35	15	50	3
BCA-606(P)	Major Project	3	35	15	50	3
			TOTAL		600	

Note: For Readmission Rs. 500/-will be charged and for detailed information go through the common prospectus of B. A/B.Sc./B. Com

# **Post Graduate Diploma in Computer Applications**

PGDCA is a one-year diploma course split over two semesters, leading to the award of a Diploma in Computer Applications, from Himachal Pradesh University. The admission to the course is open under two categories:

S. No.	Category	No. of Seats
1.	PGDCA	20
2.	Total	20

#### **Basis of Admission**

➤ The admission to PGDCA shall be made based on merit.

#### **Eligibility Conditions**

- ➤ Graduation in any discipline or equivalent of any University established by law in India with 50% marks (45% marks in case of Scheduled Caste/ Scheduled Tribe).
- > Students appearing in the examination of the final year of the Graduation course may also apply provided they fulfill eligibility conditions at the time of counselling.

#### **Age Limit**

➤ The maximum age limit is 28 years on July 1, 2024, for general category candidates and 29 years for candidates belonging to the SC/ST category.

#### **Admission Procedure**

**Step:** 1 Application form duly filled in, with the following documents enclosed, should be submitted online on the college website after HP University's latest notification for admission.

- ➤ One attested copy of the Matriculation certificate as proof of date of birth. One attested copy of the 10+2 certificate.
- ➤ One attested copy of B.A./B.Sc./B.Com. certificate.
- ➤ Three passport-size photographs (To be pasted on the admission form, library membership form, identity card. and a postage stamp of Rs. 6/- to be affixed on the Student Progress Card).
- ➤ Certificate as proof of SC/ST status, Excellence in sports, Excellence in cultural activities, Physical Disability.
- ➤ Valid character-cum-College leaving certificate (issued by the Principal of the institution last attended for regular students or by a gazetted officer in case of private candidates) in original.
- ➤ The character certificate should have been issued within the last 6 months on the day of submission of the application.
- ➤ Migration certificate in original for those candidates who have graduated from a University other than H.P. University.

#### Step: 2

- ➤ University Registration form is to be filled and a copy of each of the Matriculation, 10+2, and Graduation certificates is to be attached by those candidates who have graduated from a University other than H.P. University.
- ➤ Migration certificate, in original, is to be attached with the registration form.
- ➤ The Principal will finally approve admission.
- > Students are also required to fill in the library membership form which is not to be attached to the admission form.
- ➤ Library-cum-identity card will be issued from the library to a student on the production of feereceipt and library membership form.

# COURSE OUTLINE PGDCA – FIRST SEMESTER

Paper No.	Title	Maximum Marks	Continual Internal Assessment
DCS-101	Fundamentals of Programming Using C	75	25
DCS-102	PC Software	75	25
DCS-103	Operating System	75	25
DCS-104	Computer Organization and Architecture	75	25
DCS-105	Practical –I (C language)	75	25
DCS-106	Practical –II (PC Software)	75	25

#### **PGDCA – SECOND SEMESTER**

Paper No.	Title	Maximum Marks	Continual Internal Assessment
DCS-201	Data and File Structure	75	25
DCS-202	System Analysis and Design	75	25
DCS-203	Object Oriented Programming & C++	75	25
DCS-204	Data Base Management System	75	25
DCS-205	Practical –III (DFS Using C++)	75	25
DCS-206	Practical –IV ( Data Base Management System)	75	25
DCS-207	Project Work	200	_

N.B: The project will involve the development of application software for some industry/institution.

## **FEE STRUCTURE**

Fee Rs. 14,000/-

(PTA Fund=200/-, Library Security (refundable) = 500/-

#### Note:

- ➤ Migration fee of Rs. 400/- will be charged in case the student has passed the qualifying examination other than H.P. University.
- The above fee and funds are subject to change as per HPU/HP Govt. instructions.
- ➤ The fee will be paid in full at the time of admission. The fee once deposited shall not be refunded.

# **B.Sc. (HONS.) BIOTECHNOLOGY**

**No. of Seats:** The total number of seats is 25.

### **Basis of Admission**

Admission will be based on the merit of 10+2 or equivalent Examination.

#### **Eligibility Conditions**

- a). The admission to the B.Sc. with Major in Biotechnology Programme of Himachal Pradesh University will be as per guidelines of Himachal Pradesh University, Shimla from time to time.
- b). The candidate should have passed the 10+2 (class XII) Examination or its equivalent from a recognized Board/University with any of the three subjects out of Physics, Chemistry, and Biology or any other science subject with 50% or equivalent grade (for SC/ST candidates marks of eligibility will be 45% or equivalent grade).
- c). In the Case of Candidates who are studying in a University /Board/College /School in any of the foreign Countries the eligibility/qualifying marks will be the same as recognized /equivalent to 10+2 by the university or Association of Indian University with 50% marks or equivalent grade (for ST/SC candidates eligibility will be 45% marks or equivalent grade).
- d). The candidate who has appeared in the qualifying examination but whose result has so far not been declared can also apply but his/her eligibility for the entrance test will be purely provisional subject to the condition that he/she has to produce a passing certificate scoring at least the minimum percentage of marks as prescribed for the qualifying examination on the day and the specified time of counselling

Age Limit: The candidate shall not be more than 22 years of age as on 1st July 2024.

#### **ADMISSION PROCEDURE**

#### **Submission of application forms**

Application form duly filled-in, with the following documents enclosed, should be submitted online in the College Website on or before 15<sup>th</sup> July, 2024.

#### On the date of counselling following documents should be deposited duly attested.

- ➤ One attested photocopy of Matriculation certificate as a proof of date of birth.
- ➤ One attested photocopy of 10+2 certificate.
- ➤ Three passport-size photographs (To be pasted on the admission form, library membership form, identity card) and a postage stamp of Rs. 6/- to be affixed on the Student Progress Card.
- ➤ Certificate as proof of SC/ST status, Excellence in sports, Excellence in cultural activities, Physical Disability.
- ➤ Valid character-cum-school leaving certificate (issued by the Principal of the institution last attended for regular students or by a Gazetted officer in case of private candidates) in original.
- ➤ The character certificate should have been issued within the last 6 months on the day of submission of application.
- ➤ Migration certificate in original for those candidates who have done 10+2 from School Boards other than HP Board of school examination, Dharmshala.

## **Selection & Admission**

- ➤ List of short-listed candidates shall be displayed on the college website or the college notice board on 15<sup>th</sup>July 2024at 4.00 p.m.
- ➤ Short-listed candidates shall have to deposit the dues by 16<sup>th</sup>July 2024 to 18<sup>th</sup>July2024 after getting their certificates verified and admission approved from the admission committee.
- ➤ University Registration form is to be filled and a copy each of Matriculation and 10+2 certificate is to be attached. Migration certificate, in original, is to be attached with the registration form.
- ➤ Admission will finally be approved by the Principal.
- ➤ Students are also required to fill in library membership form which is not to be attached with the admission form.

Library cum identity card will be issued from the library to a student on the production of fee-receipt and library membership form.

# **COURSE OUTLINE**

Year	Core Cou	irse-12	Credits	Ability Enhancement Course (SEC), (2)	Credits	Skill Enhancement Course (SEC), (2)	Credits	Discipline Specific Elective (DSE),(4)	Credits	Discipline Specific Elective (DSE), (8)	Credits
1 <sup>st</sup>	BIOTECH1C01TH BIOTECH1C01PR BIOTECH1C02TH BIOTECH1C02PR BIOTECH1C03TH BIOTECH1C03PR BIOTECH1C04PR	Biochemistry & Metabolism Biochemistry & Metabolism General Microbiology General Microbiology Genetics Genetics Molecular Biology Molecular Biology	4 2 4 2 4 2 4 2	ENGL103/ HINDI/MIL Communication ENVS2AECC02 Environment	4	NIL				GE-1 MICRO1GEO1H- Cell Biology MICRO1GE01PR- Cell Biology GE-2 CHEM GE 103TH- Chemistry-1 CHEM GE 103PR- Chemistry-1	4 2 2 4
	BIOTECH2C05TH BIOTECH2C05PR	Immunology	4			Any 35 SC Subject in year II	8			GE-3 MICRO2GE02TH- Cell Biology	4
	BIOTECH2C06TH BIOTECH2C06PR	Bioprocess Technology Bioprocess Technology	2							GE-4 CHEM GE 205TH- Chemistry	
2 <sup>nd</sup>	BIOTECH2C07TH BIOTECH2C07PR	Recombination DNA Tecnology Recombination DNA Technology	2							CHEM GE205PR- Chemistry-14	
	BIOTECH2C08TH BIOTECH2C08PR	Environmental Biotechnology Environmental	2								
	BIOTECH2C09TH	Biotechnology Bacteriology and Virology	4								
	BIOTECH2C09PR BIOTECH2C10TH BIOTECH2C10 PR	Bacteriology and Virology Microbial Physiology Microbial Physiology	2 4 2								
	ВІОТЕСНЗС11ТН	Animal Biotechnology	4			Any 2 SEC Subject in year III	8			Any 4 DSE Subject in III year from the list (Theory=4 and Practical=2)	24
3 <sup>rd</sup>	BIOTECH3C11 PR BIOTECH3C12TH BIOTECH3C12PR BIOTECH3C13TH BIOTECH3C13PR BIOTECH3C14TH BIOTECH3C14PR	Animal Biotechnology Plant Biotechnology Plant Biotechnology Medical Microbiology Medical Microbiology Food Biotechnology Food Biotechnology	4 4 2 4 2							anu Fracucai=2)	
		Core course Total Credits=	84	AECC Total Credits	8	SE Total Credits	8			:Discipline Specific Total Credits=	48

**Total Credits**: 84+8+8+48=148

TH: Theory, PR: Practical, C: Core Courses, GE: Generic Elective, AECC: Ability Enhancement Compulsory Course, SEC: Skill Enhancement Courses, DES Discipline Specific Elective

# Structure of B.Sc. (Hons) Biotechnology under CBCS Annual Core Courses

1st Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year
BIOTECH1C01	BIOTECH2C05	BIOTECH3C11
Biochemistry & Metabolism	Immunology	Animal Biotechnology
BIOTECH1C02	BIOTECH2C06	BIOTECH3C12
General Microbiology	Bioprocess Technology	Plant Biotechnology
BIOTECH1C03	BIOTECH2C07	BIOTECH3C13
Genetics	Recombination DNA Technology	Medical Microbiology
BIOTECH1C04	BIOTECH2C08	BIOTECH3C13
Molecular Biology	Environmental Biotechnology	Food Biotechnology
	BIOTECH2C09 Bacteriology and Virology	
	BIOTECH2C10 Microbial Physiology	

# **Ability Enhancement Compulsory Course (AEC)**

ENGL103 English Communication ENVS1AECC02 Environment Science

## **Skill Enhancement Elective Course**

(Any 2 SEC Subjects in 2<sup>nd</sup>year and any 2SEC subjects in 3<sup>rd</sup> year from the list)

#### 2<sup>nd</sup>Year

BIOTECH2SEC01: Enzymology BIOTECH2SEC02: Bioinformatics

BIOTECH2SEC03: Bio fertilizer& Biopesticides

BIOTECH2SEC04: Microbial Metabolism

BIOTECH2SEC05: Biostatistics

## **Generic Elective Course**

(Fora Stream other than B.Sc. Hons. Biotechnology (CBCS-Annual)

189	<sup>t</sup> Year	2 <sup>nd</sup> Year		
BIOTECH1GE01TH BIOTECH2GE3TH	GE-1 Mycology and Phycology Mycology and Phycology	BIOTECH1GE01PR BIOTECH2GE3PR	GE-3 Molecular Biology Molecular Biology	
BIOTECH1GE02TH BIOTECH2GE04TH	GE-2 Mycology and Phycology Mycology and Phycology	BIOTECH1GE02PR BIOTECH2GE04PR	GE-4 Immunology Immunology	

# **Discipline Specific Elective**

(Any 4 DSE Subjects in III Year from the list)

#### 3<sup>rd</sup>Year

BIOTECH3DSE01	Biochemical Engineering
BIOTECH3DSE02	Advances in Microbiology
BIOTECH3DSE03	Ecology and Environment Management
BIOTECH3DSE04	Biosafety and Intellectual Property Right
BIOTECH3DSE05	Basic of Forensic Science
BIOTECH3DSE06	Molecular Diagnostics

# Choice-based Credit System B.Sc. (Hons) Biotechnology

1 <sup>st</sup> Year					
BIOTECH1C01	Biochemistry & Metabolism				
BIOTECH1C02	General Microbiology				
BIOTECH1C03	Genetics				
BIOTECH1C04	Molecular Biology				
ABILITY Enhancement Compulsory Course (AEC)					
ENGL103 English Communication					
ENVS1AECC02 Environment Science					
Generic Elective Course					
GE1 GE 2					

	2 <sup>nd</sup> Year				
BIOTECH 2C05	Immunology				
BIOTECH 2C06	Bioprocess Technology				
BIOTECH 2C07	Recombinant DNA Technology				
BIOTECH 2C08	Environmental Biotechnology				
BIOTECH 2C09	Bacteriology and Virology				
BIOTECH 2C10	Microbial Physiology				
SKILL ENHANCEMENT COURSES (SEC-ANY TWO)					
BIOTECH2SEC01	Enzymology				
BIOTECH2SEC02	Bioinformatics				
BIOTECH2SEC03	Biofertilizer Biopesticides				
BIOTECH2SEC04	Industrial Fermentations				
BIOTECH2SEC05	Biostatistics				
GENERIC ELECTIVE (FROM STREAM other than Biotechnology)					
GE3 GE4					

3rd Year				
BIOTECH3C11	Animal Biotechnology			
BIOTECH 3C12	Plant Biotechnology			
BIOTECH 3C13	Medical Biotechnology			
BIOTECH 3C14	Food Biotechnology			
Discipline Specific elective (DSE-Any Four)				
BIOTECH3DSE01	Biochemical Engineering			
BIOTECH3DSE02	Advances in Microbiology			
BIOTECH3DSE03	Ecology and Environment Management			
BIOTECH3DSE04	Biosafety and Intellectual Property Rights			
BIOTECH3DSE05	Basic of Forensic Science			
BIOTECH3DSE06	Molecular Diagnostics			

C : Core Courses

**AECC**: Ability Enhancement Compulsory Course

SEC : Skill Enhancement Courses
DSE : Discipline-Specific Elective

# **GENERAL INSTRUCTIONS/GUIDELINES For B.Sc. (Honours) Biotechnology**

- 1. The B.Sc. (Honours) Biotechnology will be three years duration semester-based choice-based credit system (CBCS) course.
- 2. There will be broadly three types of courses for the B.Sc. (Honours) Biotechnology degree program.
- 3. The Core Courses (12 courses for Honours) will be of 6 credits each including 2 credits assigned to the practical component. Thus, a candidate will have to pass 14 courses for earning12×6=72 credits during the 1<sup>st</sup>& 2<sup>nd</sup>Years. Each of the 6-credit courses will carry 100 marks. These 100 marks will be split into marks assigned for Theory (TH):50 Marks: Practical (PR) 20marks and Internal Assessment (IA):30. The Internal Assessment 30 marks will include one Multi Choice Questions (MCQ)-based examination of 10marks) Classroom Attendance Incentive marks (5Marks), Presentation/Assignment of 5marks and Seminar/Lab Assignment of 10 marks. The lab-based practical will be of two hours (1 credit). A total of 12×6=72 credits could be accumulated under these courses during the Honours Degree Program.
- 4. The **Elective Courses** will be chosen from a pool of courses and which be very specific or specialized or advanced or supportive to the discipline/subject of supply or which provide an extended scope or which enable exposure to some other discipline/ subject/domain or nurtures the candidate's proficiency/skill. The Elective Courses will include;
- 5. <u>Discipline-Specific Elective (DSE) Courses:</u> A total of 8 courses offered under the main discipline subject or study is referred to as discipline-specific elective & will be studied by the candidates in 3 years. These courses will be of 6 credits each including 2 credits assigned for the practical component of each of these courses. These courses are discipline-related and /or interdisciplinary in nature. A total of 8×6=48credits could be accumulated under DSE courses during the Honour's Degree Program.
- 6. Ability Enhancement Compulsory Course (AECC): Ability Enhancement Courses are of two types; Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). The AECC courses are mandatory courses based upon the content that leads to knowledge enhancement; environmental science and ii. English/Hindi/ MIL Communication. All these are mandatory courses for obtaining a B.Sc. (Honours) degree in the concerned subject. These courses are mandatory for all disciplines. A total of 2×4 = 08 credits in 1<sup>st</sup>year could be accumulated under these courses during the Honour's Degree Program
- 7. SEC courses are value-based and /or skill-based and are aimed at providing hands-on training, competencies, skills, etc. A Minimum of four such courses (3 SEC in year II and 2 SEC in year III) for obtaining an honors degree are selected amongst the courses designed to provide value-based and /or skill-based knowledge and may contain both theory & lab/hands-on training. The main purpose of these courses is to provide students with life –skills in the hands-on mode to increase their employability. A total of 5×4=20 credits could be accumulated under SEC courses during the Honours degree program.
- **8.** The practical (PR) component has been included in every core and discipline/generic specific elective paper. The list of practicals to be conducted by the candidates by the candidates has been provided alongside each of such courses. The marks (20 marks) for the practical examination will be split as follows.

Write up of Practical I 4 marks
Performance of any one of the above practical's 7 marks
Practical record/notebook 3 marks
Viva Voce 6 marks

# Prospectus 2024-25

**9.** Classroom Attendance Incentive: Those candidates who have greater than 75% attendance (for those participating in Co-curricular activities,25% will be added to percent attendance) will be awarded CAI marks as follows:

>75% but <80%	1 marks
>80% but <85%	2 marks
>85% but <90%	3 marks
>90% but <95%	4 marks
>95% to 100%	5 marks

- 10. The candidate has to secure minimum pass marks individually in theory paper, Practical as well as Internet Assessment to earn full credits in the concerned course. A candidate thus failing in any of these components shall be considered failed in that course.
- 11. The admission to the B.Sc. (Honours) Biotechnology programme of Himachal Pradesh University will be as per guidelines of Himachal Pradesh University, Shimla from time to time.
- 12. The candidate should have passed the 10+2 (class XII) Examination or its equivalent from a recognized Board/University with any of the three subjects out of physics Chemistry and Biology or any other science subject with be 50% or equivalent grade (for SC/ST candidates marks of eligibility will be 45% or equivalent grade.
- 13. In case of candidates who are studying in university /Board/College/Schools in any of the foreign countries the eligibility /Qualifying marks will be the same as recognized equivalent to 10+2 by the university or the association of the Indian university with 50% marks or equivalent grade (for SC/ST candidates, eligibility will be 45% marks or equivalent grade).
- 14. The candidates who have appeared in the qualifying examination but whose result has so far not been declared can also apply but his/her eligibility for the entrance test will be purely provisional subject to the condition that he /she has to produce a passing certificate scoring at least the minimum percentage of marks as prescribed for the qualifying examination on the day and the specified time of counselling.
- 15. The candidates shall not be more than 22 years of age as of 1<sup>st</sup> July of the year of admission. Date of birth as recorded in the Secondary Education Board /University Certificate only will be considered as authentic.

# Fee Structure (Biotechnology) 1, 2 & 3<sup>rd</sup> Year

Consolidated Fee Rs. 40, 000/PTA Fund Rs. 200/Library Security Rs. 500/Counselling Fee Rs. 500/-

University Development Fund (For Non. Sub/Sub/IRDP/BPL) Rs. 500/- Rs. 250/- Rs. 100/- (As Per HPU Notification)

\* The above fee and funds are subject to change as per HPU/HP Govt. Instruction. The fee will be paid in full at the time of admission. The fee once deposited shall be refunded.

Note: Rs.500/- will be charged for readmission

# **B.Sc.** (Hons.) Microbiology

# No. of Seats

The total number of seats is 25.

# **Basis of Admission**

Admission will be based on the merit of 10+2 or equivalent Examination.

## **Eligibility Conditions**

- a). The admission to the B.Sc. with Major in Microbiology Programme of Himachal Pradesh University will be as per guidelines of Himachal Pradesh University, Shimla from time to time.
- b). (b) The candidate should have passed the 10+2 (class XII) Examination or its equivalent from a recognized Board/University with any of the three subjects out of Physics, Chemistry, and Biology or any other science subject with 50% or equivalent grade (for SC/ST candidates marks of eligibility will be 45% or equivalent grade).
- c). (c) In the Case of Candidates who are studying in a University /Board/College /Schools in any of the foreign Countries the eligibility/qualifying marks will be the same as recognized /equivalent to 10+2 by the university or Association of Indian University with 50% marks or equivalent grade (for ST/SC candidates' eligibility will be 45% marks or equivalent grade).
- d). The candidate who has appeared in the qualifying examination but whose result has so far not been declared can also apply. Still, his/her eligibility for the entrance test will be purely provisional subject to the condition that he/she has to produce a passing certificate scoring at least the minimum percentage of marks as prescribed for the qualifying examination on the day and the specified time of counseling.

### **Age Limit**

The candidate shall not be more than 22 years of age as of 1st July 2024.

#### ADMISSION PROCEDURE

## **Submission of application forms**

The application form duly filled in, with the following documents enclosed, should be submitted online to the College Website on or before 15th July 2024.

# On the date of counselling following documents should be deposited duly attested.

- ➤ One attested photocopy of the Matriculation certificate as proof of date of birth.
- ➤ One attested photocopy of the 10+2 certificate.
- ➤ Three passport-size photographs (To be pasted on the admission form, library membership form, and identity card) and a postage stamp of Rs. 6/- to be affixed on the Student Progress Card.
- ➤ Certificate as proof of SC/ST status, Excellence in sports, Excellence in cultural activities, Physical Disability.
- ➤ Valid character-cum-school leaving certificate (issued by the Principal of the institution last attended for regular students or by a Gazetted officer in case of private candidates) in original.
- ➤ The character certificate should have been issued within the last 6 months on the day of submission of the application.
- ➤ Migration certificate in original for those candidates who have done 10+2 from School Boards other than the H.P. Board of School Examination, Dharmshala.

# **Selection & Admission**

- ➤ The first list of short-listed candidates shall be displayed on the college website or the college notice board on 15<sup>th</sup> July 2024 at 4.00 p.m.
- ➤ Short-listed candidates shall have to deposit the dues between 16th July 2024 to 18<sup>th</sup> July 2024 after getting their certificates verified and admission approved by the admission committee.
- ➤ University Registration form is to be filled and a copy of each of Matriculation and 10+2 certificate is to be attached. The migration certificate, in original, is to be attached to the registration form.
- ➤ The principal will finally approve admission.
- ➤ Students are also required to fill in the library membership form which is not to be attached to the admission form.
- ➤ Library cum identity card will be issued from the library to a student on the production of fee receipt and library membership form.

# **COURSE OUTLINE**

Year	Core	Course-14	Credits	Ability Enhancement Compulsory Course (AECC),(2)	Credits	Skill Enhancement Course (SEC),(5)	Credits	Discipline Specific Elective: (DSE),(4)	Credits	Generic Elective(GE),(4) Discipline Specific Elective (DSE)(4)	Credits
1	MICRO1CO1TH	Introduction to Microbiology & Microbial Diversity	4	ENGL03 HINDI/MIL Communication	4	NIL				GE-1 BIOTECHGE01TH Mycology&Phycology	4
	MICRO1CO1PR	Introduction to Microbiology & Microbial Diversity	2	Communication						BIOTECHGE01PR Mycology&Phycology	
	MICRO1CO2TH	1	4	ENVSAECC02	4						
	MICRO1CO2PR		2	Environment							
				Science							
	MICRO1CO3TH	·	4							GE-2 BIOTECHGE02TH Cell Biology	
	MICRO1CO3PR	Biochemistry	2							BIOTECHGE02PR Cell Biology	
	MICRO1C04TH	Virology	4							BIOTECHGE02TH Cell Biology	
	MICRO1C04TH	Virology	2							BIOTECHGE02PR Cell Biology	
2	MICRO2CO5TH	Microbial Physiology	4		4	Any 2 SEC				GE-3	
		& Metabolism				Subject in				BIOTECH2GE3TH	
			_			year 2				Molecular Biology	
	MICRO1CO5PR	Microbial Physiology	2								
	MICDOACOCTH	& Metabolism	,							DIOTECHACEADD	
	MICRO2CO6TH		4							BIOTECH2GE3PR	
	MICDOACOEDD	Microbiology Environmental Microbiology	2							Molecular Biology	
	MICRO2COOTH		4							GE-4	
	wickozeo/III	DNA Technology	•							BIOTECH2GE04TH Immunology	
	MICRO2CO7PR	Recombinant	2							BIOTECH2GE04TH	
	MICROZCO/I K	DNA Technology	_							Immunology	
	MICRO2CO8TH	Industrial Microbiology	4								
		Industrial Microbiology	2								
		Microbes in Sustainable	4								
		Agriculture & Development									
	MICRO2CO9PR	Microbes in Sustainable	2								
		Agriculture & Development									
	MICRO2C10TH	Molecular Diagnostics	4								
	MICRO2C10PR	Molecular Diagnostics	2								
		Food & Dairy Microbiology			NIL					Any 4DSE Subject	24
		Food & Dairy Microbiology								in 3 year from the	
		Medical Microbiology								list (Theory=4	
	MICRO3C12PR	Medical Microbiology								& Practical=2)	
		Bioprocess Technology									
	MICRO3C13PR	Bioprocess Technology									
	MICRO3C13TH	Instrumentation &									
	MICRO3C13PR	Biotechniques Instrumentation &									
	WIICKUSCISPK	Biotechniques									
		Core course		AECC	1	SE	1	Dis. Speci	fic	Generic Elective	1
1		Total Credits=	0.4	Total Credits	8	Total Credits		-		Total Credit	24

**Total Credits**: 84+8+8+24+24=148

TH: Theory, PR: Practical, C: Core Courses, GE: Generic Elective, AECC: Ability Enhancement

Compulsory Course, SEC: Skill Enhancement Courses, DES Discipline Specific Elective

# Structure of B.Sc. Honours Microbiology under CBCS Annual Core Course(c)

# 1st year

MICRO1C01 Introduction to Microbiology & Microbial Diversity

MICRO1C01 Bacteriology MICRO1C03 Biochemistry MICRO1C04 Virology

# 2nd year

MICRO2C05 Microbial Physiology & Metabolism

MICRO2C06 Environmental Microbiology
MICRO2C07 Recombinant DNA Technology

MICRO2C08 Industrial Microbiology

MICRO2C09 Microbes in Sustainable Agriculture & Development

MICRO2C10 Molecular Diagnostics

## 3rd year

MICRO3C11 Food & Dairy Microbiology

MICRO3C12 Medical Microbiology MICRO3C13 Bioprocess Technology

MICRO3C14 Instrumentation & Bio techniques

# **Ability Enhancement Compulsory Course**

ENGL103: English /HINDI/MIL Communication

ENVS1AECC02: Environment Science

#### **Skill Enhancement Elective Course (SEC)**

(Any 2 SEC Subjects in 2nd Year from the list)

2 <sup>nd</sup> Year		
MICRO2SEC01 Microbial Quality Control in Food &Pharmaceutical Industries		
MICRO2SEC02	Microbial Diagnosis in Health Clinics	
MICRO2SEC03	Biofertilizers & Biopesticides	
MICRO2SEC04	Agriculture Microbiology	
MICRO2SEC05	Management of Human Microbial Diseases	

#### **Generic Elective Courses**

(For Streams other than B.Sc. Hons. Microbiology (CBCS-Annual)

1st Year		2 <sup>nd</sup> Year			
GE- 1		GE-3			
MICRO1GE01TH	Cell Biology	MICRO1GE03TH	Bio Analytical Tools		
MICRO1GE01PR	Cell Biology	MICRO1GE03PR	Bio Analytical Tools		
MICRO1GE02TH	Inheritance Biology	GE-4			
MICRO1GE02PR	Inheritance Biology	MICRO1GE04TH	Microbial Genetics		
		MICRO1GE04PR	Microbial Genetics		

## **Discipline Specific Elective**

(Any 4DSE Subjects in 3rd Year from the List)

3 <sup>rd</sup> Year ONLY			
MICRO3DSE01	Biochemical Engineering		
MICRO3DSE02	Biostatistics		
MICRO3DSE03	Ecology & Environment Management		
MICRO3DSE04	Parasitology		
MICRO3DSE05	Plant Pathology		
MICRO3DSE06	Advances in Microbiology		

**C**: Core Courses

**AECC**: Ability Enhancement Compulsory Course

**SEC**: Skill Enhancement Courses **DSE**: Discipline-Specific Elective

## GENERAL INSTRUCTIONS/GUIDELINES FOR B.Sc. (Honours) Biotechnology

- 1. The B.Sc. (Honours) Biotechnology will be three years duration semester-based choice-based credit system (CBCS) course.
- 2. There will be broadly three types of courses for the B.Sc. (Honours) Biotechnology degree program.
- 3. The **Core Courses** (12 courses for Honours) will be of 6 credits each including 2 credits assigned to the practical component. Thus, a candidate will have to pass 14 courses for earning12×6=72 credits during the 1<sup>st</sup>& 2<sup>nd</sup>Years. Each of the 6-credit courses will carry 100 marks. These 100 marks will be split into marks assigned for Theory (TH):50 Marks: Practical (PR) 20marks and Internal Assessment (IA):30. The Internal Assessment 30 marks will include one Multi Choice Questions (MCQ)-based examination of 10marks) Classroom Attendance Incentive marks (5Marks), Presentation/Assignment of 5marks and Seminar/Lab Assignment of 10 marks. The lab-based practical will be of two hours (1 credit). A total of 12×6=72 credits could be accumulated under these courses during the Honours Degree Program.
- 4. The **Elective Courses** will be chosen from a pool of courses and which be very specific or specialized or advanced or supportive to the discipline/subject of supply or which provide an extended scope or which enable exposure to some other discipline/ subject/domain or nurtures the candidate's proficiency/skill. The Elective Courses will include;
- 5. Discipline-Specific Elective (DSE) Courses: A total of 8 courses offered under the main discipline subject or study is referred to as discipline-specific elective & will be studied by the candidates in 3 years. These courses will be of 6 credits each including 2 credits assigned for the practical component of each of these courses. These courses are discipline-related and /or interdisciplinary in nature. A total of 8×6=48credits could be accumulated under DSE courses during the Honour's Degree Program.
- 6. Ability Enhancement Compulsory Course (AECC): Ability Enhancement Courses are of two types; Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). The AECC courses are mandatory courses based upon the content that leads to knowledge enhancement; environmental science and ii. English/Hindi/ MIL Communication. All these are mandatory courses for obtaining a B.Sc. (Honours) degree in the concerned subject. These courses are mandatory for all disciplines. A total of 2×4 = 08 credits in 1<sup>st</sup>year could be accumulated under these courses during the Honour's Degree Program

- 7. SEC courses are value-based and /or skill-based and are aimed at providing hands-on training, competencies, skills, etc. A Minimum of four such courses (3 SEC in year II and 2 SEC in year III) for obtaining an honors degree are selected amongst the courses designed to provide value-based and /or skill-based knowledge and may contain both theory & lab/hands-on training. The main purpose of these courses is to provide students with life –skills in the hands-on mode to increase their employability. A total of 5×4=20 credits could be accumulated under SEC courses during the Honours degree program.
- **8.** The practical (PR) component has been included in every core and discipline/generic specific elective paper. The list of practicals to be conducted by the candidates by the candidates has been provided alongside each of such courses. The marks (20 marks) for the practical examination will be split as follows.

Write up of Practical I 4 marks
Performance of any one of the above practical's 7 marks
Practical record/notebook 3 marks
Viva Voce 6 marks

**9. Classroom Attendance Incentive**: Those candidates who have greater than 75% attendance (for those participating in Co-curricular activities,25% will be added to percent attendance) will be awarded CAI marks as follows:

>75% but <80% 1 marks >80% but <85% 2 marks >85% but <90% 3 marks >90% but <95% 4 marks >95% to 100% 5 marks

- 10. The candidate has to secure minimum pass marks individually in theory paper, Practical as well as Internet Assessment to earn full credits in the concerned course. A candidate thus failing in any of these components shall be considered failed in that course.
- 11. The admission to the B.Sc. (Honours) Biotechnology programme of Himachal Pradesh University will be as per guidelines of Himachal Pradesh University, Shimla from time to time.
- 12. The candidate should have passed the 10+2 (class XII) Examination or its equivalent from a recognized Board/University with any of the three subjects out of physics Chemistry and Biology or any other science subject with be 50% or equivalent grade (for SC/ST candidates marks of eligibility will be 45% or equivalent grade.
- 13. In case of candidates who are studying in university /Board/College/Schools in any of the foreign countries the eligibility /Qualifying marks will be the same as recognized equivalent to 10+2 by the university or the association of the Indian university with 50% marks or equivalent grade (for SC/ST candidates, eligibility will be 45% marks or equivalent grade).
- 14. The candidates who have appeared in the qualifying examination but whose result has so far not been declared can also apply but his/her eligibility for the entrance test will be purely provisional subject to the condition that he/she has to produce a passing certificate scoring at least the minimum percentage of marks as prescribed for the qualifying examination on the day and the specified time of counselling.
- 15. The candidates shall not be more than 22 years of age as of 1<sup>st</sup> July of the year of admission. Date of birth as recorded in the Secondary Education Board / University Certificate only will be considered as authentic.

# Fee Structure (Microbiology) 1,2 & 3rd Year

Consolidated Fee Rs. 40, 000/PTA Fund Rs. 200/Library Security Rs. 500/Counselling Fee Rs. 500/-

University Development Fund Rs. 500/- Rs. 250/- Rs. 100/-

For Non. Sub /Sub/IRDP/BPL (As Per HPU Notification)

- \* The tuition fee and other monthly/Semester charges will be as per university rule
- > The above fee and funds are subject to change as per HPU/HP Govt. instructions.
- ➤ The fee for 1<sup>st</sup> Semester is charged in full at the time of admission.
- > Fee once deposited shall not be refunded.

Note: Rs. 500/- will be charged for readmission.

## **Eligibility Conditions for regularization of admission:**

B.Sc.(Hons.) Biotechnology & B.SC.(Hons.) Microbiology Second and Third Year

B.Sc. II - A Candidate should have passed at least 50% of the papers of the First-year Examination.

B.Sc. III- A candidate should have passed at least 50% of the papers of the Second Year Examination and all the papers of the First Year Examination.

- \* The above fee and funds are subject to change as per HPU/HP Govt. instructions.
- > From 2nd and 3rd year student fees will be charged in two instalments i.e. at the time of admission and 75% at the time of regularization of admission.
- ➤ Fee once deposited shall not be refunded.

Scheme of Examination for B.Sc. (Hons.) Biotechnology and B.Sc. (Hons.)

Microbiology3<sup>rd</sup> Year

#### **Internal Assessment**

There shall be a component of internal assessment in all the classes. It will be 20% for theory papers and 30% for practical. The remaining 80% and 70% marks in theory and practical will be for the annual university examination.

The split of the 15% marks of internal assessment will be as per the details given below:

I. Assignment, one: 02 marks

II. Presentation: 03 marks

III. Class tests (2), half hours each: 05 marks

IV. Final House Test: 05 marks

The award of marks for attendance i.e. 5 marks will be as follows:

Less than 75% not eligible 75% to 79% Attendance 1 mark 80% to 82% Attendance 2 marks 83% to 85% Attendance 3 marks 86% to 88% Attendance 4 marks 89% and more Attendance 5 mark

#### **House Examination**

House Examination shall cover ordinarily around two-third of the syllabus in each paper and shall follow the same format as that of the University Examination in all respects including the format of question papers, the time duration for each paper, and maximum marks allotted to each paper. The marks obtained shall be scaled down to 5%. If there are fractions in the marks obtained in any paper as a result of scaling down or otherwise, these shall be carried as such and shall not be converted into whole numbers. Conversion of fractions into whole numbers shall be done at the final stage of calculating internal assessment..

# Eligibility conditions to appear in the annual examination

- > 75% attendance is compulsory in theory and practical.
- > 75% attendance is mandatory in seminars and submission of assignments.
- ➤ It shall be mandatory for all the students to appear in the House Examination. A minimum of 20% marks in each subject or 25% in aggregate shall be an essential condition to be eligible to appear in the annual examination.
- ➤ It shall also be mandatory to participate in the activities of subject societies.
- ➤ The University annual examination form shall be treated as provisional unless and until the eligibility criteria as mentioned above for appearing in the annual examination are fulfilled by the candidate and a certificate to this effect is given by the Principal.
- ➤ (For determining the eligibility, 0.5% and above shall be considered as one percent.)

# Rules of admission for outstanding sportswomen and outstanding students in cultural activities

- ➤ Admission against quota meant for outstanding sportswomen and outstanding students in cultural activities shall be made only once in the beginning of the session. These students must also qualify for the minimum eligibility conditions for admission in that course as provided under the rules.
- ➤ Original certificates will be verified at the time of admission.
- ➤ Only those students will be considered for the sports quota who have participated in the District/ State/ National level tournaments.
- ➤ Only those students who have secured 1st,2nd, or 3rd position in the District/ State /National level in cultural events will be considered for the quota meant for outstanding students in cultural activities.
- ➤ It will be mandatory for these students to participate in sports/ cultural events.

# **Leave Rules For Students**

- ➤ A student can proceed on leave with prior permission from the subject teachers& the committee formed for the purpose, but the application should be signed by her parent or guardian.
- ➤ The Co-ordinator can sanction leave up to 10 days while leave for more than 10 days will be sanctioned by the committee constituted for the purpose. Leave application must be submitted in the office.
- ➤ Leave on account of illness, if it is for more than 5 days, must be accompanied by a Medical Certificate/Registration slip.
- ➤ A student may proceed on any kind of leave but she must deposit his/her fees/fines on the appointed day. Otherwise, her admission will be cancelled. Similarly, she is also required to return the book on a fixed day.
- ➤ Students, who go for participate in various inter-college games or other competitions, will have to get their leave sanctioned & noted by the concerned subject teachers before their departure for participation leave will be granted during the House Examination & exemption of any kind will not be permissible.

# **Identity Card**

- ➤ A student without an identity card is deemed an outsider.
- ➤ A student is not permitted to replace her photograph on the identity card.
- ➤ A student must keep her identity card (duly signed by the Principal) with her while on the college campus.
- ➤ Without an identity card no one is allowed to enter the college premises.
- ➤ In case the identity card is lost, a duplicate card will be issued only after an FIR is registered with the nearest police station and an original copy of this FIR is appended with such request.

Note: For general details go through the Common Prospectus of BA/B.Sc/B.com

## **TENTATIVE ACTIVITY CALENDAR 2024-25**

Principal's Address July Last Week

NSS/NCC/ Bharat Scouts and Guides Enrollment August 3rd Week

Freshers' Welcome Last week of August

Meeting with Boarders Parents September 2nd Week

PTA Election and Meeting 14th September, 2024

Old Student Association Meeting (Both)

September last week

Old Student Association Function Middle of October

CSCA Election Dates to be notified by HPU

Formation of various Societies and Clubs

Dates to be notified by HPU

CSCA Oath Taking Ceremony After CSCA formation

Multiverse Lecture Series for Teachers and Students

Twice Every Month

Remedial Classes and Coaching for Competitive Exam

October 1st Week

NSS Annual Special Camp October/November

Mid-Term Exams November 3rd Week

PSU Training Program for faculty and students 7th-14th December 2024

Annual Athletic Meet December Second week

CSCA function December Third week

Pratispardha (The Inter Faculty Competitions) February, 2025

Farewell Party (Day Scholars and Boarders) March, 2025

Annual Prize Distribution Function March, 2025

# ZERO TOLERANCE TO RAGGING

Ragging is a criminal offence and any student found involved in ragging in any form whatsoever, will be **punished stringently**. Ragging in and around the college/ hostel campus or on roads/ approaches leading thereto is strictly prohibited. If any student is found indulging in ragging directly or indirectly, the college authorities shall be obliged under rule 22.17 (a) (b) (c) of H. P. University to expel the guilty and report the matter to the police as ragging amounts to a criminal offence. The college has constituted an **Anti-Ragging Cell** to ensure a ragging free environment. The names and contact numbers of the respective teachers are as follows:

# **Anti-Ragging Cell**

NAME	CONTACT NO.
Dr. Saroj Bhardwaj (Convener)	9816086304
Dr. Luxmi (Co-Convener)	9418475172
Dr. Praveen Bhatia	9816035435
Dr. Tanendra Devi	7018706234
Dr. Jyoti Pandey	9418159310
Ms. Versha Chauhan	8988375897

- ➤ Smoking, consuming drugs, alcohol, tobacco products or any other intoxicating substances is strictly prohibited in the college/ hostel campus. Any violation will attract severe disciplinary action.
- ➤ The students must carry their identity cards at all times. Entry in the college without identity cards is strictly prohibited.
- ➤ The prospectus cum handbook of information is published for the purpose of information only. Information contained in this document does not form the basis of any binding or give rise to any contractual or other obligation on behalf of R.K.M.V. The college does not accept any liability whatsoever to any person in relation to the content of this document and any reliance placed on it.

#### **Address:**

# Rajkiya Kanya Mahavidyalaya

Longwood, Shimla, Himachal Pradesh Pincode: 171001

Facebook Page: Rajkiya Kanya Mahavidyalaya, Shimla