डॉ. यशवंत सिंह परमार औद्यानिकी एवं वानिकी विश्वविद्यालय,
नौणी (सोलन)-173230, हिमाचल प्रदेश
Dr. Yashwant Singh Parmar University of Horticulture & Forestry,
Nauni (Solan)–173230, Himachal Pradesh
OFFICE OF THE REGISTRAR | ACADEMIC SECTION
☎ **01792-252009** | ✉ **registrar-acad@uhf.ac.in**

No. UHF/Regr.(Acad.)/4-103/2026/ 12147-295 Dated:-Nauni, the 14.07.2026

ADMISSION NOTICE

Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni (Solan), invites offline applications from eligible candidates for admission to the following Post Graduate Diploma Programmes for the Academic Session 2026–27:

1. **Post Graduate Diploma in Yoga Science** – Department of Floriculture and Landscaping, College of Horticulture.
2. **Post Graduate Diploma in Apiculture and Apitherapy** – Department of Entomology, College of Horticulture.

The programmes are being offered by the above mentioned Departments of the College of Horticulture, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni (Solan). The eligibility conditions, seat matrix, fee structure, important dates and other admission-related details for both the programmes are given below:

A. Eligibility Criteria (Common for Both Programmes)

- The applicant must hold a Bachelor's/Graduation degree in any discipline from a recognized university.
- Minimum 50% marks in graduation are required (45% marks in case of SC/ST candidates).

In case the candidate's qualifying examination result is awarded in the form of CGPA, OGPA, GPA, or any other grading system, the candidate shall produce the conversion formula or an equivalence certificate for conversion into percentage, duly issued by the concerned University/Institution.

B. Programmes Offered & Seat Matrix

S.N.	Programme	Duration	Medium	Intake (Seats)
1.	Post Graduate Diploma in Yoga Science	1 Year (2 Semesters)	English	30
2.	Post Graduate Diploma in Apiculture and Apitherapy	1 Year (2 Semesters)	English / Hindi	25

(For Reservation details refer to the Prospectus.)

C. Application Fee (Common for Both Programmes)

- ₹600/- for SC/ST category
- ₹800/- for General (UR)/any other category

(Payment by Bank Draft drawn in favour of "The Comptroller, Dr Y.S. Parmar University of Horticulture and Forestry, Nauni-Solan (HP) – 173230" payable at Nauni (Solan).)

D. Mode of Submission of Application

Duly filled-in application form along with self-attested copies of certificates and the requisite Bank Draft may be submitted **in person** or sent **by post so as to reach on or before the due date** to:

Room No. 217, General Administrative Branch, Administrative Block, Registrar's Office, Dr Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (HP) – 173230

Important Note: Any Demand Draft not drawn in favour of the Comptroller, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni (Solan) shall be rejected outright and will not be considered. Candidates are advised to ensure that the Demand Draft and all other particulars furnished in the application form are correct before submitting the application. Any discrepancy or incorrect information may lead to rejection of the application.

E. Important Dates (Common for Both Programmes)

Particulars	Date
Last date for submission of application	16th August 2026
Date of merit-based counselling	24th August 2026
Date of registration	26th & 27th August 2026
Commencement of classes	28th August 2026

F. Admission & Counselling

- No Entrance Test shall be conducted for admission to either programme.
- Admission shall be made strictly on the basis of a merit list prepared from the marks obtained by the candidates in the qualifying (Graduation) examination.
- Merit-based Counselling shall be conducted in person on **24th August, 2026** at the respective Departments as detailed below:

Programme	Venue for Counselling
Post Graduate Diploma in Yoga Science	Department of Floriculture and Landscaping, College of Horticulture, Nauni (Solan)
Post Graduate Diploma in Apiculture and Apitherapy	Department of Entomology, College of Horticulture, Nauni (Solan)

G. Semester-wise Fee Structure

Programme	Total Fee per Semester (₹)
Post Graduate Diploma in Yoga Science	32,870/-
Post Graduate Diploma in Apiculture and Apitherapy	42,570/-

(Detailed head-wise fee break-up for both programmes is given in Chapter-III of the Prospectus)

H. Detailed Syllabus

- Detailed eligibility, scheme of teaching & examination and course-wise syllabus of Post Graduate Diploma in Yoga Science and Post Graduate Diploma in Apiculture and Apitherapy is given in the attached prospectus.

I. Application Form

A common Application Form for applying to either of the above Programmes is appended with this notice. Candidates must clearly indicate the Programme(s) applied for, and ensure that all required enclosures are submitted along with the application. Candidates are advised to go through the Prospectus for Diploma Programmes in Yoga Science and Apiculture and Apitherapy for the before applying.

(Siddhartha Acharya, HPAS)
Registrar

Endst. No. UHF/Regr.(Acad)/4-103/2026/-13147-295 Dated: 14.07.2026

Copy forwarded for information and wide publicity to:

1. The Director, Higher Education, Himachal Pradesh, Shimla
2. The Director, Horticulture/Agriculture/Animal Husbandry/ Principal Chief Conservator of Forests, Himachal Pradesh, Shimla
3. The Secretary, Horticulture/Agriculture/Forests to the Government of Himachal Pradesh, Shimla-171002
4. The Secretary, Indian Council of Agricultural Research, Krishi Anusandhan Bhavan, New Delhi.
5. The Secretary, University Grants Commission, New Delhi.
6. The Secretary to the Hon'ble Chancellor (The Governor, Himachal Pradesh), Raj Bhavan, Shimla (HP)
7. The Registrars, HPU Shimla/ CSK HPKV, Palampur, Technical University Hamirpur/Central University Dharamshala, Sardar Patel University, Mandi (Himachal Pradesh) /PAU Ludhiana/CCS HAU, Hissar/ SKUAST, Jammu/SKUAST, Kashmir.
8. All the Deputy Commissioners of Himachal Pradesh for giving wide publicity through their subordinate offices.
9. All the Sub-Divisional Officers of Himachal Pradesh for giving wide publicity through their subordinate offices.
10. All the Block Development Officers of Himachal Pradesh for giving wide publicity through their subordinate offices upto Panchayat level for the information of concerned.

11. All the Deputy Directors (Higher Education) Himachal Pradesh for giving wide publicity through their Senior Secondary Schools under their control.
12. The Public Relation Officer/Secretary to the Vice-Chancellor, Dr. Y. S. Parmar University of Horticulture and Forestry, Nauni-Solan.
13. The Director of Research/Director, Extension Education/Dean Students' Welfare Officer/Librarian, UHF, Nauni, Solan
14. The Dean, College of Horticulture/College of Forestry, Nauni (Solan), College of Horticulture & Forestry, Neri (Hamirpur)/Thunag (Mandi).
15. All the Associate Directors/Programme Coordinators/Incharges, Regional Research & Training Stations/ Krishi Vigyan Kendras of the University
16. Professor Incharge, Computing and Informatics Centre, UHF, Nauni (Solan). He is requested to get the Admission Notice uploaded on the University Website.

Registrar

Dr. Yashwant Singh Parmar University of Horticulture and Forestry

Nauni, Solan – 173230 (HP)

COMMON APPLICATION FORM

Post Graduate Diploma in Yoga Science / Post Graduate Diploma in Apiculture and Apitherapy

Academic Session 2026–27

Programme Applied For (Tick only one): ☐ Yoga Science ☐ Apiculture & Apitherapy

1.	Name of Candidate (As per 10th Certificate)		Affix Passport Size Photograph
2.	Father's / Mother's Name		
3.	Nationality	4. Gender ☐ Male ☐ Female ☐ Other	
5.	Date of Birth	6. WhatsApp Mobile No.	
7.	E-mail ID		
8.	Permanent Address (with PIN Code)		
9.	Correspondence Address (with PIN Code)		

10. Category: ☐ UR ☐ SC ☐ ST ☐ OBC ☐ EWS

11. Domicile of Himachal Pradesh: ☐ Yes ☐ No 12. Ward of Serving/Ex-Defense Personal : ☐ Yes ☐ No

13. Person with Disability (PwD): ☐ Yes ☐ No

15. Educational Qualifications (Attach self-attested copies):

Examination	Board/University	Year	Max. Marks	Marks Obtained	Percentage%
Graduation					

Note: Candidates claiming marks based on OGPA/OCPA/CGPA must attach the University's certified conversion formula/equivalence certificate.

16. Enclosures (Tick as applicable):

☐ 10th Certificate (for DOB) ☐ Graduation Degree/Provisional Certificate & DMC

☐ Category Certificate (if applicable) ☐ HP Domicile/Bona-fide Certificate

☐ CGPA/OGPA Conversion Certificate (if applicable) ☐ Bank Draft

Declaration: I solemnly declare that the information furnished above is true and correct to the best of my knowledge and belief. I understand that any false information or concealment of facts may result in cancellation of my candidature/admission.

Place: _____ Date: _____

Signature of Applicant

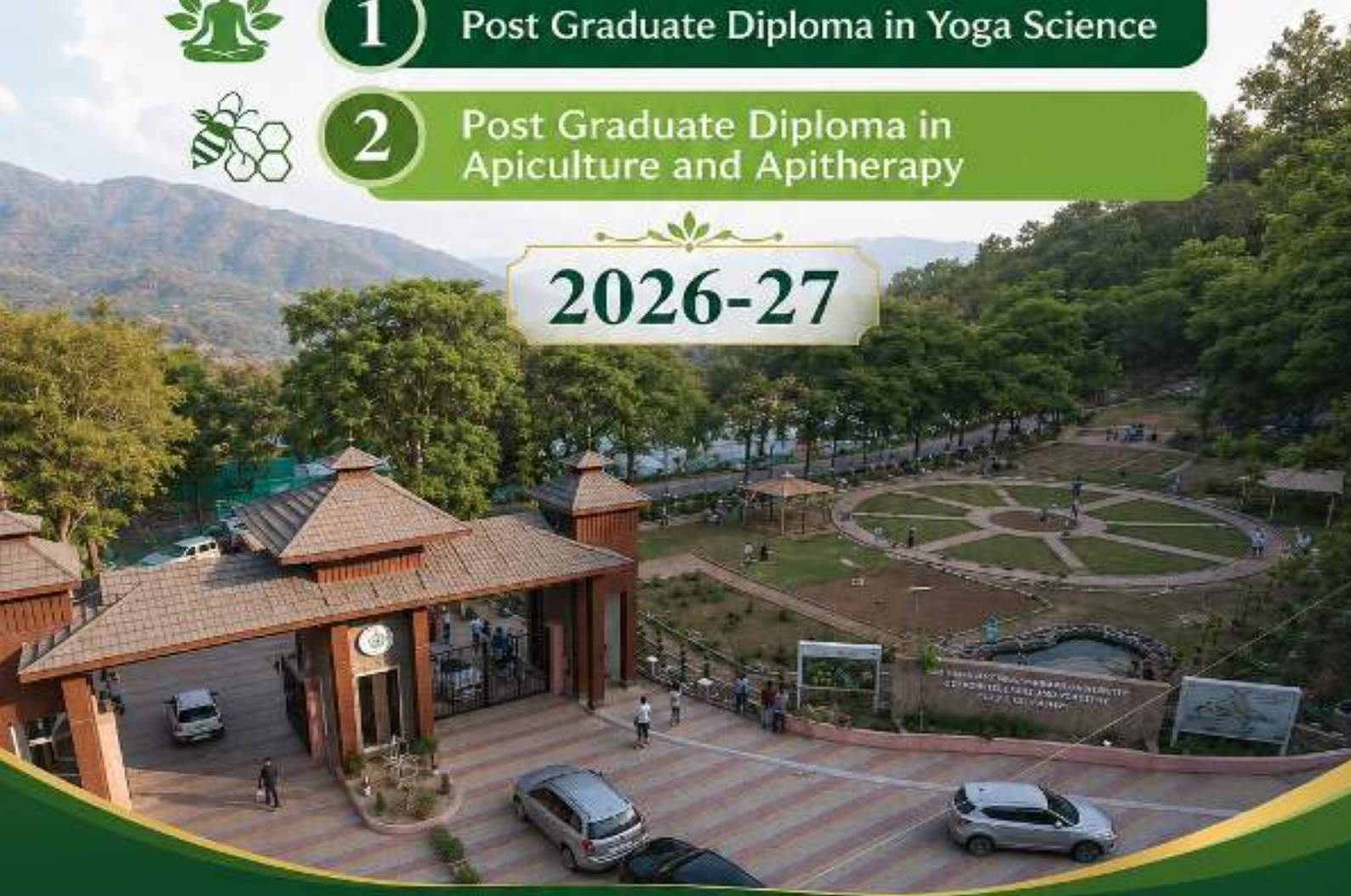
PROSPECTUS

DIPLOMA PROGRAMMES

in

1. Post Graduate Diploma in Yoga Science
2. Post Graduate Diploma in Apiculture and Apitherapy

2026-27



Dr Yashwant Singh Parmar
University of Horticulture and Forestry,
Nauni (Solan) - 173230

IMPORTANT DATES

Sr No	Particulars	Date
1.	Last date for receipt of application	**16.08.2026**
2.	Date of Counselling/selection	**24.08.2026**
3.	Date of Registration and deposition of fee	**26.08.2026 & 27.08.2026**
4.	Commencement of classes	**28.08.2026**

CHECK LIST FOR SUBMISSION OF APPLICATION FORM

- Duly filled in Application Form (**Annexure-I**) in all respect
- 10^{th} certificate (for date of birth)
- Graduation Degree certificate
- Character certificate from head of the institution last attended from a gazetted officer/ concerned Gram Panchayat Pradhan.
- Self-attested copy of SC/ ST(if applicable) certificate
- Bank Draft of Rs. 800/- for General Category (Rs. 600/- in the case of SC/ST Category candidates) to be made out in favour of the Comptroller, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni (Solan).
- Declaration for the non-use of illicit drugs as per **Annexure-IV**

IMPORTANT NOTES

1. It is advised to ensure correctness of your mailing address, PIN CODE and telephone number with STD Code.
2. Application form alongwith attested photocopies of above listed documents can be sent by registered/speed post in the name of the Assistant Registrar (Academic), Office of the Registrar, Dr Yashwant Singh Parmar University of Horticulture & Forestry, Nauni-Solan (HP)–173 230. **No application through courier service shall be accepted. The University shall not be responsible for any postal delay.**
3. Application form can also be submitted by hand in the office of the Registrar, Room No. 217, Administrative Block, Dr Yashwant Singh Parmar University of Horticulture & Forestry, Nauni-Solan (HP) – 173 230.
4. The cost of prospectus-cum-application form is non-refundable.
5. Candidates will have to make their own boarding/ lodging arrangements.
6. Any Demand Draft not drawn in favour of the Comptroller, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni (Solan) shall be rejected outright and will not be considered. Candidates are advised to ensure that the Demand Draft and all other particulars furnished in the application form are correct before submitting the application. Any discrepancy or incorrect information may lead to rejection of the application

Price:
General Category Candidates: ₹800/-
SC/ST Category Candidates:₹600/-

For Details

Course	Head of the Department	Email	Contact No.
Yoga Science	Professor and Head, Department of Floriculture and Landscaping, COH, Nauni	hodfls@uhf.ac.in	01792-252276
Apiculture and Apitherapy	Professor and Head, Department of Entomology, COH, Nauni	hodeap@uhf.ac.in	01792-252240

DISCLAIMER

1. The information contained in this Prospectus is of general nature for the candidates seeking admission in Diploma Programme of the University. It is neither an exhaustive nor a legal document. The information contained herein is believed to be correct at the time of publication. However, the University reserves the right to make any alteration without any notice in the provisions made in the prospectus, whereupon, the University will not be responsible for any hardship or expense incurred by any student or any other person for such changes, additions, omissions or errors, no matter how they are caused.

2. Candidates are advised to refer to the Academic Regulations and other Statutory/ Administrative provisions applicable on a particular point of time on various aspects, viz., system of education in the University, etc. They should also note that the provisions of the Act, Statutes and Academic Regulations or any other legal/ administrative notifications, orders, instructions and fee structure can be changed by the Competent Authority at any time without any prior notice.

CHAPTER- I

GENERAL INFORMATION

1.1 Historical Background of the University

Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni, Solan, was established on 1st December, 1985 with the objective to promote education, research and extension education in the fields of horticulture, forestry and allied disciplines. Late Dr. Yashwant Singh Parmar, the 1stChief Minister and the architect of Himachal Pradesh perceived the importance of horticulture and forestry to develop and improve the State economy which led to the establishment of this University. Its history lies in erstwhile Himachal Agricultural College, Solan, established in 1962 and affiliated to the Punjab University. It became one of the agriculture campuses of Himachal Pradesh University on its formation in 1970. Consequent upon the establishment of Himachal Pradesh Krishi Vishvavidyalaya in 1978, this campus became its Horticulture Complex and finally in 1985, assumed the status of a State University, being the only University in the country engaged exclusively in teaching, research and extension in horticulture and forestry.

The University is located at Nauni in Solan district of Himachal Pradesh, 13 km from Solan on Solan-Rajgarh Road, at an elevation of 1300 metres above mean sea level. Solan town is situated on national highway (NH-22) and is well connected by train and bus services.

1.2 Post Graduate Diploma in Yoga Science

The tradition of Yoga has always been passed on individually from teacher to student through oral teaching and practical demonstration. The formal techniques that are now known as Yoga are, therefore, based on the collective experiences of many individuals over many thousands of years. The particular manner in which the techniques are taught and practiced today depends on the approach passed down in the line of teachers supporting the individual practitioner. Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on establishing harmony between mind, body; thought and action; restraint and fulfilment; harmony between man and nature and a holistic approach to health and wellbeing. Yoga is not about exercise but to discover the sense of oneness with ourselves, the world and Nature. It is an art and science for healthy living.

The word "Yoga" is derived from the Sanskrit root ‘yuj’ meaning "to join", "to yoke" or "to unite". Therefore the aim of yoga is to unite the individual consciousness with the supreme consciousness. Yoga is a science and art of living; also it is a body of techniques that lead us to consciously connect with ourselves and with life, the experience of yoga. As yoga is an art and science, there is no dogma or belief system attached to it. Yoga tells us to do a certain practice and feel their effect following the practice, e.g. if we breath slowly in a relaxed manner we will slow our heart rate; if we focus the mind we will develop mental peace and deep insight.

In addition to this, Yoga is becoming popular day by day and has become a wave which is sweeping across the globe. In this course we introduce yoga as a science of Holistic living and not merely as yoga postures. During the course, the student is taught the fundamental & advanced concepts of Yoga as well as the techniques for the treatment and prevention of

various psychosomatic and life style related ailments.

I. **Title of the Programme:** The programme shall be called " Post Graduate Diploma in Yoga Science "

II. **Aim of the Programme** The aim of the programme is to produce "Yoga professionals for academic & therapeutic fields"

III. **Objectives of the programme**

i. **Deeper Understanding of Yoga:** To make students understand the classical nature of Yoga & giving them the in-depth knowledge of its various components.

ii. **Prevention:** To introduce yoga as therapy, its principles and practices of yoga for prevention of various lifestyles, non-communicable and psychosomatic disorders.

iii. **Promotion of positive health:** To prepare them for giving talks and offer techniques to promote healthy yogic life style.

The detailed Scheme of Teaching and Examination along with the Course Contents is enclosed as **Annexure-II.**

1.3 Post Graduate Diploma in Apiculture and Apitherapy

Beekeeping is an important agro-based enterprise that links crop production, biodiversity conservation, rural entrepreneurship and nutritional security. Honey bees provide direct economic returns through honey, beeswax, pollen, propolis, royal jelly, bee venom and value-added products, while also strengthening agricultural productivity through managed pollination. Scientific beekeeping therefore requires sound knowledge of honey bee biology, apiary equipment, colony management, bee health, bee flora, product quality, processing, marketing and enterprise management.

The proposed Post Graduate Diploma in Apiculture and Apitherapy is designed to develop skilled professionals who can manage colonies, diagnose and prevent bee health problems, produce quality bee products, support pollination services, undertake migratory beekeeping, develop value-added products and establish sustainable beekeeping enterprises. The course combines classroom teaching, practical training, laboratory exposure, field work, industrial attachment and apiary attachment.

The syllabus has been structured semester-wise to progressively build competency from basic honey bee biology and equipment handling to product technology, queen rearing, pollination services, migratory beekeeping, business management and hands-on apiary/industry experience.

I. Title of the Programme

The programme shall be called "***Post Graduate Diploma in Apiculture and Apitherapy*** ".

II. Aim of the Programme

The aim of the programme is to produce trained professionals for apiary management, bee product technology, apitherapy, managed pollination, quality assurance, entrepreneurship and extension services.

III. Objectives of the Programme

To provide students with a strong foundation in honey bee biology, behaviour, morphology and anatomy.

To develop practical skills in apiary establishment, equipment handling, colony inspection, seasonal management and record keeping.

To develop practical skills in apitherapy

To train students in identification, diagnosis and management of important bee pests, predators and diseases.

To build competency in production, processing, quality analysis and value addition of bee hive products.

To prepare students for queen rearing, colony multiplication, managed pollination and migratory beekeeping.

To develop entrepreneurship, marketing and business management skills for sustainable beekeeping enterprises.

To provide field exposure through industrial attachment and apiary attachment.

The detailed Scheme of Teaching and Examination along with the Course Contents is enclosed as **Annexure-III.**

CHAPTER-II

ADMISSION RULES

2.1. Duration

Duration of the course will be 1 year, divided into 2 semesters.

2.2. Minimum qualification

- Graduation in any discipline with 50 % marks at graduation level (with 45 % marks in the case of Scheduled caste/ Scheduled Tribe)

2.3. Intake Capacity

Post Graduate Diploma in Yoga Science	30 seats
Post Graduate Diploma in Apiculture and Apitherapy	25 seats

2.4 Basis of Admission

The basis of admission shall be drawn on the basis of the marks in graduation level. It is mandatory for the candidate to appear in person for counselling on 24th August, 2026 at the respective Departments as detailed below:

Programme	Venue for Counselling
Post Graduate Diploma in Yoga Science	Department of Floriculture and Landscaping, College of Horticulture, Nauni (Solan)
Post Graduate Diploma in Apiculture and Apitherapy	Department of Entomology, College of Horticulture, Nauni (Solan)

2.5 Mode of Instruction

The mode of instruction for Post Graduate Diploma in Yoga Science will be English and for Post Graduate Diploma in Apiculture and Apitherapy will be English and Hindi both

2.6 Reservation of Seats

- 15% of the total Seats shall be reserved for candidates belonging to Scheduled Caste (SC) category.
- 7.5% of the total seats shall be reserved for candidates belonging to Scheduled Tribe (ST) category.
- 10% of the total seats shall be reserved for candidates belonging to Economical Weaker Section (EWS) category.
- 5% of the total seats shall be reserved for person with disability (PwD)
- Two seats for Other Backward Classes
- One seat shall be reserved for wards of serving/ex-defense personal.

The benefit of this reservation shall be applicable to the bonafide residents of Himachal Pradesh Only. In case the candidates in either of the two categories (SC/ST) are not available, the seat(s) will be interchangeable.

2.7 Medical Fitness

Admission shall be subject to the applicant being declared medically fit by the Medical Officer.

2.8 Refusal of Admission

The past conduct of a candidate shall be considered while deciding his/her candidature. If the candidate is found indulged in act of indiscipline or guilty of having organized unlawful activities, he/she will be refused admission by the admission committee.

The Vice-Chancellor reserves the right to refuse admission to any candidate, whose admission in his opinion, is not in the interest of the University.

CHAPTER-III

Fee Structure

3.1. Fee Structure for Post Graduate Diploma in Yoga Science

Sr. No.	Particulars	Fee (₹)	Remarks
1	Admission/Registration Fee	6000	Semester-wise
2	Tuition Fee *(Exempted for girls belonging to HP-BPL families)*	10,000	Semester-wise
3	Sports, Games & Youth Welfare Activity	1,000	Semester-wise
4	Examination Fee	1,500	Semester-wise
5	Practical charges	6,000	Semester-wise
6	Infrastructure Development/Maintenance Fund	2,500	Semester-wise
7	Placement Guidance Fee	500	Semester-wise
8	Identity Card Fee	100	At the time of admission
9	Library Card Fee	150	Annual
10	Library Service Charges	1,000	Semester-wise
11	College Security *(Refundable)*	500	At the time of admission
12	Library Security *(Refundable)*	500	At the time of admission
13	Amalgamated Fund	2,500	Semester-wise
14	Medical Charges	500	Semester-wise
15	Green Charges	120	Semester-wise
	Total	**32870**	

3.2 . Fee Structure for Post Graduate Diploma in Apiculture and Apitherapy

Sr. No.	Particulars	Fee (₹)	Remarks
1	Admission/Registration Fee	9,000	Semester-wise
2	Tuition Fee *(Exempted for girls belonging to HP-BPL families)*	12,000	Semester-wise
3	Sports, Games & Youth Welfare Activity	1,000	Semester-wise
4	Examination Fee	2,500	Semester-wise
5	Practical charges for Apitherapy practices , bee colonies and bee products	10,000	Semester-wise
6	Infrastructure Development/Maintenance Fund	2,500	Semester-wise
7	Placement Guidance Fee	200	Semester-wise
8	Identity Card Fee	100	At the time of admission
9	Library Card Fee	150	Annual
10	Library Service Charges	1,000	Semester-wise
11	College Security *(Refundable)*	500	At the time of

			admission
12	Library Security *(Refundable)*	500	At the time of admission
13	Amalgamated Fund	2,500	Semester-wise
14	Medical Charges	500	Semester-wise
15	Green Charges	120	Semester-wise
	Total	**42,570**	

3.3 **Refund/adjustment of fee**

Refund of fees on cancellation/withdrawal of admission shall be governed by the UGC Fee Refund Policy as in force at the time of admission. Candidates are advised to refer to the detailed refund policy available on the UGC website at **https://www.ugc.gov.in**

CHAPTER-IV

INSTRUCTIONS/ REGULATIONS REGARDING RAGGING

4.1 Ragging

Ragging in any form is strictly banned and is a cognizable offence as per the directions of Hon'ble Supreme Court of India. If any incident of ragging comes to the notice of the authority, the authority would take stern action including expulsion from the University/ Institution as per Academic Regulations. At the time of admission, every student and his/ her parents shall be required to sign a declaration in the format (as per annexure-I) that on admission he/she submits himself/herself to the several authorities of the University who may be vested with the powers to exercise discipline under the Act, the Statutes and the Academic Regulations that have been framed there-under by the University.

4.2 Preamble

Any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student, or indulging in rowdy or in-discipline activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear of apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not be in the ordinary course do and which has the effect of causing or generating a sense of shame, or torment to embarrassment so as to adversely affect the physique or psyche of such fresher or any student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student, in the University. Therefore, to provide conducive and healthy environment for proper physical and psychological development of all students, the Dr. Yashwant Singh Parmar University of Horticulture and Forestry in accordance with the UGC guidelines and the Himachal Pradesh Educational Institutions (Prohibition of Ragging) Act, 2009, brings forth the Regulations to curb the menace of ragging.

4.3 Ragging includes the following acts:

i) Any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness any fresher or any other student.

ii) Indulging in rowdy or in-disciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student.

iii) Asking any student to do any act or perform something which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame or torment or embarrassment so as to adversely affect the physique or psyche of a fresher or any other student.

iv) Any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher.

v) Exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.

vi) Any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students.

vii) Any act of physical abuse including all variants of it; sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health of a person.

viii) Any act or abuse by spoken words, e-mails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student.

ix) Any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.

4.4 Administrative Action in the event of Ragging:

The University shall punish a student found guilty of ragging after following the procedure and in the manner prescribed hereinunder:

The Anti-ragging Committee of the University shall take an appropriate decision, in regard to punishment or otherwise, depending on the facts of each incident of ragging and nature and gravity of the incident of ragging established in the recommendations of the Anti-ragging Squad. The Anti-ragging Committee may, depending on the nature and gravity of the guilt established by the Anti-Ragging Squad, award, to those found guilty, one or more of the following punishments:

- Cancellation of admission
- Suspension from attending the classes
- Withholding/withdrawing scholarship/fellowship and other benefits
- Debarring from appearing in any test/examination or other evaluation process
- Withholding results
- Debarring from representing the university in any regional, national or international meet, tournament, youth festival, etc
- Suspension/expulsion from the hostel
- Rustication from the university for period ranging from one to four semesters
- Expulsion from the university and consequent debarring from admission to any other institution/ university for a specified period.
- Fine of ₹ 25,000/-
- Collective punishment: when the persons committing or abetting the crime of ragging are not identified, the university shall resort to collective punishment as a deterrent to ensure community pressure on the potential raggers.

4.5 Action to be taken by the Vice-Chancellor:

On the receipt of any information concerning any reported incident of ragging, the Vice-Chancellor shall immediately determine, if a case under the penal laws is made out and if so, either on his/her own or through a member of the anti-ragging committee authorized by him/her in this behalf, proceed to file a first information report (FIR), within twenty four hours of receipt of such information or recommendation, with the police and local authorities, under the appropriate penal provisions relating to one or more of the following, namely:-

i) Abetment to ragging
ii) Criminal conspiracy to rag
iii) Unlawful assembly and rioting while ragging
iv) Public nuisance created during ragging
v) Violation of decency and morals through ragging
vi) Injury to body, causing hurt or grievous hurt
vii) Wrongful restraint
viii) Wrongful confinement
ix) Use of criminal force

x) Assault as well as sexual offences or unnatural offences
xi) Extortion
xii) Criminal trespass
xiii) Offences against property
xiv) Criminal intimidation
xv) Attempts to commit any or all of the above mentioned offences against the victim(s)
xvi) Threat to commit any or all of the above mentioned offences against the victim(s)
xvii) Physical or psychological humiliation
xviii) All other offences following from the definition of "Ragging"

Provided further that the University shall also continue with its own enquiry initiated under this regulation and other measures without waiting for action on the part of the police/local authorities and such remedial action shall be initiated and completed immediately and in no case later than a period of seven days of the reported occurrence of the incident of ragging.

NOTE: It is mandatory for all the students of this University to fill the undertaking online at www.amanmovement.org or www.antiragging.in

Contacts in case of "Ragging"

Fax No. 01792-252 603
Website: www.uhf.ac.in

Sr No	**Designation**	**E-mail Address**	**Telephone Numbers (10.00 AM to 5.00 PM)**
1.	Vice-Chancellor	vcuhf@uhf.ac.in	01792-252363
2.	Dean, College of Horticulture, Nauni- Solan	deancoh@uhf.ac.in	01792-252344
3.	Professor and Head, Department of Floriculture and Landscaping, COH, Nauni	hodfls@uhf.ac.in	01792-252276
4.	Professor and Head, Department of Entomology, COH, Nauni	hodeap@uhf.ac.in	01792-252240
6.	Dean, Students' Welfare	swo@uhf.ac.in	01792-252312
7.	Registrar	registrar@uhf.ac.in	01792-252219

Dr. Yashwant Singh Parmar University of Horticulture and Forestry

Nauni, Solan – 173230 (HP)

COMMON APPLICATION FORM

Post Graduate Diploma in Yoga Science / Post Graduate Diploma in Apiculture and Apitherapy

Academic Session 2026–27

Programme Applied For (Tick only one): ☐ Yoga Science ☐ Apiculture & Apitherapy

1.	Name of Candidate (As per 10th Certificate)		Affix Passport Size Photograph
2.	Father's / Mother's Name		
3.	Nationality	4. Gender ☐ Male ☐ Female ☐ Other	
5.	Date of Birth	6. WhatsApp Mobile No.	
7.	E-mail ID		
8.	Permanent Address (with PIN Code)		
9.	Correspondence Address (with PIN Code)		

10. Category: ☐ UR ☐ SC ☐ ST ☐ OBC ☐ EWS

11. Domicile of Himachal Pradesh: ☐ Yes ☐ No 12. Ward of Serving/Ex-Defence/: ☐ Yes ☐ No

13. Person with Disability (PwD): ☐ Yes ☐ No

14. Educational Qualifications (Attach self-attested copies):

Examination	Board/University	Year	Max. Marks	Marks Obtained	Percentage%
Graduation					

Note: Candidates claiming marks based on OGPA/OCPA/CGPA must attach the University's certified conversion formula/equivalence certificate.

16. Enclosures (Tick as applicable):

☐ 10th Certificate (for DOB) ☐ Graduation Degree/Provisional Certificate & DMC

☐ Category Certificate (if applicable) ☐ HP Domicile/Bona-fide Certificate

☐ CGPA/OGPA Conversion Certificate (if applicable) ☐ Bank Draft

Declaration: I solemnly declare that the information furnished above is true and correct to the best of my knowledge and belief. I understand that any false information or concealment of facts may result in cancellation of my candidature/admission.

Place: _____ Date: _____

Signature of Applicant

Annexure- 1I

Post Graduate Diploma in Yoga Science

Scheme of Teaching & Examination

S.N.	Subject Code	Subject Title	Periods per week			Evaluation Scheme				Subject Total
						Seasonal			SEE	
			L	**T**	**P**	**Credit**	**CT**	**TA**		
I Year										
Semester I										
1	YS101	Fundamentals of Yoga	3	1	0	4	20	10	70	100
2	YS 102	Principles of Hath Yoga	3	1	0	4	20	10	70	100
3	YS 103	Introduction To Shrimad BhagavadGeeta and Samkhya karika	3	1	0	4	20	10	70	100
4	YS 104	Human Biology	3	1	0	4	20	10	70	100
5	YS 105	Yoga Practicum	0	0	8	4	20	10	70	100
24 Hrs Per Week						**20**	**Total**			**500**

Semester II										
1	YS 201	Patanjal Yoga Darshan	3	1	0	4	20	10	70	100
2	YS 202	Yoga Therapy	3	1	0	4	20	10	70	100
3	YS 203	Introduction to Ayurveda	3	1	0	4	20	10	70	100
4	YS 204	Complementary & Alternative Therapy (CAT)	3	1	0	4	20	10	70	100
5	YS 205	Yoga Practicum	0	0	8	4	20	10	70	100
6	YS 206	Field Work/ Case Study	0	0	8	4	20	10	70	100
32 Hrs Per Week						**24**	**Total**			**600**
Total number of Credits						**44**	**Total Marks**			**1200**

L - Lecture, T-Tutorial, P-Practical (practice/ field), CT- Cumulative Tests, TA - Teachers Assessment, SEE - Semester Examination

SEMESTER I

S.N.	Subject Code	Subject Title	Periods per week			Evaluation Scheme				Subject Total
						Seasonal			SEE	
			L	**T**	**P**	**Credit**	**CT**	**TA**		
I Year										
Semester I										
1	YS101	Fundamentals of Yoga	3	1	0	4	20	10	70	100
2	YS 102	Principles of Hath Yoga	3	1	0	4	20	10	70	100
3	YS 103	Introduction To Shrimad BhagavadGeeta and Samkhya karika	3	1	0	4	20	10	70	100
4	YS 104	Human Biology	3	1	0	4	20	10	70	100
5	YS 105	Yoga Practicum	0	0	8	4	20	10	70	100
24 Hrs Per Week						**20**	**Total**			**500**

NAME OF THE COURSE: FUNDAMENTALS OF YOGA

COURSE CODE: YS -101

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

- Introduce Yoga and its main streams.
- Become familiar with the nature of yoga in various texts of Indian knowledge tradition.
- Get acquainted with the history of yoga and its basis.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1: GENERAL INTRODUCTION TO YOGA (12 HOURS)

Origin of Yoga, Psychological basis for origin of Yoga, History and development of Yoga (Vedic period, Darshan period, Commentary period, Bhakti Yoga and Hatha Yoga period, Modern period), Etymological meaning and definition of Yoga, Purpose of yoga, Current misconceptions regarding yoga, Major principles of yoga, Yoga practices for healthy life, Importance of yoga in present age.

UNIT - 2: BASIS OF YOGA AND TRADITION OF YOGA - I (12 HOURS)

General introduction of Vedas, Upanishads and Ayurveda in yogic context, General introduction of Samkhya, Yoga and Vedanta philosophy (in yogic context), General introduction of Bhagavadgita (in yogic context), General introduction of Puranas (in yogic context)., Yoga in Yog Vashishtha and Narada Bhakti Sutra, Brief

Introduction to Yoga in Jain Philosophy and Buddhist Philosophy, Bhakti Yoga of Medieval Saints (Kabir, Nanak and Sufism)

UNIT - 3: BASIS OF YOGA AND TRADITION OF YOGA - II (12 HOURS)

General introduction of Tantra and its currents (Shaiva, Shakta, Vaishnava, Buddhist Tantra), Concept of Shiva and Shakti, Yoga in Shaivite and Shakta Tantras, Concept of Nadi and Prana, Kundalini, Kundalini Shakti and Shatchakra Sadhana, Impact of Tantra in Hatha Yoga Tradition and Sadhana.

UNIT - 4: MAJOR STREAMS OF YOGA (12 HOURS)

Concepts of major streams of yoga and introduction of their limbs with the effects - Gyan Yoga, Bhakti Yoga, Karma Yoga, Ashtanga Yoga, Kriya Yoga, Hatha Yoga and Mantra Yoga

UNIT - 5: INTRODUCTION TO RENOWNED YOGIS (12 HOURS)

Introduction (life & works) of the great yogis of India - Maharishi Patanjali, Maharishi Vyas, Maharishi Kapil Muni, Adi Shankaracharya, Maharishi Dayanand Saraswati, Swami Vivekananda, Maharishi Arvind, Swami Kuvalayananda, Maharishi Raman, Yogarishi Swami Ramdev

BOOKS FOR REFERENCE:

1. Agarwal MM: Six systems of Indian Philosophy, Chowkhambha Vidya Bhawan, varanai, 2010

2. Swami Bhuteshananda: Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition,2009

3. Hiriyanna M :Outlines of Indian Philosophy, Motilal Banarsidas, Delhi, 2009

4. Bhat, Krishnak.:The Power of Yoga: SuYoga Publications Mangalore,2006

5. Swami Prabhavananda : Spiritual Heritage of India(English). Sri Ramkrishna Math, Madras,2004

6. Swami Vivekananda: Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga. Advaita Ashrama, Calcutta,2000

7. Pandit, M.P. : Introduction to Upanishads: Theosophical Society of India, Adyar, Madras,

1976

8. Dasgupta,S.N. : Hindu Mysticism, Motilal Banarasi dass, Delhi1927

9. A Search in Mystic India - Paul Brunton

NAME OF THE COURSE: PRINCIPLES OF HATH YOGA

COURSE CODE: YS -102

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

1. Understand the fundamental principles of Hath Yoga.
2. Explain the understanding of Hath Yoga as a tradition and inculcate the essence.
3. Get acquainted with the tradition, history, its components and modern-day relevance of Hath yoga.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1: GENERAL INTRODUCTION TO HATHA YOGA (12 HOURS)

Hatha Yoga - Meaning, Definition, Origin, Tradition and Purpose. Prevailing misconceptions regarding Hatha Yoga. Helping and obstructing elements of Hatha Yoga. The Hatha Yogic practice described in Hathayogapradipika. Concept of Math, Manuals for the practitioner of Hatha Yoga, Concept of Mitahar, Pathya & Apathya. Tradition of Hatha Yoga. A brief introduction and contribution of the major yogis of the Nath Yoga tradition. Relations in Hatha Yoga and Raja Yoga.

Prescribed Text Book - हठयोग 'दीिपका

UNIT-2: PRACTICES OF HATHA YOGA - PURIFICATION AND ASANAS (12 HOURS)

Introduction to purification practices - Purification actions described in Hatha Yoga Pradipika and Gherand Samhita and their method, benefits and precautions. The role of purification practices in yoga sadhana and the importance of purification practices in modern life. Yogasana: Definition, characteristics and importance in yoga practice. Method, benefits, precautions and importance of aasanas in Hatha Yoga Pradipika and Gherand Samhita.

Prescribed Text Book - हठयोग 'दीिपका एवं घेरंड संपहता

UNIT-3: PRACTICES OF HATHA YOGA - PRANAYAMA, BANDHA AND MUDRAS (12 HOURS)

Pranayama : Introduction. Method of Proper Respiration, Yogic Deep Breathing. Concept of Inhale (*Purak*), Retention (*Kumbhak*) and Exhale (*Rechak*). Prana, types of prana and sub-prana. Importance of Pranayama in *Hatha Yoga Sadhana*. Method and importance of *Nadishodhana* Pranayama. Preparation for Pranayama. Method, benefits and precautions of Pranayamas in Hatha Yoga Pradipika and Gherand Samhita. Signs of *Hathasiddhi* (success in hathyoga).

Bandha : introduction, the importance of bandha-triad in yogasadhana. Main *mudras* in Hatha Yoga Pradipika and Gherand Samhita - their methods, benefits and precautions.

UNIT-4: PRACTICES OF HATHA YOGA - PRATYAHAR, NADANUSANDHANA AND SWARODAYA GYAN (12 HOURS)

Pratyahara, Dharna and Dhyana in Gherand Samhita, their methods, benefits and precautions. *Samadhi*, signs of *samadhi* in Hatha Yoga Pradipika. *Nāda*, the four stages of *Nadānusandhana* and their accomplishments (*siddhis*). Concept of *Swara*, the importance of *Swarodaya Gyan* in Yoga Sadhana (with special reference to Gyan Swarodaya and Shiva Swarodaya).

UNIT-5: INTRODUCTION AND IMPORTANCE OF MAJOR TEXTS OF HATHA YOGA (12 HOURS)

Introduction, Purpose and Importance of major texts of Hatha Yoga: Siddha-Siddhantha Paddhati, Goraksha Samhita, Shiva Samhita, Hatha Yoga Pradipika, Gherand Samhita. Hatha Ratnavali: Main applications of hatha yogic activities- preparation of Raja Yoga Practice, achieving holistic health, prevention of diseases, rejuvenation, healing and slow aging.

BOOKS FOR REFERENCE:

1. Woodroffe,Sirjohn:Theserpent power, Ganesh& Company, Madras,2000
2. Woods,J.H. :TheYogasystemof Patanjali,M.L.B.D., Delhi,1988

3.SwamiVivekananda:Rajayoga,AdvaitaAshram,Culcutta,2000

4. Burley, Mikel:Hatha Yoga,lts'ContextTheoryand Practice (M.L.B.D. Delhi, 2000)
5. Burnier,Radha:HathayogaPradipikaofSvatmarama,TheAdyarLibr arypublications,Chennai

NAME OF THE COURSE: INTRODUCTION TO SHRIMAD BHAGAVAD GEETA AND SAMKHYAKARIKA

COURSE CODE: YS -103

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

- Understand the main teachings of Bhagvadgeeta
- Become familiar with the nature of yoga in various chapters of Bhagvad Geeta.
- Imbibe the essence of teachings of Bhagavad Geeta.
- Get acquainted with the main teachings of Samkhyakarika.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1: INTRODUCTION TO SRIMAD BHAGAVAD GEETA AND *JNANA YOGA* – ELABORATION OF *ATMAN* (SOUL), *PRAKRITI* (NATURE) AND *PARMATAMAN* (SUPREME SOUL) (15 hours):

Introduction to the Bhagavad Gita (literal meaning, source and subject matter), the great significance of the Bhagavad Gita and the views of various scholars regarding it, the nature of yoga in the Bhagavad Gita, the relevance of the Bhagavad Gita in the present age. In the Bhagavad Gita - Sankhya Yoga or Jnana Yoga (Chapter-2, 3, 4, 5, 6, 13), form & characteristics of the *Soul* (Chapter-2), form & characteristics of the Supreme Soul (Purushottama) (Chapter-4, 8, 10, 11, 13, 15), form & characteristics of nature (Chapter-9, 13, 14).

Unit-2: - Karmayoga, Dhyana Yoga and Bhakti Yoga (15 hours):

Concept of Karmayoga (Chapter-2 to 6), Form of *Yajna*, *Yajnartha Karma*, *Nishkam Karma* (Chapter-34), *Lok Sangraha* (Chapter-3), Jnana-Karma Co-ordination (Chapter-5), Form of Dhyana Yoga (Chapter -6). Concept of Bhakti and its significance (Chapters-7,8,9,11,12), The necessity of devotion in the realization of supreme soul (Chapters-11, Verse-52-55), Types of Bhakti (Chapters-7,12) Characteristics of Devotees (Chapter-12, Verse-13-20).

Unit-3: - Personality, Diet and Concept of Triguna (10 hours):

Role of diet in Yoga practice (Chapter-6), Introduction to *Trigunas* (Chapter-14), Concept of Trigun-based personality (Chapter-17), Elements of personality development, Ideal personality- Divine Wealth (Chapter-16).

Unit-4: Introduction to Samkhyakarika-1 (10 hours):

Sankhyadarshan: introduction, nature of suffering. Introduction of twenty-five elements, discussing *pramana*, concept of *Satkaryavad*, causes for unavailability of *Purusha & Pradhana*, discussing *Vyakta & Avyakta*.

Unit-5: Introduction to Samkhyakarika -II (10 hours):

According to Sankhyadarshan- the nature of *Gunas*, *Purusha* interpretation, characteristics & qualities of intelligence (*Buddhi*). Discussing Thirteen *karanas*, Subtle Body, Bondage – Liberation.

BOOKS FOR REFERENCE:

Bhawuk, D. P. S. (2011). Spirituality and Indian Psychology: Lessons from the Bhagavad Gita. New York, NY: Springer. doi:10.1007/978-1-4419-8110-3

Davis, R. H. (2015). The Bhagavad Gita. New Jersey: Princeton University Press. doi:10.2307/40085138

Easwaran, E. (2011). Essence of the Bhagavad Gita: A Contemporary Guide to Yoga, Meditation & Indian Philosophy. Tomales, CA: Nilgri Press.

Sivananda, S. (2000). Bhagavad Gita. Rishikesh, India: The Divine Life Society. http://www.sivanandadlshq.org

NAME OF THE COURSE: HUMAN BIOLOGY

COURSE CODE: YS -104

COURSE OBJECTIVES:

The teaching-learning of this paper will enable learner to

Discuss & introduce main human body systems.

Discuss anatomical & physiological effects of selected yoga practices on human body systems in evidence based way.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1: INTRODUCTION TO HUMAN BODY, DIGESTIVE AND EXCRETORY SYSTEM Introduction to Human Anatomy and Physiology, Basic Anatomical and Physiological terms; Cell: Structure & Functions, different cell organelles and their functions; Tissues and Organization of human system; Introduction to Support Systems; Maintenance Systems, Control Systems, Defence System and Concept of Homeostasis; Median planes, directional and regional terms. Gross anatomy of digestive system,

functional anatomy of Mouth, Oral cavity, Pharynx, Esophagus, Stomach, Small intestine, Large intestine and Anal canal; Physiology of digestion, assimilation & peristalsis, Gastric and digestive juices involved during digestion, associated glands involved in digestive system; Urinary system, kidneys, ureters, -urinary bladder, Urethra; Skin and sweat gland.

UNIT-2: MUSCULO-SKELETAL SYSTEM

The Skeletal System: Skeleton, Functions of skeleton, Classification of bones, Study of joints; Structure and function of a Synovial joint; The Muscular System: Types of Muscles in the body; the characteristics, structure and functions of The Skeletal Muscles, Smooth Muscles and Cardiac Muscles.

UNIT-3: CARDIOVASCULAR SYSTEM, RESPIRATORY SYSTEM, BLOOD AND LYMPHATIC SYSTEM

Functional anatomy of the Heart, arteries, veins and capillaries; The organization of systematic and pulmonary circulation, the cardiac cycle; Blood: Composition and Functions, Blood groups and their importance; Cardiac output and Venous return; Blood pressure and Regulation of blood pressure; Gross anatomy of the respiratory passages, functional of Nasal cavity, Pharynx, Larynx, Trachea, Bronchus, Lungs and Alveoli; The process of Respiration, Lungs volumes & capacities, Mechanics of breathing and exchange of gas in alveoli; Composition of blood corpuscles - RBC, WBC and Platelets; Plasma, hemoglobin - coagulation of blood and anti coagulants, blood groups and its importance; Sites, functional anatomy of lymph nodes and their function; Lymphatic system and its' role in immune system.

UNIT-4: NERVOUS SYSTEM & SPECIAL SENSES

An introduction to Histology – nerve – structure and properties of neurons – nerve – action potential – generation propagation – factors influencing classification of neurons and nerve fibers, neuralgia cells, receptors and reflex arcs; Functional anatomy of Cerebrum, Cerebellum, spinal cord; Functions and importance of the parts of the brain viz., cerebrum, pons, medulla, thalamus, hypothalamus, cerebellum and autonomic nervous system (sympathetic and parasympathetic); Functional anatomy and physiology of Eyes, ears, nose, tongue and skin;

UNIT 5: REPRODUCTIVE SYSTEM AND ENDOCRINE SYSTEM

Functional anatomy male reproductive system, seminal vesicles and prostrate glands;

Spermatogenesis; Functional anatomy of female reproductive system; Ovarian hormones, menstruation, pregnancy, parturition and lactation. Anatomical structure of important endocrine,glands,(Pituitary,thyroid,parathyroid, pancreas, adrenal and gonads); Short anatomy of the hypothalamus and the releasing hormones secreted from it; Structure and function of anterior and posterior Pituitary; Function of thyroid, parathyroid, supra renal and islets of Langerhans.

REFERENCES

Balkrishna, A. (2007). Yoga in synergy with medical science. Haridwar, India: Divya Prakashan BooksTM

Coulter, H. D. (2006). Anatomy of Hatha Yoga. Delhi, India: Motilal Banarasidas

Frawley, D. & Kozak, S. S. (2006). Yoga for your type. New Delhi, India: New Age Books.

Gore, M.M. (2004). Anatomy and physiology of yogic practices. Lonavala, India: Kanchan Prakashan

Gupta, A.P. (2011). Human anatomy and pshysiology. Agra, India: Sumit Prakashan.

Guyton, A.C. & Hall, J.E. (2006). Text book of medical physiology (11'h ed.). Pennsytvania: Elseveir.

Kaminoff, L. (2007). Yoga Anatomy. Champaign: Human Kinetics

Kumar, V. (2004). Manav Sarir Samrachna aur sarir kriya vijyan. New Delhi, India: Japee Brothers Medical Publishers (P) Ltd.

Malshe, P. C. (2005). Yoga for doctors. Haridwar, India: Antar Prakash Center for Yoga

McCall, T. (2007). Yoga as Medicine: The Yogic Prescription for Health and Healing. New York, NY: Bantam Dell..

Pandya, K.K. (1998). Human anatomy. Varanasi, India: Krishnadas Academy.

Patanjali Research Foundation. (2015). Research Publications. Haridwar, India: Divya Prakashan.

Ramdev, S. (2006). Yoga Sadhana and Yoga Chikitsa Rahasya. Haridwar, India: Divya Prakashan.

Ramdev, S. (2009). Pranayam Rahasya. Haridwar, India: Divya Prakashan.

Robin, Mel. (2002). A physiological handbook for teachers of yogasana. Arizona: Fenestra

Robin, Mel. (2009). A Handbook for Yogasana Teachers. Arizona: Wheatmark

Selvarasu, K. V. (2003). Kriya Cleansing in yoga. Tamil Nadu, India: Yoga Bharati.

Tortora, G.J. & Derrickson, B.N. (2009). Principles of anatomy and physiology-1 (14" ed.). Hoboken, NJ:Wiley.

Tortora, G.J. & Derrickson, B.N. (2009). Principles of anatomy and physiology-II (14" ed.). Hoboken,NJ: Wiley.

Udupa, K. N. (2007). Stress and its management by yoga. Delhi, India: Motilal Banarasidas

Waugh, A. & Grant, A. (2010). Ross and Wilson: Anatomy and Physiology in Health and Illness (11th ed.). London: Elsevier

NAME OF THE COURSE: YOGA PRACTICUM

COURSE CODE: YS 105

COURSE OBJECTIVES:

Following the completion of the course, students shall be able to:

- Understand the benefits, contraindications and procedure of all practices.
- Demonstrate each practice with confidence and skill.
- Explain the procedure and subtle points involved.
- Teach the yoga practices to any given group.

<table>
<tr><td colspan="2">• Total number of hours 60</td><td>Theory</td><td>Tutorial</td><td>Practical</td></tr>
<tr><td colspan="2">Hrs / week</td><td>0</td><td>1</td><td>3</td></tr>
<tr><td colspan="5">Scheme of Examination</td></tr>
<tr><td colspan="5">Total Marks 100</td></tr>
<tr><td colspan="2">Theory : 0</td><td colspan="3">Practical : 100</td></tr>
<tr><td>Final Exam</td><td>Internal Assessment</td><td>Final Exam</td><td colspan="2">Internal Assessment</td></tr>
<tr><td></td><td></td><td>70</td><td colspan="2">30</td></tr>
</table>

SHATKARMA: Jalneti, Rabarneti, Vamana Dhauti / Kunjar Kriya, Vatkarma, Kapalbhati. -15 marks

ASANA - 25 marks

Sukshma Vyayam (Pawan mukta Asana) -1, Yogic Jogging, 12 Asanas (Mandukasana, Shashakasana, Gomukhasana, Vakrasana, Makarasana, Bhujangasana, Shalabhasana, Markatasana, Pawanmuktasana, Halasana, Padvrittasana, Dwi-Chakrikasana and Shavasana)

Siddhasana, Kati chakrasana, Ardhahalasana, Padmasana, Vajrasana Swastikasana, Veerasana, Udarakarsansana, Bhadrasana, Janushirasana, Ardhamatsyendrasana, Gomukhasana, Ustrasana, Uttanapadasana, Naukasana, Sarvangasana, Halasana, Matsyasana, Suptavajrasana, Chakrasana, Tadasana, Tiryak Tadasana, Ek paad pranamasana, Vrikshasana, Garudasana, Hastotansana, Padahastasana, Trikonasana, Ardhadhanurasana, Marjari asana, Ardhashalbhasana, Bhujangasana, Makarasan, Shavasana, Samakonasana, Bakasana, Sarpasana, Hanumanasana, Sukhasana, Ardhpadmasana, Ek Pada Halasana, Setubandhasana, Markatasana, Shashankaran, Vipreet naukasana, Dwikonasana, Parshvatanasana, Singhasana,

PRANAYAMA -10 marks

Diaphragmatic Breathing, Pranayama: Kapalbhati, Bhastrika, Bahya, Ujjayi, Anulom-Vilom, Nadi Shodhan, Bhramari and Udgith

MUDRA & BANDHA: Jnana Mudra, Chin Mudra, Vipreet Karni Mudra, Yoga Mudra, Jalandhar Bandh, Uddiyan Bandh, Moolbandha - 10 marks

VIVA: Ishwar Stuti Prarthnopasana -10 marks

Semester-II

S.N.	Subject Code	Subject Title	Periods per week			Evaluation Scheme				Subject Total
						Seasonal			SEE	
			L	**T**	**P**	**Credit**	**CT**	**TA**		
I Year										
Semester II										
1	YS 201	Patanjal Yoga Darshan	3	1	0	4	20	10	70	100
2	YS 202	Yoga Therapy	3	1	0	4	20	10	70	100
3	YS 203	Introduction to Ayurveda	3	1	0	4	20	10	70	100
4	YS 204	Complementary & Alternative Therapy (CAT)	3	1	0	4	20	10	70	100
5	YS 205	Yoga Practicum	0	0	8	4	20	10	70	100
6	YS 206	Field Work/ Case Study	0	0	8	4	20	10	70	100
			32 Hrs			**24**	**Total**			**600**

NAME OF THE COURSE: PATANJAL YOGA DARSHAN

COURSE CODE: YS -201

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

- Introduce Yoga darshan and its main principles.
- Become familiar with the main techniques of yoga prescribed in Yoga Darshan.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT 1: - INTRODUCTION OF YOGASUTRA AND *SAMADHI PADA* - 1 (20 HOURS):

Yoga Sutra : Introduction, Definition and Purpose of Yoga, Importance of Yoga Sutra as compared to other Yogic texts, Concept of *Chitta*, *Chitta Bhoomi*, *Chitta vrittis* and their types, Chitta Vritti Nidrodhopaya (*Abhyas- Vairagya*), *Chitta Vikshep* (*Antaraya*), *Antarayabhava*, Chitta Prasadan and its helpers, The metaphysics of Sankhyadarshana and its relation with Patanjal Yogadarshan.

UNIT-2: - SAMADHI PADA-II AND SADHAN PADA (20 HOURS): -

Ishwar: Swaroop, Pranava chanting and its results, Ashtanga Yoga - 1 (Bahirang Yoga- Yama, Niyam, Asana, Pranayama, Pratyahara), Importance and Relevance of Ashtanga Yoga and Kriya Yoga, Concept of Kriya Yoga, Describing *Klesha* , Measures of *Klesha* elimination, *Vivek Khyati* , *Chaturvyuhavaad*, the character of *Drishta* & *Drishya*, , the form and types of samadhi - *samprajnata*,

asamprajnata, *sabij* and *nirvij* samadhi. *Ritambhara Pragya* and *Adhyatma Prasad.*

UNIT 3: - VIBHUTI PADA - (10 HOURS)

Ashtanga Yoga - II (*Antaranga* Yoga - Dharna, Dhyana, Samadhi), Concept of *Sanyama* - *Sanyama* and its three consequences, Concept of *Vibhuti* and introduction of main vibhutis, Describing Ashtasiddhi .

UNIT-4: - KAIVALYA PADA (10 HOURS); -

Five types of Siddhis (birth, medicine, mantra, penance and samadhija), Nirmaan chitta.
Types of Karma, *Vaasna, Vivek Gyan, Dharma Megha Samadhi, Kaivalya*

BOOKS FOR REFERENCE

BKS Iyengar: Introduction of Patanjali Yogasutra-s: MDNIY, New Delhi, 2011.

Swami Ved Bharti: Yogasutra of Patanjali (with the Exposition of Vyasa) M.L.B.D. New Delhi, 2004, Vol I & II.

NAME OF THE COURSE: YOGA THERAPY

COURSE CODE: YS 202

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

- Prescribe the integrated yoga module for the individual case after detailed documentation and report it to the referring consultant.
- Request for assessment measures if necessary
  a) to confirm the diagnosis,
  b) to assess the present status of the disease, and
  c) for follow up.
- To be able to monitor the medication and modify it suitably as the case progresses with yoga practices and report it to the referring consultant.
- To prescribe and administer yogic prescription for the specific disease

For each condition the following aspects will be covered:

Brief overview of the condition including definition, prevalence, clinical features, diagnostic criteria, causes, Patho-physiology, measurements- investigations to assess the effect of yoga, Yogic Management -rationale for the disease specific yoga

protocol, scientific evidence if available, practices of choice and contra-indications. Probable healing mechanisms.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1 YOGA ETIOLOGY, DIAGNOSIS AND THERAPY (12 hours)

Yogic Anatomy and Physiology: Concept of Psychic Centers, Pancha Kosha and three planes of human being; and effects of their activation and impairment over somatic, psychic and psycho-somatic levels of human existence. Yogic diagnostic techniques: Connections of Swar Science, Prana and Breathing Patterns over somatic, mental and psycho-somatic levels. Association of Psychic centers over nerve plexues and endocrine glands; Concept of health and wellness in terms of WHO, Ayurveda and Yoga; Concept of Yoga Therapy: Meaning, Defintion, Aims, Principles, Factors Impacts and Limitations; Qualities of a yoga therapist.

UNIT-2: MUSCULO-SKELETAL DISORDERS (12 hours)

Back Pain: Classification of back pain: organic and functional: Lumbar Spondylosis, Intervertebral disc prolapse (IVDP), Spondylolisthesis, Spondylitis, Psychogenic- Lumbago, Medical and Yogic management: Neck pain: Classification- Cervical Spondylosis, radiculopathy, Functional neck pain; Medical and Yogic management, All forms of Arthritis: Rheumatoid Arthritis, Osteoarthritis, Medical and Yogic management.

UNIT- 3: GASTRO INTESTINAL AND EXCRETORY DISORDERS (12 HOURS)

Brief overview of the condition (Causes, Pathogenesis, Signs, Symptoms and complications), Yogic Management of Acid peptic disease - Indigestion Hyperacidity, Ulcer, Flatulence, Gastritis, Bowel problems - chronic Constipation and hemorrhoids, Irritable Bowel Syndrome, Ulcerative colitis or inflammatory bowel disease, Crohn's disease, gluten intolerance, food allergies; Excretory System: irritable bladder syndrome, stress incontinence, Chronic renal failure, Renal hypertension, Renal stones.

UNIT- 4: CARDIO-PULMONARY DISORDERS (12 hours)

Brief overview of the condition (Causes, Pathogenesis, Signs, Symptoms and complications), Yogic Management of Hypertension and Hypotension, Ischemic heart diseases, Varicose veins, Peripheral vascular disease, Autoimmune Arteritis. Brief overview of the condition (Causes, Pathogenesis, Signs, Symptoms and complications), Yogic Management (rationale for the disease specific yoga protocol, scientific evidence if available, probable healing mechanisms, practices of choice and contra indications). Allergic, autoimmune respiratory conditions - Allergic Rhinitis & Sinusitis, Bronchial Asthma , COPD & Emphysema- Occupational pulmonary disease.

UNIT-5: NEUROLOGICAL AND PSYCHIATRIC DISORDERS (12 hours)

Headaches: Migraine: Causes, Classification, clinical features, Medical and Yogic management, Tension headache: Causes and its symptoms and Medical and Yogic management; Cerebro vascular accidents: Causes, clinical features, Medical and Yogic management, Epilepsy, pain; Parkinson's disease: Causes, clinical features, Medical and Yogic management

Introduction to psychiatric disorders, classification - Neurosis, Psychosis: Neurosis: Anxiety disorders: Generalised anxiety disorder, Panic Anxiety, Obsessive Compulsive Disorder, Phobias: Medical and Yogic management: Depression: Dysthymia, Major depression, Medical and Yogic management; Psychosis: Schizophrenia, Bipolar affective disorder, Medical and Yogic management

TEXT BOOKS

1. Nagarathna R and Nagendra HR, Yoga therapy for common ailments series, SVYP publications, 2010

2. Swami Karmananda, Yoga therapy for common diseases, Yoga publication trust, Munger, 2001

NAME OF THE COURSE: INTRODUCTION TO AYURVEDA

COURSE CODE: YS 203

COURSE OBJECTIVES:

Following the completion of this course, students shall be able to

- Understand the historical development, philosophy, and fundamental principles of Ayurveda.
- Explain the concepts of Panchamahabhuta, Tridosha, Dhatu, Mala, and Agni.
- Describe Ayurvedic concepts of health, disease, and diagnosis.
- Understand the role of diet, lifestyle, and daily regimens in health promotion.
- Appreciate the relevance and application of Ayurveda in contemporary healthcare and wellness.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT-1: HISTORY, PHILOSOPHY AND FUNDAMENTAL CONCEPTS OF AYURVEDA (12 hours)

The historical evolution of Ayurveda from the Vedic period to the present era. Students will study the meaning, scope, and objectives of Ayurveda, including its status as a holistic healthcare system. The unit covers the philosophical foundations of Ayurveda, including the concepts of Panchamahabhuta (five great elements), Tridosha (Vata, Pitta, and Kapha), and the relationship between the human body and nature. The contributions of major Ayurvedic scholars and classical texts such as Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya are also discussed.

UNIT-2: AYURVEDIC ANATOMY, PHYSIOLOGY AND CONSTITUTION (12 hours)

The Ayurvedic understanding of the human body and its functional principles. Students will learn about Dosha, Dhatu (body tissues), Mala (waste products), Agni (digestive and metabolic fire), and Srotas (body channels). The concept of Prakriti (individual body constitution) and its role in

determining health, disease susceptibility, and lifestyle recommendations will be explored. The unit also highlights the dynamic balance among bodily components necessary for maintaining health.

UNIT-3: THERAPEUTIC APPROACHES AND CONTEMPORARY RELEVANCE OF AYURVEDA (12 hours)

The basic therapeutic modalities of Ayurveda, including Shodhana (purification therapies) and Shamana (pacification therapies). Students will gain an overview of Panchakarma, herbal medicine, Rasayana (rejuvenation therapy), and preventive health practices. The unit also explores the integration of Ayurveda with modern healthcare, current research trends, global acceptance of Ayurveda, and its applications in lifestyle disorders, wellness, and public health. Ethical and professional considerations in Ayurvedic practice are also discussed.

UNIT - IV: CONCEPT OF HEALTH, DISEASE AND DIAGNOSIS IN AYURVEDA

(12 hours)

The Ayurvedic perspective of health and disease. Students will understand the definition of health according to Ayurveda, the causes of disease, stages of disease development, and the significance of maintaining equilibrium among Doshas. The unit introduces basic diagnostic principles, including observation, questioning, and examination techniques. Concepts such as Nadi Pariksha (pulse examination), Ashtavidha Pariksha (eightfold examination), and Dashavidha Pariksha (tenfold examination) are presented to provide insight into Ayurvedic diagnostic approaches.

UNIT-V: DIET, LIFESTYLE AND PREVENTIVE HEALTHCARE

(12 hours)

The importance of Ahara (diet), Vihara (lifestyle), and daily routines in maintaining health. Students will learn about the principles of healthy eating, seasonal regimens (Ritucharya), daily regimens (Dinacharya), and ethical conduct (Sadvritta). The role of sleep, exercise, personal hygiene, mental well-being, and preventive healthcare strategies in Ayurveda will be discussed. Special attention is given to the Ayurvedic approach to disease prevention and health promotion through balanced living.

BOOKS FOR REFERENCE

- Ashtanga Hridayam – Translated by K.R. Srikantha Murthy.
- Charaka Samhita – Translated by P.V. Sharma.
- Sushruta Samhita – Translated by K.R. Srikantha Murthy.
- The Complete Book of Ayurvedic Home Remedies.
- Ministry of AYUSH publications and guidelines.

NAME OF THE COURSE: COMPLEMENTARY & ALTERNATIVE THERAPY (CAT)

COURSE CODE: YS 204 COURSE

OBJECTIVES:

- State concept, prevalence, objectives, types, applications and limitations of CAT &
- Have knowledge & skills of therapeutics related to acupressure, pranic healing, and dietary supplements for managing some of the common health problems and rejuvenation.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		3	1	0
Scheme of Examination				
Total Marks 100				
Theory : 100		**Practical : 0**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
70	30			

UNIT 1 : CAT: (12hours)

History, Meaning, Definition, Objectives, Types, Prevalence, Contemporary Need, Applications and Limitations. **Mind-Body Therapy:** Origin, Meaning, Definition, Aims, Principles, Factors, Impacts, Prevalence, Applications, and Limitations. Pioneers in MBM in modern era- Yogrishi Swami Ramdev, Acharya Balkrishna, Swami Satyananda, BKS Iyengar, Norman Cousins, Deepak Chopra, Herbert Benson, Dean Ornish, Bernie Siegal, Lorry Dossey; Need of mind body medicine; Mind body relationship and modern medicine: Epidemiological studies, clinical studies, & experimental studies; Placebo and Nocebo.

UNIT 2 : MANIPULATIVE-BODY BASED THERAPY (MBT): (12 hours)

Meaning, Definition, Aims, Principles, Types, Impacts, Prevalence, Applications, and Limitations. Acupressure: Origin, Meaning, Definition, Principles, Five Elements Theory, Chi Clock Cycle, Meridian Systems and Locating Acupoints on 12 Major Meridians and Reflexology.

UNIT 3: ENERGY MEDICINE: (12 hours)

History, Meaning, Definition, Types, Principles, Applications and Limitations. **Pranic Healing**: Origin, History, Meaning and Sources of Prana; Principles, Law of Action, & Types (Basic, Advanced, and Psychotherapy); Bio-plasmic body/Aura: structure, types and size; Energy Centers (EC): Meaning, Types (Major, Minor and Mini), Sizes, Colors, Functions and Consequences of their Dysfunctions; Ahartic Yoga & Twin Meditation, Scanning Auras or Chakras, Sweeping and Energizing Procedures,

UNIT 4: ACUPRESSURE & PRANIC THERAPEUTICS: (12 hours)

Low Back Pain, Arthritis, Obesity, Diabetes, Hypertension/Hypotension, Hyper/Hypo Thyroidism, Liver Problem, Allergy, CAD, Anemia, Hyperacidity. Iritable Bowel Syndrome, Colitis, Piles, Migraine, Insomnia, Depression, Chronic Fatigue Syndrome, Epilepsy, Anxiety, Obsessive Compulsive Disorder, Leucorrhoea, Menstrual Disorders, Impotency, Infertility, CSF, Asthma, Pneumonia, Renal Problem, Varicose Veins, Distress, and Myopias.

UNIT 5 : BIOLOGICALLY BASED PRODUCTS (12 hours)

Probiotics and Prebiotics, Antioxidants, Glucosoamine Sulfate, Gultamine, Selenium, Curcumin, Multi-vitamins and their Natural Sources, Omega-3 Fatty Acid and Tryptophan their Functions and natural Sources; **Panchgavya** (Indigenous Cow urine, dung, milk, curd, ghee) : Importance & uses in disease prevention & health promotion.

REFERENCES

Acharya, B. (2004). Ausadh Darshan Haridwar, India: Divya Prakashan.

Acharya, B. (2005). Ayurveda Jadi-butl Rahasya. Haridwar, India: Divya Prakashan.

Brahmabarchas. (2003). Nidan Chititsa. Haridwar, India: Ved Mata Gayatri Trust.

Colledge, N. R., Walker, B. R. & Ralston, S. H. (2010). Davidson's Principles & Practice of

Medicine (21" ed.). China: Churchill Livingstone, Elsevier.

Holford, P. & Bume, J. (2007). Food is better medicine than drugs. Great Britain: Piatkus. Holford, P. (2014). Good Medicine. Great Britain: Piatkus.

Joshi, S. A. (2011). Nutrition and dietetics with Indian case studies. New Delhi, India: Tata McGraw-Hill.

Lian, Yu-Lin; Chen, Chun-Yan; Hammes, M. & Kolster, B. C. (2005). Pletorial atlas of acupuncture: An illustrated manual of acupuncture points. Solvenia: h. f. ullmann.

Micozzi, M. S. (2015). Fundamentals of complementary and alterntive medicine (5th ed.). China. Elsevier Saunders.

Patanjali Research Foundation. (2015). Research Publications. Haridwar, India: Divya Prakashan

Peeters, J. (2008). Reflexology. Bath BAMHE, UK: Paragon.

Ramdev, S. (2006). Yoga Sadhana and Yoga Chikitsa Rahasya. Haridwar, India: Divya Prakashan

Ramdev, S. (2009). Pranayam Rahasya. Haridwar, India: Divya Prakashan

Sah, R. L., Joshi, B., & Joshi, G. (2002). Vedic health care system. New Delhi, India: New Age Books.

Sharma, S. (1998). Jivem Saradm Satam. Mathura, India: Akhand Jyoti Samsthan.

Sharma, S. (2010). Gayatri Mahavijyan (Combined and revised ed.). Mathura, India: Yug Nirman Yojana Bistar Trust.

NAME OF THE COURSE: YOGA PRACTICUM

COURSE CODE: YS 205

COURSE OBJECTIVES:

Following the completion of the course, students shall be able to:

- State techniques, health benefits, applications, precautions and contraindications of undermentioned yogic practices; &
- To demonstrate and instruct undermentioned yogic practices.

Total number of hours 60		**Theory**	**Tutorial**	**Practical**
Hrs / week		0	1	3
Scheme of Examination				
Total Marks 100				
Theory : 0		**Practical : 100**		
Final Exam	Internal Assessment	Final Exam	Internal Assessment	
		70	30	

SHATAKARMA: Dand dhauti, Vastr dhauti, Nauli, Trataka. 10 marks

AASANA: 30marks

Dvipada Skandhasana, Purna Bhujangasana, Purna Matsyendrasana, Pakshee Aasan, Vrishchik Aasana, Padma Mayurasana, Purna Vrishchikasana, Takiya Aasana, Padma Sheershasana, Karnapidasana, Purna Dhanurasana, Gorakshasana, Purna Chakrasana, Purna Shalabhasana, Ek Pada Bakasana, Omkar Aasana, Purna Natarajasana And all the practices of previous semesters.

PRANAYAMA – 10 marks

Udgeeth , Moorchha.

DHYANA & VIVA: Vijnanamaya & Anandamaya kosha - 20marks

NAME OF THE COURSE: FIELD WORK/ CASE STUDY COURSE CODE: YS 206 COURSE

OBJECTIVES:

Following the completion of the course, students shall be able to:

- Understand the significance and methodology of fieldwork and case study research in Yoga.
- Develop skills in planning, conducting, and documenting field-based investigations.
- Apply research tools and techniques for data collection in yoga-related settings.
- Observe, assess, and analyse individual and group yoga practices using scientific methods.
- Prepare comprehensive case study reports following academic and ethical standards.

<table>
<tr><td colspan="2">Total number of hours 60</td><td>Theory</td><td>Tutorial</td><td>Practical</td></tr>
<tr><td colspan="2">Hrs / week</td><td>0</td><td>1</td><td>3</td></tr>
<tr><td colspan="5">Scheme of Examination</td></tr>
<tr><td colspan="5">Total Marks 100</td></tr>
<tr><td colspan="2">Theory : 0</td><td colspan="3">Practical : 100</td></tr>
<tr><td>Final Exam</td><td>Internal Assessment</td><td>Final Exam</td><td colspan="2">Internal Assessment</td></tr>
<tr><td></td><td></td><td>70</td><td colspan="2">30</td></tr>
</table>

Seminar Presentation – 15 marks

Survey/Field Investigation Report – 15 marks

Fieldwork Journal and Viva Voce -30 marks

Case Study Report - 10 marks

Note: *Micro contents & format of Practical on a foresaid contents will be worked out in consultation with concerned*

Annexure-III

Post Graduate Diploma in Apiculture and Apitherapy

Scheme of Teaching & Examination

I Year

Semester-I

S.N.	Subject Code	Subject Title	Periods per week		Credit	Evaluation Scheme			Subject Total
			L	P		CT	TA	SEE	
1	AP101	History of beekeeping and honey bee morphology, anatomy and behaviour	2	2	4	20	10	70	100
2	AP102	Beekeeping equipment handling and maintenance of bee colony records	2	2	4	20	10	70	100
3	AP103	Bee Pests and Diseases	2	2	4	20	10	70	100
4	AP104	Bee products and apitherapy	2	3	5	20	10	70	100
5	AP105	Quality analysis of bee products	2	1	3	20	10	70	100
6	AP106	Beekeeping and its Management	2	2	4	20	10	70	100
7	**AP107**	**Industrial attachment / Apiary attachment**	**0**	**3**	**3**	-	-	-	-
36 Contact Hours/Week			**Total Credits: 24/Week**			**Total Marks: 600**			

Semester-II

S.N.	Subject Code	Subject Title	Periods per week		Credit	Evaluation Scheme			Subject Total
			L	P		CT	TA	SEE	
1	AP201	Queen rearing	2	2	4	20	10	70	100
2	AP202	Managed pollination and bee safety	2	2	4	20	10	70	100
3	AP203	Migratory beekeeping and bee flora	2	2	4	20	10	70	100
4	AP204	Apitherapy and Bee products production technology	2	3	5	20	10	70	100
5	AP205	Value addition of bee hive products	2	2	4	20	10	70	100
6	AP206	Marketing of Honeybee Products	2	1	3	20	10	70	100
7	AP207	Industrial attachment / Apiary attachment	0	3	3	-	-	-	-
36 Contact Hours/Week			**Total Credits: 24/Week**			**Total Marks: 600**			

Total number of Credits	54	**Total Marks**	1300

Basis for Contact Hours and Credit Calculation

Basis: one semester = five teaching months (20 teaching weeks); sixth month = semester break / examination-related interval. 1 L period = 1 hour; 1 P period = 2 hours. Contact hours = [(L x 1) + (P x 2)] x 20. Credits = L + P.

L - Lecture, P - Practical (practice/field), CT - Cumulative Tests, TA - Teachers Assessment, SEE - Semester Examination

SEMESTER I

The first semester introduces the historical, biological, technical and management foundations of beekeeping, along with primary bee hive product technology, quality analysis and apiary/industrial exposure.

S.N.	Code	Subject Title	L	P	Credit	Marks
1	AP101	History of beekeeping and honey bee morphology, anatomy and behaviour	2	2	4	100
2	AP102	Beekeeping equipment handling and maintenance of bee colony records	2	2	4	100
3	AP103	Bee Pests and Diseases	2	2	4	100
4	AP104	Bee hive products and apitherapy	2	3	5	100
5	AP105	Quality analysis of bee products	2	1	3	100
6	AP106	Beekeeping and its Management	2	2	4	100
7	AP107	Industrial attachment / Apiary attachment	0	3	3	-

NAME OF THE COURSE: HISTORY OF BEEKEEPING AND HONEY BEE MORPHOLOGY, ANATOMY AND BEHAVIOUR

COURSE CODE: AP101

COURSE OBJECTIVES:

To introduce the historical development and importance of beekeeping in India and the world.

To explain the classification, species and races of honey bees used in beekeeping.

To develop understanding of external morphology, internal anatomy and colony organization of honey bees.

To familiarize students with honey bee behaviour, communication, division of labour and seasonal colony dynamics.

COURSE CODE	AP101	**COURSE TITLE**	History of beekeeping and honey bee morphology, anatomy and behaviour
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2
CREDITS	4	**TOTAL MARKS**	100
SEMESTER END EXAMINATION	70	**INTERNAL ASSESSMENT**	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: HISTORY AND SCOPE OF BEEKEEPING

History of beekeeping; traditional and modern beekeeping; development of movable-frame hives; status and scope of apiculture in India and the world; role of beekeeping in livelihood, nutrition, biodiversity and crop production; major institutions and extension systems supporting beekeeping.

UNIT-2: HONEY BEE DIVERSITY AND TAXONOMY

Position of honey bees in the order Hymenoptera and family Apidae; important species of Apis; distinguishing features of *Apis cerana*, *Apis mellifera*, *Apis dorsata*, *Apis laboriosa* and *Apis florea*; stingless bees and other pollinators; distribution and suitability of species for managed beekeeping.

UNIT-3: MORPHOLOGY OF HONEY BEES

External morphology of worker, queen and drone; head, thorax and abdomen; antennae, mouthparts, wings, legs and pollen basket; sting apparatus; wax glands, scent glands and other caste-specific structures; identification of castes and developmental stages.

UNIT-4: ANATOMY AND PHYSIOLOGY

Digestive system, circulatory system, respiratory system, nervous system, excretory system, reproductive system and endocrine regulation in honey bees; glands associated with feeding, wax secretion and pheromone production; basic physiology related to foraging, brood rearing and colony functioning.

UNIT-5: HONEY BEE BEHAVIOUR

Colony as a superorganism; caste differentiation; division of labour and age polyethism; pheromonal communication; dance language; swarming, absconding, drifting, robbing and defensive behaviour; thermoregulation, nest hygiene, brood care and foraging behaviour.

PRACTICAL:

Identification of honey bee species and castes
Study of external morphology and appendages
Observation of colony behaviour and field notes

SUGGESTED READINGS:

Dadant and Sons. The Hive and the Honey Bee. Dadant and Sons, Hamilton, Illinois.
Morse, R. A. and Hooper, T. The Illustrated Encyclopedia of Beekeeping. E. P. Dutton.
Crane, E. Bees and Beekeeping: Science, Practice and World Resources. Heinemann Newnes.
Free, J. B. Bees and Mankind. George Allen and Unwin.
Winston, M. L. The Biology of the Honey Bee. Harvard University Press.
Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.
Singh, S. Beekeeping in India. Indian Council of Agricultural Research, New Delhi.
Atwal, A. S. Essentials of Beekeeping and Pollination. Kalyani Publishers.

NAME OF THE COURSE: BEEKEEPING EQUIPMENT HANDLING AND MAINTENANCE OF BEE COLONY RECORDS

COURSE CODE: AP102

COURSE OBJECTIVES:

To familiarize students with beekeeping tools, hive types and apiary equipment.
To train students in safe handling, maintenance, sanitation and storage of equipment.
To develop capacity for systematic colony inspection and maintenance of apiary records.
To introduce digital and manual record systems for colony performance, migration and production.

COURSE CODE	AP102	**COURSE TITLE**	Beekeeping equipment handling and maintenance of bee colony records
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2

CREDITS	4	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: APIARY EQUIPMENT AND HIVE TYPES

Parts of movable-frame hive; Langstroth hive, Newton hive, top-bar hive and indigenous hives; hive stand, bottom board, brood chamber, super, frames, foundation sheet, inner cover and outer cover; selection of hive type according to bee species and local conditions.

UNIT-2: TOOLS AND PROTECTIVE EQUIPMENT

Bee veil, bee suit, gloves, smoker, hive tool, bee brush, queen excluder, feeder, pollen trap, propolis trap, swarm-catching box, queen cage, uncapping knife and extractor; safe handling, cleaning, repair and storage of equipment.

UNIT-3: APIARY ESTABLISHMENT AND EQUIPMENT MAINTENANCE

Site selection, hive placement, shade, water, wind protection and fencing; apiary sanitation; sterilization and disinfection of equipment; wax moth prevention in stored combs; maintenance calendar; inventory management and safe transport of equipment.

UNIT-4: COLONY INSPECTION AND RECORD KEEPING

Purpose and frequency of colony inspection; colony strength assessment; brood pattern, queen status, food stores, pest and disease observations; record formats for colony registers, production registers, treatment records, feeding records and migration records.

UNIT-5: DATA MANAGEMENT AND REPORTING

Manual and digital apiary records; use of spreadsheets and mobile applications; tagging and numbering of colonies; interpretation of records for management decisions; preparation of apiary reports, production summaries and compliance documentation.

PRACTICAL:

Identification and assembly of hive parts and tools
Safe use of smoker, hive tool and protective equipment
Preparation and maintenance of colony record sheets

SUGGESTED READINGS:

1. Dadant and Sons. The Hive and the Honey Bee. Dadant and Sons, Hamilton, Illinois.
2. Morse, R. A. and Hooper, T. The Illustrated Encyclopedia of Beekeeping. E. P. Dutton.
3. Crane, E. Bees and Beekeeping: Science, Practice and World Resources. Heinemann Newnes.
4. Free, J. B. Bees and Mankind. George Allen and Unwin.
5. Winston, M. L. The Biology of the Honey Bee. Harvard University Press.
6. Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.
7. Singh, S. Beekeeping in India. Indian Council of Agricultural Research, New Delhi.
8. Atwal, A. S. Essentials of Beekeeping and Pollination. Kalyani Publishers.
9. Graham, J. M. The Hive and the Honey Bee. Dadant and Sons.
10. Delaplane, K. S. First Lessons in Beekeeping. Dadant and Sons.

NAME OF THE COURSE: BEE PESTS AND DISEASES
COURSE CODE: AP103

COURSE OBJECTIVES:

To enable students to identify major pests, predators and diseases of honey bees.
To explain disease symptoms, transmission, diagnosis and prevention in apiaries.
To train students in integrated bee health management with emphasis on colony hygiene and safe interventions.
To build awareness of quarantine, biosecurity and responsible use of approved treatments.

COURSE CODE	AP103	**COURSE TITLE**	Bee Pests and Diseases
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2
CREDITS	4	**TOTAL MARKS**	100
SEMESTER END EXAMINATION	70	**INTERNAL ASSESSMENT**	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: PRINCIPLES OF BEE HEALTH

Concept of colony health; signs of healthy and weak colonies; factors predisposing colonies to pest and disease incidence; stress, poor nutrition, pesticide exposure, queen failure and migratory stress; apiary biosecurity and inspection procedures.

UNIT-2: INSECT PESTS AND PREDATORS

Wax moths, wasps, ants, beetles, bee-eaters, spiders, lizards, birds and mammals affecting apiaries; damage symptoms, monitoring, prevention and management; protection of stored combs and apiary sanitation.

UNIT-3: MITES AND PARASITES

Varroa, Tropilaelaps and tracheal mites; life cycle, symptoms, monitoring techniques, threshold-based decisions, cultural and mechanical management; safe use of recommended acaricidal and non-chemical options; resistance and residue concerns.

UNIT-4: BACTERIAL, FUNGAL AND PROTOZOAN DISEASES

American foulbrood, European foulbrood, chalkbrood, stonebrood and Nosema disease; symptoms, diagnosis, spread, prevention and management; sample collection; hygienic behaviour and sanitation; quarantine and destruction/disinfection protocols where required.

UNIT-5: VIRAL DISEASES, POISONING AND INTEGRATED MANAGEMENT

Sacbrood, deformed wing virus, paralysis viruses and mixed infections; pesticide poisoning symptoms; nutritional disorders; integrated bee health calendar; colony strengthening, requeening, comb replacement, sanitation, monitoring and record-based health management.

PRACTICAL:

Field diagnosis of brood and adult bee disorders
Sampling and microscopic/visual examination of pests and pathogens
Preparation of integrated bee health management plan

SUGGESTED READINGS:

1. Morse, R. A. and Flottum, K. Honey Bee Pests, Predators, and Diseases. A. I. Root Company.
2. Bailey, L. and Ball, B. V. Honey Bee Pathology. Academic Press.
3. Sammataro, D. and Avitabile, A. The Beekeeper's Handbook. Cornell University Press.
4. Delaplane, K. S. Honey Bees and Beekeeping: A Year in the Life of an Apiary. University of Georgia.
5. Abrol, D. P. Honeybee Diseases and Their Management. Scientific Publishers.
6. ICAR and State Agriculture/Horticulture University manuals on bee diseases and beekeeping.

NAME OF THE COURSE: BEE HIVE PRODUCTS AND APITHERAPY

COURSE CODE: AP104

To introduce major bee hive products including honey, beeswax, pollen, propolis, royal jelly and bee venom.
To explain scientific methods of production, harvesting, extraction, processing and storage of bee hive products.
To understand the nutritional, medicinal and therapeutic importance of bee products.
To introduce the concept, scope, applications and limitations of apitherapy with emphasis on safety, hygiene and ethical use.
To develop skills in beeswax recovery, rendering and primary processing.
To highlight hygienic production, post-harvest handling and quality preservation.
UNIT-1: INTRODUCTION TO BEE HIVE PRODUCTS

COURSE CODE	AP104	COURSE TITLE	Bee hive products and apitherapy
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	5	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

Bee hive products and their economic importance; honey, beeswax, pollen, propolis, royal jelly and bee venom; product formation in colony; role of floral source, season, bee species and management practices on yield and quality; nutritional and therapeutic significance of bee hive products.

UNIT-2: HONEY PRODUCTION TECHNOLOGY AND THERAPEUTIC IMPORTANCE

Nectar collection and conversion into honey; ripening of honey; criteria for harvesting; use of supers and queen excluder; selection of combs; hygienic harvesting and avoidance of brood contamination; prevention of robbing during harvest; composition, nutritional value and traditional therapeutic uses of honey; limitations and precautions in honey use.

UNIT-3: EXTRACTION, PROCESSING AND QUALITY OF BEE PRODUCTS

Uncapping, extraction, straining, settling, filtration and bottling of honey; handling of crystallized honey; moisture control; prevention of overheating, fermentation and contamination; equipment sanitation and small-scale processing unit layout; basic quality standards, adulteration awareness, labelling, packaging and traceability.

UNIT-4: BEESWAX, POLLEN, PROPOLIS, ROYAL JELLY AND BEE VENOM

Origin and secretion of beeswax; sources of wax in apiaries; cappings wax and old comb wax; wax rendering, melting, filtration, moulding and storage; collection, processing and storage of pollen, propolis, royal jelly and bee venom; quality factors, uses and safety precautions of different bee hive products.

UNIT-5: APITHERAPY: CONCEPT, APPLICATIONS AND SAFETY

Meaning, history, scope and principles of apitherapy; use of honey, pollen, propolis, royal jelly, beeswax and bee venom in traditional and complementary health practices; scientific evidence and limitations; allergic reactions, anaphylaxis and contraindications; hygiene, dosage awareness, ethical considerations and need for medical supervision in therapeutic use of bee products.

PRACTICAL:

Identification and demonstration of major bee products.
Honey harvesting, uncapping, extraction, filtration and bottling demonstration.
Beeswax rendering, molding and preparation of simple beeswax-based product.
Demonstration of pollen trap, propolis collection and bee venom collection equipment.
Preparation of product batch record, packaging plan and apitherapy safety note.
Apitherapy Practices

SUGGESTED READINGS:

1. Crane, E. Honey: A Comprehensive Survey. Heinemann.
2. Krell, R. Value-added Products from Beekeeping. FAO Agricultural Services Bulletin.
3. Bogdanov, S. Bee Product Science publications and monographs.
4. Codex Alimentarius, FSSAI, BIS and National Bee Board documents related to honey, bee products, safety and quality.
5. Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.
6. Codex Alimentarius and national food standards documents for honey and related products.

NAME OF THE COURSE: QUALITY ANALYSIS OF BEE PRODUCTS

COURSE CODE: AP105

COURSE OBJECTIVES:

To train students in sampling, testing and interpretation of bee product quality parameters.
To explain physicochemical, microscopic, microbiological and residue-related quality aspects of honey and other bee products.
To build competency in detection of common adulterants and quality defects.
To introduce relevant standards, grading, documentation and laboratory safety.

COURSE CODE	AP105	**COURSE TITLE**	Quality analysis of bee products
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2
CREDITS	3	**TOTAL MARKS**	100
SEMESTER END EXAMINATION	70	**INTERNAL ASSESSMENT**	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: PRINCIPLES OF QUALITY ASSURANCE

Quality concepts for honey, beeswax, pollen, propolis, royal jelly and bee venom; sampling methods; sample preservation; laboratory safety; good laboratory practices; traceability and chain of custody for bee product samples.

UNIT-2: PHYSICOCHEMICAL ANALYSIS OF HONEY

Moisture, specific gravity, pH, acidity, electrical conductivity, ash, total soluble solids, reducing sugars, sucrose, HMF and diastase activity; interpretation of results in relation to freshness, heating, fermentation and storage.

UNIT-3: ADULTERATION AND AUTHENTICITY TESTING

Common adulterants in honey; preliminary tests and advanced approaches for authenticity; pollen analysis and botanical origin; limitations of field tests; importance of validated methods and reference standards.

UNIT-4: QUALITY ANALYSIS OF OTHER BEE PRODUCTS

Quality parameters of beeswax, pollen, propolis, royal jelly and bee venom; purity, moisture, foreign matter, melting point, colour, odour and active components; storage conditions and shelf-life considerations.

UNIT-5: STANDARDS, CERTIFICATION AND DOCUMENTATION

Overview of national and international standards for honey and bee products; food safety, hygiene and labelling requirements; organic and residue-free claims; preparation of laboratory reports, certificates of analysis and corrective action records.

PRACTICAL:

Determination of honey moisture, pH/acidity and TSS
Adulteration screening and pollen/foreign matter observation

Preparation of quality analysis report

SUGGESTED READINGS:

1. Codex Alimentarius Commission. Standard for Honey.
2. FSSAI. Food Safety and Standards Regulations related to honey and bee products.
3. BIS standards related to honey and beeswax, as applicable.
4. Bogdanov, S. Harmonised Methods of the International Honey Commission.
5. Krell, R. Value-added Products from Beekeeping. FAO Agricultural Services Bulletin.
6. AOAC International. Official Methods of Analysis.

NAME OF THE COURSE: BEEKEEPING AND ITS MANAGEMENT

COURSE CODE: AP106

COURSE OBJECTIVES:

To provide practical understanding of apiary establishment and routine colony management.
To train students in seasonal management, feeding, colony strengthening and swarm control.
To develop decision-making skills for queen management, colony division and honey flow preparation.
To link colony management practices with productivity, bee health and economics.

COURSE CODE	AP106	COURSE TITLE	Beekeeping and its Management
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	4	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: APIARY PLANNING AND ESTABLISHMENT

Selection of apiary site; availability of bee flora, water and shade; spacing and orientation of hives; apiary layout; fencing and protection; basic requirements for starting a small, medium and commercial apiary.

UNIT-2: ROUTINE COLONY MANAGEMENT

Colony inspection sequence; queen status, brood pattern, food stores, space management and comb management; adding and removing frames; use of supers; prevention of robbing and drifting.

UNIT-3: SEASONAL MANAGEMENT

Management during spring build-up, summer, monsoon, dearth period and winter; feeding, watering, shade, ventilation, insulation, brood nest management and preparation for major honey flow.

UNIT-4: SPECIAL MANAGEMENT OPERATIONS

Swarm prevention and control; uniting weak colonies; colony division; queen replacement; absconding management; laying worker colonies; management during migration and adverse weather.

UNIT-5: ECONOMICS AND PERFORMANCE MONITORING

Input-output analysis; colony productivity indicators; cost of equipment, labour, feeding, migration and processing; simple enterprise budgeting; using records for improvement of colony performance.

PRACTICAL:

Routine colony inspection
Seasonal management operation demonstration
Preparation of apiary management calendar and budget

SUGGESTED READINGS:

1. Dadant and Sons. The Hive and the Honey Bee. Dadant and Sons, Hamilton, Illinois.
2. Morse, R. A. and Hooper, T. The Illustrated Encyclopedia of Beekeeping. E. P. Dutton.
3. Crane, E. Bees and Beekeeping: Science, Practice and World Resources. Heinemann Newnes.
4. Free, J. B. Bees and Mankind. George Allen and Unwin.
5. Winston, M. L. The Biology of the Honey Bee. Harvard University Press.
6. Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.
7. Singh, S. Beekeeping in India. Indian Council of Agricultural Research, New Delhi.
8. Atwal, A. S. Essentials of Beekeeping and Pollination. Kalyani Publishers.
9. National Bee Board. Scientific Beekeeping Training Manual.
10. ICAR. Beekeeping and Pollination Extension Publications.

NAME OF THE COURSE: INDUSTRIAL ATTACHMENT / APIARY ATTACHMENT

COURSE CODE: AP107

COURSE OBJECTIVES:

To provide hands-on exposure to apiary operations, bee product processing units and beekeeping enterprises.
To develop field-level skills in colony handling, product harvesting, record keeping and problem diagnosis.
To enable students to understand industry workflow, safety, hygiene, quality control and marketing practices.
To train students in preparation of attachment reports and reflective field journals.

COURSE CODE	AP107	COURSE TITLE	Industrial attachment / Apiary attachment
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 0 P: 3
CREDITS	3	TOTAL MARKS	As per scheme
SEMESTER END EXAMINATION	-	INTERNAL ASSESSMENT	-

THEORY COMPONENT	0	PRACTICAL / FIELD COMPONENT	As per attachment assessment

COMPONENT-1: ORIENTATION AND SAFETY

Orientation to apiary/industry; safety rules, protective clothing, handling ethics, hygiene practices, equipment familiarization and work allocation.

COMPONENT-2: APIARY OPERATIONS

Colony inspection, feeding, cleaning, supering, queen observation, record keeping, pest/disease observation and implementation of routine seasonal operations.

COMPONENT-3: PRODUCT HANDLING AND PROCESSING

Observation and participation in honey extraction, filtering, settling, bottling, wax rendering, packaging, storage and maintenance of batch records.

COMPONENT-4: INDUSTRIAL/ENTERPRISE EXPOSURE

Exposure to procurement, inventory, quality control, marketing, branding, customer handling, regulatory documentation and enterprise management in beekeeping-based units.

COMPONENT-5: REPORT WRITING AND PRESENTATION

Daily field journal, photographs, observation sheets, problem analysis, learning outcomes, supervisor feedback and preparation of attachment report.

PRACTICAL:

Field journal / log book
Attachment supervisor assessment
Final attachment report and viva voce

SUGGESTED READINGS:

1. Training manuals, standard operating procedures and record formats provided by the host apiary/industry.
2. National Bee Board and ICAR extension manuals on beekeeping.
3. FAO and national manuals on small-scale bee product processing.

SEMESTER II

The second semester focuses on advanced beekeeping skills, queen rearing, managed pollination, migratory beekeeping, specialized bee hive products, value addition, business management and extended apiary/industrial attachment.

S.N.	Code	Subject Title	L	P	Credit	Marks
1	AP201	Queen rearing	2	2	4	100
2	AP202	Managed pollination and bee safety	2	2	4	100
3	AP203	Migratory beekeeping and bee flora	2	2	4	100
4	AP204	Apitherapy and Bee products production technology	2	3	5	100
5	AP205	Value addition of bee hive products	2	2	4	100
6	AP206	Marketing of Honeybee Products	2	1	3	100
7	AP207	Industrial attachment / Apiary attachment	0	3	3	-

NAME OF THE COURSE: QUEEN REARING

COURSE CODE: AP201

COURSE OBJECTIVES:

To explain the biology of queen production, mating and colony multiplication.
To train students in scientific queen rearing methods and maintenance of mating nuclei.
To develop skills in queen evaluation, marking, caging, introduction and replacement.
To introduce principles of selective breeding and quality control in queen production.

COURSE CODE	AP201	COURSE TITLE	Queen rearing
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	4	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: QUEEN BIOLOGY AND COLONY REPRODUCTION

Role of queen in colony; queen pheromones; queen development; drones and mating biology; mating flights, spermatheca and queen longevity; natural queen rearing, supersedure, emergency queen cells and swarming.

UNIT-2: PRINCIPLES OF QUEEN REARING

Selection of breeder colonies; desirable traits; colony strength and nutrition; queenless and queenright systems; cell starter and cell finisher; timing and calendar of queen rearing operations.

UNIT-3: QUEEN REARING METHODS

Doolittle grafting method; non-grafting methods; cup preparation, larval selection and grafting; queen cell handling; incubators; use of cell protectors; precautions during queen cell production.

UNIT-4: MATING NUCLEI AND QUEEN INTRODUCTION

Preparation and management of mating nuclei; drone mother colonies; mating yard selection; queen emergence, mating and evaluation; queen marking, clipping, caging, transport and introduction into colonies.

UNIT-5: QUEEN QUALITY, BREEDING AND ENTERPRISE

Queen quality parameters; brood pattern, egg laying, colony temperament, disease resistance and productivity; record keeping in queen rearing; basics of selective breeding; economics and quality assurance of queen production units.

PRACTICAL:

Grafting / non-grafting queen rearing practice
Preparation and management of mating nucleus

Queen evaluation, marking and introduction exercise

SUGGESTED READINGS:

1. Laidlaw, H. H. and Page, R. E. Queen Rearing and Bee Breeding. Wicwas Press.
2. Ruttner, F. Biogeography and Taxonomy of Honeybees. Springer.
3. Winston, M. L. The Biology of the Honey Bee. Harvard University Press.
4. Root, A. I. ABC and XYZ of Bee Culture. A. I. Root Company.
5. National Bee Board manuals on queen rearing and colony multiplication.
6. Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.

7. NAME OF THE COURSE: MANAGED POLLINATION AND BEE SAFETY

COURSE CODE: AP202

COURSE OBJECTIVES:

To explain the role of managed bees in crop pollination and yield enhancement.
To train students in planning, placement and management of colonies for pollination services.
To develop understanding of pesticide risk, bee poisoning and pollinator safety.
To prepare students for pollination contracts, farmer communication and safety advisories.

COURSE CODE	AP202	**COURSE TITLE**	Managed pollination and bee safety
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2
CREDITS	4	**TOTAL MARKS**	100
SEMESTER END EXAMINATION	70	**INTERNAL ASSESSMENT**	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: POLLINATION BIOLOGY

Pollination, fertilization and fruit/seed set; self-pollination and cross-pollination; floral rewards; pollinator behaviour; importance of honey bees and other pollinators in horticultural and field crops.

UNIT-2: MANAGED POLLINATION SERVICES

Assessment of crop pollination requirement; colony strength for pollination; hive density, timing and placement; colony preparation before shifting; management during bloom; pollination service contracts and farmer coordination.

UNIT-3: CROP-WISE POLLINATION MANAGEMENT

Pollination management in apple, almond, cucurbits, mustard, sunflower, seed spices, vegetables and seed production crops; factors affecting pollination efficiency; weather, competing flora and colony strength.

UNIT-4: BEE SAFETY AND PESTICIDE RISK

Pesticide exposure routes; acute and chronic bee poisoning; symptoms and field diagnosis; pesticide label precautions; safer spray timings; communication between beekeepers, farmers and spray operators; emergency response after bee kill incidents.

UNIT-5: POLLINATOR CONSERVATION AND GOOD PRACTICES

Pollinator-friendly farming; flowering strips, water sources and nesting habitats; integrated pest management compatible with bees; record keeping, advisory preparation and public awareness for bee safety.

PRACTICAL:

Assessment of colony strength for pollination
Preparation of crop-wise pollination plan
Bee safety advisory / poisoning case report

SUGGESTED READINGS:

1. Free, J. B. Insect Pollination of Crops. Academic Press.
2. Delaplane, K. S. and Mayer, D. F. Crop Pollination by Bees. CABI.
3. McGregor, S. E. Insect Pollination of Cultivated Crop Plants. USDA Agriculture Handbook.
4. Atwal, A. S. Essentials of Beekeeping and Pollination. Kalyani Publishers.
5. FAO. Pollination Services for Sustainable Agriculture.
6. National Bee Board and ICAR publications on managed pollination.

NAME OF THE COURSE: MIGRATORY BEEKEEPING AND BEE FLORA

COURSE CODE: AP203

COURSE OBJECTIVES:

To develop understanding of bee flora, floral calendars and nectar/pollen sources.
To train students in planning safe and profitable migratory beekeeping.
To explain transport, site selection, route planning and risk management during migration.
To develop skills in preparation of regional bee flora calendars and migratory plans.

COURSE CODE	AP203	COURSE TITLE	Migratory beekeeping and bee flora
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	4	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: BEE FLORA AND FLORAL BIOLOGY

Definition and importance of bee flora; nectar and pollen plants; floral morphology relevant to bees; nectar secretion and pollen availability; factors affecting floral rewards; classification of major, medium and minor bee flora.

UNIT-2: FLORAL CALENDAR AND RESOURCE MAPPING

Preparation of floral calendar; local and regional bee flora mapping; phenology of horticultural, agricultural, forest and wild plants; use of field surveys, herbarium records and beekeeper knowledge for calendar preparation.

UNIT-3: PRINCIPLES OF MIGRATORY BEEKEEPING

Need and scope of migration; planning migration according to floral flow; selection of destination apiaries; colony preparation, feeding, ventilation, securing frames and transport arrangements; timing of movement.

UNIT-4: MANAGEMENT DURING MIGRATION

Loading and unloading of colonies; prevention of overheating, suffocation, drifting and robbing; water provision; disease and pest precautions; coordination with farmers and local authorities; documentation and permits where required.

UNIT-5: ECONOMICS, RISKS AND SUSTAINABILITY

Cost-benefit analysis of migration; route planning; risk of pesticide exposure, theft, extreme weather and disease spread; migratory records; sustainable use of bee flora and conservation of pollinator habitats.

PRACTICAL:

Identification of bee flora and preparation of herbarium/photo records
Preparation of local floral calendar
Migratory route and apiary placement plan

SUGGESTED READINGS:

1. Crane, E. Bees and Beekeeping: Science, Practice and World Resources. Heinemann Newnes.
2. Free, J. B. Insect Pollination of Crops. Academic Press.
3. Abrol, D. P. Beekeeping: A Comprehensive Guide to Bees and Beekeeping. Scientific Publishers.
4. ICAR and National Bee Board publications on bee flora and migratory beekeeping.
5. State Agriculture/Horticulture University extension bulletins on regional bee flora.
6. FAO publications on pollinator-friendly landscapes and beekeeping.

NAME OF THE COURSE: APITHERAPY & BEE PRODUCTS PRODUCTION TECHNOLOGY

COURSE CODE: AP204

COURSE OBJECTIVES:

To introduce production technology for pollen, propolis, royal jelly and bee venom.
To develop skills in safe collection, processing, preservation and storage of specialized bee products.
To develop skills in Apitherapy
To explain quality, hygiene and safety considerations for high-value bee products.
To prepare students for small-scale production units and product diversification.

COURSE CODE	AP204	COURSE TITLE	Apitherapy and Bee products production technology
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	5	TOTAL MARKS	100
SEMESTER END	70	INTERNAL	30

EXAMINATION		ASSESSMENT	
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: SPECIALIZED BEE PRODUCTS

Overview of pollen, bee bread, propolis, royal jelly, bee venom and other hive-derived materials; biological origin, composition, uses, market potential and limitations; ethical and sustainable production.

UNIT-2: POLLEN AND BEE BREAD PRODUCTION

Pollen traps; timing and duration of trapping; colony strength and nutrition; cleaning, drying, storage and packaging of pollen; bee bread characteristics; quality and contamination prevention.

UNIT-3: PROPOLIS PRODUCTION TECHNOLOGY

Origin and collection of propolis; propolis traps and scraping methods; cleaning, grading, storage and extraction; factors affecting yield and quality; precautions to avoid contamination with wax, wood and dust.

UNIT-4: ROYAL JELLY PRODUCTION

Biology of royal jelly secretion; colony preparation; grafting for royal jelly; harvesting schedule; collection, filtering, preservation and cold chain; quality factors and hygiene requirements.

UNIT-5: BEE VENOM AND OTHER PRODUCTS

Principles of bee venom collection; collection devices, safety precautions and ethical issues; drying, storage and handling; risks to handlers and colonies; overview of comb honey, section honey and other specialty products.

Use of products in complementary health practices in Apitherapy; scientific evidence and limitations; allergic reactions, dosage awareness, ethical considerations and need for medical supervision in therapeutic use of bee products.

PRACTICAL:

Installation and use of pollen/propolis collection devices
Royal jelly collection demonstration / workflow
Preparation of processing and storage protocol
Apitherapy Practices

SUGGESTED READINGS:

1. Krell, R. Value-added Products from Beekeeping. FAO Agricultural Services Bulletin.
2. Crane, E. Honey: A Comprehensive Survey. Heinemann.
3. Root, A. I. ABC and XYZ of Bee Culture. A. I. Root Company.
4. Bogdanov, S. Bee Product Science publications and monographs.
5. National Bee Board manuals on bee products.
6. Codex, FSSAI and BIS documents relevant to bee product safety and quality.

NAME OF THE COURSE: VALUE ADDITION OF BEE HIVE PRODUCTS

COURSE CODE: AP205

COURSE OBJECTIVES:

To develop practical skills in value addition, product formulation, packaging and branding of bee products.
To introduce product development using honey, wax, pollen, propolis and other hive products.
To train students in shelf-life, quality, hygiene, labelling and market acceptability of value-added products.
To promote entrepreneurship through small-scale bee product-based enterprises.

COURSE CODE	AP205	COURSE TITLE	Value addition of bee hive products
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 2 P: 2
CREDITS	4	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

UNIT-1: PRINCIPLES OF VALUE ADDITION

Concept and scope of value addition; consumer demand and market segments; product ideation; raw material selection; formulation basics; hygiene, safety, standardization, shelf-life and cost calculation.

UNIT-2: HONEY-BASED VALUE-ADDED PRODUCTS

Creamed honey, flavoured honey, honey spreads, honey candies, honey-based herbal preparations, honey in bakery and functional foods; prevention of fermentation and crystallization defects; packaging and storage.

UNIT-3: BEESWAX-BASED PRODUCTS

Candles, polish, balms, salves, creams, soaps and cosmetic base products using beeswax; melting, filtering, moulding, fragrance compatibility, safety, labelling and quality checks.

UNIT-4: POLLEN, PROPOLIS AND ROYAL JELLY PRODUCTS

Pollen granules and blends; propolis extract-based products; royal jelly preparations; quality, preservation and dosage-related caution; product claims, ethical marketing and regulatory boundaries.

UNIT-5: PACKAGING, BRANDING AND MARKET LINKAGES

Food-grade packaging materials; label design and mandatory declarations; branding, pricing, product photography, retail and online marketing; customer feedback; preparation of value-added product portfolio and business pitch.

PRACTICAL:

Preparation of honey-based value-added product
Preparation of beeswax-based product
Packaging, labelling, costing and presentation

SUGGESTED READINGS:

1. Krell, R. Value-added Products from Beekeeping. FAO Agricultural Services Bulletin.
2. FSSAI. Food Safety and Standards Regulations related to packaging, labelling and claims.
3. Bogdanov, S. Bee Product Science publications.
4. Codex Alimentarius Commission. Standards and guidelines relevant to honey and food products.
5. National Bee Board manuals on bee products and entrepreneurship.
6. Khadi and Village Industries Commission publications on beekeeping and bee product enterprises.

NAME OF THE COURSE: MARKETING OF HONEYBEE PRODUCTS

COURSE CODE: AP206

COURSE OBJECTIVES:

To introduce students to enterprise planning, finance, marketing and management in beekeeping.
To develop skills in project report preparation, cost-benefit analysis and business model development.
To train students in supply chain, branding, customer development and market linkage for bee products.
To build understanding of institutions, schemes, cooperatives, FPOs and regulatory requirements.

COURSE CODE	AP206	**COURSE TITLE**	Marketing of Honeybee Products
TOTAL CONTACT HOURS	120	**HOURS / WEEK**	L: 2 P: 2
CREDITS	3	**TOTAL MARKS**	100
SEMESTER END EXAMINATION	70	**INTERNAL ASSESSMENT**	30
THEORY COMPONENT	70	PRACTICAL / FIELD COMPONENT	30

Unit 1: Market Research:Conducting Market Research; Segmentation, Targeting and Positioning; Study local and national honey market trends; FSSAI certification for honeybee products; Types of data collection for market research.

Unit 2: Marketing: Marketing and sales; Marketing Mix; Marketing channels; Local & Offline Channels; B2B and B2C sales; **organic stores, kiranas, sweet shops, ayurvedic pharmacies for product placing, and supermarket;** Influencer & Community Marketing**;** Launching Promotions; Pricing strategies and its types; digital marketing tools for honeybee products.

Unit 3: Brand Building: Concept of Brand and branding; Content Marketing; Brand Identity; Corporate gifting; Unique Selling Points; Brand name, logo, tagline and brand story; Importance of packaging and labelling; Brand positioning.

PRACTICAL:

- Identify competitors on various offline and online platforms for honeybee products.
- Survey 10–15 potential buyers on preferences, price sensitivity, and usage habits with respect to honeybee products.
- Set up a Social Media profile with a product catalogue. Creating Google Business profile for marketing and other platforms .

Suggested Readings:

1. Schindler, P.S. (2019), Business Research Methods, (13th ed.) McGraw Hill Education, New York, NY
2. Kotler, P., Keller, K. L., Ancarani, F., & Costabile, M. (2014). *Marketing management 14/e*. Pearson Education.
3. Keller, K. L., Parameswaran, M. G., & Jacob, I. (2010). *Strategic brand management: Building, measuring, and managing brand equity*. Pearson Education India.

NAME OF THE COURSE: INDUSTRIAL ATTACHMENT / APIARY ATTACHMENT

COURSE CODE: AP207

COURSE OBJECTIVES:

To provide advanced field exposure in commercial apiary, queen rearing, bee product processing or pollination service units.

To enable students to independently document enterprise workflow, production practices, quality control and marketing channels.

To develop problem-solving ability through case-based observation and field-level analysis.

To train students in final report writing, presentation and professional communication.

COURSE CODE	AP207	COURSE TITLE	Industrial attachment / Apiary attachment
TOTAL CONTACT HOURS	120	HOURS / WEEK	L: 0 P: 3
CREDITS	3	TOTAL MARKS	100
SEMESTER END EXAMINATION	70	INTERNAL ASSESSMENT	30
THEORY COMPONENT	0	PRACTICAL / FIELD COMPONENT	100

COMPONENT-1: ADVANCED APIARY OPERATIONS

Independent participation in colony inspection, seasonal management, queen assessment, feeding, supering, pest/disease observation and colony performance recording under supervision.

COMPONENT-2: QUEEN REARING / POLLINATION / MIGRATION EXPOSURE

Attachment in one or more specialized operations such as queen rearing, mating nuclei management, pollination placement, migratory preparation and floral resource assessment.

COMPONENT-3: PRODUCT PROCESSING AND QUALITY CONTROL

Observation of production line, extraction, filtration, packaging, batch coding, basic quality tests, storage and hygiene practices in bee product processing units.

COMPONENT-4: BUSINESS AND MARKET EXPOSURE

Exposure to costing, procurement, sales channels, customer communication, branding, labelling, documentation, certification and enterprise challenges.

COMPONENT-5: CASE STUDY AND FINAL REPORT

Selection of one practical problem or enterprise model; data collection, analysis, photographs, interpretation, recommendations and final seminar presentation.

PRACTICAL:

Seminar presentation - 15 marks
Industrial/apiary attachment report - 25 marks
Field journal and supervisor evaluation - 30 marks
Case study report and viva voce - 30 marks

SUGGESTED READINGS:

1. Host institution/industry standard operating procedures and record formats.
2. National Bee Board, ICAR and KVIC training manuals.
3. FAO manuals on value-added products, beekeeping and pollination services.

Annexure: Suggested Practical Records and Field Formats

Colony inspection register: date, colony number, queen status, brood area, food stores, strength, pest/disease status and action taken.
Feeding register: date, colony number, feed type, quantity and purpose.
Honey harvest register: colony/super number, date, gross yield, moisture, batch number and storage details.
Bee health register: symptoms, sample collected, diagnosis, treatment/advisory and follow-up date.
Migration register: source, destination, floral source, colonies shifted, transport details, loss/damage and production outcome.
Pollination service register: crop, area, farmer details, colony strength, placement date, removal date and service charges.
Value-added product record: formulation, batch size, raw material source, processing date, packaging, label and costing.
Attachment journal: daily activity, skills learned, photographs, supervisor remarks and student reflection.

General Guidelines for Practical Training

Protective clothing must be used during apiary operations.
Students must maintain discipline, hygiene and ethical handling of colonies.
No chemical treatment should be applied in colonies without approval of the course instructor or apiary supervisor.
All field observations should be supported with dates, colony numbers and clear records.
Final reports should include objective, methods, observations, results, interpretation, photographs and references.

Annexure-IV

Declaration to be filled by the candidates after Admission

I _____ aged _____ years son/daughter of Sh./Smt. _____R/o_____ hereby declare that :

1. I shall not make any form of abuse of narcotic drugs or psychotropic substances while being a student of this University.
2. I shall bring into the notice of authorities designated by the University for this purpose, the incidence of any illicit drug or substance abuse occurring within the University campus which might have come to his /her knowledge and also about any drug dealer/peddler who according to his/her information is carrying out or is trying to carry out his activities related to supply of illicit drugs within the University Campus.
3. If I am found with illegal drugs in the University campus, I will have no objections to expelling me from the University at any time.

Declaration: I _____ aged _____years, Son/Daughter of Sh._____, R/o _____ hereby declare that the contents of the above declaration have been issued by me at my own will and I have concealed nothing therefrom.
Signed on this _____ day of _____ (Month/Year).

Signature

Countersigned

Parents/Guardian

Annexure-V

Academic Calendar for the Academic Session 2026-27

SN	Particulars		1st Semester	2nd Semester
1.	Registration of students admitted in counselling		26.08.2026 & 27.08.2026	20.01.2027 & 21.01.2027
2.	Commencement of classes		28.08.2026	22.01.2027
3.	Addition of courses	For continuing and fresh admitted students except MBA 2nd year students	19.09.2026	30.01.2027
		MBA 2nd Year Students	08.09.2026	30.01.2027
4.	Withdrawal of courses without charges	For continuing and fresh admitted students except MBA 2nd year students	19.09.2026	30.01.2027
		MBA 2nd Year Students	08.09.2026	30.01.2027
5.	Mid-semester examination		12.10.2026 to 24.10.2026	27.03.2027 to 09.04.2027
6.	Withdrawal of courses with charges		30.10.2026	20.04.2027
7.	Cultural activities		17.11.2026 to 19.11.2026	-
8.	Sports Meet		-	21.04.2027 to 24.04.2027
9.	Diwali holidays		07.11.2026 to 11.11.2026	-
10.	End-semester examination		28.12.2026 to 08.01.2027	05.07.2027 to 17.07.2027
11.	Semester break		09.01.2027 to 19.01.2027	18.07.2027 to 02.08.2027
12.	Last date for submission of results through AMS			
	i) Instructor to Dean/ HoD		15.01.2027	22.07.2027
	ii) Dean to Registrar		22.01.2027	29.07.2027
13.	Compilation of result		25.01.2027 to 30.01.2027	02.08.2027 to 05.08.2027

NOTE:

(i) If the date fixed happens to be a holiday, the next working day will be considered as the date fixed for a particular purpose.

(ii) The classes shall remain suspended during the Mid-term and End-term Examinations. However, the Mid-term Examinations shall be conducted even on holidays.

(iii) Late fee of ₹ 1500/- per day during the 2nd Semester.