



# **Shree Guru Gobind Singh Ji Government College Paonta Sahib, District Sirmaur, Himachal Pradesh**

## ***2<sup>nd</sup> Cycle of NAAC Accreditation***

Criterion 3 Research, Innovations and Extension

### **Key Indicator 3.2 Innovation Ecosystem**

**Metric 3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge**

## ***Innovative Ecosystem***

# Table of Contents

1.	DBT STAR COLLEGE UPGRADATION OF SCIENCE LABS.....	1
	i. Grant under DBT Star College Scheme by the Department of Science and Technology, Gol .....	11
2.	COMMUNITY COLLEGE SCHEME OF UGC.....	13
	i. <i>The objectives of Community College Scheme.....</i>	13
	ii. <i>Scope of Entrepreneurship.....</i>	13
	iii. <i>Vibrant Academia-Industry Interface and Curricular Flexibility in Skill-Based Courses under Community College.....</i>	13
	iv. <i>Assessment.....</i>	15
	v. <i>Relevance to Regional and Global Employment Market.....</i>	15
	vi. <i>Industry Representatives in Board of Management, Community College...24</i>	
	vii. <i>Industry Representatives in Board of Studies, Community College.....24</i>	
	i. UGC Grant under Community College Scheme for the years 2016-17 and 2017-18 29	
3.	ACTIVE INCUBATION ECOSYSTEM .....	30
4.	STUDENT SKILL ENRICHMENT LECTURES .....	34
5.	ENTREPRENEURSHIP.....	36
6.	ACADEMIA-INDUSTRY PARTNERSHIP.....	38
	i. MoUs of with Industries .....	39
7.	TRANSFER OF KNOWLEDGE TO COMMUNITY THROUGH AWARENESS .....	42
8.	LAB TO LAYMAN .....	48

# 1. DBT Star College Upgradation of Science Labs

the DBT Star College Scheme of the Department of Biotechnology, Government of India and this has emerged as a significant innovative ecosystem to the students and aids creation and transfer of knowledge. Several major equipment were purchased for upgradation of science labs under the DBT Star College Scheme by the departments of Botany, Zoology and Chemistry. The efforts of achieving highest standards of academic excellence are met with the financial support of ₹ 63 lakhs under DBT Star College Scheme, Department of Science and Technology, Gol.

These new instruments have provided the students the facility of hands-on training with advanced techniques in the field of lifesciences and to perform several new experiments.

*Table 1 List of Major Equipment Purchased under DBT Star College Scheme*

<b>Experiments to be performed</b>	<b>Instruments purchased</b>
Taxonomic studies and field visits	Herbarium cabinet, DSLR camera
estimation pigments content and enzyme activities, Measurement of stress injury	UV Visible Spectrophotometer, centrifuge, Conductivity meter, pH meter
Separation of Proteins and DNA, Tissue culture	Electrophoretic apparatus, Oven, racks
Measurement of microclimatic Variables	Hygrometer, Refractometer, Anemometer
Permanent slide	Microtome, Microscopes, Live Screen Microscope with LED Display and Camera
All Physical chemistry experiments	pH meter, Potentiometer, conductivity meter
Dissection/anatomy/skeleton animations and guest lectures	Digital podium, LCD Projector & Screen, Visualizer, Models/casts of animal anatomy
Study of animal diversity, anatomy, reproduction through permanent slides	Stereomicroscope, Pathological Microscope, Binocular microscope
Separation and extraction of proteins and DNA, estimation of proteins and enzyme activities,	Electrophoretic apparatus, centrifuge Gel Doc Apparatus, spectrophotometer pH meter,



*Photograph 1 Spectrophotometer (UV-VIS)*



*Photograph 2 Ultra-centrifuge (High speed)*



*Photograph 3 Orbital shaking Incubator*



*Photograph 4 Digital Conductivity meter*



*Photograph 5 Microprocessor based digital pH Meter*



*Photograph 6 Live Screen Microscope with 13.5" LED Display and Camera with provision of projection*





*Photograph 7 Digital Podium, Multimedia Projector and Visualizer*



*Photograph 8 Binocular Compound Microscope*



*Photograph 9 UV-trans Illuminator*



*Photograph 10 Digital Balance*





*Photograph 11 Vertical Electrophoresis Apparatus with power supply*



*Photograph 12 Vortex Shaker*



*Photograph 13 Water Bath*



*Photograph 14 Hot Plate Rectangular*



*Photograph 15 Flame photometer*



*Photograph 16 Digital Melting Point Apparatus*





*Photograph 17 DSLR Camera*

**i. Grant under DBT Star College Scheme by the Department of Science and Technology, GoI**

No. BT/HRD/11/010/2019  
Government of India  
Ministry of Science & Technology  
Department of Biotechnology

*o/c*

Block 2, 6-8th Floor  
CGO Complex, Lodi Road  
New Delhi - 110003  
Dated: 05/03/2019

**ORDER**

Sanction of the President is hereby accorded under Rule 18 of the Delegation of Financial Power Rules, 1978 for the financial support for strengthening of Life Science and Biotechnology Education and Training at undergraduate level under Star College Scheme to **Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur-173025 (Himachal Pradesh)** at a total project cost of Rs. 63.00 lakhs (Rupees Sixty three lakhs only) for three years as per budget details are given below:-

Head	Amount (Rs. In lakhs)			
	1 <sup>st</sup> Year rel	2 <sup>nd</sup> Year rel	3 <sup>rd</sup> Year rel	Total
<b>Non-Recurring</b> Equipment @ Rs. 10.00 lakhs per dept. (Botany, Chemistry & Zoology)	30.00	0.00	0.00	30.00
<b>Recurring</b> to all three depts. @ Rs. 3.00 lakhs per year (Botany, Chemistry & Zoology)	9.00	9.00	9.00	27.00
<b>Travel Grant (Mentoring, Monitoring and Site Visit)</b> @ Rs. 1.00 lakhs per year	1.00	1.00	1.00	3.00
<b>Contingency @ Rs. 1.00 lakh per year</b>	1.00	1.00	1.00	3.00
<b>Total:</b>	<b>41.00</b>	<b>11.00</b>	<b>11.00</b>	<b>63.00</b>

2. **Dr. Jahid Ali Malik, Assistant Professor, Department of Botany, Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur-173025 (Himachal Pradesh)** will be the coordinator for this programme and will submit utilization certificate and statement of expenditure duly signed by him, finance/accounts officer of college and head of college in duplicate at the end of financial year.
3. The college is required to implement the programme as per the terms and conditions given in **Annexure-I**.
4. As per "Rule 236 (1) of GFR 2017", the Account of all Grantee Institution or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the institute or Organisation is called upon to do so.
5. Non-recurring grant shall be utilized within 18 months of their release.
6. The institute/agency will keep the whole of the grant in a bank account earning interest, and the interest so earned should be reported to DBT in the utilization certificate and statement of expenditure. The interest so earned will be treated as a credit to the institute/agency and shall be adjusted towards further installment of the grant and/or at the time of final settlement of accounts.

Continue...2/-



7. The expenditure involved is debitable to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research (Major Head)
60	Others (Sub Major Head)
60.200	Assistance to Other Scientific Bodies (Minor Head)
29	Biotechnology Research and Development, Human Resource Development, Research Resources and facilities
29.17	Assistance for Research and Development
29.17.31	Grants-in-Aid General for the year 2018-19

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research (Major Head)
60	Others (Sub Major Head)
60.200	Assistance to Other Scientific Bodies (Minor Head)
29	Biotechnology Research and Development, Human Resource Development, Research Resources and facilities
29.17	Assistance for Research and Development
29.17.35	Grants-in-Creation of Capital Assets

8. This issues under powers delegated to this Dept. and with the concurrence of IFD vide their **San No. 102/IFD/SAN/4720/2018-19 dated: 01.03.2019.**

9. This sanction order has been noted at serial No. 63.....In the register of grants.

  
(Dr. Garima Gupta)  
Scientist-E

To,

The Pay & Accounts Officer  
Department of Biotechnology  
New Delhi-110003

Copy to:

1. The Principal, Director of Audit (Scientific Departments), AGCR Building, New Delhi-110002
2. Cash Section, DBT, (2 Copies)
3. The Principal, Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur-173025 (Himachal Pradesh),
4. Dr. Jahid Ali Malik, Assistant Professor, Department of Botany, Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur-173025 (Himachal Pradesh).
5. Sanction Folder

  
(Dr. Garima Gupta)  
Scientist-E

## **2. Community College Scheme of UGC**

The Government of India along with MHRD and UGC, have given the concept of “Community College” in India which has been aligned with the National Occupational Standards and National Skill Qualification Framework (NSQF) to make the skills acquired by the learners acceptable nationally.

### **i. The objectives of Community College Scheme**

1. To provide judicious mix of skills relating to a profession and appropriate content of General Education.
2. To provide flexibility to the students by means of pre-defined entry and multiple exit points and make them employable at each exit point.
3. To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the students and meet industry requirements.
4. To provide for up-gradation and certification of traditional/acquired skills of the learners irrespective of their age.

The Community College in Government College Paonta Sahib has been started with the aim to empower the students through appropriate skill development leading to employment in local industry. Community college is an alternative system of education, which is aimed to gain necessary skill for livelihood and formal qualifications for social status and societal recognition.

### **ii. Scope of Entrepreneurship**

Preparing the students apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce. Helping young students to become economically independent through employment and entrepreneurship.

### **iii. Vibrant Academia-Industry Interface and Curricular Flexibility in Skill-Based Courses under Community College**

The College has endeavoured towards attracting an accentuated industry-institution-interface. In comparison to the regular courses and courses under Self-Financing Mode, where the course curriculum is finalised by the affiliating University with hardly any flexibility at the level of college; the community college scheme provides ample flexibility in curriculum development. Under Community College, the course curriculum is developed by the local board of studies under the overall framework as defined by the respective Sector Skill Council.

The Board of Studies (BoS) of Community College have representatives from the college, partner industries and relevant Sector Skill Council(s) This reflects the academia-industry

collaboration wherein the course curriculum is developed and designed in accordance with the requirements of the local industry.

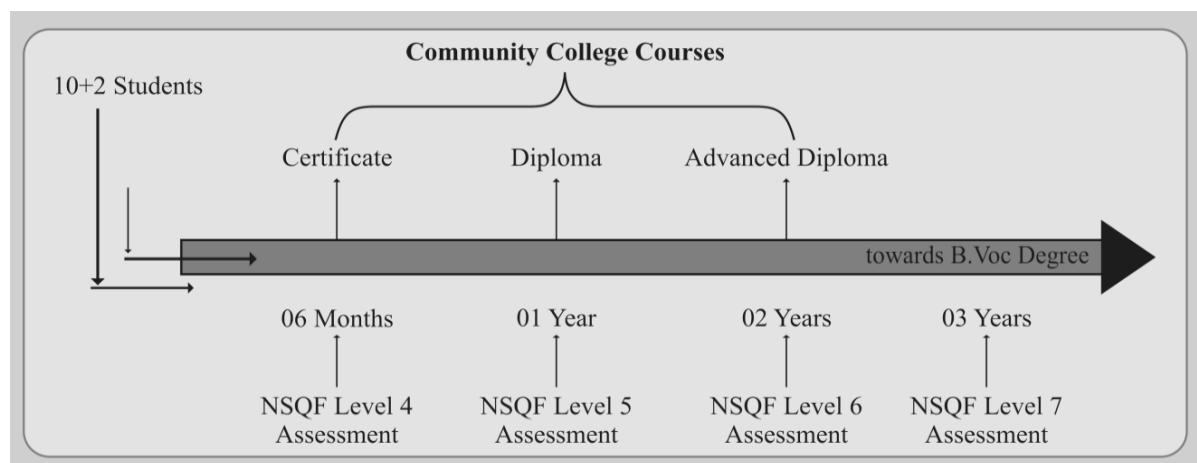
The Community College through its Board of Studies develops the course curriculum keeping in view the job roles as defined by the National Skill Qualification Framework (NSQF) modified as per the needs of the local industries. For ensuring this Academia-Industry collaboration, the board of studies includes the representatives of industries as active members.

Memorandum of Understanding (MOUs) with several industries have already been signed by the college in this regard and notified to the sponsoring agency i.e., the University Grants Commission.

The curriculum is assigned with NOS and Qualification packs given by respective sector skill Council under NSDC (National Skill Development Corporation) NOS (National Occupational Standards) refers to standards applied uniquely in Indian context comprising of performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of underpinning knowledge and understanding Qualification pack comprises the set of NOS, together with educational, training and other criteria required to perform a job role.

The duration of each course is two years spread over four semesters. However student may exit after six months with a CC Certificate (NSQF Level 4) or may continue for diploma or advanced diploma level courses.

An academic progression for the students in vocational stream is illustrated below:



*Figure 1 Scheme of Academic Progression in Community College*

Curriculum is divided into two components as follows:

- Skill Component 60%
- General Education component 40%

*Table 2 Credit Allocation to the Curriculum Component*

NSQF Level	Skill Component Credits	General Education Credits	Normal Duration	Exit Points/ Awards
6	72	48	Four Semesters	Advance Diploma
5	36	24	Two Semesters	Diploma
4	18	12	One Semester	Certificate

- One credit equivalent of 14-15 periods of 60 minutes each for theory, practical/workshop, and tutorials.
- Monitoring, evaluation and updating of the curriculum is done periodically in consultation with all stakeholders, particularly the industries and SSCs keeping in view their requirements and changes in NOSs (National Occupational Standards).

#### **iv. Assessment**

The Skill component of the course is assessed and certified by the respective Sector Skill Councils. The credits regarding skill component are awarded in terms of NSQF level certification, which has 60% weightage of total credits of the course in following manner.

- Certificate courses: NSQF level 4 certificate - 18 credits
- Diploma courses: NSQF level 5 certificate - 36 credits
- Advanced diploma courses: NSQF level 6 certificate - 72 credits

The general education component will be assessed by the community college itself as follows

- Internal Assessment: 50 marks
  - \* Sessional 30
  - \* Seminar/Assignment 15 marks
  - \* Attendance 05 marks
- End-Semester examination: 50 marks

#### **v. Relevance to Regional and Global Employment Market**

1. The National Skill Development Council (NSDC) in its report *District wise skill gap study for the State of Himachal Pradesh (2012-17 & 2017-22)* has also identified sector-wise skill level requirements during 2012-22 for Sirmaur District of Himachal Pradesh. The report prepared for NSDC by KPMG (KPMG Advisory Services Pvt. Ltd) reveals that the district has huge skill gap requirement.
2. Paonta Sahib has emerged as the fast developing industrial town of Sirmaur district with the setting up of medium and small-scale industries. However, there is a

pronounced skill-gap in Paonta Sahib, with demand-supply mismatch of skilled workforce.

3. The skill-oriented courses available in the market through private institutions have low credibility and acceptability with the employers. The traditional higher education system in the country is also rigid in terms of duration of courses, timings for teaching-learning, place of study and choice of subjects. There is a worldwide shift from conventional educational system to competence based qualification system.
4. There is flexibility in curriculum and teaching methodology. Great opportunity of employment as this education system works in collaboration with the industrial sector of the local area. It also helps in promotion of self-employment and development of small enterprises.

*Table 3 Guest Faculty in Community College from other academic institutions*

<b>S. N.</b>	<b>Name</b>	<b>Address</b>
1	Dr. Virender Singh	H.O.D. Deptt. of Micro-Biology, Himachal Institute of Life sciences, Paonta Sahib
2	Dr. Ujjwal Nautiyal	Principal, Himachal Institute of Pharmacy, Paonta Sahib
3	Ms. Rohini Sharma	Asst. Professor, Himachal Institute of Pharmacy
4	Ms. Monika Sharma	Former academician
5	Sh. Ramesh Chander Sharma	Retired academician (English)

*Table 4 Guest Faculty/Experts in Community College from Industry*

<b>S. No.</b>	<b>Name</b>	<b>Address</b>
1	Dr. Jitender Kumar	Sr.Vice-President, Mankind Pharma Ltd, Paonta Sahib
2	Sh. Sanjay Aggarwal	Director, RichPro Food, Paonta Sahib
3	Sh. Jai Prakash	Sr. Executive (QA), Tirupati Medicare Ltd.
4	Sh. Hans Raj Sharma	Fruit Technologist, Fruit canning unit, Dhaulakuan, Paonta Sahib
5	Sh. Sanjeev Bansal	Horticulture Extension Officer, Dhaulakuan, Paonta Sahib
6	Sh. Virender Singh	Plant Head, Minocha Foods, Shoghi, Shimla
7	Sh. R.K. Singh	Head Quality Assurance, Mother dairy Ltd. Delhi



# अनुशांसा और सुझावों के अनुरूप होगा पाठ्यक्रम : डॉ. केवी सिंह

फार्मास्युटिकल्स और फूड प्रोसेसिंग विषयों के पाठ्यक्रम पर मंथन

पांवटा कम्युनिटी कॉलेज के बोर्ड ऑफ स्टडीज की बैठक में चर्चा

अमर उजाला ब्यूरो

पांवटा साहिब (सिरमौर)।

राजकीय महाविद्यालय पांवटा के प्राचार्य डॉ. केवी सिंह ने कहा कि कम्युनिटी कॉलेज में रोजगारपरक शिक्षा मिल रही है। दो विभाग फार्मास्युटिकल्स व फूड प्रोसेसिंग की कक्षाएं कम्युनिटी कॉलेज में संचालित हो रही हैं जिसका लाभ स्थानीय युवाओं को खूब मिलने लगा है। कार्य अधिकारियों द्वारा दी गई अनुशांसाएं व सुझाव महत्वपूर्ण हैं। इनके अनुरूप ही पाठ्यक्रम में बदलाव किया जाएगा। प्राचार्य बुधवार को पांवटा कॉलेज में कम्युनिटी कॉलेज के बोर्ड ऑफ स्टडीज की बैठक में संबोधित कर रहे थे। बैठक का संचालन नोडल अधिकारी डॉ. जाहिद अली मलिक ने किया। कम्युनिटी कॉलेज के बोर्ड ऑफ स्टडीज बैठक में क्षेत्र के प्रतिष्ठित उद्योगों हिमालया इंटरनेशनल प्रा. लिमिटेड कंपनी के महाप्रबंधक कैप्टन पीसी भंडारी, तिरुपति मेडिकेयर कंपनी के महाप्रबंधक प्रशांत कुमार, रिच फूकस के निदेशक संजय अग्रवाल व हिमालय इंस्टीट्यूट ऑफ फार्मसी से डॉ. उज्ज्वल नोटियाल विशेष रूप से मौजूद रहे। सभी ने अपने महत्वपूर्ण सुझाव दिए। बैठक में कम्युनिटी कॉलेज में चल रहे कोर्सेस के पाठ्यक्रमों पर विस्तृत



पांवटा कॉलेज में कम्युनिटी कॉलेज के बोर्ड ऑफ डायरेक्टर की बैठक में उपस्थित प्राचार्य और अन्य।



रूपरेखा की प्रस्तुति दोनों विभागों में कार्यरत अध्यापकों द्वारा दी गई जिस पर बोर्ड ऑफ स्टडीज के कार्य अधिकारियों ने अपने मत रखे। तिरुपति मेडिकेयर महाप्रबंधक प्रशांत कुमार ने कहा कि छात्रों के कौशल विकास के विषय संबंधित अतिथि व्याख्यान के लिए विशेषज्ञ

तिरुपति मेडिकेयर औद्योगिक इकाई समय-समय पर उपलब्ध करवाएगी। बैठक का संचालन करते हुए डॉ. जाहिद मलिक ने सबका स्वागत किया। इस दौरान चरिष्ठ प्रो. रीतु पंत, प्रो. अमिता जोशी, प्रो. राहुल देव, प्रो. आशा समेत कॉलेज के स्टाफ सदस्य मौजूद रहे।

Amar Ujala Thursday, 22 December 2016.

News Clip 1 Amar Ujala 22<sup>nd</sup> December 2016 – Curriculum Development



*Photograph 18 Juice Preparation*



*Photograph 19 Mango drink prepared by the college students*



*Photograph 20 Juice Preparation*



*Photograph 21 Guava drink prepared by the college students*





*Photograph 22 Banana Nectar*



*Photograph 23 Practical Sessions*



*Photograph 24 Mango Pulp*



*Photograph 25 Instructions being imparted*





*Photograph 26 Students learning practical skills*



*Photograph 27 Principal inspecting practical sessions*

# पांवटा साहिब कालेज में औद्योगिक विशेषज्ञ देंगे कौशल विकास पर टिप्स



■ चरवाला सचदवला, पांवटा साहिब

श्री गुरु गोविंद सिंह जी राजकीय महाविद्यालय पांवटा साहिब में कम्युनिटी कालेज के बोर्ड ऑफ मैनेजमेंट की बैठक गुरुवार को संपन्न हुई। इस बैठक की अध्यक्षता कालेज के प्राचार्य डा. केवी सिंह ने की। इस बैठक में कम्युनिटी कालेज के अंतर्गत चल रहे दो विभाग फार्मास्युटिकल्स एवं फूड प्रोसेसिंग के बोर्ड ऑफ मैनेजमेंट के कार्याधिकारी उपस्थित हुए। बैठक में सामुदायिक महाविद्यालय के संचालन एवं गतिविधि के संदर्भ में विस्तार से चर्चा की गई। इसमें हिमाचल चैंबर ऑफ कॉमर्स एवं इंडस्ट्री के अध्यक्ष सतीश गोयल, नगर के प्रतिष्ठित उद्योगों हिमालयन इंटरनेशनल प्राइवेट लिमिटेड के महाप्रबंधक कैप्टन पीसी भंडारी, जीओन लाइफ साइंसेज के निदेशक विनोद शर्मा, तिरुगति मेडिकेयर के महाप्रबंधक प्रशंत कुमार एवं रिच प्रो फूड्स के निदेशक संजय अग्रवाल विशेष रूप से मौजूद रहे। इस बैठक में इस बात पर विशेष बल दिया गया कि छात्रों के कौशल विकास हेतु प्रमुख औद्योगिक

इकाइयों से प्रख्यात व्यक्तियों के व्याख्यान का आयोजन कम्युनिटी कालेज द्वारा किया जाएगा। यह भी निर्णय लिया गया कि विद्यार्थियों को औद्योगिक प्रशिक्षण हेतु हिमाचल प्रदेश के आसपास के औद्योगिक क्षेत्रों में भ्रमण करवाया जाएगा। कालेज के प्राचार्य डा. केवी सिंह ने विचार व्यक्त करते हुए कहा कि कम्युनिटी कालेज के अंतर्गत चलने वाले पाठ्यक्रमों में प्रवेश प्रक्रिया साल में दो बार (जून एवं जनवरी माह में) की जाएगी एवं इस वर्ष की प्रवेश की प्रक्रिया बढ़ाकर 31 अगस्त तक कर दी गई है। आगामी दिनों में कम्युनिटी कालेज में चलने वाले पाठ्यक्रमों के बारे में स्कूली स्तर पर भी जागरूक कर उन विद्यार्थियों को प्रोत्साहित किया जाएगा जो कौशल विकास संबंधी विषयों में अभिरुची रखते हैं। बैठक का संचालन कम्युनिटी कालेज के मोडल अधिकारी डा. जाहिद अली मलिक ने किया तथा अभ्यर्थियों का स्वागत कर बैठक की जानकारी दी। बैठक में महाविद्यालय के वरिष्ठ प्राध्यापक डा. अलका चौहान, प्रो. नलिन रमौल, एवं प्रो. राहुल देव विशेष रूप से मौजूद रहे।

News Clip 2 Academia-Industry Partnership



*Photograph 28 Learning the lab skills*

**vi. Industry Representatives in Board of Management, Community College**

- Sh. Satish Goel, President, Himachal Pradesh Chamber of Commerce and Industry;
- Capt. P C Bhandari, General Manager Himalayan International Ltd. Paonta Sahib (H.P.);
- Dr. Jitender Kumar, Sr. Vice President Mankind Pharma Group of Companies;
- Sh. Ashok Goyal, Director, Tirupati Medicare, Nahan Road, Paonta Sahib;
- Sh. Sanjay Aggarwal, Director, Rich Pro Food, Santosh Garh, Nahan Road, Paonta Sahib (H.P.);
- Sh. Akhil Saxena, General Manager, Human Resources, Sun Pharmaceutical Industries Ltd, Village Ganguwala, Paonta Sahib; and
- Sh. Vinod Sharma, Director, Zeon Life Sciences, Rampur Ghat, Paonta Sahib

**vii. Industry Representatives in Board of Studies, Community College**

- Capt. P C Bhandari, General Manager, Himalayan International Ltd. Paonta Sahib (H.P.);
- Dr. Jitender Kumar, Sr. Vice President, Mankind Pharma Group of Companies, Paonta Sahib;
- Sh. N.D. Tripathi, Head, QA/QC Department, Zeon Life Sciences, Rampur Ghat, Paonta Sahib; and

- Sh. Sanjay Aggarwal, Director, RichPro Food, Santoshgarh, Nahan Road, Paonta Sahib (H.P.).



*Photograph 29 Lab training*



*Photograph 30 Online Skill Assessment*





Photograph 31 Skill Assessment Exam

## कौशल के साथ रोजगार के खोलें द्वार पावंटा साहिब कालेज में संयुक्त समिति की बैठक में लिया फैसला

■ कार्यालय संवाददाता, पावंटा साहिब

राजकीय महाविद्यालय पावंटा साहिब में सामुदायिक महाविद्यालय के सौजन्य से प्राचार्य डा. दिनेश कुमार भारद्वाज की अध्यक्षता में संयुक्त समिति की बैठक का आयोजन हुआ। इस बैठक में सामुदायिक महाविद्यालय के दो विभाग एडवांस डिप्लोमा इन फार्मास्यूटिकल्स एवं एडवांस डिप्लोमा इन फूड प्रोसेसिंग के निदेशक परिषद तथा शिक्षा परिषद के कार्याधिकारी उपस्थित हुए। इस बैठक में विशेष रूप से वाधवानी फाउंडेशन के तिलक धीमान एवं विशाल राज मौजूद रहे। बैठक में सामुदायिक महाविद्यालय के

संचालन एवं गतिविधि के संदर्भ में विस्तार से चर्चा की गई। इसमें नगर के प्रतिष्ठित उद्योगों मैनकाइंड फार्मा समूह के वरिष्ठ उपाध्यक्ष डा. जितेंदर कुमार, हिमालयन इंटरनेशनल प्राइवेट लिमिटेड के महाप्रबंधक कैप्टन पीसी भंडारी, जीयोन लाइफ साइंसेज के निदेशक विनोद शर्मा एवं रिच प्रो फूड्स के निदेशक संजय अग्रवाल भी विशेष रूप से उपस्थित रहे।

इस बैठक में इस बात पर विशेष बल दिया गया कि जमा दो के बाद विद्यार्थियों को आजीविका के लिए कौशल युक्त रोजगार प्रदान किया जाए। यह भी निर्णय लिया गया कि विद्यार्थियों को प्रशिक्षण हेतु आसपास के उद्योगों में



सेवायोजन के अवसर उपलब्ध कराए जाएं। कालेज के प्राचार्य डा. दिनेश कुमार भारद्वाज ने विचार व्यक्त करते हुए कहा कि आगामी दिनों में सामुदायिक विद्यालय में चलने वाले पाठ्यक्रमों के बारे में स्कूली स्तर पर भी जागरूक कर उन विद्यार्थियों को प्रोत्साहित किया जाएगा जो कौशल विकास संबंधी विषयों में अभिरुचि रखते हैं।

कार्यक्रम का संचालन नोडल अधिकारी डा. जाहिद अली मलिक ने किया तथा कार्यक्रम में अभ्यागतों का स्वागत कर बैठक की जानकारी दी। इस मौके पर महाविद्यालय के प्राध्यापक डा. एनआर गोपाल, प्रो. नलिन रमौल, प्रो. अमिता जोशी, प्रो. राहुल देव एवं प्रो. आशा कौशल भी मौजूद रहे।

News Clip 3 Academia-Industry Partnership

# अतिरिक्त निदेशक शिक्षा ने नवाजे विद्यार्थी

अमर उजाला ब्यूरो

पांवटा (सिरमौर)। राजकीय स्नातकोत्तर महाविद्यालय पांवटा साहिब के अंतर्गत कम्यूनिटी कॉलेज में सोमवार को फूड प्रोसेसिंग एवं फार्मास्युटिकल्स कोर्सेस के विद्यार्थियों को कौशल प्रमाण पत्र प्रदान किए गए। छात्रों को यह प्रमाण पत्र उच्चतर शिक्षा के अतिरिक्त निदेशक अमर देव ने अपने हाथों से प्रदान किए।

सनद रहे कि पाठ्यक्रमों के कौशल का मूल्यांकन संबंधित सेक्टर स्किल काउंसिल द्वारा मार्च-अप्रैल माह में किया गया था। एडवांस डिप्लोमा इन फार्मास्युटिकल्स के प्रमाण पत्र लाइफ साइंसेज सेक्टर स्किल डेवलपमेंट काउंसिल द्वारा एवं एडवांस डिप्लोमा इन फूड प्रोसेसिंग के प्रमाण पत्र फूड इंडस्ट्री कैपेसिटी



पांवटा कॉलेज में विद्यार्थियों को कौशल प्रमाण पत्र देने के बाद मुख्यातिथि।

एंड स्किल इनिशिएटिव के द्वारा जारी किए गए थे। महाविद्यालय के प्राचार्य डॉ. केवी सिंह ने बताया कि महाविद्यालय में इस वर्ष इन पाठ्यक्रमों में विद्यार्थियों का परीक्षा

परिणाम शत प्रतिशत रहा जो विद्यार्थी इस परीक्षा में सफल रहे उन सबको 6000 रुपये प्रति छात्र, छात्रवृत्ति दी जाएगी।

इस मौके पर राजकीय

स्नातकोत्तर महाविद्यालय नाहन के प्राचार्य डॉ. दिनेश कुमार भारद्वाज भी उपस्थित रहे। कम्यूनिटी कॉलेज के नोडल ऑफिसर डॉ. जाहिद अली मलिक ने बताया कि महाविद्यालय में इन पाठ्यक्रमों में प्रवेश की प्रक्रिया शुरू हो गई है। इन पाठ्यक्रमों में प्रवेश के लिए शैक्षणिक योग्यता 12वीं पास है तथा आयु की कोई सीमा नहीं है। इन पाठ्यक्रमों के अंतर्गत विद्यार्थियों को स्थानीय औद्योगिक इकाइयों में रोजगार के लिए निपुण किया जाएगा एवं विभिन्न जॉब रोल के अनुसार परीक्षण दिया जाएगा।

News Clip 4 Amar Ujala



Photograph 32 Additional Director of Higher Education Dr. Amar Dev



# कौशल मूल्यांकन प्रमाणपत्र देकर सम्मान

— कार्यालय संवाददाता, पांवटा साहिब

श्री गुरु गोबिंद सिंह जी राजकीय स्नातोत्कर महाविद्यालय पांवटा साहिब में कम्युनिटी कालेज में चल रहे कौशल विकास संबंधित पाठ्यक्रम एडवांस डिप्लोमा इन फूड प्रोसेसिंग एवं एडवांस डिप्लोमा इन फार्मास्युटिकल्स के विद्यार्थियों को निदेशक, उच्चतर शिक्षा हिमाचल प्रदेश सरकार, डा. दिनकर बुराथोकी ने कौशल मूल्यांकन प्रमाण पत्र देकर सम्मानित किया। इन पाठ्यक्रमों के कौशल का मूल्यांकन संबंधित सेक्टर स्किल काउंसिल द्वारा सितंबर माह में किया गया था। एडवांस डिप्लोमा इन फार्मास्युटिकल्स के प्रमाण पत्र लाइफ साइंसेज सेक्टर स्किल डिवलेपमेंट काउंसिल द्वारा एवं एडवांस डिप्लोमा इन फूड प्रोसेसिंग के प्रमाण पत्र फूड इंडस्ट्री



कैपेसिटी एंड स्किल इनिशिएटिव के द्वारा जारी किए गए थे।

महाविद्यालय के प्राचार्य डा. किरण वीर सिंह ने यह जानकारी

प्रदान करते हुए बताया कि इस वर्ष इन पाठ्यक्रमों में विद्यार्थियों का कौशल मूल्यांकन परीक्षा का परिणाम शत प्रतिशत रहा।

**दिव्य हिमाचल**

दिव्य हिमाचल समाचार

Fri, 09 December 2016


epaper.divyahimachal.com//c/15231137




Photograph 33 Director of Higher Education Dr. Dinkar Burathoki



**i. UGC Grant under Community College Scheme for the years 2016-17 and 2017-18**



ज्ञान विधान विमुक्तये  
डॉ. अर्चना ठाकुर  
संयुक्त सचिव  
Dr. Archana Thakur  
Joint Secretary



विश्वविद्यालय अनुदान आयोग  
**University Grants Commission**  
(मानव संसाधन विकास विभाग, भारत सरकार)  
(Ministry of Human Resource Development, Govt. of India)  
बहादुर शाह ज़फ़र मार्ग, नई दिल्ली-110002  
Bahadur Shah Zafar Marg, New Delhi-110002  
दूरभाष Phone : कार्यालय Off : 011-23232783  
फैक्स Fax : 011-23217124, e-mail : archana.ugc@nic.in

*Support or Zahed Malik for needful*

*17/2018*

By Speed Post

D.O.No.F.1-426/2014 (CC)

Sir/Madam,

24 May, 2016  
24 JUN 2016

Kindly refer to the interface meeting with the Expert Committee held on in 5<sup>th</sup> April, 2016 the office of the UGC for reviewing the performance of your College under the scheme of Community College and considering its continuation. In this connection, this is to inform you that the UGC has approved your College for continuing the scheme of Community College in the specializations and as per the intake given below:-

Specialization/Trade	Intake
Diploma in Food Processing	50 ✓
Advanced Diploma in Pharmaceuticals	50 ✓

Further, UGC has also approved a grant of Rs. 114.70 Lakh (Rupees One Crore Fourteen Lakh and Seventy Thousand Only) to the institute for a period of two years for running the Community College Scheme as per the details given below:

Sl. No.	Budget Head	Amount (Rupees in lakhs)	
		Year- I 2016-17	Year- II 2017-18
<b>Grant-in-aid General – 35 (Non-recurring)</b>			
I	Equipments	--	--
II	Minor repairs of Labs / workshops / classrooms	--	--
<b>Total (year-wise)</b>		--	--
<b>Grant-in-aid General – 31 (Recurring)</b>			
III	Honorarium to existing / visiting / adjunct faculty	14.00	28.00
IV	Honorarium to Principal & Nodal Officer	0.70	0.70
V	Hiring charges for Lab Attendant(s)	2.40	2.40
VI	Faculty training	1.00	1.00
VII	Consumables	2.50	2.50
VIII	Curriculum Development / Learning Materials	2.00	2.00
IX	Travel/Industrial visits	2.00	2.00
X	Seminars	1.00	1.00
XI	Admission/Examination/Assessment including Assessment Fee of Sector Skill Council for Skill Component	2.00	2.00
XII	Scholarship to students	10.00	20.00
XIII	Operating Expenditure including hiring of office staff on contract basis	3.00	5.00
<b>Total (year-wise)</b>		<b>40.60</b>	<b>74.10</b>

**Grand Total for Two Years = Rs. 114.70 Lakh (Rupees One Crore Fourteen Lakh and Seventy Thousand Only)**

### 3. Active Incubation Ecosystem

The departments of biosciences (Botany and Zoology) have established an Active Incubation Ecosystem in the college for Mushroom Cultivation, Apiculture, and Vermicomposting. These are also part of the specified course curriculum and also covered through special workshops and trainings.



*Photograph 34 Invited Speaker Dr. Amit Bakshi demonstrating the various aspects of Apiculture*

**H.P. University, Summerhill, Shimla**

**Structure and Syllabus**

**of**

# **Botany**

**for**

**B.Sc. Undergraduate Programme**

**Based on:**

**U.G.C. Choice Based Credit System**

**(CBCS) Annual Pattern UG Courses**

**Model Curriculum**

**(Effective from Academic Session July, 2018 onwards)**

## **Mushroom Cultivation Technology**

(BOTA 307)

(Credits 4)

Lectures: 45

### **SECTION A**

**Unit 1:** Introduction, history. Nutritional and medicinal value of edible mushrooms; Nutrition and nutraceuticals – Proteins, amino acids, mineral elements nutrition, carbohydrates, crude fibre content, vitamins; Poisonous mushrooms. (10 Lectures)

### **SECTION B**

**Unit 2: Cultivation Technology :** Infrastructure: substrates (locally available) Polythene bag, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, Sterilization, Preparation of spawn, Multiplication. (12 Lectures)

### **SECTION C**

**Unit 3:** Cultivation practices of *Agaricus bisporus*, *Pleurotus* sp. and *Volvariella volvacea*. Composting technology in mushroom production, Low cost technology, Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation. (12 Lectures)

35

### **SECTION D**

**Unit 4: Storage:** Short-term storage (Refrigeration - upto 24 hours) Long term Storage (canning, pickles, papads), drying, storage in salt solutions. (4 Lectures)

**Unit 5: Food Preparation:** Types of foods prepared from mushroom. Research Centres -National level and Regional level. Cost benefit ratio - Marketing in India and abroad, Export Value (4 Lectures)

**Unit: 6** Diseases and Pests of Mushrooms (3 Lectures)

#### **Suggested Readings**

1. Biswas, S., Datta, M. and Ngachan, S.V. 2012. Mushrooms: A Manual for Cultivation. PHI Learning Private Limited, New Delhi.
2. Kapoor, J.N. 2010. Mushroom Cultivation. ICAR, New Delhi.
3. Nita Bahl (2000) Hand book of Mushrooms. Oxford & IBH Publishing Co. Pvt. Ltd.
4. Singh, M., Vijay, B., Kamal, S. and Wakchaure (Eds.) 2011. Mushrooms: Cultivation, Marketing and Consumption. Directorate of Mushroom Research (ICAR), Solan
5. Tewari, Pankaj and Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.

## SKILL ENHANCEMENT COURSES

**Biofertilizers (BOTA 203)**

(Credits 4)

Lectures: 45

**SECTION A**

**Unit 1: Fertilizers:** Introduction, Types of fertilizers and their advantages and disadvantages, Brief account of microbes used as biofertilizer, Marketable forms of biofertilizers.

**(5 Lectures)**

**Unit 2. *Rhizobium*:** General account, Isolation, Identification, Mass multiplication, Carrier based inoculants, Application, Crop response

**(5 Lectures)**

**Unit 3. Actinorrhizal Symbiosis- *Frankia*,** Host-microsymbiont relationship, Isolation, Culture, Application and Advantages

**(2 Lectures)****SECTION B**

**Unit 4: *Azospirillum*:** Isolation and mass multiplication, Carrier based inoculant, Crop response

**(4 Lectures)**

**Unit 5: *Azotobacter*:** Characteristics, Isolation and mass multiplication, Application and Crop response.

**(4 Lectures)**

**Unit 6: Phosphate Solubilizing Organisms:** Introduction, Isolation, Culture and Applications.

**(3 Lectures)****SECTION C**

**Unit 7: Cyanobacteria (Blue Green Algae):** *Azolla* and *Anabaena azollae* association, Nitrogen fixation, Factors affecting growth, Blue green algae and *Azolla* in rice cultivation.

**(6 Lectures)**

**Unit 8: Mycorrhizal Association:** Types of mycorrhizal association, Taxonomy, Occurrence and distribution, Phosphorus nutrition, Growth and yield; VAM – Isolation and inoculum production, Influence on growth and yield of crop plants.

**(6 Lectures)****SECTION D**

**Unit 9: Organic Farming –** Green manuring and organic fertilizers, Recycling of biodegradable municipal, agricultural and Industrial wastes; Biocompost making methods, Types and method of vermicomposting, field Application.

**(10 Lectures)**



## 4. Student skill enrichment lectures

Guest lectures/special lectures of experts from industries and other institutions are arranged frequently.



*Photograph 35 Vikas Bansal, Assistant Professor, Dept. of Food Technology  
School of Engineering & Technology, Jaipur National University, Jaipur*



*Photograph 36 Sh. Sanjay Aggarwal, Director, RichPro Food, Paonta Sahib*



*Photograph 37 Sh. Vinod Shukla, Manager HR, Tirupati Medicare Ltd., Paonta Sahib ,(H.P.)*



*Photograph 38 Photograph 14 Sh. Sanjay Aggarwal, Director, RichPro Food, Paonta Sahib*



*Photograph 39 Sh. Sanjeev Bansal, Horticulture Extension Officer, Govt. of H.P.*

## **5. Entrepreneurship**

Through participation in various talks, seminars, workshops in the college and outside, the students are trained to:

- Assess the market conditions and entrepreneurs requirements
- Identify team and service providers
- Arrange for resources
- Establish industry linkages
- Attract, select, retain and manage startups

Students are provided with the opportunities to directly interact with outstanding entrepreneurs excelling in their field.





*Photograph 40 Exposure to Entrepreneurship*



*Photograph 41 Display of Products Manufactured by Students*



## 6. Academia-Industry Partnership

Industry Connect through participation of industry in Board of Management for Community College, Membership of Governing Body of Higher Educational Institution Society managing Self-Financing Courses, Membership of IQAC, Industry-academic linkages: The college has initiated linkages with institutions and companies, for industry-academia research activities and internships.



*Photograph 42 First hand Training in Industries*



*Photograph 43 Academia Industry Interaction*

### **i. MoUs of with Industries**

The college under Community College Scheme of UGC has signed 3 Memorandums of Understanding (MoUs) with the following industries

- Zeon Life Sciences Ltd., Rampur Road, Paonta Sahib
- RichPro Foods, 171/2, Kedarpur, Paonta Sahib
- Himalyan International Pvt. Ltd. Paont Sahib
- Mankind Pharma Ltd. Paonta Sahib
- Tirupati Medicare, Nahan Road, Paonta Sahib

#### **Partner Industries and industrial Associations**



Himachal Chamber of Commerce & Industry



Sun Pharmaceutical Industries Ltd, Paonta Sahib



Tirupati Medicare, Nahan Road, Paonta Sahib



Himalya International Ltd., Paonta Sahib



Zeon Life Sciences Ltd., Rampur Road, Paonta Sahib



SVR Healthcare, Barotiwala, Paonta Sahib



RichPro Foods, 171/2, Kedarpur, Paonta Sahib



*Photograph 44 Training Program at Fruit Canning Unit, Dhaulakuan*



*Photograph 45 Industrial Training*



## 7. Transfer of Knowledge to Community through Awareness

The institution has built an environment that fosters creativity, knowledge creation and transition. The Community Service Centre - NSS also contributes to the dissemination of knowledge and the upliftment of society in numerous ways. The NSS helps the community/neighbourhood surrounding the institution to enhance the quality of life by empowering them to realize their potential. Outreach activities, Pakhwara, Swachh Bharath and Health camps have helped the beneficiaries become more conscious of their lifestyle challenges. The Eco club is rigorous in promoting green practices both within and outside the institution. Tree Plantation Drives, Waste Segregation, Conservation of Energy are some of the initiatives propagated. These activities enlighten students about new avenues in various spheres of life and ways through which they can contribute to society.



*Photograph 46 Volunteers having conversation with native about use of gloves/mask and single use plastic*



*Photograph 47 Volunteers at Municipal Corporation Paonta Sahib before heading for Cleanliness drive in city.*



*Photograph 48 NSS Volunteer training children of her village with Yogasans.*





*Photograph 49 Awareness camp about Hygiene at Slum area beside Kripal Sheela road.*



*Photograph 50 Young buds with "Save Environment, Remove Plastic" message to society at Slum Area, Kripal Sheela Road.*



*Photograph 51 NSS Unit after Cleanliness drive at Yamuna Ghat.*



*Photograph 52 Volunteers telling villagers about the new variant Omicron of corona virus and precautions to fight against it.*





*Photograph 53 Awareness about Organic Farming Produce and its Higher Market Price*



*Photograph 54 Volunteers on their mission to make society aware of "Swachch Bharat"*



*Photograph 55 Student engaged in painting wall with Save Girl Child messages*



*Photograph 56 Wall painted by students to spread awareness about Save Girl Child*

## 8. Lab to Layman

The Institution has well-established infrastructure facilities for innovation including ICT Lab, Language Lab, and Library with e-resources. The programmes in the stream of science engages the pupils to think laterally that can benefit the society on the whole incorporating scientific temper and to eliminate the cobwebs of unempirical decision making to develop science for the benefit of mankind.

The College initiates programmes in the locality and in adopted villages like measuring the PH level of water and soil, effective waste management, vermin compost, eco sensitization programmes, organic and pesticide free vegetable and grain production, health and hygiene practices. The knowledge transfer of new scientific thoughts and innovations are made available at our locality.



*Photograph 57 Computer Lab 1*





*Photograph 58 Language Lab*



*Photograph 59 Organic Farming and Vermi-Composting*





*Photograph 60 BCA Students Learning Computer Operating Skills*