

The Annual Quality Assurance Report (AQAR) of the IQAC

Part – A

1. Details of the Institution

1.1 **Name of the Institution:** Guru Nanak Dev University

1.2 **Address Line 1:** G.T. Road

City/Town: Amritsar

State: Punjab

Pin Code: 143 005

Institution e-mail address: vcgndu@gmail.com

Contact Nos.: 0183-2258811

Name of the Head of the Institution: Prof. Ajaib Singh Brar

Tel. No. with STD code: 0183-2258811

Mobile: 96460-30460

Name of the IQAC Co-ordinator: Prof. Navdeep Singh Sodhi

Mobile: 95014-73321

IQAC e-mail address: iqacgndu@gmail.com

1.3 **NAAC Track ID:** PBUNGN10009

1.4 **NAAC Executive Committee No. & Date:** EC(SC)/04/RAR/87 dated 10-12-2014

1.5 **Website address:** www.gndu.ac.in

Web-link of the AQAR: http://gndu.ac.in/gndu2014/qlinks_pdf/Annual_report2014-15.pdf

1.6 Accreditation Details

<i>S. No.</i>	<i>Cycle</i>	<i>Grade</i>	<i>CGPA</i>	<i>Year of Accreditation</i>	<i>Validity Period</i>
1	1 st Cycle	Five Star	N.A	2000	2005
2	2 nd Cycle	A	3.50	2007	2012
3	3 rd Cycle	A	3.51	2014	2019

1.7 **Date of Establishment of IQAC:** 25/11/2002

1.8 **AQAR for the year:** 2014-15

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC

This AQAR (2014-15) being submitted is the latest after the Assessment and Accreditation by NAAC Peer Team in November, 2014.

1.10 Institutional Status

University	State
Affiliated College	No
Autonomous college of UGC	No
Regulatory Agency approved Institution	Yes
Type of Institution	Co-education & Urban
Financial Status	Grant-in-aid, UGC 2(f) & UGC 12B

1.11 Type of Faculty/Programme

Arts	Yes
Science	Yes
Commerce	Yes
Law	Yes
PEI (Phys Edu)	Yes
TEI (Edu)	Yes
Engineering	Yes
Health Science	Yes
Management	Yes
Others (Specify)	Physical Planning and Architecture

1.12 Name of the Affiliating University (*for colleges*): N.A.

1.13 Special status conferred by Central/State Government

Autonomy by State/Central Govt./University	Yes
University with Potential for Excellence	Yes
DST Star Scheme	No
UGC-Special Assistance Programme	Yes
UGC-Innovative PG programmes	No
UGC-COP Programmes	No
UGC-CPE	No
UGC-CE	Yes
DST-FIST	Yes
Any other (<i>Specify</i>)	-

2. IQAC Composition and Activities

2.1 No. of Teachers: 9

2.2 No. of Administrative / Technical Staff: 1

2.3 No. of students: 2

2.4 No. of Management representatives: 2

2.5 No. of Alumni: Nil

2.6 No. of any other stakeholder and community representatives: 2

2.7 No. of Employers/Industrialists: Nil

2.8 No. of other External Experts: 1

2.9 Total No. of members: 17

2.10 No. of IQAC meetings held: 1

2.11 No. of meetings with stakeholders: As per the following details

Faculty / Non-Teaching Staff / Alumni / Others	Regular meetings of the Vice-Chancellor are held with Dean of Faculties, HODs, Faculty members and Elected Bodies of teaching, non-teaching and student bodies. University Alumni meet was held on 21 st February, 2015. Placement Cell interacted with officials of 53 industries/companies. IQAC is also planning to initiate meetings with stakeholders independently.
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2.12 Has IQAC received any funding from UGC during the year? No

2.13 Seminars and Conferences (only quality related): UGC - Human Resource Development Centre of the Guru Nanak Dev University, Amritsar organised following short term courses:

Teachers' Empowerment Programme	24/12/2014 – 30/12/2014
Workshop on the use of Software Technology	16/01/2015 – 22/01/2015
Workshop for Heads/Incoming Heads of the Departments & Deans of Faculties on Administration, New Schemes on Higher Education and Research Grants	03/02/2015 – 05/02/2015
Workshop on the Use of Latest Scientific Instruments	18/03/2015 – 20/03/2015

2.14 Significant activities and contributions made by IQAC:

- a. Acted as a Nodal Agency, while participating in Surveys for University ranking in the country through different survey agencies.
- b. Compiled 45th Annual Report-2014 of the University.
- c. Encouraged/emphasised the monitoring of the Teaching & Learning processes by taking feedback from students at departmental levels.
- d. Active association with Grievances Cell formed at the University level.
- e. Having linkage with Internal Committee against sexual harassment for gender sensitization.
- f. Coordinates with DSW to ensure that Anti-Ragging measures have been effectively enforced.

2.15 Plan of action by IQAC/Outcome:

Some of the important plans of action and their achievements by IQAC are as follows:

<i>Plan of Action</i>	<i>Achievements</i>
a) Documentation of various University activities.	a) Compiled 45 th Annual Report-2014 of the University.
b) To participate in Surveys for University Ranking at the National level.	b) Acted as a Nodal Agency for participating in various surveys.
c) Preparation of self-reviewed AQAR: 2014-15.	c) Compiled AQAR 2014-15 of the University.
d) Monitoring of Teaching & Learning Processes.	d) Enthused the practice of taking Faculty Evaluation Feedback from students.
e) To work on the recommendations of NAAC Peer Team.	e) Effective implementation of NAAC Committee recommendations is under process.

Academic Calendar of the year is attached as Annexure II.

2.16 Whether the AQAR was placed in statutory body:

The report will be placed in the Advisory Committee of IQAC.

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

<i>Level of the Programme</i>	<i>Number of existing Programmes</i>	<i>Number of programmes added during the year</i>	<i>Number of self-financing programmes</i>	<i>Number of value added / Career Oriented programmes</i>
PhD	37	-	-	-
PG	72	-	-	-
UG	32	09	-	-
PG Diploma	01	-	-	-
Advanced Diploma	05	-	-	-
Diploma	08	-	-	-
Certificate	08	-	-	-
Others	-	-	-	-
Total	163	09	-	-

Interdisciplinary	46
Innovative	-

1.2 (i) Flexibility of the Curriculum:

<i>Flexibility of the Curriculum</i>	Yes
<i>Choice Based Credit System</i>	Yes
<i>Core</i>	Yes
<i>Elective Option</i>	Yes
<i>Open Options</i>	Yes

The University has Credit-Based Continuous Evaluation Grading System (CBCEGS), under which programme of studies have three types of courses i.e. Core courses, Elective/Optional courses and Interdisciplinary (ID)/Outside Department courses. Provision for enrichment exists in the sense that a student can opt for courses over and above the prescribed credits.

(ii) Pattern of programmes:

<i>Pattern</i>	<i>Number of programmes</i>
<i>Semester</i>	206
<i>Trimester</i>	-
<i>Annual</i>	03

1.3 Feedback from stakeholders (on all aspects):

Alumni	Yes
Parents	Yes
Employers	Yes
Students	Yes

Mode of feedback:

Online	No
Manual	Yes
Co-operating schools (for PEI)	N.A.

**Note: At present a formal feedback on a Performa is taken only from the students. The evaluation is being conducted by individual teachers and respective HODs. However, formal evaluation by IQAC of these feedbacks could not be taken up as effectively as conceptualized owing to the creation of unmanageable amount of data. However, by conducting this exercise the IQAC has realized the importance of online feedback system and the same is under consideration for future.*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects:

Yes, major revisions are made annually in syllabi of every department.

Salient aspects:

All syllabi have been revised, reviewed and modernised keeping in view the following:

- a. UGC guidelines and University norms.
- b. Syllabi of National level competitive examinations.
- c. Needs of industry and society.

1.5 Any new Department / Centre introduced during the year. If yes, give details:

Yes, Department of Tourism and Hospitality has been established.

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty:

<i>Total</i>	<i>Assistant Professors</i>	<i>Associate Professors</i>	<i>Professors</i>	<i>Others</i>
324	180	61	83	-

2.2 No. of permanent faculty with Ph.D: 227

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year:

<i>Assistant Professors</i>		<i>Associate Professors</i>		<i>Professors</i>		<i>Others</i>		<i>Total</i>	
<i>R</i>	<i>V</i>	<i>R</i>	<i>V</i>	<i>R</i>	<i>V</i>	<i>R</i>	<i>V</i>	<i>R</i>	<i>V</i>
13	191	0	112	0	71	-	-	13	374

2.4 No. of Guest and Visiting faculty and Temporary faculty:

Guest and Visiting faculty	1 Visiting Professor
Temporary faculty	600 (Approx.) Assistant Professors appointed on contract/lecture basis. 20 Associate Professors/Professors appointed on contract basis.

2.5 Faculty participation in conferences and symposia:

<i>No. of Faculty</i>	<i>International level</i>	<i>National level</i>	<i>State level</i>
Attended Seminars/ Workshops	24	93	15
Presented papers	48	143	06
Resource Persons	26	177	63

2.6 Innovative processes adopted by the institution in Teaching and Learning:

The innovative practices are encouraged through various means, one of which is integrating it with the curriculum design and development. With the underlying assumption that ensuring innovations requires the building of aptitude and providing intellectual autonomy to the students as well as emphasising methodological practices of experimentation and data collection for which the practical training is indispensable. Most

of the science, life science, engineering and technology disciplines have provision of practical training. However, with the initiation of computer based learning a lot of emphasis is there on building computer laboratories and giving practical training in social sciences.

2.7 Total No. of actual teaching days during this academic year: 185

2.8 Examination / Evaluation Reforms initiated by the Institution:

Video Conferencing facility is set up in all Evaluation Centres for monitoring and surveillance in addition to the following:

- a. Timely opening and closing of Evaluation Centres established in various cities.
- b. Distribution of answer sheets of various subjects to different places.
- c. Problem solving process has been improved. Guidelines are issued regularly by Controller Office and routine meetings are held through video conferencing between Professor Incharge (Examinations) and Principals, Co-coordinators of Centres and Superintendents of various evaluation centres to bring more efficiency, discipline and timely evaluations of answer books.
- d. Various subjects are re-allocated during evaluation at various evaluation centres, depending upon the availability of examiners, to speed up the evaluation work.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop:

<i>Members of All Faculties</i>	<i>Board of Studies (UG)</i>	<i>Board of Studies (PG)</i>	<i>Common Board (UG & PG)</i>	<i>Board of Control</i>
667	216	183	74	195

In a way, all the faculty members of the University are involved in the above exercise in a very systematic and institutionalised process. The Meeting Branch of the University formally requests all the HODs to initiate the process. The HODs fix meetings and start the process among the members of the faculty well in advance so that adequate preparations are made. Teachers actively provide inputs to be considered in the meetings of Board of Control (BOC) / Board of Studies (BOS). College teachers (up to 70% are college teachers on UG boards and 30-50% on PG boards) are given a fair representation in the constitution of the BOS. The basic purpose of this exercise is to make the students competitive and to increase their employability. The effort is also oriented towards the development of knowledge, skill and attitudes among the students.

2.10 Average percentage of attendance of students: above 75%

2.11 Course/Programme wise distribution of pass percentage:

The requisite information is provided in the Annexure III.

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

The University plans and organises the teaching, learning and evaluation schedule by preparing the Academic Calendar every year. Syllabi of various courses are uploaded on the University website, which makes the students aware of the course outlines. To make the whole process more effective, the University under CBCS has introduced the evaluation of teachers by the students. The same is monitored by IQAC. Although at present the evaluation of these feedbacks could not be taken up as effectively as conceptualized. However, by conducting this exercise, the importance of online feedback system has been realised and the same is being considered for the future.

2.13 Initiatives undertaken towards faculty development:

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	107
UGC – Faculty Improvement Programme	Nil
HRD programmes	Nil
Orientation programmes	87
Faculty exchange programme	Nil
Staff training conducted by the university	Nil
Staff training conducted by other institutions	Nil
Summer / Winter schools, Workshops, etc.	232
Others	69

2.14 Details of Administrative and Technical staff

<i>Category</i>	<i>Number of permanent employees</i>	<i>Number of vacant positions</i>	<i>Number of permanent positions filled during the year</i>	<i>Number of positions filled temporarily</i>
'A' Class Non-teaching Administrative Staff	104	82	Nil	15 (Contract Basis)
Clerical Staff	405	139	Nil	09 (Contract Basis)
'C' Class Non-teaching Administrative Staff	356	228	01	01
Technical staff	327	385	16	79 (Contract Basis) 12 (Adhoc Basis)

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution:

The sensitizing/promoting research climate in the institution is mainly conducted at the University level by Research Committee. The IQAC makes efforts in synchronizing with the University's positive and proactive policy of encouraging researchers to apply for funding from various agencies. Research schemes and projects are facilitated in various ways at the University level. The procedure to get sanction and to do purchases is streamlined. Interdepartmental research collaboration has been also encouraged. The faculty and students are made aware of various fellowships they could apply for. Faculty members are encouraged to organize conferences, seminars and workshops. The University has a strong culture of inviting eminent researchers to visit the campus. Such visits entail lectures and interaction with students and researchers. The University is also having a tradition of inviting distinguished persons, from India as well as abroad, to deliver lectures especially on the University's Foundation Day and the Annual Convocation Day. The University also organises public lectures on Every Thursday.

3.2 Details regarding major projects:

Major Projects (UGC)

	<i>Completed</i>	<i>Ongoing</i>	<i>Sanctioned</i>	<i>Submitted</i>
<i>Number</i>	14	15	14	-
<i>Outlay in Rs. Lakhs</i>	91.00	107.00	64.2	-

Major Projects (DST)

	<i>Completed</i>	<i>Ongoing</i>	<i>Sanctioned</i>	<i>Submitted</i>
<i>Number</i>	4	17	4	-
<i>Outlay in Rs. Lakhs</i>	48.62	387.50	154.2	-

Major Projects (DBT)

	<i>Completed</i>	<i>Ongoing</i>	<i>Sanctioned</i>	<i>Submitted</i>
<i>Number</i>	4	17	4	-
<i>Outlay in Rs. Lakhs</i>	1962.30	180.60	91.15	-

Major Projects (CSIR & State Government)

	<i>Completed</i>	<i>Ongoing</i>	<i>Sanctioned</i>	<i>Submitted</i>
<i>Number</i>	11	9	4	-
<i>Outlay in Rs. Lakhs</i>	185.14	314.40	62.2	-

3.3 Details regarding minor projects: Nil

3.4 Details on research publications:

	International	National	Others
Peer Review Journals	771	213	-
Non-Peer Review Journals	7	37	10
e-Journals	12	3	-
Conference proceedings	79	80	11

3.5 Details of Impact Factor of publications:

Range	0 – 6.83
Average*	2.18
h-index**	13
Nos. in Scopus***	416

*Average of articles published in impacted journals.

**h-index of papers published in 2014 as on 3rd December, 2015.

***Nos. in Scopus in 2014.

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations:

<i>Nature of the Project</i>	<i>Duration Year</i>	<i>Name of the funding Agency</i>	<i>Total grant Sanctioned (Rs.)</i>	<i>Received (Rs.)</i>
<i>Major projects</i>	2014-15	UGC	45,84,694	39,41,944
	2014-15	DST	2,61,71,285	1,93,27,685
	2014-15	DBT	51,23,717	29,70,517
	2014-15	CSIR	19,50,000	19,50,000
<i>Minor Projects</i>		-		
<i>Interdisciplinary Projects</i>		-		
<i>Industry sponsored</i>		-		
<i>Projects sponsored by the University / College</i>		-		
<i>Students research projects (other than compulsory by the University)</i>		-		
<i>Any other (Specify)</i>		-		
<i>Total</i>	-	-	3,78,29,696	2,81,90,146

3.7 No. of books published:

With ISBN No.	29
Without ISBN No.	05
Chapters in Edited Books	56

3.8 No. of University Departments receiving funds from:

UGC-SAP	13
CAS	01
DST-FIST	06
DPE	Nil
DBT Scheme/funds	01

3.9 For colleges: N.A.**3.10 Revenue generated through consultancy: Rs. 44,12,526/-****3.11 No. of conferences organized by the Institution:**

Level	International	National	State	University
Number	5	35	-	-

3.12 No. of faculty served as experts, chairpersons or resource person's: 266**3.13 No. of collaborations:**

Level	International	National
Number	Nil	2

3.14 No. of linkages created during this year: Two**3.15 Total budget for research for current year in lakhs:**

From Funding agency	2077.76
From Management of University/College	1371.90
Total	3449.66

3.16 No. of patents received this year:

<i>Type of Patent</i>		<i>Number</i>
National	Applied	-
	Granted	-
International	Applied	-
	Granted	-
Commercialised	Applied	1
	Granted	-

3.17 No. of research awards / recognitions received by faculty and research fellows of the institute in the year

Total	International	National	State	University	Dist	College
39	16	14	01	01	03	04

3.18 No. of faculty from the Institution:

Who are Ph.D Guides	132
Students registered under them	189

3.19 No. of Ph.D. awarded by faculty from the Institution: 155**3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones) (CSIR, UGC, CSSGGS, DBT, DST)**

JRF	SRF	Project Fellows	Any other
115	155	35	192

3.21 No. of students Participated in NSS events:

University level	State level	National level	International level
197 volunteers	-	-	-

3.22 No. of students participated in NCC events:

University level	State level	National level	International level
50	-	-	-

3.23 No. of Awards won in NSS: Nil

3.24 No. of Awards won in NCC:

University level	State level	National level	International level
1	-	-	-

3.25 No. of Extension activities organized

University forum	NCC	NSS
11	-	6

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

Extension activities of National Social Service (NSS), Department of Lifelong Learning and Capacity Enhancement Programme are mentioned as under:

National Social Service

Swachh Bharat Abhiyan is being run by both the N.S.S. Units in the University Campus. A *Seven Day Camp* was organised in which Volunteers interacted with orphans at Central *Pingalwara* and uprooted Congress Grass from the residential areas. They also collected clothes for distribution to needy persons. *Blood Donation Camp* was organised in April 2015 by both Units in association with Guru Nanak Hospital, Amritsar at Dean Students' Welfare office in which around 300 Volunteers/Students participated. Two hundred units of blood were donated. Units celebrated *First UN International Yoga Day* on 21st June, 2015. Both Units of N.S.S. celebrated '*Van-Mahaotsav*' in the month of July 2015, in which different types of saplings were planted all over the Campus. Units also celebrated '*No Tobacco Day*' on 31st May, 2015. On this occasion students were made aware about ill effects of drug addiction and smoking.

Department of Lifelong Learning

The Department of Lifelong Learning organised workshops, extension lectures and exhibitions to upgrade the knowledge and skills of the students and to make them aware about the latest techniques and technologies in different spheres during the session 2014-2015. One day workshops on "Stitching and Tailoring Techniques", "Skin Treatment with Advanced Technologies" and one week workshop "*Kala-e-Noor*" for Talent Hunt and Creativity were conducted. Extension Lectures on "Fundamental Concepts of Interior Design and Decoration" by Mr. Manmohan Khanna, Professional Architect Designer and Decorator, Chandigarh and on "Role of Soft Skills in Personality Development" by Prof. (Dr.) S.S.Gill, Ex-Vice Chancellor B.F.U.H.S. Faridkot were organised. One of the major activities of the department is the organization of exhibitions, where the articles prepared by the students under the expert guidance of their instructors are exhibited to the public. Two exhibitions namely *Libaas-E-Nisa* and *Libaas-E-Zeba* were organized.

Centre for Capacity Enhancement Programme

Guru Nanak Dev University introduced Capacity Enhancement Programme from the session 2012-13 with the aim of spreading higher education to remote, rural and border area. Under this programme, a number of technical, professional, arts, commerce, P.G. Diplomas, Certificate courses and P.G. Degree level courses have been started and they run parallel to courses offered in the regular mode of education. The ordinances, syllabi, examinations, evaluation, etc. of this programme are the same as that of the regular programme. Unrestricted mobility of students between this programme and conventional modes of education is the merit of this programme. During the session 2014-15, the number of associate institutes was 86 with student enrolment of 10,966. The quality in delivery of educational instructions is ensured by way of regular inspections and supervision of associate institutes.

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	583.425 acre in Main Campus plus four Regional Campuses	-	-	538.425 acre
Class rooms	208 in main campus	12 (Architect Department building, construction of second and third floor in Main Campus)	General Development Assistance Scheme XII Plan Period	Rs. 5.25 Crore (Collectively for all projects in Architect Department building construction in Main Campus)
		15 (I.T Building at Regional Campus, Fattu DHINGA, Kapurthala)	Construction of Building, Furniture, Development works from University Sources	Rs. 9.00 Crore
Laboratories	214 in main campus.	03 (Architect Department building, construction of second and third floor in Main Campus)	General Development Assistance Scheme XII Plan Period	As mentioned above.
		09 (Maharaja Ranjit Singh Bhawan, construction of fourth Floor, Main Campus)	UPE Grant, Building for Centralized Instrumentation facility and University own Sources	Rs. 5.55 Crore
Seminar Halls	06 in main campus	01 (Architect Department building, construction of second and third floor, Main Campus)	General Development Assistance Scheme XII Plan Period	As mentioned above.
No. of important equipments purchased (\geq 1.0 lakh) during the current year.	Annexure IV	37 (Teaching Departments in Main Campus)	University Budget, UGC, DST, DBT, ICAR, UPE, CSIR, DAE	37
Value of the equipment purchased during the year (Rs. in Lakhs)	-	Rs. 2.75 Crore	University Budget, UGC, DST, DBT, ICAR, UPE, CSIR, DAE	Rs. 2.75 Crore
Others	-	-	-	-

4.2 Computerization of administration and library

All the offices and central library are well equipped with computer, internet facilities along with wi-fi.

4.3 Library services

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	31379	-	1685	7,42,100	33064	-
Reference Books	7239	-	138	1,23,804	7377	-
e-Books	-	-	-	-	-	-
Journals	147 (Foreign-67 Indian-80)	62,33,047	-	-	147	82,13,456 (62,33,047+
e-Journals	a) IEEE ASPP+POP (E-Journals + Conference Proceedings) subscribed b) 7500+ through INFLIBNET	6,43,005	-	-	7669	6,43,005+ 13,37,404)
Digital Database	Scopus <i>Provided by INFLIBNET (Freely available)</i> 1. SciFinder Scholars 2. MathSciNet 3. Royal Society of Chemistry (6 Databases) 4. ISID (Institute for studies in Industrial Development) 5. JCCC(J- Gate) 6. Web of Science	13,37,404	-	-	01	
CD & Video	2017	Free	91	-	2108	Free
Other (specify)	-	-	-	-	-	-

4.4 Technology up gradation (overall)

	<i>Total Computers</i>	<i>Computer Labs</i>	<i>Internet</i>	<i>Browsing Centres</i>	<i>Computer Centres</i>	<i>Office</i>	<i>Departments</i>	<i>Others</i>
Existing	915	All the departments, offices and central library are well equipped with computers along with internet facilities.						
Added								
Total								

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

- a) All the teacher rooms are well equipped with computers, printers and internet facility.
- b) Teachers and students have full access to internet and e-journals.
- c) UGC-Human Resource Development Centre of the University organised “Workshop on the use of Software Technology” for Ph.D./Post Doctoral Scholars/Research Scholars/Teaching Faculty (16/01/2015 to 22/01/2015).

4.6 Amount spent on maintenance in lakhs:

ICT		
Campus Infrastructure and facilities	10590.53	2680.32
Equipments	(Total expenditure of the University excluding salary)	(Expenditure from grants from different funding agencies)
Others		
Total	13270.85	

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

The awareness about the Student Support Services is mainly accomplished at the Departmental levels. The office of the Dean, Students' Welfare looks after the well-being of the students during their stay in the campus. The Placement Department provides career counselling and guidance by organising special lectures as well as the visits of various corporate/industrial houses for campus placement. To make the system more transparent and accessible to all stakeholders, the University uploads important information on its website. Similar support systems also exist in the regional campuses.

5.2 Efforts made by the institution for tracking the progression

The Guru Nanak Dev University Alumni Association has registered 10800 (offline) and 3300 (online) alumni as its members. A portion for the Achievers Alumni has also been kept on the website, which provides brief profile of the renowned Alumni.

5.3 (a) Total Number of students

<i>UG</i>	<i>PG</i>	<i>Ph.D.</i>	<i>Others (Diploma/Certificate)</i>
6809	4092	413	128

(b) No. of students outside the state 763

(c) No. of international students 02

- Demand ratio: 2.05
- Dropout %: 0.10%

Men	No	%	Women	No	%
	5573	48.71		5869	51.29

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
7814	1581	10	467	30	9902	8691	1776	13	527	34	11041

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

All India Services Pre-Examination Training Centre and Centre of Preparation for Competitive Examinations for coaching and other services provides necessary facilities for training the students for competitive examinations.

No. of students beneficiaries: 618

5.5 No. of students qualified in these examinations

NET	SET/SLET	GATE	CAT	IAS/IPS etc	State PCS	UPSC	Others
17	-	01	-	04	11	-	19

5.6 Details of student counselling and career guidance

The teachers from various faculties in the university, who are attached with the All India Services Pre-Examination Training Centre and Centre of Preparation for Competitive Examinations for coaching and other services, are always available for the counselling and guidance of the students.

No. of students benefitted: 52

5.7 Details of campus placement

<i>On Campus</i>			<i>Off Campus</i>
<i>Number of Organizations Visited</i>	<i>Number of Students Participated</i>	<i>Number of Students Placed</i>	<i>Number of Students Placed</i>
53	1406	728	22

5.8 Details of gender sensitization programmes

- A concerted attempt was made to deliver lectures on 'Gender Issues' and to organize interactive sessions on 'Gender Sensitization' for the Ph.D. Scholars and Teachers participating in various Orientation courses and special summer and winter schools organized through UGC - Human Resource Development Centre of the Guru Nanak Dev University, Amritsar.
- Posters providing information on 'Gender awareness issues' besides giving telephone numbers of Helpline were displayed in all the departments as well as at strategic places within the campus in the interest of the students.
- A website was prepared on the structure and functioning of the Internal Committees against sexual harassment.
- A complaint form was uploaded on the website to register the complaint. Any victim of harassment from any of the campuses of the University can lodge a complaint to the duly constituted internal committees against sexual harassment.

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

University level	National level	International level
200	75	1

No. of students participated in cultural events

University level	National level	International level
34	16	22

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports	University level	National level	International level
	96	62	-

Cultural	University level	National level	International level
	34	16	-

5.10 Scholarships and Financial Support

	Number of students	Amount (Rs.)
Financial support from institution	1493	7,00,00,000
Financial support from government	867	3,88,20,752
Financial support from other sources	37	1,38,000
Number of students who received International/ National recognitions	-	-

5.11 Student organised / initiatives

Fairs	University level	National level	International level
	8	-	-

Exhibitions	University level	National level	International level
	1	-	-

5.12 No. of social initiatives undertaken by the students: 22

5.13 Major grievances of students (if any) redressed:

The University has Grievance Redressal Cell, responsible for dealing with the general grievances of the students, having following as its members:

- i. Dean Students' Welfare
- ii. One Senior Faculty member
- iii. One Senior Administrator Officer
- iv. Two senior students one male and one female

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the Institution

As an institution, this university exists on the universal principles of academic development and is providing continuous service to the country by imparting skills, knowledge and attitudes that are congruent with our cherished goals and needs. Therefore, the University intends to develop its faculty, curricular design, teaching and learning, research priorities, administration and resources by introducing certain changes, bringing modifications in the existing structures and strengthening healthy practices.

There have been four components of the mission of the University as stated in the Act. These are:

- a) Dissemination and production of knowledge in science and technology and other branches.
- b) Teaching and research on the philosophy of Guru Nanak Dev Ji.
- c) Promotion of research in Punjabi language and literature.
- d) Supporting and spreading education among the educationally backward communities.

Vision: The University aspires to be an important institution of learning and research at national and international levels. It will be achieved through the following actions:

- a) Providing state of art infrastructure, research facilities, qualified faculty and good ambience on the campus.
- b) Integrating teaching and research programmes to promote holistic development of the students.
- c) Providing better access to education to underprivileged sections of the society through the development and expansion of the University through regional campuses and constituent colleges.
- d) To make the University a happening place to constantly engage the students to develop their graduate attributes of communication skills, public responsibilities, leadership qualities and learning to work in teams for nation-building through the efforts at their overall development and growth.
- e) Building strong research infrastructure through the development of world-class laboratories and enriching the University library and the departmental libraries.

Following areas have been identified for the future research of the University:

- i. Focus Area: Materials Science: (a) Materials for Energy Conversion and Storage; and (b) Electronic and Optoelectronic materials.
- ii. Holistic Area: Health Care, Drug Development and Sports Medicine
- iii. Holistic Area: Environmental Management (in respect of Punjab)
- iv. Holistic Area: Comparative Literature, Languages and Cultural Formations
- v. Holistic Area: Development and Nation-Building
- vi. Genetic basis of cancer and type2 *diabetes mellitus* in Punjab

6.2 Does the Institution has a management Information System

Management Information System (MIS) is being used in some individual branches such as Examination Branch, Accounts Branch, Library, etc. They are using their own in-house developed and customised softwares.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- a. The University has a systematic and institutionalised process of design and development of curriculum by various bodies i.e. Board of Control (B.O.C.)/Board of Studies (B.O.S.), Faculty meeting and Academic Council.
- b. Various Expert Committees are constituted for the design of new courses.
- c. Inputs are also taken from various National Curricular Resources like UGC, AICTE, DST, DBT, etc for the start of new courses in order to assure the employability, innovation, and to promote research component.
- d. Encourages the introduction of new programmes of studies.

6.3.2 Teaching and Learning

- a. The University plans and organises teaching, learning and evaluation schedule by preparing the Academic Calendar.
- b. Course outlines and recommended readings are uploaded on the University website.
- c. The learning techniques are constantly improved and changed on the initiatives of the faculty members and these are made part of the curricular design.
- d. Proactive policy of inviting experts and people of eminence to give lectures. Well known scholars delivered public lectures on the topic of their choice to students on every Thursday.
- e. The University organises seminars/conferences in which the students participate.
- f. Encourages blended learning by using e-learning resources. The use of multimedia in many courses has become part of the teaching-learning process.
- g. Students are encouraged to write assignments, make presentations and have practical exposure to ground realities outside of the University set up.
- h. Under the CBCS, the evaluation of the teachers by the students has been introduced for improving the teaching process in the University.

6.3.3 Examination and Evaluation

An integrated examination platform for pre-examination processes – Time Table generation, OMR, student list generation, invigilators, squads, attendance sheet, and online payment gateway exists in the University. It has well-developed system functioning under the Conduct Branch. Similarly, the post-examination processes involving attendance capture, OMR-based exam result, auto processing, generic result processing, and

certification are well managed under different sections of the Examination Branch in which Secrecy and Certificate sections are involved.

At doctoral level the thesis is evaluated by two Indian examiners and one foreign examiner in the case of candidates from the faculty of engineering and technology, life sciences, physical planning and architecture, sciences, sports medicine and physiotherapy and the department of psychology. In the case of all other faculties three examiners from India or abroad in the concerned specialisation evaluate the thesis. For all examinations under CBCS, teachers are responsible for the evaluation, and it is mandatory for them to show the evaluated answer books to the students and satisfy their queries, if any.

6.3.4 Research and Development

- a. The University has Research Committee responsible for the promotion and development of research:
 - i. Vice-Chancellor (Chairman)
 - ii. Dean, Academic Affairs
 - iii. Director Research
 - iv. Dean, Faculty of Life Sciences
 - v. Dean, Faculty of Sciences
 - vi. Dean, Faculty of Arts & Social Sciences
 - vii. Dean, Faculty of Languages
- b. The University has a positive and proactive policy of encouraging research by facilitating the implementation of Research Schemes/Projects.
- c. Promotion of interdepartmental research collaboration.
- d. The University has a strong culture of inviting eminent researchers to have interaction with researchers.

6.3.5 Library, ICT and physical infrastructure / instrumentation

Library

- a. The University library has an Advisory Committee called 'Library Committee' having following composition:
 - i. Dean, Academic Affairs (Chairperson)
 - ii. All Heads of the University Teaching Departments
 - iii. Deans of the Faculties
 - iv. Two members of Academic Council to be nominated by the Vice-Chancellor for two years
 - v. One member of the Syndicate
 - vi. Two persons to be nominated by the Vice-Chancellor for two years
 - vii. University Librarian acts as Secretary

- b. Functions and Strategies of Library Committee are as under:
- i. Suggestions are given by members for the improvement of services to the readers.
 - ii. Frames regulations regarding the use of the library and scrutinizes its annual budget.
 - iii. Approves rates, terms and conditions for the purchase of books and subscriptions to journals, periodicals, etc.
 - iv. Conducts awareness programmes for its users.
 - v. Students using digital lab are personally contacted to know about their problems while accessing e-resources.
 - vi. Students are advised to send feedback through e-mail. Feedback is properly analysed and discussed with concerned section in the library.

ICT

The University has been continuously endeavouring to promote technology at all levels, viz. teaching, research, administration and support services. The use of online sources and multimedia for teaching, and installation of latest laboratory equipments have been carried out to facilitate teaching and research. In the case of administration, the online availability of all kinds of forms, prospectus, the University Calendar, and the depositing of fee directly in the Banks anywhere in India are some of the promotions of technology at making administration more efficient.

Physical Facilities

- a. Construction and Maintenance Department of the University is responsible for monitoring the construction of physical infrastructure and its maintenance.
- b. The infrastructural development is kept in tune with the growing needs of the University.
- c. Ensures optimal utilisation of the physical facilities through various committees.
- d. Puts all efforts to create conducive ambience for the faculty, researchers, students and its residents.
- e. Departmental laboratories are provided with latest instruments and other related infrastructure as per their necessity.
- f. Central instrumentation facility is upgraded from time to time.
- g. The library is constantly updated through the purchase of latest books, journals and online resources.
- h. All departments have been provided with facilities like, office room, common room and separate rest rooms for women students and staff.
- i. Special attention is being given to make the buildings differently-friendly.
- j. The University campus has well maintained auditoriums, for its academic and cultural needs.
- k. As far as sports are concerned, an area of 25 acres of land is earmarked for playfields on the University Campus.

6.3.6 Human Resource Management

The University has an institutionalised process of managing human resources. Teachers are encouraged to academically recharge and rejuvenate through participation in orientation courses, refresher courses, workshops, seminars and conferences. As and when required they are given appropriate leave such as study leave, duty leave, sabbatical leave, special casual leave for various academic purposes. There is also a provision in the calendar of the University that under certain circumstances the teachers could transform their medical leave into academic leave. The University has also provision to give travel grants to teachers so as to enable them to attend national and international seminars/conferences.

6.3.7 Faculty and Staff recruitment

All the Departments are asked well in advance about their faculty requirements for the next academic session. Based on their requirements, the new faculty is appointed by following the set patterns of appointment. However, special cognisance is taken to recruit faculty in emerging areas of research in social sciences, sciences and engineering courses.

6.3.8 Industry Interaction / Collaboration

The University has University-Industry Linkage Programme for having personal interactions with the industry to know their aspirations from the University and vice-versa so as to develop strategy for mutual benefits.

6.3.9 Admission of Students

Admission notices are published in both regional and national newspapers. The admission process of the University ensures transparency. The University Prospectus is made available on the website of the University with comprehensive information regarding the criteria of admission to various courses, number of seats, dates of filling the admission forms and the deadline for depositing the admission fee. All applications for admission along with admission fee are submitted online.

6.4 Welfare schemes for:

a) Teaching and Non teaching

Among various welfare schemes, the first is the group insurance scheme under which a very small amount of money is deducted from the salary, but at the time of illness of the employee lump sum money is given to him/her. The University's Medical Committee periodically diagnoses the employees who suffer from chronic illnesses such as diabetes, hypertension, etc. and provide reimbursement of their expenses on medicines. In addition, provision of various kinds of loan exists in the University; for example, house construction loan, loan for purchase of vehicle and class IV employees are given loan to buy food grains after *Rabi* crops are harvested. The University also provides for the interest free

loan from the Provident Fund of the concerned employee in cases of certain contingencies.

b) Students

The office of the Dean, Students' Welfare is responsible for cultural needs of the campus students. Regular cultural programmes are organised in the campus. The office of the Director, Youth Welfare looks after the cultural activities. An Interdepartmental cultural festival *Jashan* is organised every year. So far as the sports are concerned, the University can boast of the best facilities for the students. Twenty four hours services of Health Centre are available to the students. Following types of Scholarships are also offered to the University students: Grant of Full Fee/Half Fee Concession, Grant of Facilities to Physically handicapped students, Sports incentives, Employee ward Concession, Brother-Sister Concession, Riots affected/terrorist affected Concession, Full Fee and Funds Concession to very poor students, Fee Concession to Children of Gallantry Award Winner and Poor Aid Fund.

6.5 Total corpus fund generated: Rs. 41,74,50,575/-

6.6 Whether annual financial audit has been done: Yes

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	NAAC	-	-
Administrative	Yes	NAAC	-	-

6.8 Does the University declare results within 30 days?

For UG Programmes	Yes
For PG Programmes	Yes

6.9 What efforts are made by the University for Examination Reforms?

- a. Web Server up-gradation has been done and to achieve E-governance, more applications and informational links have been added to the website. Admission of private candidates and issuing of roll numbers have been made online. To tackle the heavy usage Band width, web space has been increased and server resources have been upgraded.
- b. Fast processing and timely declaration of results has been achieved and number of RL(A) has been minimized.
- c. Under Right To Service act, fortnight RTS report of Issued Migrations Certificates, Number of Dispatch of D.M.C. and Degrees is sent to DC office.
- d. Examinations related queries received from Student Grievance Redressal Cell were solved.

- e. Follow up of examinations related queries asked in *Sangat Darshan* routinely held by Honourable Chief Minister, Punjab was undertaken and appropriate steps taken were made aware to concerned office.

6.10 What efforts are made by the University to promote autonomy in the affiliated / constituent colleges?

So far as the academic and administrative leadership provided by the University to its affiliated colleges and the support and encouragement given to them to become autonomous is concerned, the University is committed to all aspects of their development. The University interacts with the affiliated colleges through the mediation of the College Development Council which is headed by the Dean. Meetings of the Council are periodically held. The University remains in constant touch with its affiliated colleges and inform and encourage them to apply for various grants. The University is responsible for the designing of the curriculum in which the participation of the college faculty is also ensured. The University has been encouraging the colleges to apply for the autonomous status and so far only one college, namely, Khalsa College, Amritsar, has got the autonomous status. However, the University Act and Statutes do not provide for conferment of degrees by autonomous colleges.

6.11 Activities and support from the Alumni Association

The University has rededicated itself to the cause of the “Alumni Association” by launching a new website <http://gndualumni.net/> to strengthen the relationship with alumni settled in India and abroad. This online portal has become more popular and 3300 alumni have registered online on it. In order to strengthen the alumni association, the “Teacher-in-charges” have been appointed in each department and the regional centres of the university. Each teacher-in-charge has been provided with ID/password to maintain the association with alumni of the department.

The Office of Dean Alumni Association organized the first University Level Alumni Meet on Feb 21, 2015 and planned to make it an annual feature. More than 200 alumni participated in this Meet and shared their experiences and views with other participants. In the meet, the alumni emphasized to increase the activities of the association and proposed to create an “Executive Council” for the smooth working of the alumni association and to create endowment funds for the deserving students and to uplift facilities in the university.

In due course, the structure of Executive Council of Alumni Association of Guru Nanak Dev University (AAGNDU) was approved by Syndicate on June 29, 2015 and has been uploaded on the website <http://gndualumni.net/>. The information is also been passed on to the registered alumni by email. The process for nomination of the members and the executive members on the “Executive Council” of AAGNDU is in process.

6.12 Activities and support from the Parent – Teacher Association

Parents are informed regarding their wards as and when the need arises. Sometimes they are also requested to visit the University.

6.13 Development programmes for support staff

Short-Term Courses for the professional development are organized by UGC-Human Resource Development Centre from time to time.

6.14 Initiatives taken by the institution to make the campus eco-friendly

For the conservation of environment in the University various initiatives taken over a period of time are indicated below:

- i. Rain water harvesting channels are constructed in the administrative block and parking lots.
- ii. Organic manure production by vermi-composting of litter and kitchen waste introduced.
- iii. Sound proofing of the main generator located in the middle of academic complex undertaken to reduce noise levels <75 db.
- iv. Solar water heating systems are installed in the Guest House and Hostels.
- v. Solar street lights installed at main and regional campuses.
- vi. Conservation of plant diversity in the botanical garden.
- vii. First university in North India to achieve the target of zero discharge with the installation of waste water treatment plant of 2.5 million litres per day capacity using its low cost technology.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Following innovations have been introduced over a period of time which created a positive impact on the functioning of the university:

- i. Introduction of Choice-Based Credit System.
- ii. Transparency in evaluation by showing answer books to the students after evaluation.
- iii. Establishment of Emerging Life Science Block – The Central Instrumentation Facility.
- iv. Extending knowledge to communities through the Department of Lifelong Learning.
- v. Introduction of Capacity Enhancement Programme.
- vi. Recruitment of ex-servicemen to provide reemployment opportunities as security personnel.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year.

The University prepares a schedule for its various activities like admission, teaching, examination, vacations, etc. to be followed in the academic session. The Office of Dean (Academic Affairs) monitors the effective implementation of this schedule.

7.3 Give two Best Practices of the institution.

The requisite information is provided in the Annexure V.

7.4 Contribution to environmental awareness / protection.

Swachh Bharat Abhiyan is being run by NSS Units of the University. *Van-Mahaotsav* and *No Tobacco Day* were also celebrated by these Units.

7.5 Whether environmental audit was conducted?

No

7.6 Any other relevant information the institution wishes to add.

It is the endeavour of the University to achieve excellence in the areas that have been delineated in its mission. In the 46th year of its existence, the University has achieved considerable heights in certain areas, such as academic research, sports, and co-curricular activities. The University has been placed among top positions in the Academic Surveys conducted by several independent agencies. The India Today Group-Nielsen survey of India's Best Universities has put Guru Nanak Dev University at the 5th rank among the State Universities and placed at 12th position as far as overall ranking is considered. Similarly, The Week-Hansa Research Best Universities Survey positioned us at the 18th rank among the top multidisciplinary Universities of India.

8. Plans of institution for next year

- a) Keeping in view the cherished objective of the University in promoting research in areas of basic and applied sciences, it is planned to link research and teaching in applied sciences with the anticipated future developments. Future is predicated upon the present, and the present guides us to certain areas that are likely to become more important in basic and applied sciences. These are information technology, nanotechnology, biotechnology and health sciences, to name the few. The plan is to develop modern and updated infrastructure and highly qualified and competent faculty in these sciences.
- b) The primary future orientation is to develop a strong research and teaching base by promoting research in the social and economic areas that have recently emerged and likely to weigh heavily on the Indian state and society. It is proposed to link the future research in social sciences with policy implications.
- c) Punjab has been the land of Gurus and the Sufi saints. They have been the citadels of a composite religious tradition in which equality of communities and men were the core values. We plan to continue to further strengthen our research and teaching in the areas of religious studies, secularism and Sufi and Sikh literature.

Prof. Navdeep Singh Sodhi
Director,
Internal Quality Assurance Cell,
Guru Nanak Dev University,
Amritsar.

Prof. Ajaib Singh Brar
Vice-Chancellor,
Guru Nanak Dev University,
Amritsar.

Abbreviations:

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
CGPA	-	Cumulative Grade Point Average
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
DSW	-	Dean Students' Welfare
GATE	-	Graduate Aptitude Test
GOC	-	General Orientation Course
HOD	-	Head of the Department
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential for Excellence
UPSC	-	Union Public Service Commission

Annexure II

Academic Calendar for the Session 2014-15

1.	Summer Vacations	02.06.2014 to 04.07.2014
2.	Semester-I	07.07.2014 to 21.11.2014
3.	Examination Schedule	26.11.2014 to 15.12.2014
4.	Winter Vacations	22.12.2014 to 02.01.2015
5.	Semester-II	05.01.2015 to 01.05.2015
6.	Examination Schedule	Starts from 06.05.2015

Annexure III

Course/Programme wise distribution of pass percentage

Title of the Programme	Total no. of students appeared	Percentage of Students as per the following CGPA out of 10.0				
		CGPA > 8.42 (75% and above)	CGPA 6.75 - 8.42 (60% to < 75%)	CGPA 5.62 - 6.74 (50% to < 60%)	CGPA < 5.62 (< 50%)	Pass
Masters of Business Administration, 2nd-Semester	284	10.56	42.61	33.45	9.86	96
Masters of Business Administration, 4th-Semester	196	5.10	47.96	39.29	7.65	100
B.Sc. (Hons.School) Chemistry, 2nd Semester	93	31.18	29.03	23.66	5.38	89
B.Sc. (Hons.School) Chemistry, 4th Semester	82	29.27	50.00	15.85	3.66	99
B.Sc. (Hons.School) Chemistry, 6th Semester	61	19.67	60.66	18.03	1.64	100
B.Sc (Hons.School) Economics, 2nd-Semester	65	18.46	29.23	23.08	9.23	80
B.Sc (Hons.School) Economics, 4th-Semester	46	21.74	50.00	26.09	2.17	100
B.Sc (Hons.School) Economics, 6th-Semester	49	26.53	55.10	10.20	8.16	100
M.Sc.(Hons.School) Economics, 2nd-Semester	76	18.42	51.32	27.63	2.63	100
M.Sc.(Hons.School) Economics, 4th-Semester	77	23.38	57.14	18.18	1.30	100
Master of Computer Applications(TYC), 2nd-Semester	249	20.48	44.58	21.69	9.64	96
Master of Computer Applications(TYC), 4th-Semester	207	25.12	39.61	29.47	5.31	100
Master of Computer Applications(TYC), 6th-Semester	190	32.11	62.11	5.79	0.00	100
Masters of Business Administration (FYIC), 2nd-Semester	119	13.45	26.05	30.25	10.92	81
Masters of Business Administration (FYIC), 4th-Semester	7	14.29	42.86	42.86	0.00	100
Masters of Business Administration (FYIC), 6th-Semester	25	16.00	40.00	36.00	4.00	96
Masters of Business Administration (FYIC), 8th-Semester	11	18.18	45.45	18.18	9.09	91
Masters of Business Administration (FYIC), 10th-Semester	16	18.75	56.25	12.50	12.50	100
Master of Computer Applications (FYIC)/(FY & SMIC), 2nd-Semester	111	7.21	15.32	29.73	32.43	85
Master of Computer Applications (FYIC)/(FY & SMIC), 4th-Semester	113	15.04	34.51	38.94	9.73	98
Master of Computer Applications (FYIC)/(FY & SMIC), 6th-Semester	148	17.57	39.19	41.22	2.03	100
Master of Computer Applications (FYIC)/(FY & SMIC), 8th-Semester	115	21.74	47.83	28.70	0.87	99
Master of Computer Applications (FY & SMIC), 10th-Semester	115	25.22	59.13	13.91	1.74	100
M.Tech. (Urban Planning), 2nd-Semester	21	28.57	66.67	4.76	0.00	100
M.Tech. (Urban Planning), 4th-Semester	18	11.11	83.33	5.56	0.00	100
M.Sc. Applied Physics(Electronics), 4th Semester	48	18.75	79.17	2.08	0.00	100
M.Sc. Biotechnology, 2nd Semester	18	27.78	50.00	22.22	0.00	100
M.Sc. Biotechnology, 4th Semester	20	20.00	35.00	40.00	5.00	100

M.Sc. (Hons.School) Chemistry, 2nd Semester	33	15.15	51.52	18.18	12.12	97
M.Sc. (Hons.School) Chemistry, 4th Semester	43	20.93	58.14	18.60	2.33	100
M.Sc. (Food Technology), 2nd Semester	25	16.00	40.00	28.00	16.00	100
M.Sc. (Food Technology), 4th Semester	25	32.00	36.00	28.00	4.00	100
M.Sc. (Hons) Environmental Sciences, 2nd Semester	24	8.33	58.33	25.00	8.33	100
M.Sc. (Hons) Environmental Sciences, 4th Semester	17	17.65	29.41	41.18	11.76	100
B.Tech. (Food Technology)- 2nd Semester	57	5.26	29.82	26.32	26.32	88
B.Tech. (Food Technology)- 4th Semester	39	20.51	25.64	28.21	20.51	95
B.Tech. (Food Technology)- 6th Semester	40	10.00	42.50	25.00	22.50	100
B.Tech. (Food Technology)- 8th Semester	37	21.62	35.14	35.14	8.11	100
B.Tech. (Sugar & Alcohol Technology)-6th Semester	25	8.00	24.00	44.00	12.00	88
B.Tech. (Sugar & Alcohol Technology)-8th Semester	13	23.08	30.77	38.46	7.69	100
B.Tech. (Textile Chemistry)-6th Semester	15	13.33	33.33	46.67	6.67	100
B.Tech. (Textile Chemistry)-8th Semester	25	32.00	60.00	8.00	0.00	100
B.Tech. (Computer Science & Engg.)-2nd Semester	362	17.68	31.77	24.59	19.34	93
B.Tech. (Computer Science & Engg.)-4th Semester	366	23.50	38.80	26.23	10.66	99
B.Tech. (Computer Science & Engg.)-5th Semester	10	0.00	0.00	0.00	100.00	100
B.Tech. (Computer Science & Engg.)-6th Semester	479	26.10	44.89	21.71	7.31	100
B.Tech. (Computer Science & Engg.)-7th Semester	29	0.00	0.00	0.00	100.00	100
B.Tech. (Computer Science & Engg.)-8th Semester	397	28.21	56.93	13.85	0.76	100
B.Tech (Electronics & Comm. Engg.)-2nd Semester	240	19.58	48.75	17.50	8.75	95
B.Tech (Electronics & Comm. Engg.)-3rd Semester	8	0.00	0.00	0.00	100.00	100
B.Tech (Electronics & Comm. Engg.)-4th Semester	324	20.99	44.44	24.38	8.33	98
B.Tech (Electronics & Comm. Engg.)-5th Semester	37	0.00	0.00	0.00	100.00	100
B.Tech (Electronics & Comm. Engg.)-6th Semester	432	18.98	53.47	22.92	4.40	100
B.Tech (Electronics & Comm. Engg.)-7th Semester	81	0.00	0.00	0.00	100.00	100
B.Tech (Electronics & Comm. Engg.)-8th Semester	423	19.62	61.23	17.97	0.95	100
B.Tech. (Urban & Regional Planning)-2nd Semester	37	18.92	48.65	16.22	10.81	95
B.Tech. (Urban & Regional Planning)-4th Semester	38	15.79	36.84	36.84	10.53	100
B.Tech. (Urban & Regional Planning)-6th Semester	20	5.00	50.00	45.00	0.00	100
B.Tech. (Urban & Regional Planning)-8th Semester	19	10.53	47.37	42.11	0.00	100
Bachelor of Architecture-2nd Semester	77	3.90	59.74	23.38	10.39	97

Bachelor of Architecture-4th Semester	76	3.95	55.26	32.89	6.58	99
Bachelor of Architecture-6th Semester	73	2.74	39.73	45.21	9.59	97
Bachelor of Architecture-8th Semester	68	2.94	66.18	23.53	5.88	99
Bachelor of Architecture-10th Semester	39	2.56	74.36	20.51	2.56	100
B.Sc.(Hons.School)Human Genetics, 2nd Semester	43	16.28	39.53	18.60	6.98	81
B.Sc.(Hons.School)Human Genetics, 4th Semester	35	2.86	48.57	28.57	14.29	94
B.Sc.(Hons.School)Human Genetics, 6th Semester	28	14.29	46.43	39.29	0.00	100
B.Sc.(Honours School) Physics, 2nd Semester	68	26.47	35.29	13.24	10.29	85
B.Sc.(Honours School) Physics, 4th Semester	49	18.37	61.22	16.33	0.00	96
B.Sc.(Honours School) Physics, 6th Semester	35	40.00	31.43	25.71	0.00	97
Master of Pharmacy, 2nd Semester	24	20.83	75.00	4.17	0.00	100
Master of Pharmacy, 4th Semester	26	50.00	50.00	0.00	0.00	100
Masters Degree in Sports Physiotherapy, 2nd Semester	17	17.65	70.59	11.76	0.00	100
Masters Degree in Sports Physiotherapy, 4th Semester	19	31.58	63.16	5.26	0.00	100
M.Sc. (Hons.) Physics, 2nd Semester	60	48.33	45.00	5.00	0.00	98
M.Sc. (Hons.) Physics, 4th Semester	46	34.78	58.70	2.17	0.00	96
M.Sc. (Hons.) Microbiology, 2nd Semester	44	2.27	22.73	40.91	29.55	95
M.Sc. (Hons.) Microbiology, 4th Semester	45	4.44	40.00	44.44	8.89	98
M.Sc. (Hons.) Molecular Biology & Biochemistry, 2nd Semester	36	13.89	33.33	27.78	19.44	94
M.Sc. (Hons.) Molecular Biology & Biochemistry, 4th Semester	38	13.16	57.89	26.32	2.63	100
M.Sc. (Hons.) Zoology, 2nd Semester	47	12.77	36.17	34.04	14.89	98
M.Sc. (Hons.) Zoology, 4th Semester	51	17.65	52.94	19.61	3.92	94
M.Sc. (Hons.) Fermentation & Microbial Technology, 2nd Semester	12	8.33	50.00	16.67	8.33	83
M.Sc. (Hons.) Fermentation & Microbial Technology, 4th Semester	10	10.00	50.00	40.00	0.00	100
M.Sc. (Hons.) Human Genetics, 2nd Semester	5	0.00	40.00	40.00	20.00	100
M.Sc. (Hons.) Human Genetics, 4th Semester	18	0.00	72.22	22.22	5.56	100
M.Sc. (Hons.) Botany, 2nd Semester	49	22.45	48.98	26.53	2.04	100
M.Sc. (Hons.) Botany, 4th Semester	29	34.48	48.28	17.24	0.00	100
M.Tech. (Computer Science & Engineering) Two Year Course, 2nd Semester	123	44.72	41.46	8.13	4.07	98
M.Tech. (Computer Science & Engineering) Two Year Course, 4th Semester	119	58.82	40.34	0.84	0.00	100
B.Tech. (Electronics Communication System Engineering), 2nd Semester	22	4.55	18.18	31.82	31.82	86
B.Tech. (Electronics Communication System Engineering), 4th Semester	38	0.00	52.63	36.84	5.26	95

B.Tech. (Electronics Communication System Engineering), 6th Semester	52	13.46	48.08	32.69	3.85	98
B.Tech. (Electronics Communication System Engineering), 8th Semester	51	9.80	72.55	17.65	0.00	100
M.B.A.(Hons.) Financial Services, 2nd Semester	43	11.63	39.53	23.26	9.30	84
M.B.A.(Hons.) Financial Services, 4th Semester	48	12.50	43.75	37.50	6.25	100
M.B.A.(Hons.) Marketing and Retail Management, 2nd Semester	26	19.23	38.46	15.38	11.54	85
M.B.A.(Hons.) Marketing and Retail Management, 4th Semester	20	10.00	50.00	35.00	0.00	95
Masters in Sports Physiotherapy (Hons.), 4th Semester	5	0.00	100.00	0.00	0.00	100
Master in Planning (Infrastructure), 2nd Semester	17	41.18	35.29	17.65	0.00	94
Master in Planning (Infrastructure), 4th Semester	15	20.00	60.00	13.33	0.00	93
Master of Computer Applications (TYC)(Software Systems), 2nd Semester	15	40.00	46.67	6.67	6.67	100
Master of Computer Applications (TYC)(Software Systems), 4th Semester	20	60.00	35.00	5.00	0.00	100
Master of Computer Applications (TYC)(Software Systems), 6th Semester	16	62.50	18.75	12.50	0.00	94
Pre Ph.D. Course in Computer Science, 1st Semester	1	100.00	0.00	0.00	0.00	100
Masters in Hospital Administration, 2nd Semester	23	21.74	52.17	26.09	0.00	100
Masters in Hospital Administration, 4th Semester	17	23.53	76.47	0.00	0.00	100
Masters in Exercise Physiology & Nutrition, 4th Semester	7	14.29	85.71	0.00	0.00	100
Bachelor of Pharmacy, 2nd Semester	53	24.53	24.53	22.64	13.21	85
Bachelor of Pharmacy, 4th Semester	44	22.73	50.00	27.27	0.00	100
Bachelor of Pharmacy, 6th Semester	47	29.79	40.43	25.53	4.26	100
Bachelor of Pharmacy, 8th Semester	23	39.13	47.83	13.04	0.00	100
M.Sc. (Hons.) Chemistry, 2nd Semester	48	6.25	58.33	20.83	8.33	94
M.Sc. (Hons.) Chemistry, 4th Semester	49	10.20	55.10	16.33	2.04	84
M.Sc. (Hons.) Mathematics, 2nd Semester	44	9.09	40.91	22.73	18.18	91
M.Sc. (Hons.) Mathematics, 4th Semester	47	34.04	46.81	14.89	2.13	98
Bachelor of Laws (Hons) (Three Year Course), 2nd Semester	217	0.46	16.13	34.10	40.09	91
Bachelor of Laws (Hons) (Three Year Course), 4th Semester	198	3.54	31.31	32.83	28.28	96
Bachelor of Laws (Hons) (Three Year Course), 6th Semester	97	6.19	42.27	38.14	12.37	99
B.A. LL.B. (Hons.)-FYIC, 2nd Semester	216	2.78	23.61	37.04	25.00	88
B.A. LL.B. (Hons.)-FYIC, 4th Semester	96	5.21	31.25	37.50	23.96	98
B.A. LL.B. (Hons.)-FYIC, 6th Semester	79	13.92	30.38	26.58	27.85	99
B.A. LL.B. (Hons.)-FYIC, 8th Semester	83	18.07	26.51	37.35	13.25	95
Master of Library & Information Science (Hons.), 2nd Semester	17	17.65	52.94	29.41	0.00	100

Bachelor of Library & Information Science (Hons.), 2nd Semester	22	9.09	45.45	36.36	9.09	100
LL.M.(Hons.), 2nd Semester	56	0.00	33.93	46.43	16.07	96
LL.M.(Hons.), 4th Semester	60	1.67	45.00	45.00	3.33	95
Master of Arts in Political Science (Hons), 2nd Semester	47	14.89	25.53	40.43	17.02	98
Master of Arts in Political Science (Hons), 4th Semester	50	12.00	40.00	32.00	14.00	98
Master of Arts in Sociology (Hons.), 2nd Semester	22	0.00	22.73	45.45	27.27	95
Master of Arts in Sociology (Hons.), 4th Semester	20	5.00	30.00	15.00	45.00	95
Master of Arts in Psychology (Hons.), 2nd Semester	27	22.22	48.15	7.41	18.52	96
Master of Arts in Psychology (Hons.), 4th Semester	23	26.09	47.83	26.09	0.00	100
Master of Arts in English (Hons), 2nd Semester	45	8.89	28.89	31.11	17.78	87
Master of Arts in English (Hons), 4th Semester	30	13.33	30.00	50.00	6.67	100
Master of Arts in Music (Instrumental) (Hons.), 2nd Semester	14	35.71	42.86	7.14	0.00	86
Master of Arts in Music (Instrumental) (Hons.), 4th Semester	9	77.78	22.22	0.00	0.00	100
Master of Arts in Music (Vocal) (Hons.), 2nd Semester	21	23.81	57.14	0.00	0.00	81
Master of Arts in Music (Vocal) (Hons.), 4th Semester	27	70.37	29.63	0.00	0.00	100
M.Phil. Punjabi , 2nd Semester	19	94.74	5.26	0.00	0.00	100
M.Phil. Music (Vocal & Inst.), 2nd Semester	27	66.67	14.81	3.70	0.00	85
M.Phil. Sanskrit, 2nd Semester	6	33.33	66.67	0.00	0.00	100
M.Phil. Hindi, 2nd Semester	21	4.76	95.24	0.00	0.00	100
Master of Arts in Punjabi (Hons.), 2nd Semester	70	28.57	45.71	20.00	5.71	100
Master of Arts in Punjabi (Hons.), 4th Semester	47	42.55	42.55	14.89	0.00	100
Master of Arts in Religious Studies (Hons.), 2nd Semester	14	42.86	50.00	7.14	0.00	100
Master of Arts in Religious Studies (Hons.), 4th Semester	8	75.00	25.00	0.00	0.00	100
Master of Arts in Sanskrit (Hons.), 2nd Semester	5	100.00	0.00	0.00	0.00	100
Master of Arts in Sanskrit (Hons.), 4th Semester	7	85.71	14.29	0.00	0.00	100
Master of Arts in History (Hons.), 2nd Semester	29	17.24	48.28	34.48	0.00	100
Master of Arts in History (Hons.), 4th Semester	26	7.69	61.54	30.77	0.00	100
Master of Arts in Hindi (Hons.), 2nd Semester	30	40.00	46.67	13.33	0.00	100
Master of Arts in Hindi (Hons.), 4th Semester	26	46.15	53.85	0.00	0.00	100
B.A. (Hons. School) Punjabi, 2nd-Semester	30	3.33	46.67	23.33	10.00	83
B.A. (Hons. School) Punjabi, 4th-Semester	27	14.81	25.93	37.04	22.22	100
B.A. (Hons. School) Punjabi, 6th-Semester	25	8.00	36.00	32.00	20.00	96

Master in Sports Psychology, 4th Semester	9	22.22	77.78	0.00	0.00	100
M.Tech. (Software System), 2nd Semester	42	52.38	26.19	16.67	4.76	100
M.Tech. (Software System), 4th Semester	41	80.49	19.51	0.00	0.00	100
B.Tech. (Computer Engineering), 2nd Semester	50	6.00	40.00	32.00	22.00	100
B.Tech. (Computer Engineering), 4th Semester	44	20.45	25.00	43.18	11.36	100
B.Tech. (Computer Engineering), 6th Semester	56	21.43	53.57	23.21	1.79	100
B.Tech. (Computer Engineering), 8th Semester	54	16.67	64.81	18.52	0.00	100
Pre Ph.D. (Planning), 2nd Semester	5	40.00	60.00	0.00	0.00	100
M.Phil. Religious Studies, 2nd Semester	9	100.00	0.00	0.00	0.00	100
Master of Commerce(Hons), 2nd-Semester	115	13.04	44.35	31.30	11.30	100
Master of Commerce(Hons), 4th-Semester	112	13.39	45.54	32.14	8.93	100
Master of Business Economics (Hons), 2nd-Semester	32	15.63	25.00	18.75	9.38	69
Master of Business Economics (Hons), 4th-Semester	22	4.55	50.00	45.45	0.00	100
Pre Ph.D. Course in Food Technology, 2nd Semester	6	16.67	66.67	16.67	0.00	100
M.Sc. (Hons. School) Physics, 2nd-Semester	32	56.25	37.50	6.25	0.00	100
M.Sc. (Hons. School) Physics, 4th-Semester	40	45.00	52.50	2.50	0.00	100
Master of Arts in Philosophy (Hons.), 2nd-Semester	13	69.23	23.08	7.69	0.00	100
Master of Arts in Philosophy (Hons.), 4th-Semester	9	77.78	22.22	0.00	0.00	100
B.A. (Hons.) Social Sciences, 2nd Semester	90	22.22	51.11	17.78	4.44	96
B.A. (Hons.) Social Sciences, 4th Semester	81	20.99	46.91	25.93	6.17	100
B.A. (Hons.) Social Sciences, 6th Semester	79	24.05	34.18	34.18	5.06	97
M.A. (Hons.) Journalism & Mass Communication, 2nd Semester	20	5.00	10.00	60.00	20.00	95
M.A. (Hons.) Journalism & Mass Communication, 4th Semester	25	0.00	32.00	60.00	8.00	100
Pre Ph.D. Course in Commerce, 2nd Semester	13	61.54	38.46	0.00	0.00	100
Pre Ph.D. Course in English, 2nd Semester	3	100.00	0.00	0.00	0.00	100
Pre Ph.D. Course in Hindi, 2nd Semester	3	66.67	0.00	33.33	0.00	100
M.Tech. (ECE) Specialization (Communication Systems), 2nd Semester	102	20.59	62.75	12.75	1.96	98
M.Tech. (ECE) Specialization (Communication Systems), 4th Semester	112	41.07	55.36	2.68	0.00	99
M.Sc. (Honours School) Human Genetics, 2nd Semester	18	27.78	50.00	22.22	0.00	100
M.Sc. (Honours School) Human Genetics, 4th Semester	14	57.14	42.86	0.00	0.00	100
M.Sc. (Honours School) Botany, 4th Semester	4	0.00	100.00	0.00	0.00	100
B.Tech. (Mechanical Engineering)-2nd Semester	25	8.00	28.00	20.00	16.00	72

B.Tech. (Civil Engineering)-2nd Semester	14	0.00	7.14	42.86	35.71	86
Master in Architecture (Urban Design), 2nd Semester	4	25.00	25.00	50.00	0.00	100
Master in Architecture (Urban Design), 4th Semester	4	0.00	50.00	50.00	0.00	100
Master of Arts in Education (Hons.), 2nd Semester	11	27.27	63.64	9.09	0.00	100
Pre Ph.D. Course in Business Administration, 2nd Semester	9	44.44	55.56	0.00	0.00	100

List of Existing Important Equipment

UPE: Material Science

High Resolution Transmission Electron Microscope
Vibrating Sample Magnetometer
Pulse Laser Deposition System
Vector network Analyser
Spectroscopic Ellipsometry
Dynamic Light Scattering
Brunauer-Emmett-Teller (BET) surface analyzer
Semiconductor IV-CV Characterisation Systems
Software Virtual Nano Lab Silvaco Quantum 3D
PVD System (Multi target) with electron beam gun
SAXS and high temperature stage

UPE: Health Care, Drug Development and Sports Medicine

NMR spectrometer (500 MHz)
Motion Analysis Equipment
Flash Chromatography

UPE: Environmental Management

Next Generation Sequencer
Accessories of SEM
Atomic Absorption Spectrometer
Amino Acid Analyser
CHNSO Analyzer
Preparative/ Semi-prep. HPLC
Ion Chromatography
Freeze Drier
Mobile Environmental Analysis lab
Software for Remote Sensing
Five parts Haematology Analyser
Standard Radon Equipment

CPEPA

Cytogenetic Workstation
Real Time PCRs (2 nos)
Ultracentrifuge

PURSE

Automated DNA Sequencer 24 capillary
Scanning Electron Microscope (SEM)

DBT

Inverted Microscope with Fluorescent Attachment

University Funds

Confocal Microscope
LC MS system

Scanning Electron Microscope
Flow Cytometer

List of Equipment in the Departments:

Faculty of Life Sciences

Department of Biotechnology

1. Gel Documentation System
2. High Speed Centrifuge
3. Deep Freezer -80°C
4. UV-VIS Spectrophotometer
5. CO₂ Incubators
6. Stereo Microscope
7. qRT-PCR Machine
8. Walk-in Cold Room
9. Cryomicrotome
10. ELISA Plate Reader
11. Inverted Microscope
12. Upright Fluorescent Microscope
13. HPLC
14. Incubator Shaker
15. Refrigerated Centrifuge
16. AKTA Prime Plus
17. 3100 Offgel Fractionator
18. Protein Purification System
19. Distillation Unit
20. Laminar Flow Hoods

Department of Botanical & Environmental Sciences

1. AAS
2. GCMS
3. Gel Docs
4. PCR
5. Deep freezer -40°C, -80°C
6. CO₂ incubator
7. Lyophilizer
8. Inverted microscope
9. Infra Red Gas Analyzer
10. Rotary evaporator
11. Centrifuge
12. Spectrophotometer
13. Vapour pressure osmometer
14. Fluorescent microscope

Department of Human Genetics

1. DNA Sequencer ABI-PRISM 377
2. Fluorescent Microscope
3. Cytogenetic Work Station Fluorescent Microscope BX51 (Cytovision Software)
4. Cytogenetic Work Station with AHB3 Olympus Microscope (Vysis Software)
5. Water Purification System Elix 3 (Millipore)

6. Trinocular Inverted Microscope
7. Photographic System Model PM 30 (Olympus)
8. Electronic Balance
9. Icematic Flaker
10. Stadiometer
11. Harpenden-Type Calliper
12. Lange's Skinfold Callipers
13. Electronic Weighing Machine Gym Model
14. Blood Analyzer Semi Automatic
15. Blotting System
16. Refrigerated Centrifuge
17. Body Fat Analyzer
18. Laminar Hoods
19. B.O.D. Incubator
20. Deep Freezer -20°C
21. Gel Documentation System
22. Hybridization Incubator
23. Thermocyclers
24. CO₂ Incubators
25. ELISA Systems
26. RT-PCR
27. Electrophoretic Systems
28. Nano-Drop
29. Thermobrite
30. Personal Exposimeter
31. Cytospin
32. Deep Freezer -80°C

Department of Microbiology

1. High Performance Liquid Chromatography
2. Fast Protein Liquid Chromatography
3. Lyophilizer
4. Two Dimensional Gel Electrophoresis
5. Gradient PCR
6. Bench Scale Fermentor
7. Centrifuge C-24BL
8. Gas Chromatography
9. Flash Chromatography
10. Rota Vapour
11. Sonicator
12. Freezer -20°C
13. Freezer -80°C
14. Plant Growth Chamber
15. Spectrophotometer UV1601

Department of Molecular Biology & Biochemistry

1. Water Purification System
2. Refrigerator Centrifuge

3. Thermocycler
4. UV-VIS spectrophotometer
5. Microscope Fluorence
6. FPLC
7. 2D Electrophoresis
8. Gel Documentation System

Department of Pharmaceutical Sciences

1. Particle size Analyser
2. Rehometer
3. Brookfield Viscometer
4. Non Invasive Blood Pressure Measuring
5. HPLC
6. J.R.
7. Diffusion Cell
8. Dissolution apparatus autosampler
9. Probe Sonicator

Department of Zoology

1. Turbiditymeter and Thermoreacter
2. Muffle furnace 150x150x300mm
3. Double Beam UV-VIS spectrophotometer
4. Nikon Trinocular Research Microscope Model E20 with accessories
5. Benchtop freezer dryer
6. Water Purification System with prefilter, ultrapure, RO System
7. Humidity Chamber
8. Microplate Reader

Faculty of Sciences

Department of Chemistry

1. JEOL-FT NMR-AL 300 MHz spectrophotometer
2. Varian fluorospectrophotometer
3. Varian IR spectrophotometer
4. (TGA)/ differential scanning calorimetric analyzer (DSC)
5. CHNS analyzer
6. Polarized optical microscope (POM)
7. Chiral HPLC
8. Bruker's Apex-II CCD diffractometer
9. UV-vis spectrophotometer
10. Biotage initiator microwave
11. HP-TLC
12. X-ray powder diffractometer
13. Tensiometer
14. Fluorescence life time TSPC

Department of Food Science & Technology

1. UV/VIS Spectroscopy
2. Freeze Drier
3. Differential Scanning Calorimeter

4. Rapid Visco-Analyzer
5. Spray Drier
6. GPC
7. Hunter Color Lab.
8. Water Activity Meter
9. HPLC
10. Farinograph
11. Viscoamylograph
12. Alveograph
13. Falling Number Apparatus
14. McGill Sheller/Polisher
15. Komat Oil Expeller
16. Hammer Mill
17. Barbender Flour Mill
18. Reel Type Baking Oven
19. Fermenter with Refrigeration Unit
20. Brookfield Viscometer
21. Dough Mixer
22. Cabinet Driers
23. Texture Analyser
24. Dynamic Rheometer
25. Evaporator
26. Fluidized Bed Drier
27. Single Screw Extruder
28. FTIR
29. Mixograph
30. Atomic Absorption Spectrometer
31. Instron Universal Testing Machine

Department of Physics

1. X-Ray Diffraction
2. Photoluminescence
3. UV-Visible
4. FTIR
5. Atomic Absorption Spectroscope
6. Atomic Force Microscope
7. Raman Spectrophotometer
8. RF Sputtering Unit
9. Planetary Ball Mill
10. Thermal Evaporation Unit
11. Sputtering Unit
12. Source Meter
13. High Temperature Furnace
14. LCR Meter

In addition, the University has a University Science Instrumentation Centre (USIC). The budget allocation for it for the financial year 2014-2015 was INR 54.31 lakh.

Best Practice: I

Title: Emerging Life Science Block – The Central Instrumentation Facility

After taking over as the Vice-Chancellor of Guru Nanak Dev University, Prof. A. S. Brar felt the foremost need for creating state of the art research facilities in the University. To implement this visionary approach, a new building under the name ‘Emerging Life Science Block’ was planned and its foundation stone was laid by Prof. Richard R. Ernst, Noble Laureate (who revolutionized the NMR spectroscopy) in the year 2011 and the building was ready in the beginning of 2012. Four research instruments namely High Resolution Mass Spectrometer, Scanning Electron Microscope for material sciences, Confocal Microscope and Flow Cytometer (costing approx. INR 10.00 crore) were purchased from the University Grant. These instruments started working in the year 2012. Subsequently, the University got the status of University with Potential for Excellence (UPE) under which it was sanctioned a grant of INR 50.00 crore by the University Grants Commission. First instalment of this grant worth INR 30.00 crore was received by the University in the year 2012. The instruments purchased from this grant are also kept as Central Instrumentation Facility in the Emerging Life Science Block. The facility was developed in a record time of one and half year only and it works with the motives of “Dedication”, “Hard work” and “Regularity”.

Objectives:

Since the research proposals for University with Potential for Excellence programme were interdisciplinary, it was desired to create a central facility so that faculty members from different departments may have a close interaction with one another. All the instruments, kept in the central instrumentation facility, are primarily working for attaining the objectives set under the UPE programme. Besides the research work under UPE programme, the individual teachers also use the instruments as per their requirement.

The salient features of this central facility are:

1. Each instrument is under a teacher in-charge who is responsible for the maintenance and working of the machine.
2. The instruments are accessible to all the faculty members and research scholars of the University.
3. The instruments work 24 hours and 7 days in a week.
4. Most of the instruments are operated by the students.
5. Continuous power supply.
6. Each instrument is having UPS back-up for 30 min and the whole building has automated power back-up from the generator. The generator gets start automatically within 2 min of power failure.
7. There is no charge for recording the experiments from any of the instruments.
8. A separate grant is created by the University for the Maintenance of the instruments.

9. The creation of this facility has significantly promoted the intradepartmental, interdepartmental on the GNDU campus as well as Inter-Institutional collaborations and as a result, the number of research publications in high impact factor journals has significantly increased.

Workshops organized

The scientists having expertise on the usage of various instruments are invited for delivering talks and demonstrations. “Workshop on Nuclear Magnetic Resonance: Molecules to Human Behaviour” and “Training for HRMS and NMR data processing” were organized.

Best Practice: II

Title of the Practice: Activities of the Department of Lifelong Learning

The Department of Lifelong Learning conducts various programmes under non-formal mode of education for fulfilling the educational needs of those who could not get appropriate opportunities for higher education. Therefore, in order to adapt to the changing circumstances in the technological world, continuing education programmes are conducted to benefit the common man. The department is having three Extension Centres: a) Guru Nanak Dev University Regional Campus, Gurdaspur; b) Central Jail, Amritsar; c) Amardeep Singh Shergill Memorial College, Mukandpur. Besides conducting various short-term courses, the Department also extends the knowledge and material resources of the institution to the community by organizing various Certificate/Diploma Courses for creating self employment opportunities. During the session 2014-2015 a total number of 425 students were trained under the following skill development courses.

<i>One Year Courses</i>	<i>Six Month Courses</i>	<i>Crash Courses</i>
<ul style="list-style-type: none"> • Certificate Course in Dress Designing Cutting & Tailoring • Diploma in Textile Designing • Diploma in Cosmetology • Diploma in Computer Applications • Diploma in Fashion Technology 	<ul style="list-style-type: none"> • Certificate course in Cosmetology • Certificate course in cutting and tailoring 	<ul style="list-style-type: none"> • Personality Development • Basic Hair Dressing and Make Up • Dance and Music • Aerobics and Yoga