



Central University of Himachal Pradesh

(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)

Dharamshala, Himachal Pradesh-176215



NAAC Criterion-I

Key Indicator – 1.2.2

**Structure of the program clearly indicating
the courses, credits/Electives as approved
by the competent board**

1.2.2 Evidences



**Department of Computer Science and Informatics
Central University of Himachal Pradesh, Dharamshala,
Kangra**

Central University of Himachal Pradesh

Department of Computer Science & Informatics,
Temporary Academic Block, Shahpur,
District – Kangra, Himachal Pradesh – 176 206
Phone: +91(1892) 237286 (404);
Mobile: +91(0)98166-23461

MINUTES OF THE 3rd BOARD OF STUDIES MEETING OF THE DEPARTMENT OF COMPUTER SCIENCE & INFORMATICS HELD ON 27th of January, 2017 AT 3:00 PM

VENUE: Seminar Hall, Central University of Himachal Pradesh, Temporary Academic Block,
Shahpur, District – Kangra, Himachal Pradesh – 176 206

Minutes

The Third Board of Studies Meeting of the Department of Computer Science & Informatics was held on 27th of Jan, 2017 at 03.00 P.M. at Seminar Hall, Central University of Himachal Pradesh – Temporary Academic Block, Tehsil-Shahpur, District-Kangra, Himachal Pradesh-176206.

The following members were present:-

1.	Prof. I.V. Malhan HOD, Docs&Inf.	CHAIRMAN
2.	Prof. Y. S. Verma Pro Vice Chancellor	VC Nominee
3.	Dr. Lakhwinder Kaur Punjabi University, Patiala	SUBJECT EXPERT
4.	Sh. Manoj Dhiman Assistant Professor, DoCS&Inf.	MEMBER
5.	Sh. Keshav Singh Rawat Assistant Professor, DoCS&Inf.	SPECIAL INVITEE

The following members could not attend the meeting because of illness and some other engagement:-

1.	Dr. Renu Vij, Panjab University	SUBJECT EXPERT
2.	Dr. Mushtaq Ahmed Dept of Env Science	VC Nominee

At the outset, Prof. I.V. Malhan, HOD, Department of Computer Science & Informatics (Chairman) extended a warm welcome to all the members for sparing their valuable time to attend this meeting.

THEREAFTER, THE AGENDA WAS TAKEN UP AS UNDER:

ITEM NO: 3.1 Confirmation of the minutes of 2nd Meeting of the Board of Studies of the Department of Computer Science & Informatics held on 9th March 2015

Decision: The Minutes of second Meeting of Board of Studies of the Department of Computer Science & Informatics held on 9th March 2015 were confirmed.

ITEM NO: 3.2 To ratify the CBCS new scheme of courses and examination pattern as per UGC guidelines

Decision: After a discussion, the Board of Studies approved the CBCS new scheme of courses and examination pattern as per UGC guidelines of M.Sc.[IT] Programme of the Department of Computer Science & Informatics as given in ANNEXURE-2A,2B.

ITEM NO: 3.3 To ratify the list of courses offered by the department as per new CBCS pattern of UGC.

Decision: The Board of Studies approved the list of courses offered by the department as per new CBCS pattern of UGC in ANNEXURE-3

ITEM NO: 3.4 To approve the Supervisor to Supervise research work of the following scholar:

S. No.	Name of Student with Roll No.	Name of Supervisor	Area of Research	Date of Joining of student for Ph.D.
1.	Mr. Keshav Singh Rawat CUHP15 RDSC01	Prof. I.V. Malhan	Big data analytics	06.11.2015

Decision: The Board of Studies approved the the Supervisor to Supervise research work of the Mr. Keshav Singh Rawat (CUHP15 RDSC01).

ITEM No: 3.5 To approve new university regulation of external paper setting

Decision: The Board of Studies approved the new regulation of external paper setting of the University in Annexure - 4.

ITEM NO: 3.6 To approve the list of external paper setters for the department courses.

Decision: The Board of Studies approved the list of external paper setters for the department courses in Annexure -5. The Board further authorized the HOD to appoint any other examiner in case any one for paper setting from the approved five for a paper is not agreeing external paper setter.

ITEM NO: 3.7 Any other item

The HOD presented the content of the various courses being taught by the faculty for evaluation and suggestion of BOS members.

Decision: The Board of Studies appreciated the content of the various courses taught with the remarks that these are in conformity to the best of the courses designed in the Indian universities and fairly incorporate the latest trends and developments in area of computer science and informatics.

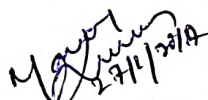
THE MEETING ENDED WITH THE VOTE OF THANKS TO THE CHAIR.



Prof. Y. S. Verma
Pro Vice Chancellor


27/1/2017

Dr. Lakhwinder Kaur
Punjabi University,
Patiala


27/1/2017

Sh. Manoj Dhiman
Assistant Professor,
DoCS&Inf.


27.01.2017

Sh. Keshav Singh Rawat
Assistant Professor,
DoCS&Inf.



Prof. f.V. Malhan
Chairman & HOD, Docs&Inf.

Annexure-2A

(Credit requirement for MSc. IT Programme of Study (4 Semester))

Courses	Category	Percentage	Credits
Core	Compulsory	50%	40
	Open	15%	12
Elective	Specialization	20%	16
	Open	5%	4
Foundation	Skill Development	5%	4
	Human Making	5%	4
Total		100%	80

Annexure-2(B)
Mid-Semester Examinations

2 Credit Course				4 Credit Course			
Section	No. of Questions	Marks of each Question	Total Marks	Section	No. of Questions	Marks of each Question	Total Marks
I	5	1 M	5 M	I	10 /5	1 M/2 M	10 M
II	2(3)*	5 M	10 M	II	4(6)	5 M	20 M
III	1	10 M	10 M	III	2	10 M	20 M
Grand Total			25 M	Grand Total			50 M

End-Semester Examinations

2 Credit Course				4 Credit Course			
Section	No. of Questions	Marks of each Question	Total Marks	Section	No. of Questions	Marks of each Question	Total Marks
I	5/10	2M/1 M	10 M	I	10/20	2 M/1M	20 M
II	4(6)	5 M	20 M	II	6 (9)	5 M	30 M
III	2	10 M	20 M	III	5	10 M	50 M
Grand Total			50 M	Grand Total			100 M

Distribution of Marks

Component	2 Credit Course	4 Credit Course
Internal Assessment	25 Marks	50 Marks
Mid-Term Examination	25 Marks	50 Marks
End-Term Examination	50 Marks	100 Marks
Total	100 Marks	200 Marks

* 2(3) Indicates that 2 Questions out of 3 Questions

Annexure-3

List of Courses Offered by the Department as per new CBCS pattern of UGC

CORE COMPULSORY COURSES (40 Credits)

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Co-requisite
1	CSI 401	Programming Methodology & Problem Solving on C	2	
2	CSI 403	Computer Organization & Architecture	4	
3	CSI 406A	Fundamentals of ICT	4	
4	CSI 407A	LAB-C	2	CSI 401
5	CSI 409A	Database Management System	4	
6	CSI 410	Object Oriented Programming using C++	2	CSI 401
7	CSI 413	Computer Networks	4	CSI 403
8	CSI 414A	LAB-DBMS	2	CSI 409A
9	CSI 414B	LAB-C++	2	CSI 410
10	CSI 420	Data Structure & algorithms	4	CSI 401
11	CSI 422	LAB- Data Structure & Algorithms	2	CSI 407A
12	CSI 499	Industrial Training	4	
13	CSI 531	Theory of Computation	4	

CORE OPEN COURSES (12 CREDITS)

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Co-requisite
1	CSI419	Compiler Design	4	CSI 401
2	CSI 426	Operating System & System Softwares	4	
3	CSI 430	LAB-Compiler Design	2	
4	CSI 431	Algorithm Design	4	CSI 401
5	CSI 432	LAB-Algorithm Design	2	CSI 407A
6	CSI 426A	Operating System concepts	4	
7	CSI 412	ICT and its Applications to socio-Economic Development	4	
8	CSI 404	Probability and Statistical Computing	4	
9	CSI 411	Modelling and Simulation	2	
10	CSI 510	Multi-Media Systems and Technologies	2	
11	CSI 518	Computational Finance	2	
12	CSI 513	Cloud Computing, Green Technology and Emerging Trends in ICT	4	

Elective courses
(16 Credits)

Elective Courses Specialization -1 Internet Technology and the Web

1	CSI 515	Internet Technologies & Web Programming	4	
2	CSI 503	Java Programming	4	CSI 410
3	CSI 508A	LAB-Java	2	CSI 414B
4	CSI 515 A	LAB- IT&W	2	
5	CSI 435	C #	4	CSI 410
6	CSI 436	LAB- C #	2	CSI 414B
7	CSI 424A	Visual Basic Programming	4	
8	CSI 425	LAB- Visual Programming	2	

Elective Courses Specialization -2 Information Retrieval and Cryptography

1	CSI 514	Information Retrieval and Web mining	4	CSI 504
2	CSI 440	Information Security & Cryptography	4	
3	CSI 506	E-Governance, E-Business and E-Learning	2	
4	CSI 532	Big Data Analytics	4	

Elective Courses specialization -3 Image Processing and Graphics

1	CSI 438	Digital Image Processing	4	
2	CSI 441	Computer Graphics & Multimedia	4	
3	CSI 442	Discrete Structure	4	

Elective Courses specialization-4 Software Engineering

1	CSI 502	Software Engineering	4	CSI 401
2	CSI 509	Free and Open Source Software Development	4	
3	CSI 610	Software Quality Assurance	2	
4	CSI 533	Software Project Management	4	

ELECTIVE OPEN
(4 CREDITS)

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Co-requisite
1	CSI 439	Data Mining and warehousing	4	
2	CSI 505	Mobile Wireless Communication	4	
3	CSI 504A	Artificial Intelligence	4	
4	CSI517	ERP(Operation Research)	4	
5	CSI 421	Advanced Computer Algorithms	4	
6	CSI 439A	Data Mining	2	
7	CSI 439B	LAB- Data Mining	2	

SKILL DEVELOPMENT
(4 CREDITS)

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Co-requisite
1	CSI 443	Computer Hardware & Networking	2	
2	CSI 448	LAB-Computer Hardware & Networking	2	
3	CSI 444	LAB Linux-Ubuntu	2	
4	CSI 445	LAB-Perl	2	
5	CSI 446	LAB -Libre Office(FOSS)	2	
6	CSI447	LAB- HTML	2	
7	CSI 449	LAB- PC Package	2	

HUMAN MAKING
(4 Credit)

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Co-requisite
1	CSI 429	IT Tools for Smart Work	2	
2	CSI 430	Tools and Technology for Collaborative work	2	
3	CSI 450	Ethical Hacking	2	
4	CSI 451	Personality Development through social media	2	

Annexure-4

List of external paper setters for the departments courses

S. No.	Course code	Course name	credit	Name of paper setter with details
1.	CSI 401	Programming Methodology and Problem Solving on C	2	Dr. Shubhanandan S Jamwal, Jammu University, Jammu
				Dr. Vibhakar Mansotra, Jammu University, Jammu
				Dr. Savita Gupta, UCOE, Punjabi University, Patiala
				Dr. Anita Ganpati, HPU, Shimla
				Dr. Amarveer Singh, Punjabi University , Patiala
2.	CSI 403	Computer Organization and Architecture	4	Dr. Savita Gupta, UCOE, Punjabi University, Patiala
				Dr. Bhavana Arora, CU Jammu, Jammu
				Dr. Vishal Goyal, Punjabi University, Patiala
				Dr. Tasleem Arif, BGSB University, Rajouri, J&K
				Dr. Shubhanandan S Jamwal, Jammu University, Jammu
3.	CSI 406A	Fundamentals of ICT	4	Dr. Aman Sharama, HPU, Shimla
				Dr. R.K. Katare - Professor, APS University, Rewa (M.P.)
				Dr. Shubhanandan S Jamwal, Jammu University, Jammu
				Dr. Amarveer Singh, Punjabi University , Patiala
				Dr. Vibhakar Mansotra, Jammu University, Jammu
4.	CSI 410	Object oriented programming using C++	2	Sh. Dharamveer Sharma, HPU
				Dr. Shubhanandan S Jamwal, Jammu University, Jammu
				Dr. Amarveer Singh, Punjabi University , Patiala
				Dr Raman Maini, UCOE, Punjabi University, Patiala
				Sh. Neerendra Kumar, CU Jammu, Jammu
5.	CSI 413	Computer Networks	4	Er. Jawahar Singh , HPU, Shimla
				Dr. Shubhanandan S Jamwal, Jammu University, Jammu
				Dr. Amarveer Singh, Punjabi University , Patiala
				Er Amit, UCOE, Punjabi University, Patiala
				Dr. Vishal Goyal, Punjabi University, Patiala

6.	CSI 431	Algorithm Design	4	Dr. Aman Sharma, HPU, Shimla Dr. R.K. Katare - Professor, APS University, Rewa (M.P.) Dr. Vishal Goyal, Punjabi University, Patiala Er. Priyanka Jaraiyan, UCOE, Punjabi University, Patiala Dr. Shubhanandan S Jamwal, Jammu University, Jammu
7.	CSI 531	Theory of Computation	4	Dr. Vishal Goyal, Punjabi University, Patiala Dr. R.K. Katare - Professor, APS University, Rewa (M.P.) Er. Jawahar Singh , HPU, Shimla Er. Gaurav Gupta, UCOE, Punjabi University, Patiala Dr. Shubhanandan S Jamwal, Jammu University, Jammu
8.	CSI 426	Operating Systems and System Softwares	4	Dr. Gagan Deep, , Punjabi University , Patiala Dr. Rajwesh randawa, , Punjabi University , Patiala Dr. Shubhanandan S Jamwal, Jammu University, Jammu Dr. Amarveer Singh, Punjabi University , Patiala Dr Raman Maini, UCOE, Punjabi University, Patiala
9.	CSI 409A	DBMS	4	Dr. Manu Sood, HPU, Shimla Er. Neeru Nirpurkar,UCOE, Punjabi University, Patiala Dr. K. L. Bansal, HPU, Shimla Dr. Shubhanandan S Jamwal, Jammu University, Jammu Dr. Amarveer Singh, Punjabi University , Patiala
10.	CSI 420	Data Structure & algorithms	4	Dr. Bhavana Arora, CU Jammu, Jammu Dr. Tasleem Arif, BGSB University, Rajouri, J&K Dr. Amarveer Singh, Punjabi University , Patiala Dr. Shubhanandan S Jamwal, Jammu University, Jammu Er. Harpreet, UCOE, Punjabi University, Patiala
11.	CSI 502	Software Engineering	4	Dr. Anita Ganpati, HPU, Shimla Dr. Amarveer Singh, Punjabi University , Patiala Dr. Chandra Kant Verma, KU, Krukshetra Dr. Vibhakar Mansotra, Jammu University,

				Jammu
				Dr. Bhavana Arora, CU Jammu, Jammu
11.	CSI 419	Compiler Design	4	Dr. Chandra Kant Verma, KU, Krukshetra
				Dr. Amarveer Singh, Punjabi University , Patiala
				Dr. Shubhanandan S Jamwal, Jammu University, Jammu
				Er. Gaurav Gupta, UCOE, Punjabi University, Patiala
				Dr. Bhavana Arora, CU Jammu, Jammu