

Item 37.01
Grant of Leave of absence, if any

Item No. 37.02
Confirmation of Minutes of the 36th Meeting of the Academic Council of the
ICFAI University, Dehradun

Minutes of the 36th Meeting of the Academic Council of the ICFAI University,
Dehradun held on April 15, 2015 at University Campus, Dehradun

Present

Dr. S. C. Deorani	Chairman
Dr. Devendra Juyal	Member
Dr. B. K. Joshi	Member
Prof. Dinesh Thapliyal	Member
Dr. B. Kumar	Member
Dr. R. C. Ramola	Member
Prof. P. K. Dash	Registrar

Special Invitee:

Dr. Abhay Tiwari	Coordinator (Research)
Ms. Sarita Negi	Principal, FoE

36.01 Grant of leave of absence, if any

Justice K. D. Shahi (Retd.) and Dr. M. V Kartikeyan were granted leave of absence.

36.02 Confirmation of Minutes of 35th Meeting of the Academic Council

The minutes of 35th Meeting of the Academic Council of the ICFAI University, Dehradun were confirmed.

36.03 Follow up action on the Minutes of the 35th Meeting of the Academic Council

The matter placed was noted.

36.04 Minutes of the 31st Meeting of the Research Committee of the ICFAI University, Dehradun

Placed Minutes of the 31st Meeting of the Research Committee were noted and confirmed.

36.05 Approval of the lists of graduating students

A. A list of 72 students, who are eligible for the award of degree at the end of the academic year, 2014-2015, listed in **Annexure 36.05A Volume II (Page No.01 to 06)**, was approved.

B. Another list of 398 students in **Annexure 36.05B Volume II (Page No. 07 to 30)**, was also approved.

36.06 Ph. D Thesis Defence

The placed agenda on Ph.D Thesis Defence was noted and approved.

36.07 Lateral entry to B.Tech Program for Diploma Holders

The placed agenda was approved, in principle. Also, Dean, Faculty of Science & Technology, is instructed to prepare a detailed final proposal for discussion in the subsequent meeting.

36.08 Result of Semester-II Exam of Ph.D Scholars

The matter placed was noted.

36.09 New Registration for Ph.D Program

The matter placed on New Registration for Ph.D Program was noted.

36.10 Any other item with the permission of the Chair

- Two year B.Ed Program as per revised NCTE Norms
The placed agenda on Two year B.Ed Program as per revised NCTE Norms was approved.

36.11 Date for the next meeting

It was agreed that the date for the next meeting of the Academic Council would be fixed in consultation with the Chairman.

The Chairman thanked all members for their active co-operation.

Dr. S.C. Deorani
Chairman

Item No. 37.03

Follow up action on the Minutes of the 36th Meeting of the Academic Council
(Registrar will brief the meeting)

36.07 The proposal for lateral entry to B.Tech Program for Diploma Holders has been included as **Agenda item No. 37.09**.

Item No. 37.04
**Confirmation of the Minutes of the 32nd Meeting of the Research Committee of the
ICFAI University, Dehradun**

Minutes of the 32nd Research Committee of ICFAI University, Dehradun held on July 30, 2015 at University Campus.

Present Members:

Dr R. K. Lalwani	Vice-Chancellor, Chairman
Dr B. Kumar	Member
Dr R.C. Ramola	Member
Prof. P.K. Dash	Registrar, Member
Dr Abhay Kr. Tiwari	Member

Special Invitee:

Prof. Sarita Negi

The following items of business were transacted:

- 32.02 Confirmation of Minutes of the 31st meeting of the Research Committee**
The minutes of the 31st meeting of the Research Committee of the ICFAI University, Dehradun were confirmed.
- 32.03 Follow up action on the Minutes of the 31st Meeting of the Research Committee**
Follow up action of the 31st meeting of the Research Committee of the ICFAI University Dehradun were noted.
- 32.04 Extension of Ph. D. Program Period and change in type of Ph. D. Research Scholar**
The matter placed was noted and approved.
- 31.05 Approval of DAC (Doctoral Advisory Committee) Members**
The matter placed was noted and approved subject to Supervisor/Guide to be considered from ICFAI University Dehradun. In the meantime, whether guides from ICFAI constituents can be considered, to be examined.
- 32.06 Registration Cancellation**
The matter placed was noted and approved.
- 32.07 Result of Semester I Exam**
The matter placed was noted and approved.
- 32.08 Permission for Research Methodology Exam**
The matter placed was discussed and it was decided that candidate must give the Research Methodology exam at the time of university semester exam, and for that, he has to pay examination fee.
- 32.09 Research Methodology Syllabus (Ph. D. – Part Time)**
The matter placed was noted and approved with some modifications in the syllabus of Faculty of Science & Technology.

32.10 List of DAC Member/Supervisors

The matter placed was approved. The committee suggested that supervisor should be considered from within University.

32.11 Program Structure for Ph.D. Full Time and Part- Time

The matter placed was discussed and it was decided that the program structure for both Ph. D. full-time and part time program will be the same and the existing Ph. D. full-time structure will be considered for both. Concerned department/faculty is required to develop list of subjects according to program structure before the new admissions. All those Ph. D. scholars who have registered in part -time Ph. D. Program before 31st July, 2015 will continue as per the structure provided to them. The Ph. D. Part-Time candidate is required to make visits to the campus for the course work.

32.12 Admission to the Ph. D. Program

The matters placed were discussed and the following decisions was taken.

1. Supervisors should be considered from within IUD.
2. Faculty Member shall not have, at any time, more than eight research scholars (as supervisor/DAC member/as per UGC Norm).
3. FoL-Director and FST-Dean suggested for advertisement of admission in their departments.
4. New applicants are required to select supervisors from within ICFAI University Dehardun in their respective research.

32.13 Ph. D. Thesis Submission

The matter placed was noted

32.14 Appointment of Research Scholars as Faculty Members

The matter placed was noted.

32.15 Any other item with the Permission of the Chair

No other item was discussed.

32.16 Date for the next meeting

The next meeting will be fixed after consultation with the chairman.

Chairman
Dr. R. K. Lalwani

PART B: APPROVAL / REVIEW ITEMS

Item No. 37.05
Approval of the lists of graduating students
(Registrar will brief the meeting)

- A. The lists of students who successfully completed the academic requirements for the award of various degrees at the end of the academic year, 2014-2015, and became eligible for the award of various Degrees of the University were approved by the Vice Chancellor and the same are placed as **Annexure 37.04 A Volume II (Page No.01 to 12)**, for ratification by the Council.

A summary of the same is provided below:

S. #	Program	No. of students
1	Bachelor of Education	27
2	BBA LLB (Hons.)	33
3	Bachelor of Technology	156
	TOTAL	216

- B. The lists of students who have successfully completed the academic requirements at the end of the academic year, 2014-2015 and have become eligible for the award of various Degrees/ Post Graduate Diploma of the University are provided as **Annexure 37.04 B. Volume II (Page No. 13 to 15)** for ratification by the Council.

A summary of the same is provided below.

S. #	Program	No. of students
1	Master of Business Administration (MBA)	20
2	Master of Logistic Management Program	1
	TOTAL	21

Item No. 37.06
Approval of Doctoral Advisory Committee (DAC)
 (Research Coordinator will brief the meeting)

The DAC for the candidates registered for Ph. D. Program is proposed in the following tables.
 The same is placed for consideration and approval.

Management:

Name of Research Scholar and Enrollment No.	Qualification	DAC Members	Qualification	Research & Publication		
				Published Papers	Supervised Ph. D.	Post – Ph. D Experience
Ms. Cheshta Chauhan (RSIBS140002)	MBA	Dr. Vibha Arora IBS Business School Gurgaon	Ph. D. (Jamia Millia Islamia, Delhi), MBA (Marketing)	7	-	3
		Dr. Manisha Singh IBS Business School, Bangalore	Ph. D. (BHU) , M. Com MBA	4	1	14
		Dr. Manish Kumar Srivastava* IBS Business School The ICFAI University Dehradun	Ph.D.in Commerce (Gorakhpur University) UGC-NET (2012), UPSLET M.Com, DBM, ADM (IUD)	20	1	7
Mrs. Pooja Ahlawat (RSIBS140006)	MBA	Dr. Manish Kumar Srivastava* IBS Business School The ICFAI University Dehradun	Ph.D.in Commerce (Gorakhpur University) UGC-NET (2012), UPSLET M.Com, DBM, ADM (IUD)	20	1	7
		Dr. V.S.P. Rao Professor and Dean IBS Hyderabad	Ph.D. HRM in small Industry, Andhra University, M.Com.	43		26
		Dr. V.N. Srivastava, Consultant (HR & OD) Centre for Organization Development, Madhapur, Hyderabad	Ph. D. in Human Resource Management, MBA,	12	1	4
Mr. Pranav A Sharma (RSIBS140007)	PGD BM	Dr. Abhay Kumar Tiwari* IBS Business School The ICFAI University Dehradun	Ph. D. in Statistics (BHU) M.Sc., MBA	51	4	12
		Dr. Alka Dwivedi Assistant Professor, UPES, Dehradun	Ph. D. in Business Administration (Lucknow University), MBA	8	-	5
		Dr. Sombala Ningthoujam, IBS Business School, Gurgaon	Ph. D. in Psychology (Jamil Millia Islamia, New Delhi) UGC-NET, MA	12	1	14
Mr. Parveen Kumar (RSIBS140005)	M.A. (Economics)	Dr. Manisha Singh IBS Business School, Bangalore	Ph. D. (BHU) , M.Com MBA	4	1	14
		Dr. Ajay Kumar Garg, Assistant Professor, Department of Commerce, University of Delhi	Ph. D. in Commerce & Economics (CCS University, Meerut, Jamil Millia Islamia, Delhi), MBA, UGC-NET, MA (Economics), M. Com	36	0	7
		Dr. Abhay Kumar Tiwari* IBS Business School The ICFAI University Dehradun	Ph. D. in Statistics (BHU) M.Sc., MBA	51	4	12
Mr. Raghvendra Kumar Sharma	MBA	Dr. V.N. Srivastava* Consultant (HR & OD) Centre	Ph. D. in Human Resource Management, MBA,	12	1	4

(RSIBS140008)		for Organization Development, Madhapur, Hyderabad				
		Dr. V.S.P. Rao, Professor and Dean IBS Hyderabad	Ph.D. HRM in small Industry, Andhra University, M.Com.	43		26
		Dr. Vivekanand Professor, Alliance University, Bangalore	Ph. D. OB (IIT, Mumbai), M.Pill, MA	20		11
Mr. Sanjeev Malaviya (RSIBS140009)	MBA	Dr. Vibha Arora* IBS Business School Gurgaon	Ph. D. (Jamia Millia Islamia, Delhi), MBA (Marketing)	7	-	3
		Dr. Vivekanand Professor, Alliance University, Bangalore	Ph. D. OB (IIT, Mumbai), M.Pill, MA	20		11
		Dr. Manisha Singh IBS Business School, Bangalore	Ph. D. (BHU), M.Com MBA	4	1	14
Mrs. Saumya Kapoor Sharma (RSIBS140010)	M. Com	Dr. Neeraj Aswal Faculty Member of Science & Technology, IUD	Ph.D. in Economics (HNB Garhwal University, MA, MBA	2	1	5
		Dr. Vivekanand Professor, Alliance University, Bangalore	Ph. D. OB (IIT, Mumbai), M.Pill, MA	20		11
		Dr. Alka Dwivedi* Assistant Professor, UPES, Dehradun	Ph. D. in Business Administration (Lucknow University), MBA	8	-	5
Ms. Swarita Sharma (RSIBS140012)	PGD BM	Dr. Sombala Ningthoujam, IBS Business School, Gurgaon	Ph. D. in Psychology (Jamil Millia Islamia, New Delhi) UGC-NET, MA	12	1	14
		Dr. Manish Kumar Srivastava* IBS Business School The ICFAI University Dehradun	Ph.D.in Commerce (Gorakhpur University) UGC-NET (2012), UPSLET M.Com, DBM, ADM (IUD)	20	1	7
		Dr. Alka Dwivedi Assistant Professor, UPES, Dehradun	Ph. D. in Business Administration (Lucknow University), MBA	8	-	5
Ms. Amrita Jaiswal (RSIBS140023)	PGD HR M.A. (Economics)	Dr. Ajay Kumar Garg, Assistant Professor, Department of Commerce, University of Delhi	Ph. D. in Commerce & Economice (CCS University, Meerut, Jamia Millia Islamia, Delhi), MBA, UGC-NET, MA (Economics), M.Com	36	0	7
		Dr. Abhay Kumar Tiwari* IBS Business School The ICFAI University Dehradun	Ph. D. in Statistics (BHU) M.Sc., MBA	51	4	12
		Dr. V.N. Srivastava, Consultant (HR & OD) Centre for Organization Development, Madhapur, Hyderabad	Ph. D. in Human Resource Management, MBA,	12	1	4
Mr. Abhay Parashar (RSIBS140001)	PGD BM	Dr. V.S.P. Rao, Professor and Dean IBS Hyderabad	Ph.D. HRM in small Industry, Andhra University, M.Com.	43		26
		Dr. Vibha Arora* IBS Business School Gurgaon	Ph. D. (Jamia Millia Islamia, Delhi), MBA (Marketing)	7	-	3
		Dr. Ajay Kumar Garg, Assistant Professor, Department of Commerce, University of Delhi	Ph. D. in Commerce & Economics (CCS University, Meerut, Jamil Millia Islamia, Delhi), MBA, UGC-NET, MA (Economics), M. Com	36	0	7

*Convener of Committee

Note: Supervisor would be considered from ICFAI University Dehardun/Constituents of ICFAI

Faculty of Science and Technology:

Name of Research Scholar and Enrollment No.	Qualification	DAC Members	Qualification	Research & Publication		
				Published Papers	Supervised Ph. D.	Post – Ph. D Experience
Mr. Gaurav Bhandari (RSFST140014)	B. Tech. (Electronics & Telecommunication), M.Tech (Digital Communication)	Dr. R. C. Ramola*, Dean (Faculty of Science and Technology) The ICFAI University Dehradun	Ph. D., M.Sc., MS (Electronics and Communication)	14	01	21
		Dr. Sandeep Vijay, Associate Dean (Faculty of Science and Technology) The ICFAI University Dehradun	Ph. D., M.Tech, B.E	117	02	04
		Dr. C.G. Dethe	Ph. D., M.E & B.E			
Mr. Sanjeev kumar (RSFST140016)	M.Sc., M.Tech(Computer Science)	Dr. R. C. Ramola*, Dean (Faculty of Science and Technology) The ICFAI University Dehradun	Ph. D., M.Sc., MS (Electronics and Communication)	14	01	21
		Dr. Rakesh Pandey, Faculty Member, Faculty of Science and Technology, The ICFAI University, Dehradun	Ph. D., M.Sc. (Mathematics)	13	NA	56
		Dr. Dharmendra Kumar Gupta (Prof. IIT Kharagpur)				
Mr. Virendra Kumar (RSFST140017)	B.E., M.E (Electronic & Communication)	Dr. R. C. Ramola, Dean (Faculty of Science and Technology) The ICFAI University Dehradun	Ph. D., M.Sc., MS (Electronics and Communication)	14	01	21
		Dr. Sandeep Vijay*, Associate Dean (Faculty of Science and Technology) The ICFAI University Dehradun	Ph. D., M.Tech, B.E	117	02	04
		Dr. C.G. Dethe	Ph. D., M.E & B.E			

*Convener of Committee

Note: Supervisor would be considered from ICFAI University Dehradun/Constituents of ICFAI

Faculty of Law:

Name of Research Scholar and Enrollment No.	Qualification	DAC Members	Qualification	Research & Publication		
				Published Papers	Supervised Ph. D.	Post –Ph. D Exp.
Mr. Alok Kumar (RSFOL140018)	LLB and LLM from BHU.	Dr. B. Kumar** Director & Pro-VC, ICFAI University Dehradun	Ph.D., Fellow ILI(Cal), LLM (Human Rights, International law, Consumers Law)	24		32
		Justice K D. Shahi				
		Prof. (Dr.) Subhash Chandra Gupta				
Mr. Avishek Raj (RSFOL140019)	LLB from University of Allahabad, LLM from University of Lucknow.	Dr. B. Kumar** Director & Pro-VC, ICFAI University Dehradun	Ph.D., Fellow ILI(Cal), LLM (Human Rights, International law, Consumers Law)	24		32
		Justice K D. Sahi				
		Prof. (Dr.) Subhash Chandra Gupta				

**Convener of Committee

Note: Supervisor would be considered from ICFAI University Dehradun/Constituents of ICFAI

Faculty of Education:

Name of Research Scholar and Enrollment No.	Qualification	DAC Members	Qualification	Research & Publication		
				Published Papers	Supervised Ph. D.	Post –Ph. D Exp.
Mrs. Sarita Negi (RSFOE140022)	B. Ed and M.Ed from H.N.B Garhwal University.	Dr.Saraswati Singh (Ret.), Ex-Head, Dept. of Psychology, M.K.P.P.G. College, Dehradun, Uttaranchal.	Ph. D. in Psychology (BHU) MA	60	-	44
		Dr. Vasudha Sharma*, Associate Professor, DBS, Dehradun	Ph. D. in Psychology (CCS University Meerut), MA (Psychology), MA (Education)	-	-	7
		Dr. Sombala Ningthoujam, IBS Business School, Gurgaon	Ph. D. in Psychology (Jamil Millia Islamia, New Delhi) UGC-NET, MA	12	1	14

*Convener of Committee

Note: Supervisor would be considered from ICFAI University Dehradun /Constituents of ICFAI

Item No. 37.07
Brief of Two year B.Ed Program Structure (NCTE)
(Prof. Sarita Negi will brief the meeting)

The document presents the course structure for the NCTE two years B.Ed Program. The program consists of three broad curricular areas-Perspectives in Education, Curriculum and Pedagogic Studies and Engagement with the Field.

- Perspectives in Education includes courses in the study of childhood, child development and adolescence, contemporary India and Education, Teaching and Learning, Gender in the context of school and society and Inclusive Education.
- Curriculum and Pedagogic Studies will offer a study of disciplines, critical understanding of the school curriculum. It will enable students to specialize in two subject areas at one or two level of schools.
- Engagement with the field will provide for sustained engagement with the self, the child, community and school.

In the first year there shall be work on the field amounting to 4 weeks. This will include one week of school engagement and three weeks of other engagement.

In the second year there shall be a minimum of 16 weeks of engagement with the field. 15 weeks are meant for school internship and one week for other field engagement.

Transaction of courses will be done using a variety of approaches such as case studies, group presentations and interaction with the community.

Item No. 37.08
Research Methodology Syllabus (Ph.D. – Part Time)

The research methodology syllabus for Law, Science & Technology, Management and Education for Ph. D. Part - Time Research Scholars is placed for approval **(Annexure – 37.08)**.

Semester I
Research Methodology
 (Management)

Unit – I

Research Process: Identifying and defining the problem, preparing the statement of research objectives developing the hypotheses. Planning the Research Design and selection of research methods. Selecting the sampling technique, data collection, data analysis and preparing the research report

Unit – II

Business research design: The meaning of business research design and characteristics of good research design. Classifications of the research design: exploratory, descriptive & causal studies; population & sample; sample size; meaning and types of sampling; sampling error; the research proposal.

Unit – III

Measurement concept in Management Research: Identifying and deciding on the variables to be measured- development of measurements scales; nominal scale, ordinal scale, interval scale, ratio scale; criteria for good measurement, reliability test. Attitude scales: Definition and type of attitude scales; single item scales, multiple items scales; Likert's scale, Semantic Differential scale etc.

Unit – IV

Questionnaire design, Survey Research and Data Preparation: Meaning of questionnaire, questionnaire design process, Response format: open-ended questions close ended questions, reliability and validity of questionnaire. Classification of method of data collection; personal interview, telephone interview, mail interview and electronic interview. Editing, coding, classification and tabulation of data; methods of data presentation

Unit – V**Statistical Techniques and Computer Applications:**

Hypothesis testing; T-test, Z-test, ANOVA and Chi- square Test. Correlation and Regression analysis, Time series analysis, Experimental design. Multivariate techniques—factor analysis, discriminant analysis, cluster analysis, MANOVA, structural equation modeling, Multi-dimensional scaling technique and conjoint analysis.

Applications of Microsoft Excel and SPSS for data entry, editing, transformation and cleaning and managerial analysis.

Unit – VI

Report writing—Purpose, steps and format of research report; final presentation of the research report; idea of referencing, bibliography, footnotes and end notes.

SUGGESTED READINGS**Text Reading**

1. Zikmund, William G. (2006). *Business Research Methods*, 7th Edition, Thompson, South-Western.

2. Joseph F. Hair: Bill Black: Barry Babin; Rolph E. Anderson; and Ronald L. Tatham, (2006). *Multivariate Data Analysis*, 6th Edition, Prentice Hall.
3. Bajpai Naval (2001). *Business Research Methods*.
4. Bryman, A. and Bell, E. (2007). *Business Research Methods*, 2nd Edition, Oxford University Press.
5. Mann Prem S. (2004): 'Introductory Statistics' John Wiley & Sons. INS
6. Research Articles.
7. Faculty Handouts.

Additional Reading

Susan B. Gerber, Kristin Voelkl Finn, (2005) *Using SPSS for Windows: Data Analysis and Graphics*, Springer.

Semester I
Research Methodology
(Science & Technology)

Unit – I

Definition and objectives of Research – Types of research, Various Steps in Research process, Mathematical tools for analysis, Research problem- Definition, necessity and techniques of defining research problem, formulation and objective of research problem, research design- Meaning, need and features of good research design, types of research designs, Experimental design.

Unit – II

Execution of the research - Observation and Collection of data - Methods of data collection – Sampling Methods- Data Processing and Analysis strategies - Data Analysis with Statistical Packages - Hypothesis-testing - Generalization and Interpretation. Statistical Modeling and Analysis, Probability Distributions, Applications of Spectral Analysis.

Unit-III

Use of tools / techniques for research methods to search required information effectively, Reference Management software like Zotero / Mendeley, Software for paper formatting like LaTeX, MS-Office-Power point, word, Excel and Access, Software for detection of Plagiarism. Uses of Microsoft Excel and SPSS for data analysis.

Unit-IV

Interpretation of Data and Paper writing –Layout of a Research Paper, Journals in Science & Technology, Impact factor of Journals, When and where to publish? Ethical issues related to Publishing, Plagiarism and Self-Plagiarism

Unit – V

Structure and components of scientific reports - Types of report – Technical reports and thesis, Scientific Writing: Scientific Document; Organization and writing of research paper, Writing review articles, Patent drafting and submission, Preparing documents for Technology Transfers, MoUs, Presentation of research proposals, Evaluation of research report, Presentation of research: Oral and Written (abstracts/synopsis).

SUGGESTED READINGS

Text Reading

1. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. *An introduction to Research Methodology*, RBSA Publishers.
2. Kothari, C.R., 1990. *Research Methodology: Methods and Techniques*. New Age International. 418p.

Semester I
Research Methodology
(Law)

Unit – I

Basic principles of research, objectives and significance of Legal Research, selection of research problem, development of hypothesis.

Unit – II

The meaning & feature of legal research design. Classifications of the research design: exploratory, descriptive & causal studies; Doctrinal, Non-doctrinal, Merits & Demerits of Doctrinal and Non-Doctrinal, Formulation of the Research problem, Devising tools and techniques for collection of data : Methodology, Methods for the collection of statutory and case materials and juristic literature, Use of historical and comparative research materials, Use of observation studies, Use of questionnaires/interview, Use of case studies, population & sample; sample size; meaning and types of sampling; sampling error; selecting the sampling technique, data collection.

Unit – III

Uses of quantitative methods in research, Rules for classification and tabulation of data Processing, analysis and interpretation of data, measure of central tendency and dispersion. Correlation and regression, Chi Square Test, steps involved in applying chi—square test. significance of statistics in Socio-legal Research.
Uses of Microsoft Excel in data analysis.

Unit – IV

Steps and format of research report; idea of referencing, bibliography, footnotes and end notes. Presentation of research: Oral and Written (abstracts/synopsis).

SUGGESTED READINGS

Text Reading

1. Research Methodology: Methods and Techniques; C R Kothari/ New Age International Publishers.
2. Legal Research Methodology; Rattan Singh/ Lexis Nexis.
3. Mann Prem S. (2004): 'Introductory Statistics' John Wiley & Sons. INS.
4. Bajpai Naval (2001). *Business Research Methods*.
5. Gupta S.C , Fundamentals of Statistics, Himalaya Publication House, Bombay.
6. Research Articles.
7. Faculty Handouts.

Semester I
Research Methodology
(Education)

Unit – I

What is Research, Sources of knowledge and research, Nature of Educational Research, Method of educational research- Historical Research, Philosophical Research, Descriptive Research, Experimental Research.

Unit – II

Identifying and defining the problem, Review of related literature, preparing the statement of research objectives, Hypothesis – Importance, characteristics and formulation of hypothesis, forms of hypothesis, developing research proposal.

Unit – III

The concept of population & sample; sample size; meaning and types of sampling, selection of sampling technique. Meaning of questionnaire, questionnaire design process, Response format: open-ended questions close ended questions, Method of data collection.

Unit – IV

Classification and tabulation of data, analysis and interpretation of data, Uses of quantitative methods in educational research, Qualitative Research- Meaning, Characteristics and Themes of Qualitative Research, Focus group discussion, Depth interview technique, Qualitative Research Strategies: Document or Content Analysis, Case Study, Ethnographic Studies.

Unit – V

Reporting research- the Beginning, the main body, the end. Purpose, steps and format of research report; final presentation of the research report; idea of referencing, bibliography, footnotes and end notes.

SUGGESTED READINGS

Text Reading

1. Ary. D., Lucy C. Jacobs and A, Razavich (1972) Introduction to Research in Education, New York: Holt, Rinehart and Winston Inc
2. Best, John W and Kahn, James V (2001), Research in Education, New Delhi: Prentice Hall of India.
3. Buch M.B (1991) Surveys Research in Education, New Delhi, NCERT
4. Mann Prem S. (2004): 'Introductory Statistics' John Wiley & Sons. INS
5. Research Articles.
6. Faculty Handouts.

Semester – II Research Project

Course Overview

This course is intended to enable students to undertake a research study in the IInd semester. The research undertaken may be empirical, conceptual, related to area of your research, etc. The student is expected to do an in depth and rigorous study which should culminate in a high quality research report. This project report shall be written in approximately 80 pages, strictly adhering to the guidelines and norms followed for writing research work/Ph.D. thesis.

Item No. 37.09
Proposal for B.Tech Program with Lateral entry
 (Dean – FST will brief the meeting)

A proposal to start B.Tech Degree Program with lateral entry was proposed and discussed during last academic council meeting and council had agreed in principle. A detailed proposal is presented hereunder for the consideration and approval.

Lateral entry in B.Tech Program is almost in every university of Uttarakhand. IUD would like to start similar type in the Faculty of Science and Technology.

Eligibility criteria in different university of Uttarakhand for B.Tech Lateral entry

S.No.	Name of University	Eligibility criteria
1	Uttarakhand Technical University 45 Engineering colleges (Including Govt. Engg. colleges)	(i) Candidates who have passed 3/4 year Diploma (with minimum 60% marks) from institutions recognized by the Uttarakhand Board of Technical Education in any branch of Engineering/Technology except Agriculture Engg. are eligible for admission to Second year in any branch of Engg ./ Technology except Agriculture Engg. (iii) Candidate who have passed B. Sc. (with Mathematics) with minimum of 60% marks are eligible to take admission in any branch of Engg. /Technology.
2	DIT University, Dehradun	Minimum 60% marks in 3/4 years Diploma/BSc with Maths
3	Uttaranchal University, Dehradun	Minimum 55% marks in 3/4 years Diploma/BSc with Maths
4	Swami Rama <i>Himalayan University</i> , Dehradun	A candidate having diploma or a degree in B.Sc. (PCM) with a minimum 55% marks shall be eligible for direct admission to the Second Year of B.Tech under lateral admissions.

(A) Following branches will be offered in B.Tech Program through lateral entry

S.No.	Branch
1.	Computer Science
2.	Electronics & Communication
3.	Civil Engineering
4.	Mechanical Engineering

(B) Duration: Total duration will be 3 years. Students will be admitted directly in the second year.

(C) Eligibility Criteria: Candidates having Diploma in respective or relevant discipline of minimum three-year duration or equivalent (recognized by state Technical Board) with 55% marks are eligible for lateral admission in B. Tech. Candidate who have passed B. Sc. (with Mathematics) with minimum of 55% marks are eligible to take admission in any four branch of Technology.

Sr.No.	Name of Programme	Relevant Disciplines of Diploma
1	Civil Engineering	Civil Engineering
2	Computer Science and Engineering	Computer Engineering/ Computer Programming & Application/ Computer Servicing & Maintenance/Information Technology / Electronics & Communication/ Electronics & Computer Engineering OR B.Sc. (IT/CS), BCA
3	Electronics & Communication Engineering	Electronics & Communication / Electronics & TV Techonology/ Electronics & Microprocessors/Electronics & Computer Engineering OR B.Sc. (IT/CS), BCA
4	Mechanical Engineering	Mechanical Engineering/Production & Industrial Engineering/ Refrigeration & Air Conditioning/ Foundry Technology / Industrial/Production Engineering / Maintenance of Plant & Machinery / Welding Technology/ Tool and Die/ Automobile/Mechatronics.

(D) Number of Seats: 40 (CE -10, CSE -10, ECE-10, ME-10).

(E) Program Structure: Please see annexure.

(F) Fee Structure: Applicant selected for the B.Tech. Program are required to pay same fees as B.Tech in regular entry program.

Admission Fees – 10000 (One Time)

Caution Deposit - 10000(Refundable)

Semester Tuition Fees – 55000 (Domicile of Uttarakhand)/ 65000 (Non Domicile).

(G) Admission Procedure: The admission process will begin in month of May with notification for admission. Admission will be made on the basis of diploma/degree marks/State level entrance test. The counseling and seat allotment will be done on July 2015. The university will allot the seat as per the merit. Semester will commence from August.

(H) Merit Scholarship (B.Tech Program with Lateral Entry):

The ICF AI University, Dehradun offers merit scholarship to students pursuing the B.Tech Program with Lateral Entry.

Merit Scholarships based on Semester-wise Performance: Up to 10% of the students of the batch will be awarded merit scholarships based on their Semester-wise performance (Details presented in the table given below).

Academic Performance (CGPA)	Category I	Category II	Category III
		≥ 9.00	$\geq 8.50 - < 9.00$
% of Tuition fee of the semester will be awarded as scholarship	30	22	15

Program Structure (Lateral Entry) 2015-2018

YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure & Properties of Materials	Measurement Techniques
	Mathematics III	Electrical Science -II
	Technical Report Writing/ Principles of Management	Principles of Management/ Technical Report Writing
	Electrical Science - I	Discipline Courses (3)*
	Probability & Statistics	
Discipline Course (1)*		
Summer Term	Internship Program - I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Mathematics Elective	Humanities / Social Sciences Elective
	Discipline Courses (5)*	Discipline Courses (5)*
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3)* & Optional Electives courses (3) * OR Internship Program -II / Thesis	Discipline Courses (3)* Optional Electives courses (3) * OR Internship Program -II / Thesis

- * Details of discipline courses and electives of branches will be mentioned in Students Handbook.
- The program structure is tentative, subject to change (if required).

B.Tech (lateral entry) Civil Engineering Program Structure

YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure & Properties of Materials	Measurement Techniques • MT Lab
	Mathematics III	Electrical Science -II
	Technical Report Writing/ Principles of Management	Technical Report Writing/ Principles of Management
	Electrical Science - I	Discipline Courses (3) Surveying-II • Surveying- II Lab Fluid Mechanics • FM Lab Mechanics of solids • MOS Lab
	Probability & Statistics	
Discipline Course (1) Surveying-I • Surveying-I Lab		
Summer Term	Internship Program I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Numerical Methods (Mathematics Elective)	Humanities & Social Sciences Elective
	Discipline Courses (5) Analysis of structures Design of concrete structures-I Design of Steel structures-I Geotechnical Engineering-I • GE Lab Hydraulics & Hydraulic Machines • H & HM Lab	Discipline Courses (5) Transportation Engineering I • TE Lab Concrete Technology • CT Lab Design of concrete structures-II Design of Steel structures-II Geotechnical engineering-II
Summer Term	Professional Development Programs	
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3) Water supply & Waste water Engineering Hydrology Transportation Engineering II	Internship Project or Thesis
	Electives (3)	

Discipline Courses for Civil Engineering

S.No.	Course Code	Course Title	L	P	U
Semester III					
1	CE 211	Surveying – I	3	4	5
Semester IV					
1	CE 222	Fluid Mechanics	3	4	5
2	CE 221	Surveying - II	2	4	4
3	CE 223	Mechanics of solids	3	2	4
Semester V					
1	CE 315	Analysis of structures	3	0	3
2	CE 313	Design of Concrete Structures - I	3	0	3
3	CE 312	Design of steel structures- I	3	0	3
4	CE 314	Geotechnical Engineering - I	3	2	4
5	CE 316	Hydraulics & Hydraulic Machines	3	2	4
Semester VI					
1	CE 326	Transportation Engineering I	3	2	4
2	CE 325	Concrete Technology	3	2	4
3	CE 322	Design of Concrete Structures - II	3	2	4
4	CE 323	Design of steel structures- II	3	2	4
5	CE 324	Geotechnical Engineering - II	3	0	3
Semester VII/VIII					
1	CE 418	Water supply& Waste water Engineering	3	0	3
2	CE 408	Hydrology	3	0	3
3	CE 419	Transportation Engineering II	3	0	3
		Electives (3)			

Electives for Civil Engineering

S.No.	Course Code	Course Title	L	P	U
1	CE 421	Computer aided Design	2	3	3
2	CE 410	Advanced Structural Analysis	3	0	3
3	CE 413	Construction Planning & Management	3	0	3
4	CE 403	Design and Drawing of Hydraulic Structures	2	2	3
5	CE 404	Design of bridges / Bridge Engineering	3	0	3
6	CE 405	Engineering Geology	3	0	3
7	CE 406	Finite Element Methods in Civil engineering	3	0	3
8	CE 407	Ground Improvement Techniques	3	0	3
9	CE 409	Pavement Analysis and Design	3	0	3
10	CE 414	Prestressed Concrete	3	0	3
11	CE 420	Estimation costing and Evaluation	3	0	3
12	CE 416	Soil Dynamics and Machine Foundations	3	0	3
13	CE 417	Structural Dynamics	3	0	3

Electives for Mathematics

S.No.	Course Code	Course Title	L	P	U
1	MA 309	Numerical Methods	3	0	3
2	MA 310	Operations Research	3	0	3
3	MA 311	Probability and Random Processes	3	0	3

Electives for Humanities & Social Sciences

S.No.	Course Code	Course Title	L	P	U
1	HS 304	Dynamics of Social Change	3	0	3
2	HS 302	Heritage of India	3	0	3

B.Tech (lateral entry) Computer Science and Engineering Program Structure

YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure and Properties of Materials	Measurement Techniques • MT Lab
	Mathematics III	Electrical science II
	Technical Report Writing / Principles of Management	Principles of Management / Technical Report Writing
	Probability and Statistics	Discipline Courses (3) Microprocessor Programming and Interfacing • MPI lab Object Oriented Programming • OOP Lab Discrete Structures for Computer Science
	Electrical Science I	
	Discipline Course (1) Digital Logic Design • DLD Lab	
Summer Term	Internship Program I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Mathematical Elective(Numerical Methods)	Humanities / Social Sciences
	Discipline Courses (5) Data Structure and Algorithms • DSA Lab Programming with Java • Java Lab Operating System • OS Lab Database Management System Data Communication Systems	Discipline Courses(5) Computer Networks • CN Lab Computer Graphics • CG Lab .NET and C# Programming • .NET and C# Programming Lab Programming Languages and Compiler Construction Computer Organization and Architecture
Summer Term	Professional Development Programs	
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3) Software Engineering Web Technologies Theory of Computation	Internship Program II/Thesis
	Electives (3)	

Discipline Courses for Computer Science Engineering

Sr.No.	Course Code	Course Title	L	P	U
Semester III					
1	CS 211	Digital Logic Design	3	2	4
Semester IV					
1	CS 222	Microprocessor Programming and Interfacing	3	2	4
2	CS 221	Object Oriented Programming	3	2	4
3	MA 221	Discrete Structures for Computer science	3	0	3
Semester V					
1	CS 314	Data Structure and Algorithms	3	2	4
2	CS 315	Data Communication Systems	3	0	3
3	CS 312	Programming with Java	3	2	4
4	CS 313	Operating System	3	2	4
5	CS 311	Database Management System	3	0	3
Semester VI					
1	CS 321	Computer Networks	3	2	4
2	CS 322	Computer Graphics	3	2	4
3	CS 323	Computer Organization and Architecture	3	0	3
4	CS 324	.NET and C# Programming	3	2	4
5	CS 325	Programming Languages and Compiler Construction	3	0	3
Semester VII/VIII					
1	CS 408	Software Engineering	3	0	3
2	CS 419	Web Technologies	3	2	4
3	CS 428	Theory of Computation	3	0	3
4		Electives (3)			

Electives for Computer Science Engineering

Sr.No.	Course Code	Course Title	L	P	U
1	CS 405	Artificial Intelligence	3	2	4
2	CS 421	Data Ware Housing and Mining	3	2	4
3	CS 422	Design Patterns	3	0	3
4	CS 420	Multimedia Computing	3	2	4
5	CS 423	Network Programming	3	2	4
6	CS 424	Network Security	3	0	3
7	CS 425	Object Oriented Analysis and Design with UML	3	2	4
8	CS 403	Parallel Computing	3	2	4
9	CS 413	Real Time Systems	3	0	3
10	CS 426	Service Oriented Architecture	3	0	3
11	CS 427	Software Testing Methods	3	2	4
12	CS 417	SQL and Database Applications	3	2	4
13	CS 418	Computer Vision	3	0	3
14	CS 429	Cloud Computing	3	0	3
15	CS 430	Network Management	3	0	3
16	CS 431	Internetworking Technology	3	2	4
17	CS 432	Human Computer Interaction	3	0	3
18	CS 433	Web Mining	3	0	3

Electives for Mathematics

Sr.No.	Course Code	Course Title	L	P	U
1	MA 309	Numerical Methods	3	0	3
2	MA 310	Operations Research	3	0	3
3	MA 311	Probability and Random Processes	3	0	3

Electives for Humanities & Social Sciences

Sr.No.	Course Code	Course Title	L	P	U
1	HS 304	Dynamics of Social Change	3	0	3
2	HS 302	Heritage of India	3	0	3

B.Tech (lateral entry) Electronics and Communication Engineering Program Structure

YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure & Properties of Materials	Measurement Techniques • MT Lab
	Mathematics III	Electrical Science -II
	Technical Report Writing/ Principles of Management	Technical Report Writing/ Principles of Management
	Electrical Science - I	Discipline Courses (3) Electronic Devices and Circuits Signals & System Microprocessor Programming & Interfacing • MPI Lab
	Probability & Statistics	
Discipline Course (1) Digital Logic Design • Digital logic Design Lab		
Summer Term	Internship Program I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Mathematics Elective Random Process /Numerical Analysis	Humanities & Social Sciences Elective
	Discipline Courses (5) Electronic Circuit Analysis • ECA Lab Digital Signal Processing • DSP Lab Analog Communications • AC Lab EM Fields & Waves Control Systems	Discipline Courses (5) Linear Integrated Circuits & Applications • LICA Lab Digital Communications • DC Lab RF & Microwave Engineering • RF &MW Lab Data Communications Computer Organization & Architecture
Summer Term	Professional Development Programs	
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3) Satellite Communications Digital Hardware Design • VLSI Lab Microcontroller Applications • MC Lab	Internship Program II or Thesis & Seminar
	Electives (3)	

Discipline Courses for Electronics & Communication Engineering

S.No.	Course Code	Course Title	L	P	U
		Semester III			
1	EC 211	Digital Logic Design	3	2	4
		Semester IV			
1	EC 221	Electronic Devices and Circuits	3	0	3
2	EC 223	Signals and Systems	3	0	3
3	EC 222	Microprocessor Programming and Interfacing	3	2	4
		Semester V			
1	EC 313	Electronic Circuit Analysis	3	2	4
2	EC 311	Analog Communications	3	2	4
3	EC 312	Digital Signal Processing	3	2	4
4	EC 314	EM Fields & Waves	3	0	3
5	EC 315	Control systems	3	0	3
		Semester VI			
1	EC 323	Linear IC & Applications	3	2	4
2	EC 322	Digital Communications	3	2	4
3	EC 324	RF& Microwave Engineering	3	2	4
4	EC 325	Data Communications	3	0	3
5	EE 321	Computer Organization and Architecture	3	0	3
		Semester VII/VIII			
1	EC 427	Satellite Communications	3	0	3
2	EC 422	Digital Hardware Design	3	2	4
3	EC 407	Microcontroller Applications	3	2	4
		Electives (3)			

Electives for Electronics & Communication Engineering

S.No.	Course Code	Course Title	L	P	U
1	EC 401	Telecom Switching Systems and Networks	3	0	3
2	EC 424	Mobile Telecommunication Networks	3	0	3
3	EC 428	Wireless Communication Networks	3	0	3
4	EC 429	Antennas and Wave Propagation	3	0	3
5	EC 425	RADAR Systems	3	0	3
6	EC 406	Television Engineering	3	0	3
7	EC 421	Data compression & Encryption	3	0	3
8	EC 426	Random Signal Processing	3	0	3
9	EC 420	Analog and Digital VLSI Design	3	2	4
10	EC 423	Digital Design Using HDLs	3	2	4
11	EC 419	Mask Design	3	2	4
12	EC 403	Image Processing	3	2	4
13	EC 430	Microprocessors & Microcontrollers	3	2	4

Electives for Mathematics

S.No.	Course Code	Course Title	L	P	U
1	MA 309	Numerical Methods	3	0	3
2	MA 310	Operations Research	3	0	3
3	MA 311	Random Processes (Name to be finalized)	3	0	3

Electives for Humanities & Social Sciences

S.No.	Course Code	Course Title	L	P	U
1	HS 304	Dynamics of Social Change	3	0	3
2	HS 302	Heritage of India	3	0	3

B.Tech (lateral entry) Mechanical Engineering Program Structure

YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure & Properties of Materials	Measurement Techniques • MT Lab
	Mathematics III	Electrical Sciences-II
	Technical Report Writing/Principles of Management	Principles of Management/Technical Report Writing
	Electrical Sciences-I	Discipline Courses (3) Applied Thermodynamics Fluid Mechanics • FM Lab Mechanics of Solids • MOS Lab
	Probability & Statistics	
	Discipline Courses (1) Machine Drawing • Machine Drawing Lab	
Summer Term	Internship Program I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Operations Research (Mathematics Elective)	Humanities & Social Science Elective
	Discipline Courses (5) Control Systems Production Techniques • PT Lab Design of Machine Elements IC Engines • IC Engines Lab Hydraulics & Hydraulic Machinery • H & HM Lab	Discipline Courses (5) Kinematics of Machinery Machine Tools & Metrology • MTM Lab Heat & Mass Transfer • HT Lab Dynamics of Machinery & Vibrations Computer Aided Design • CAD Lab
Summer Term	Professional Development Programs	
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3) Power Plant Engineering Finite Elemental Analysis Mechatronics	Internship Program II or Thesis
	Electives (3)	

Discipline Courses for Mechanical Engineering:

S.No.	Course Code	Course Title	L	P	U
Semester III					
1	ME 212	Machine Drawing	1	6	4
Semester IV					
1	ME 221	Applied Thermodynamics	3	0	3
2	CE 222	Fluid Mechanics	3	4	5
3	CE 223	Mechanics of Solids	3	2	4
Semester V					
1	ME 315	Control Systems	3	0	3
2	ME 314	Production Techniques	3	2	4
3	ME 311	Design of Machine Elements	3	0	3
4	ME 312	IC Engines	3	4	5
5	ME 313	Hydraulics & Hydraulic Machines	3	2	4
Semester VI					
1	ME 321	Kinematics of Machinery	3	0	3
2	ME 325	Machine tool & Metrology	3	2	4
3	ME 324	Heat & Mass Transfer	3	2	4
4	ME 323	Dynamics of Machinery & Vibrations	3	0	3
5	ME 322	Computer Aided Design	3	2	4

Electives for Mechanical Engineering:

S.No.	Course Code	Course Title	L	P	U
1	ME 409	Power Plant Engineering	3	0	3
2	ME 413	Finite Element Analysis	3	2	4
3	ME 414	Mechatronics	3	2	4
4	ME 420	Robotics & Automation	3	2	4
5	ME 411	Computational Fluid Dynamics	3	2	4
6	ME 423	Advances in Material science	3	0	3
7	ME 412	Cryogenics	3	0	3
8	ME 407	Refrigeration & Air-conditioning	3	2	4
9	ME 410	Automotive Engineering	3	0	3
10	ME 422	Unconventional Machining	3	0	3
11	ME 402	Computer Aided Manufacturing	3	0	3
12	ME 401	Production Planning & Control	3	0	3
13	ME 418	<u>Principles of Tribology</u>	3	0	3
14	ME 419	Quality Assurance and Reliability	3	0	3

Electives for Mathematics

S.No.	Course Code	Course Title	L	P	U
1	MA 309	Numerical Methods	3	0	3
2	MA 310	Operations Research	3	0	3
3	MA 311	Probability and Random Processes	3	0	3

Electives for Humanities & Social Sciences

S.No.	Course Code	Course Title	L	P	U
1	HS 304	Dynamics of Social Change	3	0	3
2	HS 302	Heritage of India	3	0	3

Item No. 37.10
Proposal for B.Tech Program (Part time) for Diploma holders
(Dean – FST will brief the meeting)

A detailed proposal for B.Tech. (Part time) program for diploma holders is presented hereunder for consideration and approval.

B.Tech part time Program is running in the following universities. Data were collected from various sources.

IUD would like to start similar type of program in the Faculty of Science and Technology.

Eligibility criteria in different universities for B.Tech. Part time

S.No.	Name of University	Eligibility criteria	Fee
1	VIT University, Chennai / Vellore	<ol style="list-style-type: none"> 1. Pass in one of the recognized Diploma in Engineering or Technology (Three years duration) with First class in the relevant branch of specialization with minimum 2 years experience is alone eligible to apply. 2. B.Sc. degree with Maths / Physics / Chemistry with minimum 1 year work experience. 	Regular B.Tech. Rs 65,000/- per sem Part time B.Tech Rs. 25000/- per sem with caution deposit Rs. 5000/-
2	Dr. MGR University, Chennai	<ol style="list-style-type: none"> 1. Pass in one of the recognized Diploma in Engineering or Technology (Three years duration) in relevant branch with minimum 2 years experience is alone eligible to apply. 2. A pass B.Sc (Physics, Chemistry, Maths / Biology) with minimum 1 year experience. 	
3	MONAD University Hapur (U.P.), India	<ol style="list-style-type: none"> 1. Diploma from a recognized board or University with minimum 2 years experience. 2. B Sc (PCM) from recognized university with minimum 1 year work experience. 	
4	PTU Nalanda	<ol style="list-style-type: none"> 1. Technical Diploma from an institution approved by Board of Technical Education of any State OR Bachelor's Degree in Science (with Mathematics) With 1 year work experience as on date of enrolment. 	
5	Delhi Technological University	<ol style="list-style-type: none"> 1. Pass in one of the recognized Diploma in Engineering or Technology (Three years duration) with First class in the relevant branch of specialization with minimum 1 year experience is alone eligible to apply. 2. Candidates must produce No Objection Certificate issued by the employer. 	Rs. 50,000/-
6	IGNOU RC Delhi 1	<ol style="list-style-type: none"> (i) Three-year diploma in Mechanical/ Electrical/ Electronics/ Agriculture/ Computer/ Civil Engineering from a recognised polytechnic or its equivalent; or (ii) Candidates who have successfully completed all the courses at least of 1st year of B.Tech. Degree Programme from a recognised institute/ university. Such candidates may apply for credit transfer as per IGNOU rules; or (iii) Candidates who have successfully completed Advanced Diploma (ADCIM), Diploma (DCIM) in 	Rs. 20,000/- per sem

		Computer Integrated Manufacturing. b) Candidates should be employed in Central or State-level industrial organisation or in public sector or in other related organisation employing similar man-power or self-employed in equivalent capacity.	
7	University of Calicut	students possessing diploma in Engineering/Technology awarded by the State Board of Technical Education or equivalent	

(B) Following branches will be offered in B.Tech Program part time.

S.No.	Branch
1.	Computer Science
2.	Electronics & Communication
3.	Civil Engineering
4.	Mechanical Engineering

(C) Duration: Total duration will be 4 years / 8 Semesters.

(D) Eligibility Criteria: Candidates having Diploma in respective or relevant discipline of minimum three-year duration or equivalent (recognized by state Technical Board) with 50% marks and minimum 1 year work experience are eligible for admission in part time B. Tech. Candidate who have passed B. Sc. (with Physics, Chemistry and Maths / Biology) or equivalent with minimum of 50% marks with minimum 1 year work experience are eligible to take admission in any four branch of Technology.

S. No.	Name of Programme	Relevant Disciplines of Diploma
1	Civil Engineering	Civil Engineering / Civil & Rural Engineering / Civil Engineering (Architecture) / Architectural Assistantship / Civil Engineering (Sandwich) / Architecture (Sandwich)
2	Computer Science and Engineering	Computer Engineering/ Computer Programming & Application/ Computer Servicing & Maintenance/Information Technology / Electronics & Communication/ Electronics & Computer Engineering
3	Electronics & Communication Engineering	Electronics & Communication / Electronics & TV Technology/ Electronics & Microprocessors/Electronics & Computer Engineering
4	Mechanical Engineering	Mechanical Engineering/Production & Industrial Engineering/ Refrigeration & Air Conditioning/ Foundry Technology / Industrial/Production Engineering / Maintenance of Plant & Machinery / Welding Technology/ Tool and Die making/ Automobile/Mechatronics/ Mechanical & Rural Engineering/ Mechanical Design & Drafting / Automobile Engineering/Metallurgy/ Machine Tool Maintenance & Repairs/Tool Engineering/Agricultural Engineering /Marine Engineering /Fisheries Technology & Navigation Mechanical Engineering (Sandwich) /Machine Tool Maintenance & Repair (Sandwich) /Tool and Die Making (Sandwich) /Welding Technology

(E) Number of Seats: 240 (CE - 60, CSE - 60, ECE - 60 & ME - 60)

(E) Fee Structure: Proposed B.Tech. Part time Program fee.
Semester Tuition Fees – 32,000/- per semester

(F) Admission Procedure: Admission will be made on the basis of diploma marks/State level entrance test. The counseling and seat allotment will be done by the university as per the merit list.

(G) Program Structure: Placed as Annexure – 37.10.

B. Tech Civil Engineering (Part time) Program Structure

YEAR	FIRST SEMESTER	SECOND SEMESTER
I	Mathematics I	Mathematics II
	Engineering Graphics <ul style="list-style-type: none"> • Engineering Graphics Lab 	Electrical Science
	Structure & Properties of Materials	Mechanics of Solids <ul style="list-style-type: none"> • Mechanics of solids Lab Fluid Mechanics <ul style="list-style-type: none"> • Fluid mechanics Lab
	Computer Programming <ul style="list-style-type: none"> • Computer Programming Lab 	
YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Operations Research	Technical Report Writing
	Surveying-I <ul style="list-style-type: none"> • Surveying I Lab Analysis of structures Concrete Technology <ul style="list-style-type: none"> • Concrete Technology Lab 	Surveying II <ul style="list-style-type: none"> • Surveying II Lab Design of concrete structures-I Hydraulics & Hydraulic machines <ul style="list-style-type: none"> • Hydraulics & Hydraulic Machinery Lab
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Geotechnical Engineering-I <ul style="list-style-type: none"> • Geotechnical Engineering-I Lab Design of Steel structures-I Water Supply and Waste Water Engineering Design of concrete structures-I I <ul style="list-style-type: none"> • Design of concrete structures-I I Lab 	Geotechnical Engineering-II Design of Steel structures-II <ul style="list-style-type: none"> • Design of Steel structures-II Lab Transportation Engineering I <ul style="list-style-type: none"> • Transportation Engineering I Lab Prestressed Concrete
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Transportation Engineering II Estimation, Costing and Evaluation Elective 1 Elective 2	Project Works

Courses for Civil (Part Time) Engineering:

S.No.	Course Code	Course Title	L	P	U
Semester I					
1		Engineering Graphics	1	6	4
Semester II					
1	CE 121	Mechanics of Solids	3	2	4
2	CE 122	Fluid Mechanics	3	2	4
Semester III					
1	CE 212	Surveying-I	3	0	3
2	CE 212L	Surveying I Lab	0	2	1
3	CE 213	Analysis of structures	3	0	3
4	CE 214	Concrete Technology	3	0	3
5	CE 214L	Concrete Technology Lab	0	2	1
Semester IV					
1	CE 221	Hydraulics & Hydraulic Machines	3	2	4
2	CE 222	Surveying II	3	0	3
3	CE 222L	Surveying II Lab	0	2	1
4	CE 223	Design of concrete structures-I	3	0	3
Semester V					
1	CE 311	Geotechnical Engineering-I	3	0	3
2	CE 311L	Geotechnical Engineering-I Lab	0	2	1
3	CE 312	Design of Steel structures-I	3	0	3
4	CE 313	Water Supply and Waste Water Engineering	3	0	3
5	CE 314	Design of concrete structures-I I	3	2	4
Semester VI					
1	CE 321	Geotechnical Engineering-II	3	0	3
2	CE 322	Design of Steel structures-II	3	2	4
3	CE 323	Transportation Engineering I	3	0	3
4	CE 323L	Transportation Engineering I Lab	0	2	1
5	CE 324	Prestressed Concrete	3	0	3
Semester VII					
1	CE 411	Transportation Engineering II	3	0	3
2	CE 412	Estimation, Costing and Evaluation	3	0	3
3	CE 413/CE 415	Elective 1	3	0	3
4	CE 414/CE 416	Elective 2	3	0	3
Semester VIII					
1	CE 421	Project Works	0	0	20

Electives in Civil Engineering:

S. No.	Course Code	Course Title	L	P	U
1	CE 413	Construction Planning and Management	3	0	3
2	CE 414	Hydrology	3	0	3
3	CE 415	Computer Aided Design	3	0	3
4	CE 416	Pavement Analysis and Design	3	0	3

B.Tech. Computer Science and Engineering Part Time Program Structure

YEAR	FIRST SEMESTER	SECOND SEMESTER
I	Mathematics - I	Mathematics - II
	Structure and Properties of Materials	Electrical Sciences
	Computer Programming • CP Lab	Microprocessor Programming and Interfacing • MPI Lab
	Digital Logic Design • DLD Lab	Object Oriented Programming • OOP Lab
YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Numerical Methods	Technical Report Writing
	Data Structure and Algorithms • DSA Lab	Computer Networks • CN Lab
	Programming with Java • Java Lab	Operating Systems • OS Lab
	Discrete Structures for Computer Science	Database Management Systems
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	SQL and Database Applications • SQL and DA Lab	Artificial Intelligence • AI Lab
	.NET and C# Programming • .NET Lab	Web Technologies • Web Tech Lab
	Computer Organization and Architecture	Software Engineering
	Theory of Computation	Programming Languages and Compiler Construction
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Object Oriented Analysis and Design with UML • UML Lab	Project Work
	Computer Graphics • CG Lab	
	Elective - 1	
	Elective - 2	

Discipline Courses for Computer Science Engineering

Sr.No.	Course Code	Course Title	L	P	U
Semester I					
1	CS111	Computer Programming	3	2	4
2	CS112	Digital Logic Design	3	2	4
Semester II					
1	CS121	Object Oriented Programming	3	2	4
2	CS122	Microprocessor Programming and Interfacing	3	2	4
Semester III					
1	CS 211	Programming with Java	3	2	4
2	CS 212	Data Structure and Algorithms	3	2	4
3	CS 213	Discrete Structures for Computer science	3	0	3
Semester IV					
1	CS 221	Database Management System	3	0	3
2	CS 222	Operating System	3	2	4
3	CS 223	Computer Networks	3	2	4
Semester V					
1	CS 311	Computer Organization and Architecture	3	0	3
2	CS 312	Theory of Computation	3	0	3
3	CS 313	.NET and C# Programming	3	2	4
4	CS 314	SQL and Database Applications	3	2	4
Semester VI					
1	CS 321	Artificial Intelligence	3	2	4
2	CS 322	Web Technologies	3	2	4
3	CS 323	Software Engineering	3	0	3
4	CS 324	Programming Languages and Compiler Construction	3	0	3
Semester VII					
1	CS 411	Computer Graphics	3	2	4
2	CS 412	Object Oriented Analysis and Design with UML	3	2	4
Semester VIII					
1	CS 421	Project Works	0	0	20

Electives for Computer Science Engineering

Sr.No.	Course Code	Course Title	L	P	U
1	CS 413	Network Security	3	2	4
2	CS 414	Distributed and Cloud Computing	3	2	4
3	CS 415	Internetworking Technology	3	2	4
4	CS 416	Data Warehousing and Mining	3	2	4

**B.Tech (Electronics and Communication Engineering) Part-time Program Structure
2015-2019**

YEAR	FIRST SEMESTER	SECOND SEMESTER
I	Mathematics I	Mathematics II
	Structure & Properties of Materials	Electrical Sciences
	Digital Logic Design • DLD Lab	Microprocessor Programming & Interfacing • MPI Lab
	Computer Programming • CP Lab	Electronic Devices and Circuits
YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Numerical Analysis	Technical Report Writing
	Signals and Systems	Measurement Techniques • MT Lab
	Electronic Circuit Analysis • ECA Lab	Digital Signal Processing • Digital Signal Processing Lab
	Analog Communications • Analog Communications Lab	Control Systems
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Computer Organization and Architecture	Data Communication Systems
	EM Fields & Waves	RF & Microwave Engineering • RFM Lab
	Linear IC & Applications • LICA Lab	Satellite Communications
	Digital Communications • DC Lab	Digital Hardware Design • DHD Lab
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Microcontroller Applications • Microcontroller Applications Lab	Project work
	Analog and Digital VLSI Design • ADVL Lab	
	Elective 1	
	Elective 2	

Courses for Electronics and Communication (Part Time) Engineering:

S.No.	Course Code	Course Title	L	P	U
Semester I					
1	EC 111	Digital Logic Design	3	0	3
	EC 111L	Digital Logic Design Lab	0	2	1
Semester II					
1	EC 121	Microprocessor Programming & Interfacing	3	0	3
2	EC 121L	Microprocessor Programming & Interfacing Lab	0	2	1
3	EC 122	Electronic Devices and Circuits	3	0	3
Semester III					
1	EC 211	Signals and Systems	3	0	3
2	EC 212	Electronic Circuit Analysis	3	0	3
3	EC 212L	Electronic Circuit Analysis Lab	0	2	1
4	EC 213	Analog Communications	3	0	3
5	EC 213L	Analog Communications Lab	0	2	1
Semester IV					
1	EC 221	Measurement Techniques	2	6	4
2	EC 222	Digital Signal Processing	3	0	3
3	EC 222L	Digital Signal Processing Lab	0	2	1
4	EC 223	Control Systems	3	0	3
Semester V					
1	EC 311	Computer Organization and Architecture	3	0	3
2	EC 312	EM Fields & Waves	3	0	3
3	EC 313	Linear IC & Applications	3	0	3
4	EC 313L	Linear IC & Applications Lab	0	2	1
5	EC 314	Digital Communications	3	0	3
6	EC 314L	Digital Communications Lab	0	2	1
Semester VI					
1	EC 321	Data Communication System	3	0	3
2	EC 322	RF & Microwave Engineering	3	0	3
3	EC 322L	RF & Microwave Engineering Lab	0	2	1
4	EC 323	Satellite Communications	3	0	3
5	EC 324	Digital Hardware Design	3	2	4

Semester VII					
1	EC411	Microcontroller Applications	3	2	4
2	EC412	Analog and Digital VLSI Design	3	2	4
3		Elective 1	3	0	3
4		Elective 2	3	0	3
Semester VIII					
1	EC 421	Project Works	0	0	20

Electives for ECE:

S. No.	Course Code	Course Title	L	P	U
1	EC 413	Telecom Switching Systems and Networks	3	0	3
2	EC 414	Fiber Optics and Optoelectronics	3	0	3
3	EC 415	Mobile Telecommunication Networks	3	0	3
4	EC 416	Wireless Communication Networks	3	0	3

B.Tech Mechanical Engineering (Part time) Program Structure

YEAR	FIRST SEMESTER	SECOND SEMESTER
I	Mathematics I	Mathematics II
	Structure & Properties of Materials	Electrical Science
	Computer Programming <ul style="list-style-type: none"> • Computer Programming Lab 	Mechanics of Solids <ul style="list-style-type: none"> • Mechanics of solids Lab
	Engineering Graphics <ul style="list-style-type: none"> • Engineering Graphics Lab 	Fluid Mechanics <ul style="list-style-type: none"> • Fluid mechanics Lab
YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Machine Drawing <ul style="list-style-type: none"> • Machine Drawing Lab 	Computer Aided Design <ul style="list-style-type: none"> • CAD Lab
	Production Technology <ul style="list-style-type: none"> • Production Technology Lab 	Hydraulics & Hydraulic machines <ul style="list-style-type: none"> • Hydraulics & Hydraulic Machinery Lab
	Engineering Mechanics	Design of Machine Elements I
	Operations Research	Technical Report writing
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Heat & Mass Transfer <ul style="list-style-type: none"> • Heat & Mass Transfer Lab 	Metrology & Machine Tools <ul style="list-style-type: none"> • Metrology & Machine Tools Lab
	IC Engines <ul style="list-style-type: none"> • IC Engines Lab 	Automotive Engineering <ul style="list-style-type: none"> • Automotive Engineering Lab
	Design of Machine Elements II	Dynamics of Machinery & Vibrations
	Kinematics of Machinery	Numerical Methods
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Refrigeration & Air-conditioning Engineering <ul style="list-style-type: none"> • R & A/c Lab 	<ul style="list-style-type: none"> • Project Work
	Computer Aided Manufacturing	
	Elective 1	
	Elective 2	

Courses for Mechanical Engineering:

S. No.	Course Code	Course Title	L	P	U
Semester I					
1		Mathematics I	3	0	3
2		Structure & Properties of Materials	3	0	3
3		Computer Programming	3	2	4
4	ME 111	Engineering Graphics	2	4	4
Semester II					
1		Mathematics II	3	0	3
2		Electrical Science	3	0	3
3	ME 121	Fluid Mechanics	3	2	4
4	ME 122	Mechanics of Solids	3	2	4
Semester III					
1	ME 211	Machine Drawing	2	4	4
2	ME 212	Production Techniques	3	2	4
3	ME 213	Engineering Mechanics	3	0	3
4		Operations Research	3	0	3
Semester IV					
1	ME 221	Computer Aided Design	3	2	4
2	ME 222	Hydraulics & Hydraulic Machinery	3	2	4
3	ME 223	Design of Machine Elements	3	0	3
4		Technical Report Writing	3	0	3
Semester V					
1	ME 311	Heat & Mass Transfer	3	2	4

2	ME 312	Internal Combustion Engines	3	2	4
3	ME 313	Design of Machine Elements II	3	0	3
4	ME 314	Kinematics of Machinery	3	0	3
Semester VI					
1	ME 321	Metrology & Machine Tools	3	2	4
2	ME 322	Automotive Engineering	3	2	4
3		Numerical Methods	3	0	3
4	ME 323	Dynamics Machinery & Vibrations	3	0	3
Semester VII					
1	ME 411	Refrigeration & Air-conditioning	3	2	4
2	ME 412	Computer Aided Manufacturing	3	0	3
3		Elective 1	3	0	3
4		Elective 2	3	0	3
Semester VIII					
1	ME 421	Project Work			20

Electives for Final year Mechanical Engineering:

S.No.	Course Code	Course Title	L	P	U
1	ME 413	Power Plant Engineering	3	0	3
2	ME 414	Industrial Engineering	3	0	3
3	ME 415	Quality Assurance & Reliability	3	0	3
4	ME 416	Production Planning & Control	3	0	3

Item No. 37.11
Proposal for new B.Tech Program in Mechatronics Engineering
(Dean – FST will brief the meeting)

A proposal to start B.Tech Degree Program in Mechatronics Engineering is presented hereunder for consideration and approval. IUD would like to start in Faculty of Science and Technology.

Overview:

This program, developed in direct response to industrial demand for engineers with multi-disciplinary skills, is a combination of mechanical, electronics, control, computer and systems design engineering streams. The program allows engineers to design, construct and run factory production lines and automated processes, where they use their skills in computers, micro-controllers, programmable logic controllers, programming, industrial sensors, hydraulic, pneumatic and electric drives, design of mechanical structures and mechanisms and knowledge of manufacturing processes.

Career Opportunities

- Graduates can choose from industries like automobile, automation, software solutions, Metro railways & consulting, to product development, pharmaceuticals, aerospace, research, etc.
- Graduates may pursue their Masters' in varied fields such as robotics, automation, aviation, aerospace, controls, manufacturing, embedded systems, communication and energy.
- Graduates can be placed in Mahindra & Mahindra, Tata Motors, Honda 2 Wheelers, Michelin, MU-Sigma, Ingersoll Rand, etc.

Duration: 4 years

No. of Seats: 40

Eligibility:

Pass in 10+2 with 55 % aggregate in 12th Class examination or its equivalent with pass in each of the Mathematics, Physics, Chemistry and English subjects.

Fee:

All students joining the B.Tech. Program (Mechatronics Engineering) should pay the semester fee as indicated below.

Admission Fee (Rs.)	Caution Deposit	Semester Fee (Amount in Rs.)	
		Domicile	Non-Domicile
20,000	10,000	55,000	65,000

Domicile Students:

The students from Uttarakhand are eligible to pay domicile fee. Students other than Uttarakhand need to pay non-domicile fee.

Program Structure:

Program structure of B.Tech (Mechatronics Engineering) Placed for approval (Annexure – 37.10).

B.Tech. Mechatronics Engineering Program Structure

YEAR	FIRST SEMESTER	SECOND SEMESTER
I	Mathematics I	Mathematics II
	Physics I	Physics II
	Chemistry • Physical Sciences lab-I	Environmental Science • Physical Sciences lab-II
	Thermodynamics/Engineering Mechanics	Engineering Mechanics/Thermodynamics
	Engineering Graphics/ Workshop Practice	Workshop Practice/ Engineering Graphics
	Computer Programming I • CP-I Lab	Computer Programming II CP-II Lab
Summer Term	Course on English Language Skills	
YEAR	THIRD SEMESTER	FOURTH SEMESTER
II	Structure & Properties of Materials	Measurement Techniques • MT Lab
	Mathematics III	Electrical Sciences-II
	Technical Report Writing/Principles of Management	Principles of Management/Technical Report Writing
	Electrical Sciences-I	Discipline Courses (3)* Microprocessor • Microprocessor Lab Mechanics of Solids • Mechanics of Solids Lab Fluid Mechanics • Fluid Mechanics Lab
	Probability & Statistics	
	Discipline Courses (1)* Basic Elements of Mechatronics system	
Summer Term	Internship Program I	
YEAR	FIFTH SEMESTER	SIXTH SEMESTER
III	Operations Research (Mathematics Elective)	Humanities & Social Science Elective
	Discipline Courses (5)* Control System Signals & Systems Microcontroller • Microcontroller Lab Design of Machine Elements	Discipline Courses (5)* Object oriented programming language • Object oriented programming language Lab CAD / CAM • CAD / CAM Lab

	Hydraulics & Hydraulic Machines <ul style="list-style-type: none"> Hydraulics & Hydraulic Machines Lab 	Design of Mechatronics System Digital Signal Processing <ul style="list-style-type: none"> Digital Signal Processing Lab Metrology & Machine Tools <ul style="list-style-type: none"> Metrology & Machine Tools Lab
Summer Term	Professional Development Programs	
YEAR	SEVENTH SEMESTER	EIGHTH SEMESTER
IV	Discipline Courses (3)* Digital Image Processing <ul style="list-style-type: none"> Digital Image Processing Lab Modeling & Simulation Micro Electro Mechanical Systems	**Internship Program-II or Thesis
	Electives (3)* Medical Mechatronics Automotive Electronics Programmable Logical Controller Industrial Robotics <ul style="list-style-type: none"> Industrial Robotics Lab Computer Integrated Manufacturing	

**** Student may opt for internship program II either in VII or VIII semester.**

Sr.No.	Course Code	Course Title	L	P	U
Semester III					
1	MC 211	Basic Elements of Mechatronics system	3	0	3
Semester IV					
1	MC 221	Microprocessor	3	0	3
2	MC 221 L	Microprocessor Lab	0	2	1
3	MC 223	Mechanics of Solids	3	0	3
4	MC 223 L	Mechanics of Solids Lab	0	2	1
5	MC 222	Fluid Mechanics	3	0	3
6	MC 222L	Fluid Mechanics Lab	0	4	2
Semester V					
1	MC 315	Control System	3	0	3
2	MC 312	Signals & Systems	3	0	3
3	MC 314	Microcontroller	3	0	3
4	MC 314 L	Microcontroller Lab	0	2	1
5	MC 311	Design of Machine Elements	3	0	3

6	MC 313	Hydraulics & Hydraulics Machinery	3	0	3
7	MC 313 L	Hydraulics & Hydraulics Machinery Lab	0	2	1
		Semester VI			
1	MC 321	Object oriented programming language	3	0	3
2	MC 321 L	Object oriented programming language Lab	0	2	1
3	MC 322	CAD / CAM	3	0	3
4	MC 322 L	CAD / CAM Lab	0	2	1
5	MC 323	Design of Mechatronics System	3	0	3
6	MC 324	Digital Signal Processing	3	0	3
7	MC 324 L	Digital Signal Processing Lab	0	2	1
8	MC 325	Metrology & Machine Tools	3	0	3
9	MC 325 L	Metrology & Machine Tools Lab	0	2	1
		Semester VII			
1	MC 415	Digital Image Processing	3	0	3
2	MC 415 L	Digital Image Processing Lab	0	2	1
3	MC 416	Modeling & Simulation	3	0	3
4	MC 413	Micro Electro Mechanical Systems	3	0	3
5	MC 411	Medical Mechatronics	3	0	3
6	MC 412	Automotive Electronics	3	0	3
7	MC 414	Programmable Logical Controller	3	0	3
8	MC 417	Industrial Robotics	3	0	3
9	MC 417 L	Industrial Robotics Lab	0	2	1
10	MC 418	Computer Integrated Manufacturing	3	0	3

Item No. 37.12
Program Structure for Ph. D. Full time and Part time
 (Research Coordinator will brief the meeting)

An observation was made in the 31st BoG meeting regarding differences in program structure of Ph. D. Full time and Part time program.

The program structures are given below:

Ph. D (Part time) Program Structure

	First Semester	Second Semester
First Year	Research Methodology 6 Credits	Research Project related to area of research 6 Credits Finalization of Ph.D. Thesis Title and Literature review in the relevant field (Seminar) 6 Credits
	Summer Term Qualifying Examination	
Second Year	Independent Study 3 Credit	Independent Study 3 Credit
	Summer Term	
Third year	Ph. D thesis 9 Credits	Ph. D thesis 9 Credits
	Seminar 3 Credit	Seminar 3 Credit
Summer Term		
Fourth year	Ph. D thesis 9 Credits	Ph. D thesis 10 Credits
	Seminar 3 Credits	Seminar 3 Credits

Note: Special credit will be awarded for research publications

Ph. D Program Structure

	First Semester	Second Semester
First Year	Advanced Course in the discipline 4 Credits	Advanced Course in the discipline 4 Credits
	Research Methods-I 4 Credits	Research Methods - II 4 Credits
	Interdisciplinary Course-I 4 Credits	Interdisciplinary Course II 4 Credits
	Elective - I 4 Credits	Elective – II 4 Credits
	Any other Course (If suggested by the DAC) 4 Credits	Any other course (If suggested by the DAC) 4 Credits
Summer Term Qualifying Examination		
Second Year	Independent Study 1 Credit	Independent Study 1 Credit
	Summer Term	
Third year	Ph. D thesis 10 Credits	Ph. D thesis 10 Credits
	Seminar 1 Credit	Seminar 1 Credit
	Practice Lecture Series 1 Credit	Practice Lecture Series 1 Credit
	Summer Term	
Fourth year	Ph. D thesis 10 Credits	Ph. D thesis 10 Credits
	Seminar 1 Credit	Seminar 1 Credit

This matter is placed for review.

PART C: INFORMATION ITEMS

Item No. 37.13
Result of Semester-I Exam of Research Methodology for Ph.D Program
(Research Coordinator will brief the meeting)

The following 08 Research Scholars have qualified in Research Methodology written exam held on 14-06-2015 out of 16, who appeared.

S. No.	Name	Student ID	Faculty/Department
1	Mrs. Gurleen Kaur	RSIBS140025	IBS Business School
2	Mrs. Madhu Arora	RSIBS140027	IBS Business School
3	Ms. Rina Kumari	RSIBS140040	IBS Business School
4	Mr. Amit Kumar	RSFST140031	Faculty of Science &Technology
5	Ms. Satinderpal Kaur Malhotra	RSFST140034	Faculty of Science &Technology
6	Ms. Bikramjit Kaur Malhotra	RSFOE140036	Faculty of Education
7	Mrs. Pratiksha Kumari Parekh	RSFOE140037	Faculty of Education
8	Ms. Ranjit Kaur Malhotra	RSFOE140038	Faculty of Education

The matter is placed for information.

Item No. 37.14
Panel of Supervisors: Internal and External for Ph.D Research Scholars
 (Research Coordinator will brief the meeting)

A Panel of the following experts/professionals is proposed for acting as DAC / guide / supervisor to the research scholars of the IUD Ph.D. Program.

Name	Qualifications	Post-Ph.D. Experience in Years	Publications/ No. of Ph.D. Supervised
Dr. V.S.P. Rao, Professor and Dean IBS Hyderabad	Ph.D. HRM in small Industry, Andhra University, M.Com	26	43
Dr. Ajay Kumar Garg, Assistant Professor, Department of Commerce, University of Delhi+	Ph. D. in Commerce & Economics (CCS University, Meerut, Jamia Millia Islamia, Delhi), MBA, UGC-NET, MA (Economics), M.Com	7	36
Dr. Vibha Arora Faculty Member, IBS Business School, Gurgaon	Ph. D. (Jamia Millia Islamia, Delhi), MBA (Marketing)	3	7
Dr. Vasudha Sharma, Associate Professor, DBS, Dehradun	Ph. D. in Psychology (CCS University Meerut), MA (Psychology), MA (Education)	7	-
Dr.Saraswati Singh (Ret.), Ex-Head, Dept. of Psychology, M.K.P.P.G. College, Dehradun, Uttaranchal.	Ph. D. in Psychology (BHU), MA (Psychology)	44	60

The matter is placed for information.

Item No. 37.15

Best Teacher Award and Incentive to Outstanding Performers among Faculty Members
(Vice Chancellor will brief the meeting)

It is proposed to give Program-wise Best Teacher Award on the basis of evaluation under the following parameters:

1. Content of Teaching
2. Delivery Excellence
3. Feedback from students
4. Feedback from Peers
5. Research and Publications
6. Contribution to development of the Dept. (including lab, where applicable)
7. Institutional Development
8. Contribution to Society
9. Degree of self-motivation
10. Course Result
11. Discipline
12. Student interest

On the basis of evaluation along with above particulars, it is also proposed to give some one time incentive / citation / certificate to 2-5 faculty members per year.

The matter is placed for discussion.

Item No. 37.16
Any other matter with the permission of the Chair

Item No. 37.17
Date for the next meeting