

# CENTRAL UNIVERSITY OF JAMMU

## 08<sup>th</sup> Meeting of the Academic Council

August 26<sup>th</sup>, 2017 at 11:30 AM

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## **AC-08/Item No. - 01**

### **To peruse report of the Vice Chancellor about the developmental activities in the University since the last meeting of the Academic Council held on 30<sup>th</sup> November, 2016.**

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During the period under report, emphasis has been on strengthening the existing academic programmes and making preparations for launching new academic programmes, besides initiating steps for conduct of Entrance Test for the Academic Session 2016-17. During the current year, the University has 34 programmes across different disciplines.

#### **1.1 Admissions**

- The Central University of Jammu has been making admissions since its establishment i.e. w.e.f. August 8, 2011 in collaboration with collegium of 10 Central Universities. The Central University of Rajasthan continues to be the Nodal University conducting CUCET for 2016-17.
- The website [www.cucet16.co.in](http://www.cucet16.co.in), for Admissions 2017, has been set up by co-ordinating university, i.e. Central University of Rajasthan, displaying information about all the 10 participating Universities (CU Punjab, CU Kashmir, CU Tamil Nadu, CU Kerala, CU Haryana, CU Rajasthan, CU Jammu, CU Karnataka, CU Jharkhand, CU South Bihar). The students desirous of seeking admission in different courses, offered by collegium of Central Universities, submitted forms online with three choices per University for a maximum of 3 Universities preference for admission.
- All the information relating to conduct of entrance test was available on CUCET website & websites of the respective universities.
- In Central University of Jammu, admissions in 2017 were offered in thirty two courses: Diploma (01), P.G. programmes (15), Undergraduate course (06), and Direct Ph.D. in 10 courses (*admission for year 2017-18 is under progress*).
- Total 23600 applications were received for the academic session 2016-17 from across the country for various programmes offered by Central University of Jammu. The Entrance Test was held on May 21-22, 2016 at All India level. The admission process was adopted both in online and offline mode.
- The University made efforts in reaching out to the candidates across the country through many means like sent SMS to graduates and +2 students, sent e-mails to the candidates for seeking admission in different courses being run in CUJ. Posters, pamphlets, banners and hoardings were also erected at different parts of the city to enable the public to learn about the courses being run in CUJ. The faculty made presentations by visiting different educational institutions.

- **Details of students admitted in 2017-18:**

Sl. No.	Disciplines	Students admitted
		Post Graduate Programme
1.	Computer Science and Information Technology	16
2.	Economics	30
3.	Educational Studies	28
4.	English	34
5.	Environmental Sciences	29
6.	Human Resource Management & OB	34
7.	Mathematics	31
8.	Tourism and Travel Management	26
9.	Public Policy and Public Administration	30
10.	National Security Studies	26
11.	Sociology and Social Work	23
12.	Mass Communication and New Media	31
13.	Hindi	28
14	Marketing and Supply Chain Management	34
15	Nano Sciences and Materials	16
	<b>Sub Total:</b>	<b>416</b>
		<b>Under graduate programme</b>
16	Physics & Astronomical Sciences	23
17	Chemistry & Chemical Sciences	26
18	Plant Sciences	27
19	Animal Sciences & Wildlife	29
20	B.Voc. (Retail Management)	18
21	B.Voc. (Tourism Management)	18
	<b>Sub Total:</b>	<b>141</b>
22	Community College (VLCC)	7
	<b>Sub Total:</b>	<b>7</b>
	<b>Grand Total:</b>	<b>564 (416 + 141 + 7)</b>

## 1.2 Examinations and Results

The Examinations for 1st, 3rd and 5th semesters for Post Graduate Courses pertaining to Academic Session 2016-17 were held in Dec 2016. The average pass percentage of the said examinations is as under:

S.No.	Semester	Average Pass Percentage
1	1 <sup>st</sup>	69.24%
2	3 <sup>rd</sup>	88.43%
3	5 <sup>th</sup>	96.15%

The Examinations for 2nd, 4th and 6th semesters for Post Graduate Courses pertaining to Academic Session 2016-17 were held in May 2017. The average pass percentage of the said examinations is as under:

S.No.	Semester	Average Pass Percentage
1	2nd	Result Awaited
2	4th	Result Awaited
3	6th	100%

### 1.3 Central Library

The Central Library was established in the year 2011 and it is digitalized. Now it caters to the needs of thirty four programmes of the University.

#### A. Resource Update

- Number of Books: 19,140
- Theses and Dissertations: 900+
- E-Journals: 7,027
- Print Journals: 70+

#### B. Services to Users

##### (i) ***E – Resources facility***

The Central Library subscribes to the e-resources through E-Shodh Sindhu Consortium provided by INFLIBNET, Gandhinagar. The faculty, research scholars and students enjoy access to the resources from publishers like Wiley, Springer, Taylor & Francis, JSTOR and Economic and Political Weekly. The following e-journals and e-data bases access are active in the library.

##### (ii) ***Full Text E-Journals***

S.No.	Publisher	URL	No. of Titles
1	Economic and Political Weekly	<a href="http://www.epw.in">http://www.epw.in</a>	1
2	JSTOR	<a href="http://www.jstor.org">http://www.jstor.org</a>	2585
3	Wiley-Blackwell	<a href="http://onlinelibrary.wiley.org">http://onlinelibrary.wiley.org</a>	909
4	Taylor and Francis	<a href="http://www.tandfonline.com">http://www.tandfonline.com</a>	1080
5	Springer Link	<a href="http://link.springer.com">http://link.springer.com</a>	1439
6	Science Direct	<a href="http://www.sciencedirect.com/">http://www.sciencedirect.com/</a>	1000
7	American Physical Society	<a href="http://publish.aps.org">http://publish.aps.org</a>	13

(iii) **Full-Text Databases**

S.No.	Publisher	URL
1	<u>ISID(The Institute for Studies in Industrial Development)</u>	<a href="http://isid.org.in">http://isid.org.in</a> Description:- ISID has developed databases on various aspects of the Indian economy, particularly concerning industry and the corporate sector. It has created On-line Indexes of Indian Social Science Journals (OLI) and Press Clippings on diverse social science subjects. These have been widely acclaimed as valuable sources of information for researchers studying India's socio-economic development.
2	<u>JCCC (J-Gate @ UGC-Infonet)</u>	<a href="http://jgateplus.com">http://jgateplus.com</a> Description:- Gate is an electronic gateway to global e-journal literature. Launched in 2001 by Informatics India Limited, J-Gate provides seamless access to millions of journal articles available online offered by 12,803 publishers. It presently has a massive database of journal literature, indexed from 43,033 e-journals, with link to full text at publisher sites. J-Gate also plans to support online subscription to journals, electronic document delivery, archiving and other related services. a. Table of Contents (TOC)- For 43,033 e-journals. b. Database - A comprehensive searchable database with 44,492,003 articles with 10,000+ articles added every day.
3	<u>MathSciNet</u>	<a href="http://www.ams.org/mathscinet">http://www.ams.org/mathscinet</a> Description:- MathSciNet is an electronic publication offering access to a carefully maintained and easily searchable database of reviews, abstracts and bibliographic information for much of the mathematical sciences literature. Over 100,000 new items are added each year, most of them classified according to the <u>Mathematics Subject Classification</u> .
4	<u>Indiastat</u>	<a href="http://www.indiastat.com/">http://www.indiastat.com/</a> subscribed through Datnet

## 1.4 **Information and Communications Technology (ICT) Facility**

### A. **Internet and Computing Facilities**

#### Internet Facilities

- NKN connectivity of 1 Gbps is available 24 hrs
- Campus is Wi-Fi enabled
- LAN connections are also provided

## **B. CYBERROAM**

UTM device CYBERROAM has been installed to provide authorized and secure internet access.

## **C. Routers & Switches & Wi-Fi Access Points**

One router, ten L2 switches and more than 35 Wi-Fi access points have been installed to provide quick and smooth internet access at various locations across the campus.

## **D. Centralized Computing Facilities**

- i) Two Centralized Computer Labs with about 70 computers are in place for students and staff at TAB.
- ii) A Centralized Computer Lab with about 30 computers is in place for students and staff at main Campus.
- iii) These systems are windows and LINUX based and are equipped with software like MS-Office, MATLAB, SPSS, antivirus etc.

## **E. Class Room-cum-Lab Facility for Students of Department of Computer Science & IT**

- i) Two Classrooms-cum-Labs. have been set up for students of Integrated M.Sc. (Computer Science) – MCA students equipped with 52 computers.
- ii) These Class rooms-cum-labs. are fitted with projector and are equipped with latest software like MS-Office, Visual Studio etc. to perform practical & trainings.

## **F. File Tracking System**

The University administration has started functioning with file tracking system in its offices and the process for e-office is in progress.

### **1.5 Faculty recruitment/engagement**

- Dr. Anil Kumar Thakur has joined as Associate Professor in the Department of Nano Sciences and Materials on 20.03.2017 for a period of one year on tenure basis.
- Dr. Shelly Sehgal, has joined as Assistant Professor in Centre for Molecular Biology w.e.f. 25.05.2017 on regular basis.

### **1.6 Non-teaching recruitment/engagement**

- Dr. Ravi Kumar has joined as Registrar, Central University of Jammu w.e.f. 10.04.2017 for a period of five year.

## **1.7 Meetings of Authorities of the University**

### **1.7.1 Court**

- 4<sup>th</sup> Meeting of the Court was held on 26<sup>th</sup> April, 2017.

### **1.7.2 Executive Council**

- 12<sup>th</sup> Meeting of the Executive Council was held on 7<sup>th</sup> April, 2017.

### **1.7.3 Finance Committee**

- 12<sup>th</sup> Meeting of the Finance Committee was held on, 6<sup>th</sup> January, 2017.
- 13<sup>th</sup> Meeting of the Finance Committee was held on 7<sup>th</sup> June, 2017.

### **1.7.4 Meetings of School Boards**

- Meeting of School Board of the School of Education was held on 12<sup>th</sup> January, 2017.
- Meeting of School Board of the School of Humanities and Social Sciences was held on 3<sup>rd</sup> June, 2017.

### **1.7.5 Meetings of Board of Studies**

- Meeting of Board of Studies of Department of Economics was held on 10<sup>th</sup> & 11<sup>th</sup> December, 2016.
- Meeting of Board of Studies of Department of Educational Studies was held on 23<sup>rd</sup> December, 2016.
- Meeting of Board of Studies of Department of Public Policy and Public Administration was held on 3<sup>rd</sup> April, 2017.
- Meeting of Board of Studies of Department of Nano Sciences and Materials was held on 27<sup>th</sup> April, 2017.
- Meeting of Board of Studies of Department of Economics was held on 23<sup>rd</sup> May, 2017.
- Meeting of Board of Studies of Department of Chemistry was held on 24<sup>th</sup> May, 2017.
- Meeting of Board of Studies of Department of Human Resource Management & OB was held on 8<sup>th</sup> & 9<sup>th</sup> June, 2017.
- Meeting of Board of Studies of Department of Supply Chain Management was held on 16<sup>th</sup> June, 2017.
- Meeting of Board of Studies of Department of Computer Science & IT was held on 13<sup>th</sup> July, 2017.
- Meeting of Board of Studies of Department of National Security Studies was held on 24<sup>th</sup> July, 2017.



### 1.7.6 Building Committee

- 9<sup>th</sup> meeting of the Building Development Committee was held on 12<sup>th</sup> December, 2016
- 10<sup>th</sup> meeting of the Building Development Committee was held on 30<sup>th</sup> Jan, 2017.

#### [A] **Infrastructure Development at the Campus Site Village Bagla, Samba.**

The Central University of Jammu took possession of the entire stretch of land measuring 4880 Kanal 19 Marlas which was handed over by the State Govt.to the university. The University has undertaken the following works for development of the permanent Campus in the first phase at Rahya-Suchani (Bagla) in Samba These developmental works amount to an expenditure to the tune of Rs.478.71 Crores which (includes PMC and Architects fees) are in different stages of execution.

S. No	Name of" " Work	Name of agency	Estimated/ Allotted Cost (Rs. in Cr)	Achievement Ending July 2017	
				Financial (Rs. in Cr)	Physical %
1.	DDE (this building has been renamed as <u>Academic and Teaching Block</u> ), Faculty Residences (58 no.) including Internal Roads, Gate Complex and STP	<i>M/s Nagarjuna Construction Company Ltd. (NCCL)</i>	116.29 (28.00 deferred as low priority works)	75.35	98%
2.	Road Package Including Major Cross Drainage works & Water Retaining Structures, Sewerage & Drainage and Water supply	<i>M/s Southern Engineering Works Infrast. (M/s. SEW Infrast)</i>	264.98 (64.98 deferred as low priority works)	182.13	90.62%
3.	Guest House	<i>M/s Percept Builders</i>	4.91	4.03	94.82%
4.	External Electrification	<i>M/s Anil Kumar &amp; Co.</i>	43.99 (10.20 deferred as low priority works)	11.24	33.26%
5.	Other Developmental Works including Water Supply & Professional Fees		41	29.45	87.38%
7.	2 No100 Bedded Hostels for OBC Boys and Girls each (Partially funded by Ministry of Social Justice and Empowerment) Establishment Cost 17.55, UGC Share 14.85 and Funding by MSJE 2.70)	<i>M/s CPWD</i>	15	6.56 expenditure	42%
<b>Total</b>			<b>486.17</b>	<b>308.76</b>	63.50

State Government apart from providing land free of cost, is required to provide basic infrastructural needs of access Road, Water Supply, and Power Supply up to the periphery of the University. The cost incurred on account of supply of water/Electric System at the campus of Central University of Jammu is to be borne by MHRD as special dispensation to CUJ and Budgetary Provision of Rs. 24.70 Crores on account of the cost projected by Ministry of Higher Education has been kept in the budget of 2016-17. In order to kick start the process, the State Government has released Rs. 3.00 Cr from the Revolving Fund to both the line departments of PHE and PDD. The Electrical Poles from Bari Brahmna upto the Periphery have been installed by PDD and tenders for deep drilling of two number of tube wells have been invited by the PHE.

However, keeping in consideration the target of achieving 5-star GRIHA rating, the University has submitted DPR amounting to Rs. 95.42 Cr to the Ministry of New and Renewable Energy for generating Solar Power of 5.46 MW through Solar Yards and 6.11 MW through Roof Top SPV Generation. In order to meet the immediate requirement of 1.45 Mega Watt, a DPR at a cost of Rs. 11.96 Cr has been submitted to the State Government for seeking consultancy with regard to the installation and Commissioning of the Grid Connected Roof Top Photovoltaic Power Plants on the roofs of various buildings in the CUJ campus.

Meanwhile, Project Management Consultancy (PMC) of the University (EPIL) was requested to take up the construction and commissioning of deep drilled Tube well including supply & installation of mechanical and electrical equipments for assured water supply on the basis of report of Central Ground Water Board (CGWB). The work for construction and commissioning of tube-well including supply and installation of mechanical and electrical equipments for assured water supply was awarded to M/s Chenab Infrastructure Pvt. Ltd Jammu for an amount of Rs. 1.15 crore by PMC. The tube well had been commissioned and taken over by the University on 13th of April, 2016. Since then the University is not only saving a recurring expenditure of about Rs. 60,000PM but also generating revenue by supplying water to the construction agencies on payment basis. Till date the University has sold the water of approximate amount of Rs. 19.00 lakhs to the construction companies (on account of filling only).

**Note: \* Achievement during last six months:**

- a) Financial Rs 13.00 Cr
- b) Inauguration and start of Kendriya Vidyalaya

**[B] New Proposals**

- (i) **School of Education**: Out of the total estimated cost of Rs. 18.90 Crores, funding by MHRD under the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching shall be Rs. 5.50 Crores and balance Rs. 13.40 Cr. is UGC share.

The work shall be taken-up for execution after release of funds.

## **1.8 Important Meetings**

- On 28<sup>th</sup> April, 2017, Dr. Ravi Kumar, Registrar, Central University of Jammu attended the meeting called by the Commissioner/Secretary, Higher Education, J&K to review functioning/interim arrangements & progress of construction of IIT Jammu, IIM Jammu and IIMC Jammu in the PWD Guest House, Gandhi Nagar, Jammu.
- On 2<sup>nd</sup> May, 2017, Prof. Ashok Aima, Vice Chancellor, Central University of Jammu, attended a meeting called by Committee on Subordinate Legislation (Rajya Sabha) regarding oral evidence on delay in framing of Subordinate Legislation under Acts of Parliament administered by Ministry of Human Resource Development in the Committee Room, Parliament House Annexe, New Delhi.
- The second meeting of the National Platform for Disaster Risk Reduction was attended by Dr. Pankaj Mehta, Assistant Professor, Department of Environmental Sciences, Central University of Jammu at Vigyan Bhawan, New Delhi from 15<sup>th</sup> – 16<sup>th</sup> May, 2017.

## **1.9 Workshops / Seminars / Lectures / Events organized**

- On 22<sup>nd</sup> December, 2016, the Centre for Assessment and Evaluation, School of Education, organized a workshop on “Difficulties faced by teachers in the evaluation of students at school level in the premises of Government Hr. Sec. School, Samailpur, Jammu (adopted by CUJ) under PMMMNMT centrally sponsored scheme. The Vice-Chancellor encouraged the participants with his valuable inputs.
- On 05<sup>th</sup> January , 2017 a one day in-house training workshop was organised by the University at its Temporary Academic Block, Sainik Colony. Ms. Shafla Parihar, Deputy Registrar, Sh. Shailender Slathia, Assistant Registrar and Sh. Sourabh Mahajan, Section Officer delivered lectures with regard to matter related to University Administration.
- On 7<sup>th</sup> January, 2017, Sh. K. K. Sharma, Secretary & OSD in Ministry of Human Resource Development, Government of India visited both the campuses TAB & Main Campus, Raya Suchani, Bagala, CUJ to seek an update of the ongoing works and took appraisal of the working status of Central University of Jammu. The Vice-Chancellor of Central University of Jammu Prof. Ashok Aima made a power point presentation & apprised him about the ongoing construction, achievements in academic & research, status of intake of students & faculty etc.
- The Centre for Teacher Resource and Academic Support and Centre for the Learning and Pedagogics Studies, School of Education, Central University of Jammu, under PMMMNMT in collaboration with CIET and NCERT organized a five day training workshop for teachers and teacher’s educator from 9<sup>th</sup> to 13<sup>th</sup> January, 2017. As many as 55 teachers from various DIETs of Jammu Division and scholars of School of Education, CUJ were apprised and trained in various ICT resources.

- The annual talent contest UDAAN, was organised by the office of Dean of Students Welfare (DSW), Central University of Jammu from 16<sup>th</sup> to 18<sup>th</sup> February, 2017. The event was inaugurated by Prof. Ashok Aima, Vice-Chancellor, Central University of Jammu. The opening day of the three-day contest took place at Main Campus, Bagla.
- On 20<sup>th</sup> February, 2017, the University organized a 03 day book exhibition at its Temporary Academic Block (TAB), Sainik Colony. The exhibition was formally inaugurated by the Prof. Lokesh Verma, Academic Coordinator and was attended by Heads of different Departments and Deans of Schools of the University.
- On 3<sup>rd</sup> March, 2017, the National Service Scheme (NSS) Unit of Central University of Jammu organized blood Donation Camp in collaboration with Government Medical College Jammu in Temporary Academic Block, Sainik Colony, Jammu. About 80 volunteers including employees donated blood.
- On 8<sup>th</sup> March, 2017, Central University of Jammu headed the group of seven academic institutes at the meeting of National Innovation Clubs at Rashtrapati Bhavan, New Delhi. Dr. Pankaj Mehta, Assistant Professor, Environment Sciences and Coordinator, University Innovation Cell of Central University of Jammu led the group.
- On 9<sup>th</sup> March, 2017, University organised a thirty six hours (36 hrs.) industry linked workshop for the students of MBA Supply Chain Management. Mr Ashish Srivastava, the resource person from Safeducate discusses real life industry issues with the students.
- On 10<sup>th</sup> March, 2017, Central University of Jammu organized one day programme on the topic “Dr. Nagendra Ke Sahitya Chintan” in collaboration with Kendriya Hindi Sansthan, New Delhi. The chief Guest of the programme was Prof. Nand Kishore Pandey, Director Kendriya Hindi Sansthan and Prof. Ashok Aima, Vice Chancellor presided over the programme.
- On 15<sup>th</sup> March, 2017, an interactive session was conducted on Conservation and Preservation of Heritage and Culture by the UGC-FIDC, Central University of Jammu at its Temporary Academic Block (TAB), Sainik Colony, Jammu. Sh. S.M. Sahni, Ex Director Tourism, Jammu and Convener INTACH Jammu Chapter was the guest speaker on the occasion. He deliberated on the need and significance of preservation of rich cultural heritage of Jammu and Kashmir State.
- On 17<sup>th</sup> March, 2017, University Business Incubation Centre (UBIC) of Central University of Jammu, organised awareness programme on Entrepreneurial skills in the health sector.
- On 18<sup>th</sup> March, 2017, two day training programme on “Post Harvest Technology and Marketing Strategies for the Horticultural Produce” was organized by Community College of Central University of Jammu at Temporary Academic Block (TAB), Sainik Colony, Jammu. In the Inaugural session, Prof. Lokesh Verma, Academic Co-ordinator and Principal Community College, CUJ deliberated on the need and significance for skills in the area of post harvest technology and marketing strategies.

- On 23<sup>rd</sup> March, 2017, J&K Governor Shri N.N. Vohra inaugurated the International Seminar on Kashmir Philosophy at Central University of Jammu organised by the Centre of Comparative Religions and Civilisations. The seminar was attended by academicians, journalists, authors and research scholars from India and abroad, including Anusuriya Kumar from University of Copenhagen, Mark Dyczkowski from England and Boris Marjanovic from Croatia.
- From 24<sup>th</sup> to 25<sup>th</sup> March, 2017, the Department of Mathematics, Central University of Jammu organizing a two day Science Academies' Lecture Workshop on "Algebra and Geometry". It was funded by three Science Academies of India viz. IASc. Bangalore, INSA New Delhi and NASI Allahabad.
- On 27<sup>th</sup> March, 2017, an ICSSR sponsored two day National Seminar on "National Policy on Education: Reflection on School Education" was organized by Department of Educational Studies, Central University of Jammu, under Pandit Madan Mohan Malaviya National Mission on Teacher and Teaching (PMMMNT).
- On 28<sup>th</sup> March, 2017, Two Day National Workshop on "Intellectual Property Rights" organized by University Business Incubation Centre sponsored by DC (MSME), M/O MSME, GOI under the scheme building awareness on Intellectual Property Rights for Micro, Small & Medium Enterprise (MSME) under National Manufacturing Competitiveness Programme (NMCP) commenced at Central University of Jammu.
- On 29<sup>th</sup> March, 2017, Initiated by the students of the Department of National Security Studies, Central University of Jammu (CUJ), a programme on "Towards Greater Gender Sensitivity in Campus" was held at the university's temporary campus in Sainik Colony, Jammu on 29 March, 2017.
- On 30<sup>th</sup> March, 2017, the Department of English, Central university of Jammu, organized a two day National Seminar on "Value Awareness and Aesthetics in Literary Criticism" in collaboration with Daya Krishna Academic Foundation at its Temporary Academic Block, Sainik Colony, Jammu. Honorable Minister for Social Welfare, ARI and Trainings, Science and Technology, Government of Jammu and Kashmir, Jenab Sajad Gani Lone was the Chief Guest for the inaugural ceremony of the seminar while Prof. Ashok Aima Vice-Chancellor, Central University of Jammu presided over the seminar.
- Centre for Assessment and Evaluation, School of Education, Central University of Jammu organized a two day workshop entitled "Reforms in Evaluation at school level" on March 29-30, 2017 under PMMMNT centrally sponsored scheme at Central University of Jammu.
- A guest lecture was conducted on "Problems & Potentials of the Disabled Persons: A Socio-Legal Perspective" on 31<sup>st</sup> March, 2017 under the ambit of Equal Opportunity Cell, Central University of Jammu at its Bagla campus. Prof. Ashok Aima, Hon'ble Vice Chancellor of CUJ graced the event with his presence and addressed the gathering with his presidential remarks that disability lies in the mind of an individual.

- On 31<sup>st</sup> March, 2017, the two day National seminar on “Value Awareness and Literary Aesthetics in Literary Criticism”, organized by Department of English, Central University of Jammu, in collaboration with Daya Krishna Academic Foundation was concluded at Temporary Academic Block (TAB), Sainik Colony, Jammu. Jenab Chowdhury Zulfikar Ali, Hon’ble Minister for Department of Food, Civil Supplies and Consumer Affairs, J&K Govt. graced the occasion as the Chief Guest of the Valedictory Function and Prof. Ashok Aima Vice-Chancellor, Central University of Jammu, presided over the function.
- On 3<sup>rd</sup> April, 2017, a guest lecture was conducted on “*Problems & Potentials of the Disabled Persons: A Socio-Legal Perspective*” under the ambit of Equal Opportunity Cell, Central University of Jammu at its Bagla. Prof. Ashok Aima, Vice Chancellor, CUJ graced the event. He honoured the guest speaker Prof. Vijay Nagpal, Chairman, Department of Law, Panjab University, Chandigarh. Prof. Vijay Nagpal in his lecture sensitized the audience about issues related to disabled persons. He highlighted the presence of insensitivities of the authorities concerned towards the problems and issues faced by them in various facets of life. He emphasized on the fact that one should imbibe the habit of giving to the society rather than expecting.
- On 6<sup>th</sup> April, 2017, Dr. Radhakrishnan Koppillil, an advisor of Indian Space Research Organization (ISRO) and Department of Science & Technology, Government of India along with his ex- colleague, Dr. K L Handoo visited Temporary Academic Block (TAB), Central University of Jammu. Dr. Radhakrishnan interacted with faculty members and students of the university and during his interaction he talked about the present and future scenario of Indian Space Programs.
- On 7<sup>th</sup> April, 2017, the 12th Executive Council meeting of Central University of Jammu was held at its Main Campus, Raya Suchani (Bagala), Samba, to deliberate on the various developmental activities in the university since its last executive meeting held on 15th July, 2016. The meeting was attended by Dr. Radhakrishnan Koppillil, an advisor of Indian Space Research Organization (ISRO) and Department of Science & Technology, Government of India, Dr. Asgar Samoon, Commissioner Secretary, Higher Education, J&K, Prof. Dev Raj, Former Chairman UGC, Prof. Ashok Ogra, Director Apeejay Institute of Mass Communication, New Delhi, Prof. Mohammad Israrul Haque, Dean & Chairman, Dept. of Business Admin, AMU, Aligarh, Prof. K. L. Chopra, Former Director IIT Kharagpur, Prof. Mehraj Ud Din, Vice Chancellor Central University of Kashmir and Deans and Heads of various Departments of Central University of Jammu.
- On 7<sup>th</sup> April, 2017, on the request of Prof. Ashok Aima, honourable Vice Chancellor of Central University of Jammu, Prof. Dev Raj, Vice Chairman of University Grant Commission (UGC) visited Temporary Academic Block (TAB), Central University of Jammu and interacted with the faculty members of Science departments of the university.
- On 8<sup>th</sup> April, 2017, to celebrate the reunion of the students, Central University of Jammu organized its first Alumni meet at its Temporary Academic Block (TAB) and over 70 alumni of the university participated in colourful programme

which was fraught with nostalgia and ecstasy. Prof. Ashok Aima, Vice-Chancellor, CUJ inaugurated the alumni meet and in his address he said the University not only produces academician and intellectuals but also inculcates moral values in students.

- On 10<sup>th</sup> April, 2017, a two week long National level Research Methodology workshop under capacity building for research scholars in social sciences was inaugurated at its Temporary Academic Block (TAB), Central University of Jammu. The workshop sponsored by ICSSR will span across ten days starting from April 10<sup>th</sup> to 19<sup>th</sup> April, 2017 at Temporary Academic Block (TAB), Central University of Jammu.
- On 15<sup>th</sup> April, 2017, Director, IIM Noida & VC JK Lakshmi Pat University delivered lecture in National Workshop at CUJ. Prof. S. Dash Chairperson, Centre for Marketing in Emerging Economies, IIM, Noida spoke in a session in National Workshop on Research Methodology for Ph.D students in Social Sciences at School of Business Studies, Central University of Jammu. Prof. S. Dash enlightened the students by emphasizing on the importance of doing original & quality research. Prof. S. Dash from IIM- Noida offered various research projects in collaboration with Central University of Jammu. Prof R.L. Raina, Vice Chancellor, JK Lakshmi Pat University, Jaipur cited various issues from his career as a researcher. He urged the researchers who have come from various parts of the country as participants to use this opportunity for sharpening their research acumen.
- A three day National Conference on “Trends in Non Traditional Security” stretching from 19<sup>th</sup> to 21<sup>st</sup> April, 2017 was held at CUJ. The Department of National Security Studies, Central University of Jammu (CUJ), in association with the Jammu and Kashmir Police, the Department of International Relations, Christ University, and the Konrad-Adenauer-Stiftung, India Office has inaugurated the three day conference. The event was supported by the gracious presence of notable dignitaries including Dr Hasseb Drabu, Honorable Minister of Finance, Shri M M Khajuria, Former DGP, JK Police, Mr S.N Srivastava, Special DG CRPF, and other experts from security and academic realms across India.
- The Department of Computer Science & Information Technology, CUJ, organized a two day workshop on “*Tools that Assist Software Development through Continuous Integration Practice*” at its Temporary Academic Block on 22<sup>nd</sup> and 23<sup>rd</sup> April, 2017. Prof. Ashok Aima, Vice Chancellor, Central University of Jammu was the Chief Guest while Mr. Sahil Jain, Infosys Chandigarh was the guest speaker on the occasion.
- On 24<sup>th</sup> April, 2017, Prof. Ashok Aima Vice-Chancellor, Central University of Jammu inaugurated the well equipped GYM called Fitness Center for the students of university at Temporary Academic Block (TAB) Sainik Colony, Jammu.
- Central University of Jammu in collaboration with National Council of Rural Institutes (NCRI), Hyderabad, Ministry of Human Resources Development, and Government of India organized a two day workshop from 26<sup>th</sup> to 27<sup>th</sup> April 2017 on “Transacting Students Engagement for Rural Community Development” and also signed a MoU between Central University of Jammu

and NCRI at Bagla, Jammu. The event was supported by the gracious presence of notable dignitaries including Sh. N.N. Vohra Hon'able Governor, J&K, Prof. Ashok Aima, Vice Chancellor, Central University of Jammu, Dr. W.G. Prasanna Kumar, Chairman, NCRI, Smt. Sheetal Nanda IAS, DC, Samba, Dr. Rajneesh Sharma, curriculum development specialist and academicians from the University.

- On 28th and 29th April, 2017, the Department of Nano Sciences and Materials of Central University of Jammu organized a two day National Conference on 'Materials for Sustainable Development & New Technology (MSDNT-2017) in association with Materials Research Society of India, Delhi Chapter.
- A three day National Conference on “Silk Route Tourism: The Revival of Tributaries of Cultural and Archaeological Heritage” sponsored by Ministry of Tourism, GOI, was organized by School of Business Studies, at Central University of Jammu. The conference was held on 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> May, 2017.
- A fourteen day capacity building programme on Research Methodology for Social Sciences faculty was held at Central University of Jammu. The workshop sponsored by ICSSR span across two weeks starting from May 8<sup>th</sup> to April 21<sup>st</sup> 2017 at Temporary Academic Block (TAB), Central University of Jammu.
- On 21<sup>st</sup> May, 2017, as part of International Day of Yoga, a month long YOGA Camp was organized by Central University of Jammu, which was sponsored by Ministry of AYUSH Government of India.

#### **1.10 Memorandums of Understanding (MoUs)**

- On 20<sup>th</sup> October, 2016, Central University of Jammu signed a Memorandum of Understanding with Safeducate, a specialist in Supply Chain and Logistics training. The objective of this MoU was to offer a unique platform to the students of MBA –Supply Chain Management of the Department of Marketing and Supply Chain Management to gain knowledge of logistics and supply chain, exchange ideas and experiences on corporate operations, broaden their insights and enhance their skills to face challenges in the corporate world.
- On 10<sup>th</sup> February, 2017, the Central University of Jammu and Administrative Staff College of India (ASCI) signed a Memorandum of Understanding (MoU) in the presence of the Union Minister of State (Independent Charge) for Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh. The MoU enables the two institutes to promote collaborative academic, research and capacity-building initiatives for a period of three years and thereafter subject to its renewal.
- On 03<sup>rd</sup> May, 2017, CUJ signed MOU with ICHR for establishing Regional Centre of ICHR. In accordance with the vision of CUJ to be a leading centre of higher learning, integrating culture, knowledge , philosophy, science and value system of heritage with modern and emerging concepts, skills, technology and management practices, an MOU was signed between Central



University of Jammu and Indian Council of Historical Research, New Delhi. The MOU was signed by Registrar, Central University of Jammu, Col. Ravi Kumar and Member Secretary ICHR, Prof. Anand Shanker Singh in the presence of Prof. Ashok Aima, VC, CUJ, heads of various departments and deans of schools.

### **1.11 Special Achievements**

- Dr. Shweta Yadav, Assistant Professor, Department of Environmental Sciences has been awarded Fulbright-Kalam Climate Fellowship for Postdoctoral Research under United State-India Educational Foundation.
- On 17<sup>th</sup> Dec, 2016, Dr. Deepak Kumar of Department of Plant Sciences and Dr. Pawan Kumar of Department of Nano Science and Materials received prestigious major research grants from SERB under the Empowerment and Equality Opportunities for excellence in Science Program-2016.
- On 17<sup>th</sup> Dec, 2016, the Department of Mathematics of Central University of Jammu received a grant under Fund for Improvement of Science & Technology infrastructure in universities & higher educational institutions (FIST) Prof. S. D. Sharma, HoD Department of Mathematics under the patronage of Prof. Ashok Aima, Hon'ble Vice Chancellor of CUJ had submitted the proposal to the Department of Science & Technology in the month of July, 2016.
- On 09<sup>th</sup> January, 2017, CUJ faculty member Dr. Tanuj Kumar, Assistant Professor, Dept. of Nano Science and Materials, Central University of Jammu, received Young Scientist Award from Science and Engineering Research Board (SERB), Delhi, for the project titled "Fabrication and electron transport characteristics of silicon nanowires" and got approval of the said project for an amount of Rs. 36 lakhs. The project has to be completed in three years.
- On 10<sup>th</sup> January, 2017, Dr. Pragati Kumar, Assistant Professor in Department of Nano Sciences & Materials received two major research projects from Government of India. He has submitted one project to the University Grants Commission (UGC) under start up grant and the other one to Science and Engineering Research Board (SERB) under Early Career Grant in the month of August last year and got approval for both projects. It's pertinent to mention here that Dr. Pragati Kumar has received a grant of Rs. 10 Lakhs from UGC under startup grant for the project entitled "*Development of Nanostructures based optical sensor*" and Rs. 40 Lakhs from SERB under Early Career Grant for the project entitled "*Fabrication of Inorganic/Organic Heterojunctions for Optoelectronic Devices*".
- Two new Centers namely Center of Chinese Studies and Centre of Afghanistan & Pakistan Studies have been approved to be set up under National Security Studies. The members were also apprised of Competitive Coaching Classes which were organized for the first time in CUJ with overwhelming response from students.

### 1.12 Publication of Hindi Magazine ‘Uttar Vahini’

For the promotion and propagation of official language policy and Hindi language in Central university of Jammu, a half yearly Hindi magazine was published by the Hindi Cell. The first and second issues of half yearly literary Hindi magazine “Uttar Vahini” was released on 30<sup>th</sup> September, 2016 and 10<sup>th</sup> March, 2017 respectively and the same has been put on record. The main aim of this Hindi magazine is to provide a podium to various Hindi writers in the Central University and outside the university.

### 1.13 Yoga

A month long YOGA Camp was organized by Central University of Jammu starting from 21<sup>st</sup> May, 2017, as part of International Day of Yoga which was sponsored by Central Council for Research in Yoga and Naturopathy (Ministry of AYUSH, Government of India). The Yoga camp was formally inaugurated by Prof. Ashok Aima, Hon’ble Vice Chancellor of Central University of Jammu. About 67 students residing in different hostels of CUJ participated in the yoga camp organized at Galaxy College of Education, Sainik Colony, Jammu. The Yoga activities included warm up exercises, Asanas, Pranya-Yamas and meditation. The focus was on healthy life style to adopt disciplined life.

The details of the yoga programme conducted during the month of May is as under:

Date & Time	Programme	Venue	No. of participants participated
21st May 2017 06:00 a.m – 07:00 a.m	Launch of month long Yoga Programme.	Galaxy College, Sainik Colony, Jammu.	67
22nd May - 24th May 2017 11:00 a.m - 12:00 p.m	Practical & Theory sessions of Yoga.	Galaxy College, Sainik Colony, Jammu.	130
25th May - 26th May 2017 05:00 a.m - 06:00 a.m	-do-	Army Public School, Ratnuchak, Jammu	257
27 <sup>th</sup> May, 2017 11:00 a.m – 01:00 p.m	-do-	Himmat Learning Field School, Jammu	85
27 <sup>th</sup> May, 2017 01:00 p.m – 02:30 p.m	-do-	Naveen Shiksha Kendra, Jammu (NGO)	74
29 <sup>th</sup> May – 02 <sup>nd</sup> June 2017 11:00 a.m – 01:00 p.m 18 <sup>th</sup> June, 2017	-do-  One day free Yoga Camp at Mantalai	Himmat Learning Field School, Jammu Mantalai at district Udhampur	361  100

### CUJ celebrated International Day of Yoga on 21<sup>st</sup> June, 2017.

On the occasion of International Day of Yoga, Central University of Jammu organized a programme at its Temporary Academic Block (TAB), Sainik Colony, Jammu.

The programme was organized by the Yoga Centre of Central University of Jammu where Sh. Kavinder Gupta, Hon’ble Speaker of Legislative Assembly of J&K was the chief guest while Prof. Ashok Aima, Hon’ble Vice Chancellor

of CUJ presided over the function and Sh. Vikram Randhwa, MLC was special guest on the occasion. Speaking on the occasion, Kavinder Gupta said that “Yoga is our old culture and tradition which keeps our body and mind pure”. He laid emphasis the need of Yoga as regular exercise in today’s frazzled lifestyle. He retreated that Yoga leads to healthy and peaceful life. Highlighting the importance of Yoga Prof. Ashok Aima, in his address said that Today, nation building is related to character building and character building is incomplete without adopting Yoga in our day-to-day routine. Sh. Sanjay Aseem, Yoga Expert, educated the participants about various Yoga postures & Asans. Dr. D.L.Choudhary, Incharge, The Yoga Centre of CUJ apprised about the one month free Yoga Camps which was started on 21<sup>st</sup> May and concluded on 21<sup>st</sup> June. Certificates & mementos were also distributed to the schools, NGO’s and individuals who were part of the Yoga camp. Sh. S.K.Jain presented formal vote of thanks in the end. Prof. Indu Aima, Dr. K.C.Sharma, Prof. N.K.Tripathi, Prof. S.K.Sharma were also present in the programme.

#### **1.14 Students’ Achievements / Tour / Prize**

- From CUJ, 07 students qualified for award of UGC -NET JRF and 02 students qualified for Rajiv Gandhi National Fellowship and 01 student qualified for National Fellowship for Higher Education (NFHE).

#### **1.15 ORGANISED PROGRAMME ON ‘WORLD NO TOBACCO DAY’**

The Department of Botany and Zoology of Central University of Jammu celebrated “World No Tobacco Day” by organizing an awareness campaign on 31<sup>st</sup> May, 2017 at its Temporary Academic Block, Sainik Colony, Jammu. Dr. Deepak Abrol, Radiation Oncologist, GMC, Jammu, Founder LBNROH – Cancer Care Foundation and Vice president, Association of Radiation Oncologists of India (North Zone) delivered a lecture on the Theme “Tobacco – A threat to Development”. Students from the Departments of Botany, Zoology, Chemistry and National Security Studies participated actively in poster-making and slogan-writing competitions.

#### **1.16 NAAC Accreditation**

- LOI has been accepted vide letter No. NAAC/NR-KR/JKUNGN11562/2017 Dated: 27<sup>th</sup> January 2017.
- Hard copy of Self Study Report has been submitted.
- National Institutional ranking Framework: University figured in 151-200 Rank Band in 2017 list of ranking announced on 3<sup>rd</sup> April 2017.
- The Peer Team visit of NAAC is expected in last week of September, 2017.

### 1.17 Support from UGC and Others

- The University received Rs. 408.0717 crore during the 12<sup>th</sup> Five Year Plan against the approved allocation of Rs. 437.490 crore. The year wise break-up is as follows:-

• Financial Year 2012-13	–	Rs.	30.375	crore
• Financial Year 2013-14	–	Rs.	50.00	crore
• Financial Year 2014-15	–	Rs.	134.625	crore
• Financial Year 2015-16	–	Rs.	136.366	crore
<hr/>				
• Financial Year 2016-17	–	Rs.	61.7056	crore
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	Total:	Rs.	408.071	crore
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\* Rs 30.00 crore was released by UGC in Financial Year 2016-17 but it was received in financial year 2017-18.

**AC-08/Item No. - 02**

**To consider confirmation of minutes of the 7<sup>th</sup> meeting of the Academic Council held on 30<sup>th</sup> November, 2016.**

Minutes of meeting of the Academic Council held on 30<sup>th</sup> November, 2016 have been circulated among the members of the Academic Council vide No. CUJ/Estab.T/AC-07/minutes/2016/1671-91, dated 02.03.2017 (**Annexure-I, page no. 33-44**). No comments/observations have been received from the members.

**The minutes as circulated are submitted for confirmation of Academic Council.**

### AC-08/Item No. – 03

#### **To consider the “Action Taken Report” in pursuance of the decisions taken in the Academic Council meeting held on 30<sup>th</sup> November, 2016.**

Action taken Report in respect of minutes of the Academic Council meeting held on 30<sup>th</sup> November, 2016, in the Committee Room, Administrative Block, Central University of Jammu, Rahya-Suchani (Bagla), District-Samba, Jammu – 181143.

<b>S. No</b>	<b>Item</b>	<b>Resolved</b>	<b>Action Taken</b>
1.	To peruse report of the Vice Chancellor about the developmental activities in the University since the last meeting of the Academic Council held on 8 <sup>th</sup> November, 2015.	Resolved that in view of the foregoing deliberations, the Report of the Vice Chancellor regarding the developmental activities of the University since the last meeting of the Academic Council, held on 08 <sup>th</sup> November, 2015, be adopted and the same be placed on record	The report placed on record
2.	To consider confirmation of minutes of the 6 <sup>th</sup> meeting of the Academic Council held on 8 <sup>th</sup> November, 2015.	Resolved that the minutes of the 6 <sup>th</sup> meeting of the Academic Council held on 08 <sup>th</sup> November, 2015, as already circulated vide No. CUJ/Estab.T/2015/AC/6122 to 6158 dated 30.11.2015, stand confirmed.	The Minutes placed on record
3.	To consider the “Action Taken Report” in pursuance of the decisions taken in the Academic Council meeting held on 08 <sup>th</sup> November, 2015.	Resolved that in view of deliberations on the Vice Chancellor’s Report under Item 1, the “Action Taken Report” in pursuance of the decisions of the 6 <sup>th</sup> Academic Council held on 08 <sup>th</sup> November, 2015, be approved and placed on record.	The Minutes placed on record
4.	To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Master’s Degree Programmes in anticipation of approval of the Competent Authority.	Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Master’s Degree Programmes.  However, Point No. 13 may be rectified as MBA Supply Chain Management instead of M.Sc. Supply Chain Management.	Notified vide Notificaiton No. CUJ/Acad/ATR/2017/243 dt. 09.05.2017

5.	To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Ph.D in anticipation of approval of the Competent Authority.	Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Ph.D.	Notified vide Notification No. CUJ/Acad/ATR/2017/244 dt. 09.05.2017
6.	To confirm action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority, in having authorized the declaration of results of M.Phil Scholars for award of M.Phil degree.	Resolved to confirm the action taken by the Vice Chancellor, in anticipation of approval of Competent Authority, in having authorised the declaration of results of M.Phil Scholars for award of M.Phil degree.	Results have already been notified for M.Phil course from Academic Session 2012-13, 2013-14, 2014-15
7.	To consider proposed Fee Structure for various Academic Programmes offered by the Central University of Jammu.	Resolved to confirm the fee structure as proposed by the committee constituted for various Academic Programmes offered by the Central University of Jammu and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 with some modifications and same was confirmed by the Executive Council.
8.	To consider starting of Faculty Development Programme through General Orientation Course & Refresher Course for the teachers/ faculty in Central University of Jammu in line with provisions of UGC HRD Centre (Staff College).	Resolved to confirm the starting of Faculty Development Programme through General Orientation Course & Refresher Course for the teachers/ faculty in Central University of Jammu in line with provisions of UGC HRD Centre (Academic Staff College) and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 and same was confirmed by the Executive Council.
9.	To confirm the action taken by the Vice Chancellor regarding the change in the name of the Departments/Centre.	Resolved to confirm the action taken by the Vice Chancellor regarding change in name of departments from Department of Plant Sciences to Department of Botany; Department of Animal Sciences and Wild Life to Department of Zoology; and Department of Sociology and Social Work to Department of Social Work and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 and same was confirmed by the Executive Council.

10.	To confirm the action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority in appointment of the External Expert members of the various School Boards of Central University of Jammu.	Resolved to confirm the action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority in appointment of the External Expert members of the various School Boards of Central University of Jammu.	Recorded
11.	To consider the provision of mercy chance to the students by the Vice Chancellor on case to case basis.	Resolved that the Vice Chancellor be authorised to accord mercy chance to the students on case to case basis. The amendment be also incorporated in the Ordinances.	Recorded
12.	To confirm/approve action taken by the Vice Chancellor in approving certain amendments in existing Ordinances.	<p>The title of Item No. –AC-07/12 reads as under:          “To consider the proposed amendments in existing Ordinances.”</p> <p>The amendment of Clause 4 of Ordinance No.11 was taken up for discussion regarding automatic confirmation of employees. During the course of deliberations, some members questioned as to how the role of Executive Council could be merely a rubber stamp, in response to Prof. Devanand made categorical statement that Executive Council was just to put its seal on the confirmation of an employee, who were presumed to be confirmed on the completion of probation period.</p> <p>The Vice Chancellor raised the query as to how automatic confirmation of any employee be without the review of performance by the Executive Council of the University which was an appointing authority. At present all employees were confirmed by the Executive Council on 15th July, 2016 vide</p>	Amendment approved and recommended for approval of Executive Council, held on 7 <sup>th</sup> April, 2017. The amendment on Ordinance 11 was approved and got published in Gazette of Govt. of India, dated 12 <sup>th</sup> July, 2017. In addition to this other 29 Ordinances stand also published in the Gazette. Other 27 Ordinances have been sent for assent of the Visitor.



		<p>its Resolution No.23 and Resolution No.24 barring such employees against whom enquiry is pending with CVC, Govt. of India. The amendment was as such approved.</p> <p>Arising out of the discussion on Ordinances, Prof. Devanand questioned constitution of committee for reviewing ordinances which consisted of contractual employees.</p> <p>In this regard, Vice Chancellor solicited the opinion of Prof. Varun Sahni who clarified that a tenure based appointment cannot be treated as contractual appointment. The suggestion was agreed and approved.</p> <p>Resolved to approve the amendments in existing Ordinance and as Annexure - A &amp; recommended to the Executive Council for consideration.</p>	
13.	Circulation of Annual Report for the year 2015-16 among members.	The members were informed that the copies of Annual Report and Annual Accounts for the year 2015-16 were submitted to MHRD for onward submission to both houses of Parliament.	Recorded
<b>Supplementary Item No. – AC-07</b>			
1.	To consider and adopt the proposed Guidelines for Scrutiny of Application forms for the post of Associate Professor and Professor in various Departments/ Centres in the University.	Resolved and approved the proposed guidelines for scrutiny of application forms for the post of Associate Professor and Professor in various Departments/ Centres in the University and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 and same was confirmed by the Executive Council.
2.	To confirm starting of two new Centres under School of National Security Studies, Central University of Jammu from the Academic Session 2017-18.	Resolved to approve starting of two new Centres i.e. (1) Centre for China Studies (CCS) and (2) Centre on Study of Afghanistan and Pakistan (CSAP) under School of National Security Studies, Central University of Jammu from the Academic Session 2017-18 and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 and same was confirmed by the Executive Council.

3.	To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of various Master's Degree Programmes in anticipation of approval of the Competent Authority.	Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of various study of Master's Degree Programmes.	Notified vide Notification No. CUJ/Acad/ATR/2017/245 dt. 09.05.2017
4.	To confirm action taken by the Vice Chancellor for taking up minor Research Project by the faculty members of various Departments for the University.	Resolved to confirm the action taken by the Vice Chancellor for taking up minor Research Project by the faculty members of various Departments for the University.	Recorded
5.	To consider starting of the three months Certificate Course in Yoga in Central University of Jammu.	Resolved and approved starting of the three months Certificate Course in Yoga in Central University of Jammu and recommended the same to the Executive Council for approval.	Placed before the Executive Council in its 12 <sup>th</sup> meeting held on 7 <sup>th</sup> April, 2017 and same was confirmed by the Executive Council.

**The action taken report is submitted for consideration and approval of the Academic Council.**

## AC-08/Item No. - 04

### **To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Master's Degree Programmes in anticipation of approval of the Competent Authority.**

As per Ordinance No.3, Clause 13 of the University, the detailed course outline shall be prepared by the Board of Studies and shall be approved by the Academic Council.

The Vice Chancellor in anticipation of the approval of the Academic Council accepted the recommendations of the Board of Studies/ Dean of the concerned schools, and authorized adoption of the syllabi and courses of study, in order to facilitate teaching of the courses in Master's Degree Programmes of various Departments as per details given below:

S. No.	Programme of Study/ Department	Scheme for the semester	Syllabus for the semester	Academic Session	Annexure	Page No.
1.	M.A-Public Policy and Public Administration	4 <sup>th</sup>	4 <sup>th</sup>	2015-17	II	45-51
2.	M.Sc- Material Science & Technology	PGMST2I001T	2 <sup>nd</sup>	w.e.f 2016-17	III	52-53
3.	MBA-Tourism and Travel Management	PGTTM6I001T	6 <sup>th</sup>	2016-17	IV	54-55
4.	MA- Economics	PGECO2E006T PGECO4I008T	2 <sup>nd</sup> 4 <sup>th</sup>	w.e.f 2015-16 w.e.f 2015-16	V	56-61
5.	M.Sc. Computer Science and IT	3 <sup>rd</sup> (IDC) 4 <sup>th</sup> (IDC)	3 <sup>rd</sup> 4 <sup>th</sup>	May 2016,2017, 2018 Dec. 2015, 2016, 2017	VI	62-64
6.	Master's in Technology (M.Tech.) Computer Science	PGMTH2C002T	2 <sup>nd</sup>	May 2017 May 2018 May 2019	VII	65-66
7.	M.Ed- Educational Studies	2 <sup>nd</sup> 4 <sup>th</sup>	2 <sup>nd</sup> 4 <sup>th</sup>	2016-18 2015-16	VIII	67-86
8.	MA-Hindi	4 <sup>th</sup> 2 <sup>nd</sup>	4 <sup>th</sup> 2 <sup>nd</sup>	2015-17 2015-17	IX	87-126
9.	MA. English and Comparative Literature	2 <sup>nd</sup> and 4 <sup>th</sup>	2 <sup>nd</sup> and 4 <sup>th</sup>	w.e.f 2016-17	X	127-150

S. No.	Programme of Study/ Department	Scheme for the semester	Syllabus for the semester	Academic Session	Annexure	Page No.
10.	Integrated M.Sc-Botany	2 <sup>nd</sup>	2 <sup>nd</sup>	w.e.f 2016-17	XI	151-156
		2 <sup>nd</sup> (IDC and FC)	2 <sup>nd</sup>	w.e.f 2016-17	<b>'XV'</b>	<b>169-173</b>
11.	Integrated M.Sc-Zoology	2 <sup>nd</sup>	2 <sup>nd</sup>	w.e.f 2016-17	XII	157-160
		2 <sup>nd</sup> (IDC and FC)	2 <sup>nd</sup>	w.e.f 2016-17	<b>'XV'</b>	<b>169-173</b>
12.	Integrated M.Sc-Chemistry and Chemical Sciences	2 <sup>nd</sup>	2 <sup>nd</sup>	w.e.f 2016-17	XIII	161-164
		2 <sup>nd</sup> (IDC and FC)	2 <sup>nd</sup>	w.e.f 2016-17	<b>'XV'</b>	<b>169-173</b>
13.	Integrated M.Sc-Physics and Astronomical Sciences	2 <sup>nd</sup>	2 <sup>nd</sup>	w.e.f 2016-17	XIV	165-168
		2 <sup>nd</sup> (IDC and FC)	2 <sup>nd</sup>	w.e.f 2016-17	<b>XV</b>	<b>169-173</b>

### Corrigendum

S. No.	Programme of Study/ Department	Scheme for the semester	Order	Annexure	Page No.
14.	Social Work	PGSSW1C004T	Vide No. CUJ/Acad/S05/2015/129 dated 9 <sup>th</sup> March, 2017	XVI	174
15.	Zoology	Interdisciplinary Course	Vide No. 4-12/CUJ/Reg/2015/48 dated: 07.02.2017	XVII	175
16.	Botany	Interdisciplinary Course	Vide no. 4-12/CUJ/Reg/2015/49 dated 07.02.2017	XVIII	176

The action taken by the Vice Chancellor is submitted for approval of the Academic Council.

## AC-08/Item No. - 05

### **To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Ph.D in anticipation of approval of the Competent Authority.**

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As per Ordinance No.3, Clause 13, the detailed course outline shall be prepared by the Board of Studies and shall be approved by the Academic Council.

The Vice Chancellor in anticipation of the approval of the competent authority accepted the recommendations of the Board of Studies/ Dean of the concerned schools, and authorized adoption of the syllabi and courses of study, in order to facilitate teaching of the courses in Ph.D programs of various Departments as per details given below:

<b>S. No.</b>	<b>Programme of Study/ Department</b>	<b>Syllabus for the course work</b>	<b>Academic Session</b>	<b>Annexure</b>	<b>Page No.</b>
1	Computer Sciences & IT	1 <sup>st</sup> session	Dec. 2016, 2017, 2018	<b>XIX</b>	177-192
2	Economics	1 <sup>st</sup> session	w.e.f 2016-17	<b>XX</b>	193-195
3	Mass Communication and New Media	1 <sup>st</sup> session	2016-17	<b>XXI</b>	196-202

**The action taken by the Vice Chancellor is submitted for approval of the Academic Council.**

## AC-08/Item No. - 06

**To confirm action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority, in having authorized the declaration of results of M.Phil Scholars for award of M.Phil degree.**

Ordinance No.6 governing Award of Integrated M.Phil. – Ph.D. degree, Clause 37 provides that:

***“The School Board after consideration of evaluation of course work, dissertation and performance of the candidate in viva-voce examination shall recommend, to the Academic Council, the award of M.Phil. degree”.***

Further, for successful completion of the M.Phil. Programme, a student must secure a CGPA of at least 5.0 points.

The Deans of the Schools concerned being the Chairpersons of the respective School Boards, in anticipation of the approval of the School Board, recommended the declaration of results of M.Phil. scholars in their respective schools for the Academic Session 2014-15 & 2015-16. The Vice Chancellor, in anticipation of the approval of the Academic Council, accepted the recommendations of the Deans of the Schools concerned for declaration of the M.Phil. results as per details given below:

### M.Phil. Results for Session 2014-15

#### **1. English**

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1	0210214	0210214	Tanishika Bhagat D/o Sh. T K Bhagat	7.62
2	0310214	0310214	Stanzin Stamdin S/o Sh. Rigzen Wangdus	8.25
3	0410214	0800212	Simpy Bala Sabarwal D/o Sh. Surinder Kumar	6.75
4	0510214	0510214	Deepanjali Sharma D/o Sh. Jagdish Raj Sharma	8.25

#### **2. Public Policy & Public Administration**

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1	0111014	0111014	Sonam Sharma D/o Sh. Rajinder Kumar	8.87
2	0211014	0211014	Ratnesh Singh S/o Sh. Dhruv Narayan Singh	9.0
3	0511014	0511014	Hakim Singh S/o Sh. Bansilal	8.75

### 3. Economics

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1.	0410114	0410114	Shahid Hamid Raina S/o Abdul Hamid Raina	9.0

### 4. Tourism and Travel Management

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1.	0310614	0310614	Shah Nawaz S/o Ghulam Mohammad	7.12

### 5. National Security Studies

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1	0210914	0210914	Rubina Akhtar D/o Gulam Rasool	7.75

### M.Phil. Results for Session 2015-16

#### 1. Education

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1	0110415	0110415	Shivani Slathia D/o Sh. Surinder Singh	9.62
2	0310415	0310415	Shabir Ahmed S/o Shahid Khan Malik	9.62

#### 2. Public Policy & Public Administration

S.No.	Roll No.	Regn No.	Name & Parentage	CGPA
1	0111015	0111015	Gulshan Bassan D/o Sh. Bishan Dass	8.12
2	0211015	0211015	Manik Sharma S/o Sh. Om Prakash Sharma	8.12
3	0311015	0311015	Ram Kumar S/o Sh. Bhim Singh	7.5
4	0511015	0511015	Vidya Bhaskar Shukla S/o Sh. Rama Kant Shukla	7.5

The action taken by the Vice Chancellor is submitted for approval of the Academic Council. The Academic Council is also requested to consider award of M.Phil. degree to the aforesaid scholars.

## AC-08/Item No. - 07

**To confirm action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority, in having authorized the declaration of results of Ph.D Scholars for award of Ph.D degree.**

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Ordinance No.6 governing Award of Integrated M.Phil. – Ph.D. degree, Clause 68 provides that:

***“The School Board after consideration of the evaluation reports, evaluation of performance of the scholar in the viva-voce examination and the details of presentation may recommend, to the Academic Council, the award of degree of Doctor of Philosophy to the scholar”.***

The Deans of the Schools concerned being the Chairpersons of the respective School Boards, in anticipation of the approval of the School Board, recommended the declaration of results of Ph.D scholars in their respective schools for the Academic Session 2012-13. The Vice Chancellor, in anticipation of the approval of the Academic Council, accepted the recommendations of the Deans of the Schools, concerned for declaration of the Ph.D results, as per details given below:

### **Ph.D Results for Session 2012-13**

#### **1. Education**

<b>S.No.</b>	<b>Roll No.</b>	<b>Regn No.</b>	<b>Name &amp; Parentage</b>
1.	0110412	0110412	Pooja Bhagat D/o Sh. Harnam Chand Bhagat
2.	0210412	0210412	Jawaid Ahmed Ittoo S/o Mohd Yousuf Ittoo

#### **2. Mathematics**

<b>S.No.</b>	<b>Roll No.</b>	<b>Regn No.</b>	<b>Name &amp; Parentage</b>
1.	0110312	0110312	Mohd. Younus Bhat S/o Ab Hamid Bhat

**The action taken by the Vice Chancellor is submitted for approval of the Academic Council. The Academic Council is also requested to consider award of Ph.D. degree to the aforesaid scholars.**



## **AC-08/Item No. - 08**

**To confirm starting the joint Master programme in Nano Sciences and Materials between Central University of Jammu, India and Ecole Nationale Superieure de Chimie, de Biologie et de Physique (ENSCBP), University de Bordeaux 1, France.**

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To start a joint Master degree programme in Nano Sciences and Materials with Ecole Nationale Superieure de Chimie, de Biologie et de Physique (ENSCBP), University de Bordeaux 1, France.

In the proposed Master course, semester I and II (48 credits) will be taught at Department of Nano Sciences and Materials, Central University of Jammu and semester III and IV may be taught at Ecole Nationale Superieure de Chimie, de Biologie et de Physique (ENSCBP), University de Bordeaux 1, France.

The Ecole Nationale Superieure de Chimie, de Biologie et de Physique (ENSCBP), University de Bordeaux 1, France has given its consent to start joint Master degree program. They are offering three modular courses. The students depending upon their background can choose one of these sets for their degree programme.

They have also suggested an agreement under which the students will not pay tuition fee in Bordeaux but at the host University in India. The University of Bordeaux will also award them a Master degree based on their performance at ENSCBP Bordeaux. The University of Bordeaux will teach in English.

The same has also been approved by the Board of Studies of the concerned Department on 27.04.2017.

The Minutes of BoS and module for Course/Syllabi is enclosed as ***Annexure- XXII, page no. 203-215.***

**The agenda is placed before the Academic Council for consideration and approval.**

## **AC-08/Item No. - 09**

### **To establish a Cell for enriching Dogri Language under Department of Hindi and Other Indian Languages.**

Dogri is an Indo-Aryan language through it is chiefly spoken in the scenic region of Jammu, the presence of Dogri languages can be also felt in northern Punjab, Himachal Pradesh and other places. It can be ranked as a second language spoken in these area.. It was only in recent past that the Dogri Languages received official recognition in the country. It was recognized as an independent modern literary language of India. Dogri language received another achievement as it was hailed as a National Language of India in the Indian Constitution.

It was during 20<sup>th</sup> century that Dogri literature witnessed a spurt in spheres like poetry, prose, novels, short stories and plays. Dogri Literature comprises a fabulous gamut of poetry, fiction and dramatic works. Dogri languages has its own grammar and its own dictionary. It is now studies in schools upto 8<sup>th</sup> class as a second languages and Government has issued an order to start in 9<sup>th</sup> and 10<sup>th</sup> class from the session 2017-18. It is also taught at College and M.A. level in University of Jammu.

Contribution of writers has left indelible imprints on the Dogri Literature and has brought Dogri languages to the national and global limelight. The future of language is promising with number of enthusiastic writers contributing in the form of songs, proverbs riddles and content. The languages has lot of scope for further explorations with regard to phonology, dialect, linkage with other languages etc.

It is proposed that a cell be established and attached with department of Hindi to explore the undiscovered areas to further enrich the literary body of literature for present and posterity.

**The agenda of placed before the Academic Council for consideration and approval.**



# जम्मू केंद्रीय विश्वविद्यालय

## Central University of Jammu

बागला (राया-सूचानी), जिला सांबा-181143, जम्मू (जम्मू एवं कश्मीर)  
Rahya-Suchani (Bagla), District: Samba - 181143, Jammu (J&K)

Minutes of the 7<sup>th</sup> meeting of Academic Council held on 30<sup>th</sup> November, 2016 at 01:00 P.M. in the Committee Room, Administrative Block, Rahya-Suchani (Bagla), Central University of Jammu.

Following members were present in the meeting:

- |    |   |                 |
|----|---|-----------------|
| 1. | <b>Prof. Ashok Aima</b><br>Vice Chancellor<br>Central University of Jammu   | <b>Chairman</b> |
| 2. | <b>Prof. Varun Sahni,</b><br>Vice Chancellor,<br>Goa University, Goa.   | <b>Member</b>   |
| 3. | <b>Mr. Nitin Jhamb,</b><br><b>Representing MD and CEO</b><br>National Skill Development Corporation of India,<br>Block A, Clarion Collection<br>Shaheed Jeet Singh Marg,<br>New Delhi - 110016.                                     | <b>Member</b>   |
| 4. | <b>Prof. Devanand</b><br>Dean, School of Basic and Applied Sciences &<br>Dean, School of Knowledge Management, Information<br>and Media Studies, &<br>Head, Deptt. of Computer Science & IT,<br>Central University of Jammu, Jammu. | <b>Member</b>   |
| 5. | <b>Prof. Lokesh Kumar Verma</b><br>Dean, School of Educational Studies &<br>Dean, School of Humanities and Social Sciences, &<br>Head, Deptt of Educational Studies,<br>Central University of Jammu, Jammu.                         | <b>Member</b>   |
| 6. | <b>Prof. H.S. Sehgal</b><br>Dean, School of Life Sciences, &<br>Head, Deptt. of Environmental Sciences,<br>Central University of Jammu, Jammu.  | <b>Member</b>   |

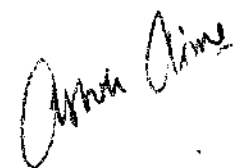
- |     |  |                                 |
|-----|--|---------------------------------|
| 7.  | <b>Prof. Deepsheekha Kotwal</b><br>Dean, School of Languages;<br>Head, Deptt. of English &<br>Head, Deptt. of Mass Communication & New Media,<br>Central University of Jammu, Jammu. | <b>Member</b>                   |
| 8.  | <b>Prof. R.L. Bhat</b><br>Head, Deptt. of Economics &<br>Head, Deptt. of Sociology and Social Work,<br>Central University of Jammu, Jammu.   | <b>Member</b>                   |
| 9.  | <b>Prof. S.D. Sharma</b><br>Head, Deptt. of Mathematics<br>Central University of Jammu, Jammu.   | <b>Member</b>                   |
| 10. | <b>Dr. A Mallika Joseph</b><br>Head, Deptt. of National Security Studies;<br>Head, Deptt. of Public Policy and Public Administration;<br>Central University of Jammu, Jammu.         | <b>Member</b>                   |
| 11. | <b>Dr: Jaya Bhasin</b><br>Head, Deptt. of HRM & OB; and<br>Head, Deptt. of TTM,<br>Central University of Jammu, Jammu.   | <b>Member</b>                   |
| 12. | <b>Prof. Narinder Kumar Tripathi</b><br>Proctor and<br>Head, Deptt. of Animal Sciences and Wildlife,<br>Central University of Jammu, Jammu.  | <b>Member</b>                   |
| 13. | <b>Dr. G.K. Sehgal</b><br>Associate Professor,<br>Deptt. of Environmental Sciences,<br>Central University of Jammu, Jammu.   | <b>Member</b>                   |
| 14. | <b>Dr. Neena Gupta Vij</b><br>Assistant Professor,<br>Deptt. of English,<br>Central University of Jammu, Jammu.  | <b>Member</b>                   |
| 15. | <b>Dr. Bhavna Arora</b><br>Assistant Professor,<br>Deptt. of Computer Science & Information Technology,<br>Central University of Jammu, Jammu.                                       | <b>Member</b>                   |
| 16. | <b>Mohammed Iqbal</b><br>I/c. Registrar<br>Central University of Jammu, Jammu.   | <b>Ex-officio<br/>Secretary</b> |

### Special Invitees

1. **Prof. Dinesh Sharma**  
IIT-Bombay, Mumbai
2. **Dr. Sudesh Kumar Sharma**  
Professor,  
Swami Vivekananda Chair  
Central University of Jammu, Jammu.
3. **Dr. S.K. Khosa**  
Head, Department of Physics & Astronomical Sciences  
Central University of Jammu, Jammu.
4. **Dr. Gaurav Sehgal**  
Head, Department of Supply Chain Management,  
Central University of Jammu, Jammu.
5. **Shri S M Sahni**  
Convener Jammu Chapter  
Indian National Trust for Art and Cultural Heritage  
422-A Gandhi Nagar Jammu-180004.
6. **Prof. Raj Kumar**  
Head, Deptt. of Hindi & Other Indian Languages,  
Central University of Jammu, Jammu.

The following members of the **Academic Council/Special invitees** could not attend the meeting and were granted leave of absence:-

1. **Prof. Mohammad Miyan,**  
(Former Vice Chancellor, MANUU)  
D-194, Defence Colony,  
New Delhi – 110024.
2. **Prof. Jairup Singh,**  
(Former Vice Chancellor,  
Central University of Punjab, Bhatinda)  
City Campus, Mansa Road,  
Bathinda, Punjab-151001
3. **Prof. Ashok K. Ganguly, FASC, FNASC, FRSC,**  
Institute of Nano Science and Technology,  
Habitat Centre, Phase – 10, Sector-64,  
Mohali -160062, Punjab.
4. **Prof. Aditya Bhattacharya,**  
Delhi School of Economics,  
University of Delhi.



5. **Prof. T.V. Rao,**  
IIM Ahmedabad,  
Vastrapur, Ahmedabad,  
Gujarat-380015
6. **Prof. Subhashis Banerjee**  
Computer Science and Engineering,  
Indian Institute of Technology, Delhi,  
Hauz Khas, New Delhi.
7. **Prof. Sunaina Singh**  
Vice Chancellor,  
The English and Foreign Languages University,  
Hyderabad – 500007, Telangana
8. **Shri S.Y. Siddiqui,**  
Chief Mentor,  
Maruti Suzuki India Ltd.

**Special Invitees**

1. **Dr. Raj Nehru**  
Vice Chancellor  
Skill University, Gurgaon.

The Vice Chancellor extended a warm welcome to the members of the Academic Council as well as the special invitees. He thanked members and the special invitees for sparing their valuable time to attend the 7th meeting of the Academic Council to enrich its deliberations, and as well guide the University in seeking furtherance of academic pursuits. The Vice Chancellor gave a brief introduction of Prof. Dinesh Sharma, IIT Bombay, Shri S M Sahni, Convener Jammu Chapter, INTACH and Nitin Jhambh, NSDC representing CEO, NSDC. He also welcomed Prof. Varun Sahni, Vice Chancellor, Goa University. The University need to conduct meeting of Academic Council twice a year, as in present case agenda had become quite voluminous no meeting could be held during interim period.

The Vice chancellor also informed that the placement drive was conducted for 02 days under UDAAN in which 18 companies participated and 166 students attended the drive out of which 107 got offers. The Vice Chancellor appreciated the efforts made by the faculty involved in the placement drive.

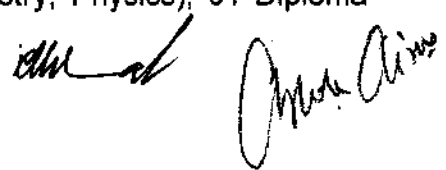
During the period under report, the admission process was conducted in which 9877 applications were received for the academic session 2016-17 from across the country for various programmes offered by Central University of Jammu which was more in comparison to Central University of Himachal Pradesh and Central University of Kashmir.

The worthy members gave various valuable suggestions to enhance the Academic rigor of the University:

- Sh. S. M. Sahni proposed to start Centre for Vedic Studies as the University is 3-4 kilometres away from the Purmandal and Uttarbehni area as the state is very rich in culture and traditions also, which otherwise would vanish in time to come.
- He also added that Basohili region is on the embankment of Ranjit Sagar Dam which offers huge scope for water sports. His initiative was appreciated by Prof Varun Sahni that these steps would be very helpful to preserve heritage and added that the University may request to the Ministry to provide funds to take this initiative.
- Prof L.K. Verma informed that Department of Education, Central University of Jammu has been sanctioned School of Education under Pandit Madan Mohan Malviya National Mission on Teacher and Teaching Scheme by the MHRD and separate funds have been allocated for infrastructure and for organising various academic activities. He also informed about various new courses proposed to be started from next Academic session onwards.
- Dr Malika Joseph, Head Department of National Security Studies briefed about two Centres viz., the Centre for China Studies (CCS) and Centre on Study of Afghanistan and Pakistan (CSAP) proposed to be opened under School of National Security Studies from next Academic session due to strategic location of Central University of Jammu. Prof Varun Sahni applauded the initiative and suggested that Afganistan- Pakistan Centre ought to concentrate on Afganistan and Pakistan studies and not on Indo- Pak relations. Pakistan Occupied Kashmir (POK) and economy may also be focussed in these studies. He also suggested approaching UGC for funding of such Centres under Area Studies.
- Mr. Nitin Jambh briefed about B.Voc programme consisting of 60% Skill component and 40% general component scheme. He made following suggestion also:
  - Integration of skill component in the educational system.
  - To create job oriented course as its prerequisite.
  - Ten days workshop to devise a national guideline which Government of India has devised towards training programme and skill development.

The Vice Chancellor stated that the aforesaid observations/ suggestions of the worthy members would be duly considered.

The Vice Chancellor made a power-point presentation with regard to various academic and developmental activities as well about the academic programmes being run in the University. He further added that University has introduced 12 new courses from 2016-17, 04 Integrated Five Year programmes with an option to exit with Honours after graduation (Botany, Zoology, Chemistry, Physics), 01 Diploma



(Beauty & Wellness), 03 PG [Supply Chain Management, Material Science & Technology and M.Tech (CS)], 04 research programmes (Social Work, EVS, Mass Communication & Computer Science). He also informed the members that Integrated M.Sc. Computer Science-MCA programme has been discontinued and M.Tech in Computer Science & Technology has been started. The house was informed that the University will be starting new schools namely School of Medical and Allied Sciences, School of Visual and Performing Arts, School of Engineering Sciences and Technology under XIII Plan. He expressed satisfaction for having shifted 10 departments to the main campus and few others would be as well shifted in next academic session.

The Vice Chancellor apprised the members that Central University of Jammu has appointed faculty from 17 states across the country for various departments. He further added that the University has Central library having computer lab with Wi-Fi facilities for research scholars and students. University is now fully functional with File Tracking System to ensure speedy and early disposal of files/matters/ issues. Three Banks namely State Bank of India, J & K Bank and HDFC Bank have opened their Banking/ ATM facilities on the Campus. Moreover, Post Office and Police Station for security purposes is also under way to be opened shortly. Tendering for GYM is also in progress and would be opened shortly. Ten buses at present are plying to ferry students from Jammu / Vijaypur to Campus and back. This facility was being provided free of charge to students.

The Vice Chancellor also made a special mention about the Memorandum of Understanding (MoU) signed by Central University of Jammu with national and international level organisations to promote cooperation in educational and research activities. He added that the faculty of the University has undertaken number of major and minor projects. He also apprised the members about the various ongoing developmental/construction activities on the campus and thanked MHRD and UGC for their financial support. He further added that Five Villages have been identified viz., Patti, Ranjhri, Baguna, Rahya and Suchani for adoption (August, 2015) under Community Development Scheme. He also informed that the hard copy of Self Study Report would be submitted shortly for accreditation to NAAC.

The Vice Chancellor briefed the worthy members about Business Incubation centre and prospective Incubatees, as well various proposals under consideration and resource mobilisation. Various quality measures being taken are as under:

- ✓ Anti-plagiarism report mandatory before submission of research papers/projects/thesis/dissertation
- ✓ Faculty/Scholars have to publish 02 research papers in referred Journals
- ✓ Regular Feedback from students for inspired/innovative teachers
- ✓ Remedial Classes for Weaker Students
- ✓ Mentoring through Guidance and Counseling
- ✓ Updated academic Calendar, teaching plans uploaded on Website
- ✓ Choice Based Credit System implemented
- ✓ Friday club and tutorials

*am ab* *Chandra Singh*



- ✓ Declaration of results in two weeks
- ✓ Teachers sent for attending Conferences/Seminars/Workshops/Refresher Courses/General Orientation Programme as per UGC guidelines.

Members were further informed that Central University of Jammu was selected to make a presentation along with IIT-Delhi, IIT-Kanpur, IIT- Madras, NIT-Trichy and Jamia, Milia, Islamia at Innovation Club meet at Rashtrapati Bhavan, New Delhi. Secretary to the Hon'ble President of India, Smt. Omita Paul appreciated Dr. Pankaj Mehta for his grass-root innovation for commercialization. It was also informed that University has started coaching classes for Competitive Examinations at Temporary Academic Block, Sainik Colony Jammu recently, for which there was overwhelming response for attending Coaching Classes.

The Vice Chancellor apprised the members that University now had its own water resource and is now generating funds out of it by marketing water to construction companies on campus.

**Following agenda items were taken up for discussion/decisions:**

**Item No. – AC-07/01**

To peruse report of the Vice Chancellor about the developmental activities in the University since the last meeting of the Academic Council held on 8<sup>th</sup> November, 2015.

**Resolved that in view of the foregoing deliberations, the Report of the Vice Chancellor regarding the developmental activities of the University since the last meeting of the Academic Council, held on 08<sup>th</sup> November, 2015, be adopted and the same be placed on record.**

**Item No. – AC-07/02**

To consider confirmation of minutes of the 6<sup>th</sup> meeting of the Academic Council held on 8<sup>th</sup> November, 2015.

**Resolved that the minutes of the 6<sup>th</sup> meeting of the Academic Council held on 08<sup>th</sup> November, 2015, as already circulated vide No. CUJ/Estab.T/2015/AC/6122 to 6158 dated 30.11.2015, stand confirmed.**

**Item No. – AC-07/03**

To consider the "Action Taken Report" in pursuance of the decisions taken in the Academic Council meeting held on 08<sup>th</sup> November, 2015.

*Handwritten signatures*

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**Resolved that in view of deliberations on the Vice Chancellor's Report under Item 1, the "Action Taken Report" in pursuance of the decisions of the 6<sup>th</sup> Academic Council held on 08<sup>th</sup> November, 2015, be approved and placed on record.**

**Item No. – AC-07/04**

To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Master's Degree Programmes in anticipation of approval of the Competent Authority.

**Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Master's Degree Programmes.**

**However, Point No. 13 may be rectified as MBA Supply Chain Management instead of M.Sc. Supply Chain Management.**

**Item No. – AC-07/05**

To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Ph.D in anticipation of approval of the Competent Authority.

**Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of Ph.D.**

**Item No. – AC-07/06**

To confirm action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority, in having authorized the declaration of results of M.Phil Scholars for award of M.Phil degree.

**Resolved to confirm the action taken by the Vice Chancellor, in anticipation of approval of Competent Authority, in having authorised the declaration of results of M.Phil Scholars for award of M.Phil degree.**

**Item No. – AC-07/07**

To consider proposed Fee Structure for various Academic Programmes offered by the Central University of Jammu.

**Resolved to confirm the fee structure as proposed by the committee constituted for various Academic Programmes offered by the Central University of Jammu and recommended the same to the Executive Council for approval.**



**Item No. – AC-07/08**

To consider starting of Faculty Development Programme through General Orientation Course & Refresher Course for the teachers/ faculty in Central University of Jammu in line with provisions of UGC HRD Centre (Staff College).

**Resolved to confirm the starting of Faculty Development Programme through General Orientation Course & Refresher Course for the teachers/ faculty in Central University of Jammu in line with provisions of UGC HRD Centre (Academic Staff College) and recommended the same to the Executive Council for approval.**

**Item No – AC-07/09**

To confirm the action taken by the Vice Chancellor regarding the change in the name of the Departments/Centre.

**Resolved to confirm the action taken by the Vice Chancellor regarding change in name of departments from Department of Plant Sciences to Department of Botany; Department of Animal Sciences and Wild Life to Department of Zoology; and Department of Sociology and Social Work to Department of Social Work and recommended the same to the Executive Council for approval.**

**Item No. – AC-07/10**

To confirm the action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority in appointment of the External Expert members of the various School Boards of Central University of Jammu.

**Resolved to confirm the action taken by the Vice Chancellor, in anticipation of approval of the Competent Authority in appointment of the External Expert members of the various School Boards of Central University of Jammu.**

**Item No. – AC-07/11**

To consider the provision of mercy chance to the students by the Vice Chancellor on case to case basis.

**Resolved that the Vice Chancellor be authorised to accord mercy chance to the students on case to case basis. The amendment be also incorporated in the Ordinances.**

**Item No. – AC-07/12**

To confirm/approve action taken by the Vice Chancellor in approving certain amendments in existing Ordinances.

The title of Item No. –AC-07/12 reads as under:

“To consider the proposed amendments in existing Ordinances.”

The amendment of Clause 4 of Ordinance No.11 was taken up for discussion regarding automatic confirmation of employees. During the course of deliberations, some members questioned as to how the role of Executive Council could be merely a rubber stamp, in response to Prof. Devanand made categorical statement that Executive Council was just to put its seal on the confirmation of an employee, who were presumed to be confirmed on the completion of probation period.

The Vice Chancellor raised the query as to how automatic confirmation of any employee be without the review of performance by the Executive Council of the University which was an appointing authority. At present all employees were confirmed by the Executive Council on 15th July, 2016 vide its Resolution No.23 and Resolution No.24 barring such employees against whom enquiry is pending with CVC, Govt. of India. The amendment was as such approved.

Arising out of the discussion on Ordinances, Prof. Devanand questioned constitution of committee for reviewing ordinances which consisted of contractual employees.

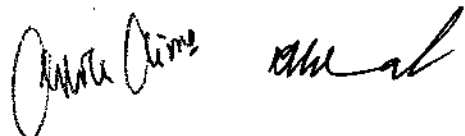
In this regard, Vice Chancellor solicited the opinion of Prof. Varun Sahni who clarified that a tenure based appointment cannot be treated as contractual appointment. The suggestion was agreed and approved.

Resolved to approve the amendments in existing Ordinance and as Annexure - A & recommended to the Executive Council for consideration.

**Item No – AC-07/13**

Circulation of Annual Report for the year 2015-16 among members.

The members were informed that the copies of Annual Report and Annual Accounts for the year 2015-16 were submitted to MHRD for onward submission to both houses of Parliament.



**Supplementary Item No. – AC-07/01**

To consider and adopt the proposed Guidelines for Scrutiny of Application forms for the post of Associate Professor and Professor in various Departments/ Centres in the University.

**Resolved and approved the proposed guidelines for scrutiny of application forms for the post of Associate Professor and Professor in various Departments/ Centres in the University and recommended the same to the Executive Council for approval.**

**Supplementary Item No. – AC-07/02**

To confirm starting of two new Centres under School of National Security Studies, Central University of Jammu from the Academic Session 2017-18.

**Resolved to approve starting of two new Centres i.e. (1) Centre for China Studies (CCS) and (2) Centre on Study of Afghanistan and Pakistan (CSAP) under School of National Security Studies, Central University of Jammu from the Academic Session 2017-18 and recommended the same to the Executive Council for approval.**

**Supplementary Item No. – AC-07/03**

To confirm action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of study of various Master's Degree Programmes in anticipation of approval of the Competent Authority.

**Resolved to confirm the action taken by the Vice Chancellor in having authorized adoption of the syllabi & courses of various study of Master's Degree Programmes.**

**Supplementary Item No. – AC-07/04**

To confirm action taken by the Vice Chancellor for taking up minor Research Project by the faculty members of various Departments for the University.

**Resolved to confirm the action taken by the Vice Chancellor for taking up minor Research Project by the faculty members of various Departments for the University.**

**Supplementary Item No. – AC-07/05**

To consider starting of the three months Certificate Course in Yoga in Central University of Jammu.

**Resolved and approved to starting of the three months Certificate Course in Yoga in Central University of Jammu and recommended the same to the Executive Council for approval.**

**Any other item**

In addition, the action taken in starting coaching classes for Competitive Examinations was also approved and it was desired to formulate a Calendar for organising coaching classes in different batches at different intervals of time to commensurate with examination schedule of competitive examinations/students examination.

The house was also informed about new short term skilled courses notified by the Labour Ministry, Government of India to be started for the benefit of the students under the Community College programme. The technical Committee of State Govt. has already inspected the infrastructure and instructional facilities available at Central University of Jammu. The details related to various Courses is enclosed as **Annexure – B.**

Resolved to authorise the Vice Chancellor to approve the short term skilled courses as and when specific proposals are mooted under Community College programme.

The house also agreed to establish the School of Innovation in Principal. The modalities and procedure will be workout in detail and will be placed in the next meeting of the Academic Council.

Special thanks were proposed to all the worthy members of the Academic Council, the Special Invitees, the Officers, and the staff for all the support and guidance for the smooth conduct of the meeting.

The meeting concluded with a vote of thanks to the Chair.

  
I/c. Registrar

Central University of Jammu

  
Vice Chancellor

Central University of Jammu



# Central University of Jammu

Annexure II

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-10/PPPA/CUJ/REG/2014/221

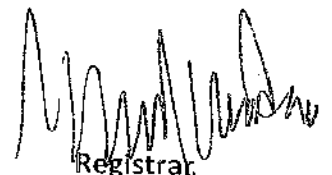
19 April, 2017

## Notification

In supersession to the course scheme of IV semester for Department of Public Policy and Public Administration notified vide notification no: 4-10/PPPA/CUJ/Reg/2014/898-963, dated: 20.10.2015, it is hereby notified for the information of all concerned that, on the recommendations of the Board of Studies, Department of Public Policy and Public Administration, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme of 4<sup>th</sup> semester for the Academic Session 2015-17. The approved Course Scheme is as under:

### Semester-IV

Course Code	Course Title	Credit	CIA	MSE	ESE	Total Marks
<b>CORE COURSES</b>						
PGPPA4C001T	Social Policy: State, Market and Society	4	25	25	50	100
PGPPA4C002T	Measuring Governance	4	25	25	50	100
PGPPA4C003T	Public Policy: Case Studies	4	25	25	50	100
PGPPA4C004D	Public Policy Clinic/Governance Lab	4				100
<b>ELECTIVE COURSES (INTERDISCIPLINARY)</b>						
PGPPA4I001T	E-Government	4	25	25	50	100
<b>FOUNDATION COURSE</b>						
PGPPA4F001T	Innovations in Governance	4	25	25	50	100
<b>Total</b>		<b>24</b>				<b>600</b>

  
Registrar  
9/4

To:

Head, Department of PPPA

Copy to:

I/c. Controller of Examinations

Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

SEMESTER - IV

Course Title: SOCIAL POLICY: STATE, MARKET AND SOCIETY

Credit: 4

Course Code: PGPPA4C001T

Course Objective:

Social Policy in a development context is the overarching framework of a wide-ranging inquiry into social policy that is developmental, democratic and socially inclusive. It is increasingly evident that social policy has a significance that goes beyond even the valid concerns about basic equity and minimal living standards, which form part of the social and economic rights of citizens. This course will explore the interplay between democracy and social policy from the perspective of state and market and civil society and focus on the role of democratic forces in the development of social policy.

UNIT- I: Introduction

- a) State and Social Theory
- b) Classical and Contemporary Perspectives
- c) State, Government and Governance

UNIT- II: Social Justice

- a) Social Justice & Inclusion: Concept and Philosophy
- b) Exclusion and Denial: A Critical Inquiry
- c) Equity and Inclusion
- d) Affirmative Action and Inclusion: The Global Experience

UNIT- III: Social Development

- a) Policy for Inclusive Development: Growth with Equity
- b) Changing Norms of Social Equity and Participation
- c) Social Participation: Issues of Gender, Weaker Sections and Environment

UNIT- IV: Social Policies at Global Level

- a) SDGs and HDI: The Global Targets
- b) Refugees and Migrants
- c) Human Trafficking

UNIT- V: Emerging Trends

- a) Growing Role of Civil Society Organizations
- b) Democratic People's Struggles: Case Studies
- c) Ethical Concerns in Social Policy Making

Select References:

- Baldock John, et al, (2011), Social Policy, Oxford University Press. Bochel, Hugh and Guy Daly (2014), Social Policy, Routledge.
- Dev, Mahendra (2008), Inclusive Growth in India, Oxford Collected Essays. Kennedy, Patricia (2013) Key Themes in Social Policy, Routledge.
- Morales Daniel A. Gomez (1999), Transnational Social Policies, IDRC/CRDI Miller, David (1976), Social Justice, Clarendon Press, Oxford
- Naila, Kabeer (2006), Social Exclusion and the MDGs. The Challenge of 'Durable Inequalities' in the Asian Context, Institute of Development Studies and Overseas Development Studies Institute.
- Sah, D.C. & Y. Sisodia (2004), Tribal Issues in India, Saujanya Books, Jaipur.
- Sharma Arvind (2005), Reservation and Affirmative Action: Models of Social Integration in India and the United States, Sage. Sen, Amartya (2009), The Idea of Justice, Allen Lane & Harvard University Press.
- Sen, Amartya (2000), Social Exclusion: Concept, Application and Scrutiny, Social Development Papers No.1. Asian Development Bank. Thorat, Sukhadeo & Narendra, Kumar (2008), In Search of Inclusive Policy: Addressing Graded Inequality, Rawat Publications, New Delhi & Jaipur.
- Thorat, Sukhadeo and Umakant (2004), Caste, Race and Discrimination - Discourses in International Context, Indian Institute of Dalit Studies and Rawat Publishers, New Delhi and Jaipur.
- Thorat, Sukhadeo, Aryama and Prashant Negl. (Eds.) (2005), Reservation and Private Sector-Quest for Equal Opportunity and Growth, Rawat Publications, Jaipur.
- Yadav, Sushma, (2006), Social Justice: Ambedkar's Vision, IIPA, New Delhi.
- Valerian Rodrigues (Ed.) (2002), The Essential Writings of B.R. Ambedkar, Oxford University Press, New Delhi.
- Yadav, Sushma (2010), Reservation and Inclusive Growth: Theme Paper for 54th Member's Annual Conference, IIPA, New Delhi.

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Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

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Semester: IV

Course Title: MEASURING GOVERNANCE

Course Code: PGPPA4002T  
Course Objective

Credit: 4

The use of governance indicators, as applied to developing countries, has grown spectacularly in recent years. The governance indicators contribute to the growing empirical research of governance with advocacy tools for policy reform and monitoring. The indicators, and the underlying data behind them, are part of the current research and opinions that have reinforced the experiences and observations of reform-minded individuals in government, civil society, and the private sector. The main objective of this course is to present various methodologies of measuring governance and facilitate the students to have knowledge of the Human Development Indicators, Corruption perceptions Index with a comparative outlook of developing and developed countries.

**UNIT - I: Introduction**

- a) Measuring Governance: Need and Significance
- b) Measuring Governance: Methodological Plurality
- c) Measuring Governance: Inadequacy of Existing Measurement

**UNIT - II: World Wide Governance Indicators (WGI)**

- a) Political Stability and Absence of Violence
- b) Government Effectiveness and Regulatory Quality
- c) Rule of Law and Control of Corruption

**UNIT - III: Models of Measuring Governance**

- a) Procedural Measure
- b) Capacity Measure
- c) Output Measure

**UNIT - III: Measuring Governance Agencies**

- a) UNDP Human Development Report: Human Development Index
- b) Transparency International: Corruption Perceptions Index
- c) Global Integrity: Innovations for Transparency and Accountability

**UNIT - V: Tools of Measuring Governance**

- a) Cost Benefit Analysis and MBO
- b) CPM
- c) PERT
- d) Operations Research

**Select Readings:**

Ali Farazmand (2004), Sound Governance: Policy and Administrative Innovations, Praeger Publishers, West Port. Bevir, Mark, 2013, The Sage Handbook of Governance, Sage Publications Ltd, London.

Francis Fukuyama (2013), What Is Governance?, Working Paper 314, Center for Global Development, NW, Washington, DC.

Kathe Callahan (2007), Elements of Effective Governance: Measurement, Accountability and Participation, CRC Press, Taylor and Francis Group, Boca Raton.

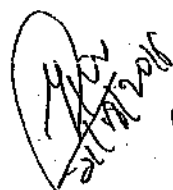
Katherine Berscha and Sandra Boteiro (2014), Measuring Governance: Implications of Conceptual Choices, *European Journal of Development Research* Vol. 26, pp.124-141

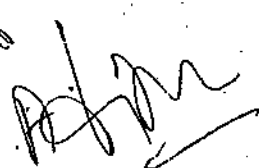
Kaufmann, Daniel, Frannie Leautier, and Massimó Mastruzzi. (2005), "Governance and the City: An Empirical Exploration into Global Determinants of Urban Performance." Policy Research Working Paper 3712: World Bank, Washington, D.C.

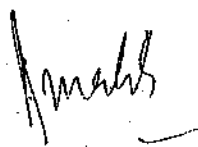
Kaufmann, Daniel, Kraay, Aart, and Mastruzzi, Massimo (2009), Governance-Matters VIII: Aggregate and Individual Governance Indicators, Policy Research Working Paper: Washington DC, World Bank.

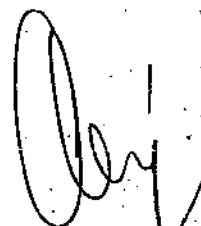
Shantayanan Devarajan (2008), Two Comments on "Governance Indicators: Where Are We, Where Should We Be Going?" by Daniel Kaufmann and Aart Kraay, *The World Bank Research Observer*, vol. 23, No. 1 (Spring), pp. 31-36. www.worldbank.org/index

www.globalintegrity.org

  
21/11/2016







  
K. Anil 2016

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Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

149

Semester: III

Course Title: PUBLIC POLICY: CASE STUDIES

Course Code: PGPPAHE003T

Credit: 4

**Course Objective:**

Increasingly complex social, scientific and technological challenges call for carefully considered policy solutions underpinned by reliable knowledge and appropriate methods. Reducing poverty and accelerating development progress require improved policies. A better understanding of how research can contribute to pro-poor policies, and systems to put it into practice, could improve development outcomes. For this reason, the link between research and policy in development is of increasing interest, to both researchers and policy-makers. The presented case studies in this course provide an in-depth understanding of public policy making and implementation in India.

**UNIT- I: Introduction**

- a) Importance of Case Studies in Public Policy
- b) Case Study as a Representative Sample
- c) Building Theory from Case Studies

**UNIT- II: Education Policy**

- a) National Education Policy -1986
- b) Public Expenditure on Education in India
- c) Right to Education Act
- d) Corporatization of Education System

**UNIT- III: Economic Policy**

- a) New Economic Policy of 1991
- b) Liberalization and Growth of Indian Economy
- c) Mixed Economy to Globalization - Impact

**UNIT- IV: Protective Discrimination**

- a) Democratization of Power: Reservations
- b) Women Reservation's Bill
- c) Reservations in Corporate Sector

**UNIT- V: ICT and Cyber Security**

- a) National Policy on Information Technology 2012
- b) National Cyber Security Policy 2013
- c) Cyber Crime and Cyber Activism

**Select References:**

- Agarwal, J. C. (2009), Education policy in India, Neha Publishers & Distributors.
- Anne O. Krueger, (2002), Economic Policy Reforms and the Indian Economy (ed.), University of Chicago Press, Chicago.
- Bijoy Chandra Mohapatra (2013), Reservation Policy in India, Neha Publishers & Distributors.
- Dev, Mahendra (2008), Inclusive Growth in India, Oxford Collected Essays.
- Dube, Akhilesh (1997), Commercialization of education in India: Policy, law, and justice, A.P.H. Pub. Corp.
- Esharenana E. Adomi, (2010), Frameworks for ICT Policy: Government, Social and Legal Issues, IGI Global Snippet.
- Government of India, National Cyber Security Policy, 2013.
- Government of India, National Policy on Information and Communication Technology, 2012.
- Kim J. Andreasson, (2011), Cybersecurity: Public Sector Threats and Responses, CRC Press, Taylor and Francis Group, Boca Raton.
- P. T. Bauer, (2011), Indian Economic Policy and Development, Routledge, New York.
- Ram Ayodhya Singh (2012), Caste Based Reservation Policy and Human Development in India, Globus Press.
- S. K. Modi (2013), Discrimination Caste System And Reservation Policy of Modern India, Neha Publishers & Distributors
- Sen, Amartya (2000), Social Exclusion: Concept, Application and Scrutiny, Papers No.1. Asian Development Bank.
- Sharma Arvind (2005), Reservation and Affirmative Action: Models of Social Integration, Sage.
- Siddheswar Prasad(1993), New Economic Policy: Reforms and Development, Mittal Publications, New Delhi.
- Thorat, Sukhadeo and Umakant (2004), Caste, Race and Discrimination - Discourses in International Context, Indian Institute of Dalit Studies and Rawat Publishers, New Delhi and Jaipur.
- Thorat, Sukhadeo, Aryama and Prashant Negi (Eds.) (2005), Reservation and Private Sector-Quest for Equal Opportunity and Growth, Rawat Publications, Jaipur.
- Zeinab Karake-Shalhoub, Lubna Al Qasimi, (2010), Cyber Law and Cyber Security in Developing and Emerging Economies, Edward Elgar Publishing House, Cheltenham, UK.

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Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

165

Semester: IV

Course Title: E- Government

ELECTIVE COURSE (INTERDISCIPLINARY)

Course Code: PGPPA4001T

Credit: 4

Course Objective:

Electronic government or "e-Government" is defined as the use of information and communication technologies (ICTs) in government to provide public services and to improve managerial effectiveness. Governments use ICTs for the exchange of information with citizens and businesses. E-Government utilizes technology to accomplish reform by fostering transparency, eliminating distance and other divides, and empowering people to participate in the political and administrative processes that affect their lives. The preliminary objective of this course is to introduce the technology of e-government with an in-depth examination of various government initiatives and train the student to develop the ability to discuss current electronic government issues and trends.

**UNIT I: Introduction**

- Technology and Society
- Changing nature of Public Service Delivery
- The Second Administrative Reforms commission on e-Governance

**UNIT II: e-Government**

- e-Government: Definition and Scope
- e-Government in Developing Countries
- Evolution of e-Government

**UNIT III: Approaches and Impact**

- e-Democracy, e-Services and e-Learning
- Transparency & Accountability
- Time and Cost Benefits

**UNIT IV: Future Challenges**

- e-Readiness
- Digital Divide
- Risk Management

**UNIT V: Case Studies**

- Electronic Citizen Services (E-Seva) in Andhra Pradesh
- Digitalization of Land Records in India- Case of Bhoomi in Karnataka
- Social Empowerment through IT: Akshaya programme in Kerala
- Common Service Centres in J&K: Khidmat Centres

**Select References:**

- Anthony, Elias Tsougranis, (2001) 'Measuring Informatization: A Longitudinal Cross-national Exploration', Maxwell School, Syracuse University, New York
- Bellamy, C and Taylor JA, (1998) Governing in the Information Age, Buckingham and Philadelphia, PA: Open University Press
- Bhatnagar S.C, (2004), E-Government : From Vision to Implementation, Sage, New Delhi
- Bhatnagar SC, (2003) E-Government: Transparency and Corruption - Does E-Government Help?, Commonwealth Human Rights Initiative Report for CHOGM
- Gosling, P, (1997), Government in the Digital Age, London, Bowerdean
- Heeks, Richard (1998), Information Systems for Public Management: Information Technology and Public Sector Corruption, Working Paper No. 4, Manchester: IDPM - University of Manchester
- Kooiman, J, (ed.) (1993), Modern Governance: New Government - Society Interactions, London: Sage Publications
- Layne, K and Lee J (2001), Developing Fully Functional e-Government: A Four Stage Model, Government Information Quarterly, Vol. 18, No. ER2
- Pardhasaradhi, Y, (2009) E-Governance and Indian Society, Kanishka, New Delhi
- Satyanarayana, J (2006), E-Government, New Delhi, PHI

Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

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Semester: IV

Course Title: Innovation in Governance (Core Course)

Credit: 4

Course Code: PGPPA4001T

**Course Objective:**

Public governance is one of the most important scorching topics in the world of administration. It depicts the profound changes both in government and public services caused by both external pressures and internal tensions. Administrative and bureaucratic hierarchies are being transformed into complex settings of public governance. The main objective of this course is - how these governance processes and structures should be changed in order to achieve better results from social, political and economic points of view. This course provides a contextual view for innovations in public governance in which the main purpose is to introduce innovations which make a real difference in public governance.

**UNIT - I: Introduction**

- a) Innovations in Governance: Perspectives and Challenges
- b) Characteristics and Patterns of Innovations
- c) Institutional Framework for Promoting Innovations

**UNIT - II: Understanding Innovations**

- a) Public Governance and Innovations
- b) Innovations in Public Services: An Historical Perspective
- c) Innovation for Achieving a Quality of Life

**UNIT - III: Innovations in Different Sectors**

- a) General Administration
- b) Urban Administration
- c) Health Administration

**UNIT - IV: Transferability of Best Practices and Innovations**

- a) The Ombudsman against Corruption
- b) Technology and Changing Nature of Organizations
- c) Diffusion of Innovation in a Development Context

**UNIT - V: Issue Areas**

- a) Originality and Replication of Innovations
- b) Innovation with or without Improvement
- c) Citizen Participation in Government Innovations

**Select References:**

- Anttiroiko et al. (Eds.) (2011), *Innovations in Public Governance*, IOS Press.
- Bevir, Mark, ed. (2010) *The Sage Handbook of Governance*. Thousand Oaks, CA: Sage Publications.
- Borins, S. (2001), *The Challenge of Innovating in Government* (PricewaterhouseCoopers Endowment for the Business of Government.) Governance Innovators Network, <http://www.innovations.harvard.edu/>
- Innovations in Governance and Public Administration: Replicating what works, (2006) Department of Economic and Social Affairs, United Nations, New York
- Jean Hartley (January 2005), *Innovation in Governance and Public Services: Past and Present*, *Public Money & Management*, pp.27-36. Newman, J., Raine, J. and Skelcher, C. (2000), *Innovation in Local Government: A Good Practice Guide* (DETR, London).
- Peters, B. Guy (1996) *The Future of Governance: Four Emerging Models*, pp. 1-20.
- Pollitt, C. and Bouckaert, G. (2000), *Public Management Reform: A Comparative Analysis* (Oxford University Press, Oxford).
- Sandford Borins, ed., (2008), *Innovations in Government Research, Recognition, and Replication*, Brookings Institution Press.
- Stephen P. Osborne, Ed., (2001), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*. London: Routledge

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Department of Public Policy and Public Administration  
Central University of Jammu, Jammu

116

DISSERTATION

Credit : 4

PGPPA4C004D

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118

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11 Aug 2016





# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 11-2/CUJ/Reg/MST/2016/252

12 May, 2017

## NOTIFICATION

It is hereby notified on the recommendations of the Board of Studies, Material Science and Technology, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of Interdisciplinary course for 2<sup>nd</sup> semester students with following details:

Course Code	Course Title	Credit	GIA	MSE	ESE	Total Mark
	<b>CORE COURSES</b>					
PGMST2I001T	Environmental Science	4	25	25	50	100

  
Registrar  
e

To:  
Head, Department of Material Science & Technology

Copy to:  
I/c Controller of Examinations

(2)

**Syllabus for the course of Environmental Sciences  
in CU JAMMU**

**Semester ( Monsoon or Winter)**

**Applicable for the Academic year 2016-17**

**Subject Course Code No.**

**Subject Course Title: Environmental Sciences**

**Duration of Examination: 3 Hours**

**Credits: 4**

**Maximum Marks: 100**

**Contact Hours / Week: 4**

**Unit I : Geoscience & Climatology**

The universe, solar system and origin of earth, Origin and evolution of biosphere, Atmosphere, structure, composition and dynamics, climate, weather, measurement of climatic parameters, Lithosphere - Structure, Formation and processes of change, Hydrosphere, Composition and circulation of surface and ground waters, Bio-geo-chemical Cycles.

**Unit II : Energy Studies & Natural Resource Conservation**

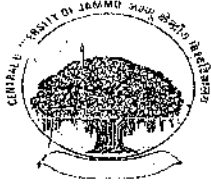
Introduction to energy resources, Fossil Fuels, Solar Energy, Biomass Energy, Energy from water, Wind Energy, Geothermal energy, Nuclear energy, Introduction to natural resources, Biodiversity conservation, Conservation of wetlands and ground water, Watershed Management, Natural Resource Accounting.

**Unit III: Environmental Pollution & Engineering**

~~Air pollution, Noise Pollution, Water Pollution, Solid Waste Pollution, Radiation Pollution, Soil Pollution, Thermal pollution, Innovative techniques for prevention and control of Pollution, Municipal, Industrial and biomedical solid wastes and their treatment, Air pollution control technologies, Noise pollution control technologies, Waste water treatments, Design and functioning of treatment plants.~~







# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya - Suchani (Bagla), District Samba, Jammu - 181143 (J & K)  
Ph: 01923-249657-58. Website: www.cujammu.ac.in

No: 4-6/TTM/CUJ/Reg/2013/85

17 Feb. 2017

## NOTIFICATION

It is hereby notified for the information of all concerned that, on the recommendations of the Head of the Department of TTM, the Vice Chancellor, in anticipation of approval of the Academic Council, has approved the course code- PGTTM6I001T, entitled "ICT and Tourism" for MCA-6<sup>th</sup> Semester students for the academic session 2016-17.

*AM* 17/02/17  
I/c. Registrar  
②

Encl: Copy of approved syllabus

To:

Head, Department of TTM

Copy to:

I/c. Controller of Examinations



Department of Tourism and Travel Management  
Central University of Jammu  
Jammu -180011

BOUQUET COURSE OFFERED BY THE DEPARTMENT FOR THE MCA- 6<sup>TH</sup> SEMESTER STUDENTS

Course Title: ICT and Tourism


Course Code: PGTTM610017

Examination Scheme: Total: 100 marks

<b>COURSE OBJECTIVES:</b>	Students will be EVALUATED by the INTERNAL EXAMINER on the basis of their project work carried out by them. <ul style="list-style-type: none"><li>&gt; Students will be provided internal guide.</li><li>&gt; At the end of the semester students will make presentations on the said project work and will be evaluated by the internal examiner assigned to them.</li></ul> The basic idea of the course is to develop the insight of the students towards the Impact of ICT intervention in the Tourism Industry.
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Course Matrix:

Course Code	Course Title	Credit	Viva-Voce	Project Report	Total Marks
MTTM-675	ICT and Tourism	4	50	50	100

  
Prof. Deepak Raj Gupta  
Head, DTTM  
Central University of Jammu



Annexure V (919)

# जम्मू केन्द्रीय विश्वविद्यालय

## Central University of Jammu

Rahya - Suchani (Bagla), District Samba, Jammu - 181133 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-4/Eco/CUJ/REG/2013/51

Date: 7-2-2017

### Notification

The detailed Course scheme of 1<sup>st</sup> to 4<sup>th</sup> semester of Department of Economics has already been notified vide notification no: 4CUJ/Acad/S05/2015/638, dated. 18.09.2015.

Further, on the recommendations of the Board of Studies, Department of Economics, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the detailed Course syllabus of Course no. PGECO4I008T (Comparative Development Experience of India & China) and Course no: PGECO2E006T (Environmental Economics) w.e.f from Academic Session 2015-16.

*[Signature]*  
I/c. Registrar  
*[Initials]*

**Encl:** Copy of approved syllabus.

**To:**  
Head, Department of Economics

**Copy to:**  
I/c. Controller of Examinations

(20)

ANNEXURE - I

**Course Code: PGECO4I008T**

**Course Title: Comparative Development Experience of India and China**

**(Interdisciplinary Course)**

**Unit -I Introduction to Indian and Chinese Economy**

An overview of Indian and Chinese Economy; Economic Development since 1950; A comparison of major Economic and Human Development indicators of India and China.

**Unit-II Approach to Development.**

Basic Strategy for Development of Indian Economy under Planning. Post reform Development attainments. Role of Public and Private Sectors in India.

Basic Strategy for Development in pre reform China, Economic Development in post reform era.

**Unit-III Agricultural Development**

Structure of Indian Agriculture; New Agricultural Strategy and Green Revolution. Terms of Trade between Agriculture and Industry.

Structure of Chinese Agriculture. Agriculture Reforms in Chinese Economy. Terms of Trade between Agriculture and Industry.

**Unit-IV Industrial Development**

Nature and extent of Industrialisation in India. Industrial policy of 1948, 1956 and 1991. Structure of Indian Industry. Problems and Prospects of Industrial Sector in India.

Nature and extent of Industrialisation in China. Industrial Policy of China. Structure of Chinese Industry. Problems and Prospects of Industrial Sector in China.

**Unit-V Foreign Trade**

Composition and direction of India's Foreign Trade, Balance of Payment position after reforms, Foreign Investment Flow in India.

Composition and direction of China's Foreign Trade, Balance of Payment position after reforms, Foreign Investment Flow in China.

TM

## Reading List

- Byres Terence J. (ed.) (1997): The State, Development Planning and Liberalisation in India, Oxford.
- Brandt Loren and Thomas G. Rawski (2006): China's Great Economic Transformation, 1st Edition, Cambridge University Press.
- Chakravarty Sukhamoy (1993): Development Planning: The Indian Experience, Oxford Publishing House.
- Chow Gregory C (2016): Understanding China's Economy, World Scientific Publishing Co Pte Ltd.
- Dreze Jean and Amartya Sen (1996): India: Economic Development and Social Opportunity  
Oxford University Press.
- Dreze Jean and Amartya Sen (2002): India: Development and Participation, 2nd edition Oxford University Press.
- Dreze Jean and Amartya Sen (2013): An Uncertain Glory: India and its Contradictions  
Princeton Press.
- Eckstein A (1978): China's Economic Revolution, 1977, Cambridge University Press.
- Kapila Uma (2016): Indian Economy Since Independence, 27th edition, Academic Foundation.
- Kroeber Arthur R (2016): China's Economy: What Everyone Needs to Know, 1st Edition, Oxford University Press.
- Mitra Ashok (2005): Terms of Trade and Class Relation: An Essay on Political Economy, D C Publisher.
- Naughton Barry J (2006): The Chinese Economy Transitions and Growth, MIT Press.
- Raj.K.N (1967): India, Pakistan and China: Economic Growth and Outlook, Allied Publishers
- United Nations Development Programme, Human Development Reports (Recent Years).
- World Bank, World Development Reports (Recent Years)

RL

# [ANNEXURE I]

Course No: PGECO2E006T

Course Title: ENVIRONMENTAL ECONOMICS

## UNIT I. Introduction

Economy-Environment Interaction; Material Balance Principle; Entropy law; Interaction Between Ecological and Economic Systems; Environment-Development-Poverty Nexus; Sustainable Development Concept, Indicators and Rules. Environmental Kuznets's curve Hypothesis – Theory and Empirical Evidence;

## UNIT II. The Theory of Externality and Public Goods

Public Goods and Bads-Introduction. Optimal Provision of Public Goods and Bads.Pricing Public Goods and Bads. Market Failure; Pigouvian Solution; Buchanan's Theory; Coase's Theorem and its Critique; Pigouvian vs Coasian Solution.

## UNIT III. Environmental Valuation

Concept; Objective Standard Based Valuation, Subjective Preference Based Valuation .Indirect Methods of Environmental Valuation-Travel Cost Method, Hedonic Price Theory. Direct Methods of Environmental Valuation; Contingent Valuation Method- Hedonic Price Theory,

## UNIT IV. Environmental Policy

Economic Instrument; Direct economic Instruments- Pollution charges, Tradable pollution permit, Deposit refund system, Indirect Economic Instruments; Choice Among Instruments; Monitoring and Enforcement; Macroeconomic Policies And Environment;

## UNIT V. Environmental Regulation in India

Evolution of Environmental Policies in India; Environmental Legislation in India. Institution for Pollution Abatement in India; Emerging options – eco-taxes and eco-subsidies; Case studies on pollution control in India. India and International Cooperation to Reduce Pollution.

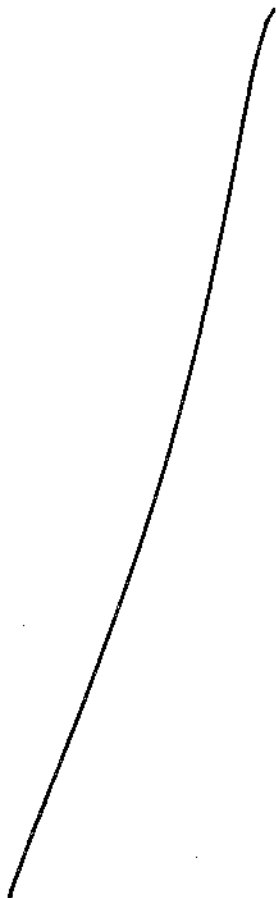
## Suggested Reading List

- Hanley N, J.F. Shogren, and B. White(2006), "Environmental Economics: In Theory and Practice", Oxford University Press.
- Kolstad, C (2000), "Environmental Economics", Oxford University Press.
- Conrad, J.M. and C. Clark(1987), "Natural Resource Economics - Notes and Problems", Cambridge University Press,
- Dasgupta, P.S. and G.M. Heal (1979), "Economic Theory and Exhaustible Resources", University Press (Selected chapters).

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- LOR
- Baumol, W.J. and W.E. Oates (1998), "The Theory of Environmental Policy", Cambridge University Press.
  - Bhattacharya, R.N. (2001), "Environmental Economics – An Indian Perspective", Oxford University Press, Delhi.
  - Singh, K. and A. Shishodia (2007), "Environmental Economics: Theory and Applications", Sage Publications, New Delhi.
  - Sankar, U. (2001), "Environmental Economics", Oxford University Press, Delhi.
  - Chopra, K. and V. Dayal (ed.) (2009), "Handbook of Environmental Economics in India", Oxford University Press, Delhi.
  - Tietenberg (2008). "Environmental and Natural Resource Economics", Prentice Hall.

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Annexure VI (92)

# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu - 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-7/MCA/CUJ/REG/2013/84

17<sup>th</sup> Feb. 2017

### NOTIFICATION

It is hereby notified that on the recommendations of the Board of Studies, Department of Computer Science & IT, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of Interdisciplinary course for semester 3<sup>rd</sup> and 4<sup>th</sup> semester students. The approved Course Scheme and syllabus are as under:

#### Semester-III (May 2016, 2017 and 2018)

Course Code	Course Title	Credit	CIA	MSE	ESE	Total Marks
	<b>CORE COURSES</b>					
PGCSA3I001T	Fundamentals of Computers	4	25	25	50	100

#### Semester-III (Dec. 2015, 2016 and 2017)

Course Code	Course Title	Credit	CIA	MSE	ESE	Total Marks
	<b>CORE COURSES</b>					
PGCSA4I001T	Information Security and Cyber Law	4	25	25	50	100

*[Signature]*  
17/02/17  
I/c. Registrar  
*[Signature]*

Encl: Copy of approved syllabus

To:

All Heads of the Department

Copy to:

I/c. Controller of Examinations

CENTRAL UNIVERSITY OF JAMMU  
FOR EXAMINATION TO BE HELD IN MAY 2016, 2017, 2018

Inter disciplinary Course offered by Computer Science & IT Department

PG (CS) 316017

COURSE TITLE: Fundamentals of Computers COURSE No: .  
Internal Assessment= 25 Mid-Term Exam.=25 End-Term Exam.=50 Total Marks=100  
DURATION OF EXAM: 3 HOURS Lectures: 4 Hours per week

Unit-1

Introduction: Introduction to Computers, Classification of Computers. Analogvs Digital Computer, Block Diagram of Digital Computer, Input Devices, Output devices. CPU, Memory, Types of Memories, Storage Devices, Types of Softwares, Generations of Computers.

Unit-2

Data Representation: Representation of characters in computers, Representation of integers and fractions, Hexadecimal and octal representation of numbers, number system conversions, Two's complement of numbers, addition/subtraction of numbers using 2's complement notation, Error detection codes

Unit-3

Operating System:-Operating Systems and their overview, Types of Operating System, Introduction to Unix and Windows. Anatomy of Windows, Files and Folders, Searching Files, Desktop, Windows Explorer, GUI Features, Disk Cleanup, Disk Defragmenter.

Word Processing: Introduction to MS-Word and its features, Formatting text and paragraph, Page Formatting, Find and Replace, inserting page number, Symbols, footnotes, endnotes, textbox, auto text, pictures, tables, Drawing Shapes, Mail Merge, Printing of documents. Spelling & Grammar etc.

Unit-4

Presentation Software: Introduction to MS-Power point, Slide layouts, Slide Designs, Task Pane, Header and Footer, Text Formatting, inserting slide number, Symbols, Comments, Textbox, Pictures, Slide show, Slide Transition, Slide Animation, Customize show, Rehearse Timing, Record Narrations, Notes, Web Page Preview, Pack and go.

Unit-5

Spreadsheets: Introduction to Ms-excel, Cell-Referencing-relative and absolute, Entering Data and Formula, Excel Workbook, Inserting and Renaming Sheets, Automatic Calculation and Recoloration, Formatting Cells, Rows, Columns and Sheets, Sorting and Filtering data, Formulas-Mathematical Statistical and Logical Functioning, Preparing Charts and analysing data.

References

1. Fundamentals of Computers, by V.Rajaraman, Ph.D, Fifth Edition, April 2010.
2. Computer Fundamentals (Praveen K. Singh, PreetiSingh, BPS Publications, New Delhi
3. Fundamentals of computers E. Balagurusamy, TMA, second reprint 2010.



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CENTRAL UNIVERSITY OF JAMMU  
FOR EXAMINATION TO BE HELD DECEMBER 2015, 2016, 2017

Inter Disciplinary Course offered by Computer Science & IT Department: PC/CSA410017  
COURSE TITLE: Information Security and Cyber Law COURSE No.: \_\_\_\_\_  
Internal Assessment=25 Mid-term Exam.=25 End -Term Exam. = 50. Total Marks= 100  
DURATION OF EXAM: 3 HOURS Lectures: 4 hours per week

**UNIT-1**

Introduction to computer Systems. Classifications of Computers. Analog Vs Digital Computer .  
Block diagram of Digital Computer. Input Devices. Output devices. CPU. Memory. types of  
memories. Storage Devices. Types of computer Softwares. History of Computers. Computer  
Operating systems. Number systems and Number representations.

**UNIT-2**

Basic Concepts of Information Security. Confidentiality. Integrity. Information Classification  
and their Roles. Security threats to E-Commerce. Virtual organization. Business Transactions on  
Web. E- Governance and EDI. Concepts in Electronic payments systems. E cash. credit/ debit  
cards.

**UNIT-3**

Cryptography concepts, issues in documents security. Systems of keys. Network Security  
Concepts. Network attacks. Intrusion detection and systems. Authentication and Authorisation.

**UNIT-4**

Laws, investigation and ethics: cyber crime. Types and overview of cyber crimes. Cyber law  
issues in E-business Management. Information Security and Laws.

**UNIT-5**

Overview of Indian IT Act 2000. Ethical issues in Intellectual Property Rights. Copy right.  
Patents. Data Privacy and Protection. Domain Name. Software Privacy. Plagiarism. Issues in  
ethical Hacking.

**Text & Reference Books:**

1. Nina Godbole: Cyber Security, Wiley India
2. N. Godbole : Information System Security, Security Management, Metrics, Framework, Wiley  
India
3. Sood, Cyber laws Simplified, Mc Graw Hill





# जम्मू केन्द्रीय विश्वविद्यालय

## Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-7/MCA/CUJ/REG/2013/125

8<sup>th</sup> March, 2017

### Notification

The detailed Course scheme of 1<sup>st</sup> to 4<sup>th</sup> semester of Department of M.Tech. (Computer Science) has already been notified vide notification no: 4-7/MCA/CUJ/Reg/2013/1712 dated: 26-09-2016 along with syllabus of 1<sup>st</sup> and 2<sup>nd</sup> semester.

Further, on the recommendations of the Dean, School of Basic and Applied Sciences, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the changes in the Unit IV and Unit V (enclosed alongwith) of the syllabus of Course No. PGMTH2C002T already notified vide notification no. 4-7/MCA/CUJ/Reg/2013/1712 dated: 26-09-2016.

*[Handwritten Signature]*  
I/c Registrar 8/3/17  
*[Handwritten Initials]*

To:

Head, Department of M.Tech. Computer Science)

Copy to:

I/c. Controller of Examinations



# CENTRAL UNIVERSITY OF JAMMU

8/8, Trikuta Nagar, Jammu (J&K) INDIA

No: 007/CSIT/2017/1281  
Date: 20/02/2017

Note :

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As proposed by the concerned teacher and as per the direction of respected Vice Chancellor, the undersigned proposes following change in units IV and V of syllabus of Course No PGMTH2C002T -Data Analytics :

Unit	Existing	Proposed
IV	Introduction to R: Review of the basis data analytic methods using R, ordered and unordered factors, analysing and exploring data, arrays and matrices, list and data frames, reading data from files, probability distributions – statistical models in R, manipulation objects, data distributions, statistics for model building and evaluation	Introduction to Python: Python basics; Python Lists: create, subsetting, manipulate, slicing; Functions and Packages: built-in functions, methods, Importing packages/modules; Numpy package: 2D numpy arrays for storing data, basic statistics with Numpy; Plotting with Matplotlib package: histograms, customized plots based on real data; Control flow and Pandas Package: conditional constructs, Pandas Dataframe
V	HIVE and HIVEQL, HBASE: Hive architecture and installation, comparison with tradition database, HIVEQL, querying data, sorting and aggregating, mapreduce scripts, joins and sub queries, HBASE concepts and usage, schema design, advance indexing – pig, zookeeper, how it helps in monitoring a cluster, HBASE uses zookeeper, and how to build application with zookeeper	MongoDB: Introduction, Tabular Structure Data vs Documented Structure, Documents, Collections, Basic Operations: Create, read, update and delete (CRUD), Databases Queries: find(), findOne(), count(), Query conditionals: \$lt, \$lte, \$gt, \$gte, AND, OR, Type Specific Queries: null, regular expressions, Querying Arrays: \$all, \$size, \$slice

Prof. Devanand

20.02.17

Head Dept. of Computer Sc. & IT  
Dean School of Basic & Applied Sciences

Submitted for approval (in anticipation)

Vice Chancellor

20/02/17

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Annexure VIII

# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-9/EDU/CUJ/REG/2014/175

12 Feb. 2017

## NOTIFICATION

The detailed Course scheme of 1<sup>st</sup> to 4<sup>th</sup> semester of Department of Educational Studies has already been notified vide notification no: 4-9/EDU/CUJ/Reg/2014/1776, dated: 29-11-2016 along with syllabus of 1<sup>st</sup> and 3<sup>rd</sup> semester.

Further, on the recommendations of the Board of Studies Department of Educational Studies, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the detailed Course syllabus of 2<sup>nd</sup> semester for the Academic Session 2016-18.

*[Signature]*  
16/02/17  
I/c. Registrar  
④

Encl: Copy of 2<sup>nd</sup> semester syllabus.

**To:**

Head, Department of Educational Studies

**Copy to:**

I/c. Controller of Examinations





**DEPARTMENT OF EDUCATIONAL STUDIES**  
**Central University of Jammu**

M.Ed. (Two Years Programme)  
 Semester-II

Course Code: PGEDU2C001T  
 Course Title: SOCIOLOGICAL PERSPECTIVES OF EDUCATION

Total Credits: 4 (Four)  
 Lecture/Tutorial/Practical: 3:1:0

Maximum Marks:100

**Objectives :**

- 1) To acquaint the students with education as a social process.
- 2) To inculcate the knowledge of Education from the social perspective.
- 3) To understand education as a determinant of social change and development.
- 4) To develop social habits and attitudes in the students and to make them socially adjustable.

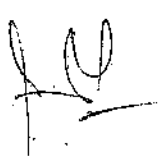
**Teaching and examination scheme:**

Teaching Scheme (Unit wise Division of Teaching Sessions)				Total (L+T+P)	Examination Scheme			
					CIA	MTE	ETE	Total Marks
Unit	L	T	P	(L+T+P)				
I	12	4	0	16	25 Marks	25 Marks	50 Marks	100 Marks
II	12	4	0	16				
III	14	4	0	18				
IV	18	6	0	24				
V	12	4	0	16				
Total	68	22	0	90				

Legends: L- Lecture, T-Tutorial/Teacher Guided Student Activity, P- Practical; C-Credit;  
 CIA-Continuous Internal Assessment, MTE-Mid Term Examination and ETE-End Term Examination

**Attendance Requirements:**

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.



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## Course Contents

### Unit-I: Concept and scope of Educational Sociology

- Relationship between Sociology and Education ; Meaning and nature of Educational Sociology and Sociology of Education ;
- Schools of Sociological thought in relation to Education –
  - Structural Functionalism
  - Conflict perspective
  - Symbolic Interactionism
- Social organizations and its concepts, Factors influencing Social organizations – Folkways, Mores, Institutions, Values and its educational implications.

### Unit- II Social Change and Social Interactions

- Education and social change – its meaning and concept, Theories of Social Change; Agencies of social change; Education as a factor of social change with special reference to India, Constraints in social change in India (with special reference to Caste, Class, Language, Religion and Regionalism).
- Socialization of the Child; Theories of Socialisation: Psychodynamic theory, Attachment theory, Behavioural Theories, Family Systems theory, Biological theory, Developmental theory.
- Social Stratification and Social Mobility; types and characteristics.
- Culture – Meaning, definition, nature and importance; Education and cultural change; Cultural diffusion and integration; Role of Education in Cultural Change

### Unit: III— Education and Sociological Variables

- Interrelationship between Education and Social Variables
  - Education and Family,
  - Education and Schooling,
  - Education and Peer group,
  - Education and caste, gender, class,
  - Education and Globalization.
- Complementarity in participation of different stakeholders in school education, role of media, use of technology, NGOs, Civil society groups, Teacher organisations, and local community
- Group Dynamics ; Stages and types of group Dynamics.
- Leadership; Types of Leadership styles; Leadership qualities and role of Education



**Unit IV- Socio-cultural Context of Education.**

- Understanding Indian society-with reference to multilingual and multicultural and other diversity, appropriate approaches for teaching young children in the context of diversity.
- Equality in educational opportunity-critical analysis of the ways in which schooling, teaching-learning and curriculum contribute to social inequality.
- Education of socio-economically deprived groups based on gender, local (rural/urban), income differential and different disabilities as reflected in society.
- Constitutional provisions for education; Nationalism and Education; Education for national integration and international understanding.

**Unit- V: Social problems relating to Education in India :**

- Delinquency – Meaning – Types – Causes – Characteristics – Factors Involved – Methods of treating delinquents.
- Child Abuse and Child Labour – Child Population and working children – Concept and types of child abuse – Causes of child abuse – Effects of abuse on Children – The problem of child labour.
- Issue of equality of educational opportunity and excellence in education.; Qualitative vs Quantitative Expansion of Education
- Empowerment of Women: Concept of Empowerment – Indicators of Empowerment – Facilitating and constraining factors of Empowerment and role of education.

**Transaction Mode**

(1) Observational studies-Observation of various instructional situations in real classrooms, various activities in the school, the role of teachers etc; (2) Seminar reading-presentation by students on selected themes individually and collectively leading to discussion; (3) Library readings on selected themes followed by group discussions ;(4) Study of documents & references and reflective interaction with the peer group.

**Sessional Work:** The students have to undertake following activities:

- Visits to Rahya Suchaini to understand ways, folklores and culture of the area and preparing a report.
- Assignments based on self-study on identified themes such as policy perspectives and status of education of socio-economically disadvantaged children of India/of a particular State, vision of school education in India, process of socialization of the child, critical analysis of the ways in which schooling, teaching-learning and curriculum contribute to social inequality, young children and social policy etc and presentation in a seminar.

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000 70 *[Handwritten signature]*

## References:

- Adishesiah, W.T.V. & Pavanasam.(1974). R. Sociology in Theory and Practice, New Delhi, Santhi Publishers.
- Brown, Francis J. (1954), Educational Sociology, New York: Prentice Hall of India.
- Chandra, S.S.(1996). Sociology of Education, Guwahati, Eastern Book House.
- Chanda S. S. & Sharma R.K.(2002). Sociology of Education, New Delhi, Atlantic Publishers.
- Cook L, A. & Cook,E. (1980), Sociological Approach to Education, London: McGraw Hill.
- Dewey, John (1966), Democracy and Education, New York: The Freeman's Press .
- Durkheim, E.(1966). Education and Sociology, New York, The Free Press Gore, M.S. (1984) Education and Modernization in India, Rawat Publishers,Jaipur
- Hasley, A.H.; Floud Jeen and Anderson C., Arnold (1969), Education, Economy and Society, New York: The Freeman's Press.
- Havighurst and Newgarten (1960), Society and Education, Boston: Allyn and Bacon.
- Hemlata, T.(2002). Sociological Foundations of Education, New Delhi, Kanishka Publishers.
- Kamat, A. R. (1985) Education and Social Change in India, Bombay Samaiya Publishing Co.
- MacIver, R.M. and Page, Thomas (1948), Society, New York: Rinehart & Co. Inc.

*A. Shree*

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# M.Ed. Two Year Programme

Semester-II

SESSION 2016-18

Course Code: PGEDU2C002T

Course Title: Teacher Education

Total credits: 04

L:T:P: -- 3:1:0

Examination Duration: 3 hours

Maximum Marks: 100

## Objectives

On completion of this course the students will be able to:

- gain insight and reflect on the concept of teaching and the status of teaching as a profession.
- understand the roles and responsibilities of teachers and teacher educators.
- use various methods of teaching for transacting the curriculum in schools.
- prepare teachers for reflective teaching.
- critically examine the role and contribution of various regulating bodies and support institutions for improving quality of teacher's education.
- reflect on the issues and problems related to teacher education in the country.

Teaching Scheme (unit wise Division of teaching sessions)					Examination Scheme			
Unit No.	L	T	P	C	CIA	MTE	ETE	Total Marks
I	11	3	0	14	25 Marks	25 Marks	50 Marks	100 Marks
II	11	4	0	15				
III	13	4	0	17				
IV	13	4	0	17				
V	13	4	0	17				
TOTAL	60	20	0	80	25 Marks	25 Marks	50 Marks	100 Marks

## Course Content

### Unit I

- Teacher Education: Concept, aims and scope, problems of teacher education in India and remedial measures to overcome the problems of teacher education.
- Historical Background of Teacher Education in India with Special Reference to the recommendations of National Commission on Teachers (1983-85), Kothari Commission and National Policy on Education 1986 Revised (1992). Teachers in India: The changing profile: changing roles and responsibilities of teachers.
- Concept of Profession: Service conditions of school teachers, and professional ethics for teachers.

### Unit II

- Concept and nature of teaching, reflective teaching: concept and strategies for making

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~~teachers as reflective practitioners.~~

- Models of Teaching: Concept attainment; inquiry training and Glaser's Basic Teaching models.
- Approaches to Teaching-learning: Behaviouristic approach, cognitivistic approach and constructivist approach.

### Unit III

- Teacher educator: Roles and responsibilities of teacher educators, preparation of teacher educators and teaching as a profession
- Characteristics (Cognitive, affective and conative correlates of effective teacher educators - Intelligence, Skill, Personality, Values and Attitudes)
- Agencies of teacher education: SCERT, SBTE, UDE, UGC, NUEPA/NIEPA, NCTE, *CBSE*, NCERT, UNESCO.

### Unit IV

- Pre-service teacher Education
- In-service Teacher Education
- Cooperative and collaborative teacher education. Value based teacher education.
- Objectives of teacher education at secondary, higher secondary and tertiary level.

### Unit V

- Evaluation Practices in Teacher Education: Formative and summative evaluation, evaluation of school experience/internship programmes.
- Recognition, assessment and accreditation of teacher education Institutions: Role of NCTE & NAAC.
- Current trends in teacher education:
  - a. Inter-disciplinary approach *to teacher education*
  - ~~b. Community living & open~~
  - b. Role of distance education *in teacher education*
  - c. *Teacher as reflective practitioner*

### Transactional Mode

The course would be transacted through participatory approach including group discussion; self study, seminar/presentations by students etc.

**Sessional work:** The students may undertake any one of the following activities:

- ✓ Organisation and participation in group discussion on norms developed by NCTE for recognition of teacher education Institutions.
- ✓ Preparation of assignments on different topics along with presentations.
- ✓ Interaction with the faculty of Elementary/Secondary teacher education Institutions to ascertain their roles and responsibilities.
- ✓ Interaction with the faculty of Elementary/Secondary teacher education Institutions to ascertain the strategies they use for their professional development.
- ✓ Preparation of a plan based on any model of teaching for teaching any topic/concept

included in the curriculum.

### References

- Caggart, G.I. (2005): *Promoting Reflective Thinking in Teachers*. Crowin Press.
- Joyce, B., and Weil, M. (2003). *Modals of Teaching* (7<sup>th</sup> Ed.). Boston: Allyn & Bacon.
- Lampert, M. (2001). *Teaching problems and the problems of teaching*. New Haven: Yale University Press.
- Linda Darling Hammond & John Bransford (ed) (2005): *Preparing Teachers for a Changing World*. Jossey-Bass. San Francisco.
- Martin, D. J. & Kimberly S. Loomis (2006): *Building Teachers: A constructivist approach to introducing education*. Wadsworth Publishing, USA.
- NCTE. (1998). *Policy Perspective in Teacher Education- Critique and Documentation*. NCTE New Delhi.
- Ram, S. (1999): *Current Issues in Teacher Education*. Sarup & Sons Publications. New Delhi.
- Reimers, Eleonora Villegas (2003): *Teacher Professional development: an international review of the literature*. UNESCO: IIEP, Paris.
- Schon, D. (1987): *Educating the Reflective Practitioner: Towards a New Design for Teaching and Learning in the Professions*. New York. Basic Books.
- Siddiqui, M.A. (1993). *In-Service Education of Teachers*. NCERT, New Delhi.
- Sharma S.P. (2012). *Teacher Education: Principles, Theories and Practices*. New Delhi: Kanishka Publishers, Distributors.

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**DEPARTMENT OF EDUCATIONAL STUDIES**  
Central University of Jammu

Programme: M.Ed. (Two Years)

Semester-II

**Course Title : Statistics in Education**  
**Course Code: PGEDU2C003T**

Credits-4 (L-2;T-1;P-1)

**Objectives**

On completion of this course, the learners will be able to:

- Convey the essential characteristics of a set of data by representing in tabular and graphical forms and computing relevant measures of average and measures of variation;
- Examine relationship between and among different types of variables of a research study;
- Explain or predict values of a dependent variable based on the values of one or more independent variables;
- reflect the capacity for qualitative and quantitative analysis of research data;
- analyze the assumptions underlying statistical tests and techniques used for analyzing and interpreting research data.
- Estimate the characteristics of populations based on their sample data;
- Test specific hypotheses about populations based on their sample data;
- Use appropriate parametric and non-parametric tests ;
- Demonstrate competence in the use of MS- Excel for analysis of data.

Teaching Scheme (Sessions)*				Total (L+T+P)	Examination Scheme			
Unit	L	T	P		CIA	MTE	ETE	Total Marks
I	8	4	4	16	25 Marks	25 Marks	50 Marks	100 Marks
II	10	5	5	20				
III	10	5	5	20				
IV	10	5	5	20				
V	8	4	4	16				
	<b>46</b>	<b>23</b>	<b>23</b>	<b>92</b>	25 Marks	25 Marks	50 Marks	100 Marks

## Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must, failing which a student may not be permitted to appear in examination.

## Course Contents

### Unit I- Descriptive Analysis of Quantitative Data

- Parametric and Non-parametric tests; Concept, uses and the difference between Parametric and Non-parametric tests; Data analysis in qualitative and quantitative research situations.
- Raw scores and frequency distribution, graphical representation of frequency distribution – Polygon and Histogram – differences between the two, cumulative frequency curve, Ogive and smoothed frequency curve.
- Measures of central tendencies- concept, computation, uses and interpretation of mean, median and mode; Measures of dispersion:- concept, computation, uses and interpretation of standard deviation, Quartile deviation.

### Unit II– Descriptive Analysis of Quantitative Data-I

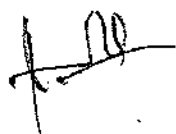
- Measures of relative positions: concept, computation, uses and interpretation of percentile point, percentile rank and z-scores.
- Normal Distribution: concept, computation, uses and interpretation of skewness and kurtosis; characteristics of normal probability curve
- Normal Probability Curve and its applications :
  - ❖ Determination of the percentage /number of cases falling above and below the given scores;
  - ❖ Determination of the percentage /number of cases falling between the given scores;
  - ❖ Determination of the limits, which include given percentage of cases;
  - ❖ Determination of raw scores from the given percent of cases;
  - ❖ To separate a given group into sub- groups according to capacity when the trait is normally distributed.

### Unit III– Descriptive Analysis of Quantitative Data

- Measures of Relationship : concept, computation, uses and interpretation of Product Moment correlation (Raw scores and through scatter Diagram ), Rank Correlation.
- Concept, computation, uses and interpretation of Biserial, Point-biserial correlation
- Concept, computation, uses and interpretation Partial(1<sup>st</sup> Order) and Multiple correlation

### Unit IV– Inferential Analysis of Data-Parametric Tests

- Estimation of a Parameter-Concept of parameter and statistics, sampling error, sampling distribution, Standard Error of Mean, confidence limits for Mean proportions/percentage, means (including small samples)and correlation
- Testing of Hypotheses :Testing of null hypotheses, types of error, levels of significance, testing the significance of difference between the following statistics for independent and correlated samples: proportions, means (including small samples)and correlation.
- Analysis of variance (ANOVA)-Concept, assumptions and uses, Computation upto Two-



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### Unit V – Inferential Analysis of Data-Non-Parametric Test

- Concept, assumptions, uses and limitations of Non-Parametric Tests.
- Chi-square and hypothesis testing: Concept, when to use assumptions and advantages, hypothesis testing:
  - Testing deviation of the observed frequencies from the expected frequencies against equal probability hypothesis.
  - Testing deviation of the observed frequencies from expected frequencies against normal distribution hypothesis.
  - Testing hypothesis of independence when observed frequencies are given
- Concepts, assumptions, uses and interpretations of Sign test, Rank test and Median test

### Transaction Mode

Lecture-cum-discussion, brain storming, group discussion, seminar presentations, panel discussions, seminar presentations, development of a statistical analysis plan on the topic selected for any research problem in hand.

### Sessional Work

The students will be engaged in the activities as a part CIA (Continuous Internal Assessment):

- ✓ A critical assessment of statistical techniques used in a research report :
- ✓ Preparation of graphic designs of data obtained in a research study :
- ✓ Selection and description of appropriate statistical technique(s) for answering a research question or for testing a given hypothesis :
- ✓ Analysis of data using MS Excel .

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# M.Ed. Two Year Programme

Semester-II

SESSION 2016-18

Course Code: PGEDU2E001T

Course Title: Secondary Education

Total Credits- 4

Lectures/Tutorial/Practice (3:1:0): 90 Hours

Maximum Marks:100

Teaching Scheme (unit wise Division of teaching sessions)					Examination Scheme			
Unit No.	L	T	P	C	CIA	MTE	ETE	Total Marks
I	15	5	0	20	25 Marks	25 Marks	50 Marks	100 Marks
II	14	5	0	19				
III	13	4	0	17				
IV	13	4	0	17				
V	13	4	0	17				
TOTAL	68	22	0	90	25 Marks	25 Marks	50 Marks	100 Marks

### Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

### Objectives

On completion of this course the students will be able to:

- Explain the concept and importance of secondary education in India.
- Gain insight and reflect on the historical development of secondary education in India.
- Critically examine the quality concern in secondary education.
- Role of community participation in development of secondary education.
- Understand the roles and responsibilities of teachers and teacher educators at secondary level.
- Use various methods of teaching for transacting the curriculum at secondary schools level.
- Critically examine the role and contribution of various regulating bodies and support institutions for improving quality of teacher's education.
- Reflect on the issues and problems related to teacher education at secondary school level in the country.

### Course Content

#### Unit I: Development of Secondary Education in India

- Secondary Education: concept, aims, importance
- Development of secondary education before independence - Wood's Despatch, Calcutta Commission, Hunter Comm., Sargan Report
- Recommendations of different commissions in the context of secondary education-

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Secondary Education Commission (1952-53), Indian Education Commission (1964-66), National Policy of Education (1986), Programme of action (1992).

### Unit II: Development of Secondary Education in Jammu and Kashmir

- Historical Perspective of Secondary Education in Jammu and Kashmir
- Major reforms for development of secondary education in Jammu and Kashmir
- Structure of Secondary Education in Jammu and Kashmir
- Vocationalisation of secondary Education- need and importance.

### Unit III : Teacher Education for Secondary School System

- Pre-service teacher education programmes for secondary school system.
- In-service teacher education programmes for secondary school system.
- Administrative and organisational structure of teacher education at secondary level.
- Problems of Teacher Education at secondary school level.

### Unit IV: Quality Concerns in Secondary Education

- Quality concerns in Secondary Education: concept of quality, assessment of quality, factors affecting quality and learning achievement.
- Universalization of secondary education (USE) and its implications for teacher education at secondary level.
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA): aims and objectives, norms and standards.
- Role of various agencies in teacher education: SCERTs, NCERT, NIEPA, NCTE

### Unit V: Emerging Issues in Secondary Education

- Role of NCTE in the context of teacher education for secondary education system.
- Research priorities in secondary education.
- Monitoring, supervision and evaluation of secondary education.
- School based practicum and internship: concept, planning, organization and evaluation of school based practicum and internship programmes.

### Transactional Mode

The course would be transacted through participatory approach including group discussion; self study, seminar/presentations by students etc.

**Sessional work:** The students may undertake any one of the following activities:

- ✓ Organisation and participation in group discussion on norms developed by NCTE for recognition of teacher education Institutions.
- ✓ Preparation of assignments on different topics along with presentations.
- ✓ Interaction with the faculty of Secondary teacher education Institutions to ascertain their roles and responsibilities.
- ✓ Interaction with the faculty of Secondary teacher education Institutions to ascertain the strategies they use for their professional development.
- ✓ Preparation of a plan based on any model of teaching for teaching any topic/concept included in the curriculum.

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## References

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**Central University of Jammu**  
**Department of Educational Studies**  
**M.Ed. (Two Years Programme)**  
**Semester-II**  
**Course Code: PGEDU2E002T**  
**Mental Health and Hygiene**

Total credits: 04 (Four)

Maximum Marks: 100

Lectuer:Tutorial:Practicals: 2:1:1

**Objectives**

After completion of this course the students will be able to:

- develop an understanding of mental health and associated aspects
- develop an understanding of the magnitude of mental health challenges faced by the children.
- get acquainted with the ways and mechanism to facilitate their students in dealing with mental health issues.
- prepare a conducive teaching learning environment in varied school settings.
- develop the ability to conduct and supervise action research activities.
- identify and utilizing existing support services for promoting inclusive practice.

Teaching Scheme (unit wise Division of teaching sessions)					Examination Scheme			
Unit No.	L	T	P	(L+T+P)	CIA	MTE	ETE	Total Marks
I	7	4	1	12	25 Marks	25 Marks	50 Marks	100 Marks
II	7	3	3	13				
III	10	5	8	23				
IV	10	5	8	23				
V	8	4	1	13				
<b>TOTAL</b>	<b>42</b>	<b>21</b>	<b>21</b>	<b>84</b>	<b>25 Marks</b>	<b>25 Marks</b>	<b>50 Marks</b>	<b>100 Marks</b>

**Legends:** L – Lecture    T – Tutorial    P – Practice    CIA: Continuous Internal Assessment  
MTE: Mid-Term Examination    ETE: End-Term Examination

**Attendance Requirements:**

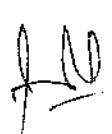
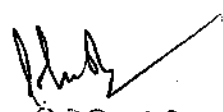
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

**Evaluation Criteria:**

- Continuous Internal Assessment: 25%
- Mid Term Examination: 25%
- End Term Examination: 50%

**Unit – I: Concept of mental health**

- Historical Evolution of the Concept of Mental Health (from normality to self actualization)


  
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- concept of mental health and its process
- concept of normality: Statistical and Ideal

**Unit – II: Adjustment and Factors Affecting Mental Health**

- Concept of Adjustment with reference to the group and self.
- criteria for healthy personality
- Factors affecting mental health: Home, School, Societal factors

**Unit – III: Reflection on problem behaviours in children and their resolution**

- Truancy, Aggression, Delinquency, Addiction etc.
- Guidance and counselling: group and individual
- mental health programmes: Preventive, maintenance, promotive programmes

**Unit – IV: Theories and therapies of Mental Health**

- Psychoanalytic theories: Freud, Jung, Fromm
- Behaviouristic Theories: Skinner, Wolpe, Dollard, Miller
- Theories of Self: Rogers
- Humanistic-Existentialistic theories: Maslow, Rollo May
- Transactional analysis: Eric Berne

**Unit – V: Other significant therapies of mental health**

- play therapy.
- group therapy.
- family therapy
- sensitivity training programmes

**Transactional Mode**

Discussion and group work, presentation by students, use of internet, and field visit to get firsthand experience to the students.

**Sessional Work:** The students may undertake any two of the following activities:

- Planning and conducting guidance and counselling activities on the adolescence issues
- Critical analysis therapeutic traditions (along with associated strategies, tools and techniques).
- Conduct a students' survey to ascertain the prevailing mental health issues and challenges.
- Conduct a survey on the type of supportive service available in the educational institutions for promotion of students' mental health.

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# जम्मू केंद्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF JAMMU

राया-सुचानी (बागला), जिला सांबा-181143, जम्मू (जम्मू एवं कश्मीर)

Rahya-Suchani (Bagla), District Samba -181143, Jammu (Jammu & Kashmir)

Email [registrar@cuajammu.ac.in](mailto:registrar@cuajammu.ac.in), Telephone no (0123) 249658

NO: 4-3/Hindi/CUJ/Reg/2014/200

10<sup>th</sup> April, 2017

### अधिसूचना

हिंदी विभाग के प्रथम से चतुर्थ सत्र की विस्तृत पाठ्यक्रम योजना को पूर्व अधिसूचना संख्या -4-3/हिंदी/सी. यू.जे.रिज/2014/1762, दिनांक 31.10.2016 को प्रथम सत्र के पाठ्यविवरण के साथ अधिसूचित किया गया है।

इसके अतिरिक्त, अध्ययन बोर्ड, हिंदी विभाग की संस्तुति से कुलपति, शैक्षण परिषद के अनुमोदन की प्रत्याशा में द्वितीय सत्र के विस्तृत पाठ्यक्रम को अकादमिक सत्र 2016-17 के प्रभाव से अनुमोदित करते हैं।

30th April 2017/4/17  
प्रभारी कुलसचिव

संलग्न: द्वितीय सत्र के पाठ्यविवरण की प्रति

सेवा में,

विभागाध्यक्ष, हिंदी विभाग

प्रतिलिपि:

प्रभारी परीक्षा नियंत्रक

हिंदी एवं अन्य भारतीय भाषा विभाग

जम्मू केंद्रीय विश्वविद्यालय, सांबा

एम. ए. हिंदी पाठ्यक्रम

दूसरा सेमेस्टर (दूसरा सत्र)

(सत्र 2016 से 2017)

PGHND2C005T : हिंदी साहित्य का इतिहास (भारतेन्दुयुग से अब तक)

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

1857 की राज्यक्रांति और सांस्कृतिक नवजागरण, भारतेन्दु युगीन कविता, विशेषताएँ, महावीर प्रसाद द्विवेदी युगीन कविता, विशेषताएँ, छायावाद संबंधी बहस : (स्वच्छंदतावाद, छायावाद, रहस्यवाद), स्वाधीनता आन्दोलन और छायावाद, कल्पना और छायावाद, छायावाद की विशेषताएँ, प्रमुख छायावादी कवि।

इकाई. 2

प्रगतिवादी कवि और उनका काव्य, प्रगतिवादी साहित्य की विशेषताएँ, प्रयोगवादी कवि और उनका काव्य, प्रयोगवादी साहित्य की विशेषताएँ, नयी कविता के कवि और उनका काव्य, नयी कविता की विशेषताएँ, समकालीन कवि और उनका काव्य, समकालीन कविता की विशेषताएँ, अकविता, नवगीत।

Kabir Kumar



## इकाई. 3

भारतेन्दु और उनका मंडल—19वीं शताब्दी के प्रमुख हिंदी पत्र और पत्रिकाएँ, भारतेन्दुकालीन साहित्य की विशेषताएँ, महावीर प्रसाद द्विवेदी और उनका युग—'सरस्वती' और हिंदी नवजागरण—द्विवेदी युग के प्रमुख गद्यलेखक।

## इकाई. 4

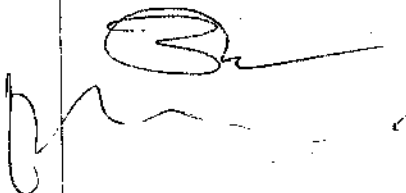
हिंदी की गद्य विधाओं का उदय और विकास : प्रमुख उपन्यासकार— प्रेमचंद, जैनंद्र, भगवतीचरण वर्मा, यशपाल, अज्ञेय, प्रमुख नाटककार : भारतेंदु हरिश्चंद्र, हरिकृष्ण 'प्रेमी', जयशंकर प्रसाद, गिरिजा कुमार माथुर, मोहन राकेश, प्रमुख कहानीकार : चंद्रधर शर्मा 'गलेरी', प्रेमचंद, जयशंकर प्रसाद, सूर्यकांत त्रिपाठी, राजेन्द्र यादव, कमलेश्वर, मोहन राकेश, कृष्णा सोबती, मन्नु भंडारी।

## इकाई. 5

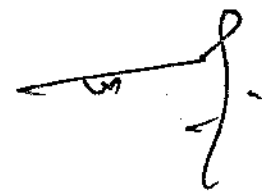
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## अनुशासित ग्रंथ :

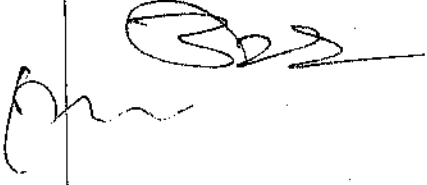
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2. हिंदी साहित्य : उद्भव और विकास : हजारी प्रसाद द्विवेदी, राजकमल प्रकाशन, दिल्ली
3. हिंदी साहित्य और संवेदना का विकास : रामस्वरूप चतुर्वेदी, लोकभारती, इलाहाबाद
4. हिंदी साहित्य का दूसरा इतिहास : बच्चन सिंह, नेशनल पब्लिशिंग हाउस, दिल्ली
5. आधुनिक हिंदी साहित्य का इतिहास : लक्ष्मीसागर वार्ष्णेय नेशनल पब्लिशिंग हाउस, दिल्ली
6. हिंदी साहित्य के इतिहास की समस्याएँ : अवधेश प्रधान, साहित्य वाणी, इलाहाबाद
7. हिंदी नवगीत का संक्षिप्त इतिहास : अवधेश नारायण मिश्र, आर्यभाषा संस्थान, वाराणसी
8. हिंदी साहित्य का इतिहास : सं. नगेन्द्र, नेशनल पब्लिशिंग हाउस, दिल्ली



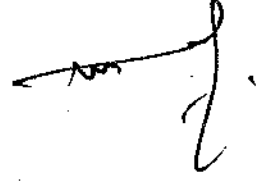
Rachema Kumar Yadav



9. साहित्य का इतिहास-दर्शन : नलिन विलोचन शर्मा, बिहार राष्ट्रभाषा परिषद, पटना
10. साहित्य और इतिहास दृष्टि : मैनेजर पांडेय, पीपुल्स लिटरेसी, दिल्ली
11. स्वातंत्र्योत्तर हिंदी साहित्य : लक्ष्मीसागर वाष्णीय, राजकमल प्रकाशन, दिल्ली



Rathesh Kumar Yadav



## PGHND2C006T : भाषा विज्ञान

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

इकाई. 1

भाषाविज्ञान : परिभाषा एवं स्वरूप, अंग, प्रमुख अध्ययन-पद्धतियाँ। भाषाविज्ञान की प्रमुख शाखाएँ—समाजभाषा विज्ञान, शैलीविज्ञान और कोशविज्ञान का सामान्य परिचय।

इकाई. 2

स्वनविज्ञान : परिभाषा, स्वन और संस्वन, उच्चारण स्वनविज्ञान (स्वनयंत्र और स्वन उत्पादन प्रक्रिया), स्वनभेद, मानस्वर, स्वनिभवितरण के सिद्धांत, स्वनपरिवर्तन के कारण एवं दिशाएँ।

इकाई. 3

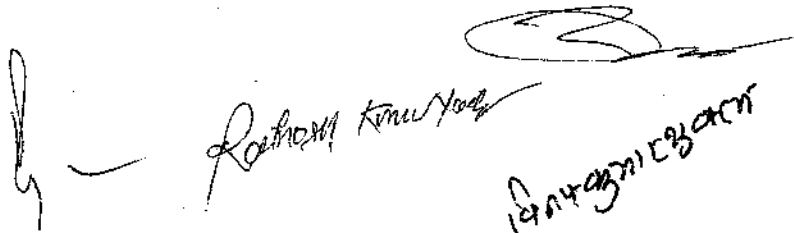
रूपिमविज्ञान : शब्द और रूप (पद), संबंध तत्त्व और अर्थतत्त्व, रूप, संरूप, रूपिम, रूपिमों का वर्गीकरण।

इकाई. 4

वाक्यविज्ञान : वाक्य की परिभाषा, संरचना, निकटस्थ अवयव, वाक्य के प्रकार, वाक्य-रचना में परिवर्तन-कारण एवं दिशाएँ।

इकाई. 5

अर्थविज्ञान : शब्दार्थ सम्बन्ध विवेचन, अर्थपरिवर्तन के कारण एवं दिशाएँ।

 Rishabh Kumar  
विभागाध्यक्ष

अनुशासित ग्रंथ :

1. भाषा विज्ञान की भूमिका : देवेन्द्र नाथ शर्मा, राधाकृष्ण प्रकाशन, दिल्ली
2. भाषा विज्ञान : भोलानाथ तिवारी, किताब महल, इलाहाबाद
3. सामान्य भाषाविज्ञान : बाबूराम सक्सेना, हिंदी साहित्य सम्मेलन, प्रयाग
4. हिंदी भाषा का उद्भव और विकास : उदयनारायण तिवारी, भारती भंडार, इलाहाबाद
5. भाषा और समाज : रामविलास शर्मा, राजकमल प्रकाशन, दिल्ली
6. राष्ट्रभाषा हिंदी : समस्याएँ और समाधान, देवेन्द्रनाथ शर्मा, लोकभारती, इलाहाबाद
7. भारत की भाषा समस्या : रामविलास शर्मा, राजकमल प्रकाशन, दिल्ली
8. संपर्क भाषा हिंदी : सं. सुरेश कुमार, ठाकुर दास, केन्द्रीय हिंदी संस्थान, आगरा
9. राजभाषा हिंदी : प्रचलन और प्रसार : रामेश्वर प्रसाद, अनुपम प्रकाशन, पटना
10. नागरी लिपि : हिंदी और वर्तनी : अनंत चौधरी, दिल्ली माध्यम कार्यान्वयन निदेशालय, दिल्ली
11. हिंदी भाषा का विकास : गोपाल राय, अनुपम प्रकाशन, पटना
12. हिंदी के विकास में अपभ्रंश का योगदान : नामवर सिंह
13. हिंदी भाषा विकास : कैलाश चन्द्र भाटिया
14. हिंदी भाषा : हरदेव बाहरी
15. हिंदी भाषा : इतिहास और स्वरूप, राजमणि शर्मा, राजकमल, दिल्ली
16. भारतीय आर्यभाषा और हिंदी : सुनीति कुमार चेटर्जी, राजकमल प्रकाशन, दिल्ली,
17. हिंदी भाषा का इतिहास : भोलानाथ तिवारी, वाणी प्रकाशन, दिल्ली,
18. आधुनिक भाषाविज्ञान : भोलानाथ तिवारी, वाणी प्रकाशन, दिल्ली

Rakesh Kumar Yadav

## PGHND2C007T : सगुण भक्ति काव्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

भ्रमरगीत सार : सूरदास (सं. रामचन्द्र शुक्ल) 25 पद (सं. 2, 7, 8, 9, 10, 14, 16, 20, 21, 23, 24, 25, 27, 28, 29, 34, 38, 41, 42, 43, 44, 51, 52, 53, 54)

इकाई. 2

भ्रमरगीत सार : सूरदास (सं. रामचन्द्र शुक्ल) 25 पद (सं. 56, 57, 61, 62, 64, 65, 66, 69, 75, 76, 83, 85, 89, 91, 92, 94, 95, 98, 100, 111, 115, 121, 122, 171, 175)

इकाई. 3

रामचरित मानस : तुलसीदास (गीता प्रेस संस्करण)  
बालकांड (दोहा सं. 50 तक)

इकाई. 4

रामचरित मानस : तुलसीदास (गीता प्रेस संस्करण)  
अयोध्याकांड (दोहा सं. 272 से 292 तक)  
उत्तरकांड (दोहा सं. 103 से 130 तक)



Rachesh Kumar Yach

## इकाई. 5

मीरा का काव्य : विश्वनाथ त्रिपाठी, वाणी प्रकाशन, नई दिल्ली-110002 (15 पद-मण थें परस हरि रे चरण, जनक हरि, आली री म्हारे पेणां बाण पड़ी, म्हां गिरधर आगा नाच्यारी, म्हांरा री गिरधर गोपाल, माई सांवरे रंग राची, मैं गिरधर के घर जाऊं, माई री म्हाँ लियां गोविदाँ मोल, माई म्हाणे सुपणा माँ, येँ मत बरजां माइरी, नहिँ सुख भावै थांरो देसलड़ो रंगरूड़ो, राणाजी म्हाने या बदनामी लागै मीठी, पग बांध घूँघरःया णाच्यारी, राणाजी थे जहर दियो म्हे जाणी, सखी म्हारी नींद नसाणी हो, या ब्रज में कछू देख्यो री टोना)

## अनुशासित ग्रंथ :

1. सूरदास : रामचन्द्र शुक्ल, नागरी प्रचारिणी सभा, काशी
2. महाकवि सूरदास : नंददुलारे वाजपेयी, आत्माराम एण्ड संस, दिल्ली
3. सूरसाहित्य : हजारी प्रसाद द्विवेदी, हिंदी ग्रंथ रत्नाकर, बम्बई
4. गोस्वामी तुलसीदास : रामचन्द्र शुक्ल, नागरी प्रचारिणी सभा, काशी
5. गोसाईं तुलसीदास : विश्वनाथ प्रसाद मिश्र, वाणी वितान, वाराणसी
6. तुलसीदास और उनका युग : राजपति दीक्षित, ज्ञानमंडल, वाराणसी
7. मानस दर्शन : श्रीकृष्ण लाल, आनंद पुस्तक भवन, वाराणसी
8. भक्तिकाव्य और लोक जीवन : शिवकुमार मिश्र, दिल्ली
9. भक्तिकाव्य की भूमिका : प्रेमशंकर, नई दिल्ली
10. लोकवादी तुलसीदास : विश्वनाथ त्रिपाठी, राधाकृष्ण प्रकाशन, नई दिल्ली
11. भक्तिकाल में भारतीय रहस्यवाद : राधेश्याम दूबे, संजय बुक सेन्टर, वाराणसी
12. मीराबाई : श्रीकृष्ण लाल, आनंद पुस्तक भवन, वाराणसी

Rachesh Kumar Jaiswal

## PGHND2C008T : भारतीय साहित्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

इकाई. 1

भारतीय साहित्य की अवधारणा, अध्ययन की समस्याएं, भारतीयता का समाजशास्त्र, परम्परा और आधुनिकता।

इकाई. 2

संस्कार : यू. आर. अनंतमूर्ति।

इकाई. 3

अपनी डफली अपना राग : मोहन सिंह

इकाई. 4

अक्करमाशी : शरण कुमार लिंबाले

इकाई. 5

रवीन्द्रनाथ की 51 कविताएं (साहित्य अकादमी, नई दिल्ली) कुल-15 : निर्झर का स्वप्न-भंग, वधू, व्यक्त प्रेम, सोने की नाव, वसुन्धरा, उर्वशी, वीर-पुरुष, बोलो, विदाई, दो नारियाँ, शाहजहाँ, तपोभंग, प्रथम पूजा, विहंग के जाने का समय हो गया, सूनी चौकी।

(उपर्युक्त सभी मूल से हिंदी में अनूदित कृतियां ही पाठ्यक्रम में निर्धारित हैं। इनसे व्याख्या नहीं पूछी जाएगी।)

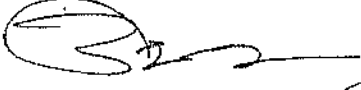
अनुशंसित ग्रंथ :

1. इंडियन लिटरेचर सिंस इंडिपेन्डेन्स : सं. के. एस. आर. आर्यंगर, साहित्य अकादमी, दिल्ली
2. कंपरेटिव लिटरेचर : नगेन्द्र, दिल्ली विश्वविद्यालय, दिल्ली
3. भारतीय साहित्य : नगेन्द्र, साहित्य सदन, चिरगांव, झाँसी

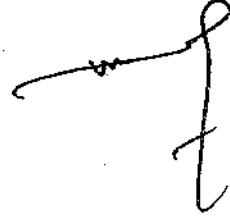
(12)

Rohank Kumar Jaiswal

4. भारतीय साहित्य : भोलाशंकर व्यास, चौखंभा, वाराणसी
5. भारतीय साहित्य की भूमिका : रामविलास शर्मा, राजकमल, दिल्ली
6. संस्कृति के चार अध्याय : दिनकर, उदयाचल, पटना
7. मृत्युंजय रवीन्द्रनाथ : हजारी प्रसाद द्विवेदी, राजकमल, दिल्ली
8. आधुनिक भारतीय चिंतन : विश्वनाथ नखणे, राजकमल, दिल्ली



Ramesh Kumar Judge





PGHND2E001T : हिंदी पत्रकारिता : इतिहास, सिद्धान्त और प्रयोग

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

हिंदी पत्रकारिता का उद्भव और विकास—सामान्य रूपरेखा।

इकाई. 2

प्रमुख पत्र : उदन्त मार्तण्ड, कविवचन—सुधा, हिंदी प्रदीप, ब्राह्मण, सरस्वती, कर्मवीर, प्रताप, हंस, माधुरी, मतवाला।

इकाई. 3

पत्रकार : भारतेन्दु हरिश्चन्द्र, बालकृष्ण भट्ट, महामना मदनमोहन मालवीय, आचार्य महावीर प्रसाद द्विवेदी, बाबूराम विष्णुराव पराङ्कर, गणेश शंकर विद्यार्थी, माखनलाल चतुर्वेदी।

इकाई. 4

हिंदी पत्रकारिता के सिद्धान्त : समाचार की परिभाषा, समाचार संकलन और संपादन, समाचार के विभिन्न स्रोत, भेंटवार्ता के प्रकार तथा उनकी प्रविधि, शीर्षक कला, फीजर—लेखन—स्वरूप और उद्देश्य, समाचार लेख संपादन, संपादकीय लेख तथा टिप्पणियों का लेखन, मेकअप, प्रूफ—संशोधन, मुद्रण कला का सामान्य ज्ञान।

इकाई. 5

हिंदी पत्रकारिता के प्रयोग : पत्रकारिता का व्यावहारिक ज्ञान, समाचार कैसे बनायें, शीर्षक कैसे दें, अनुवाद की प्रविधि, संक्षिप्तीकरण, संपादकीय लेखन और टिप्पणी लेखन का

Radhesh Kumar Jaiswal

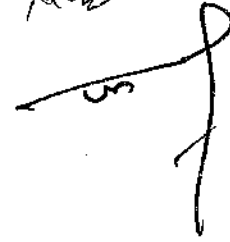
अभ्यास, पत्रों के विभिन्न स्तंभ-प्रूफ संशोधन पत्र की साज-सज्जा, मुख्य पृष्ठ की साज-सज्जा कैसे आकर्षक बने।

अनुशंसित ग्रंथ :

1. हिंदी समाचार पत्रों का इतिहास : अम्बिका प्रसाद वाजपेयी
2. संपूर्ण पत्रकारिता : हेरम्ब मिश्र
3. पत्र और पत्रकार : कमलापति त्रिपाठी
4. हिंदी पत्रकारिता : कृष्ण बिहारी मिश्र
5. संपादन कला : के. पी. नारायण
6. पत्रकार कला : विष्णुदत्त शुक्ल
7. पत्र संपादन कला : नन्द किशोर त्रिखा
8. मुद्रण कला : प्रभुल्ल चन्द्र ओझा मुक्त
9. हिंदी पत्रकारिता : विविध आयाम : सं. वेद प्रताप वैदिक
10. हिंदी पत्रकारिता : संकट और संत्रास : श्री हेरम्ब मिश्र



Rashmi Kumar Yadav





# जम्मू केंद्रीय विश्वविद्यालय

## CENTRAL UNIVERSITY OF JAMMU

राया-सुचानी (बागला), जिला सांबा-181143, जम्मू (जम्मू एवं कश्मीर)

Rahya -Suchani (Bagla), District Samba -181143, Jammu (Jammu & Kashmir)

Email registrar@cuajammu.ac.in, Telephone no (0123) 249658

No: 4-3/Hindi/CUJ/Reg/2014/201

10<sup>th</sup> April, 2017

### अधिसूचना

अध्ययन बोर्ड हिंदी विभाग की संस्तुति पर यह सूचित किया जाता है कि अकादमिक सत्र 2015-2017 के लिए शैक्षणिक परिषद् के अनुमोदन की प्रत्याशा में कुलपति ने पाठ्यक्रम योजना एवं चतुर्थ सत्र के पाठ्यक्रम को अनुमोदित किया है। अनुमोदित पाठ्यक्रम मैट्रिक्स। योजना इस प्रकार है:

पाठ्यक्रम कोड	पाठ्यक्रम शीर्षक	क्रेडिट	CIA	MSE	ESE	कुल अंक
	कोर पाठ्यक्रम					
PGHND4C002T	विशेष अध्ययन : निम्नलिखित में से कोई एक आधुनिक कवि (प्रसाद/निराला/अज्ञेय)	4	25	25	50	100
PGHND4C003T	विशेष अध्ययन : निम्नलिखित में से कोई एक हिंदी साहित्य की प्रवृत्ति (संतकाव्य/रीतिकाव्य/आधुनिक हिंदी साहित्य 1919-1947 /स्वातंत्र्योत्तर हिंदी साहित्य)।	4	25	25	50	100
PGHND4C004T	विशेष अध्ययन: निम्नलिखित में से कोई एक (भारतीय साहित्य/अनुदित विश्व साहित्य/फिल्म अध्ययन)।	4	25	25	50	100
PGHND4C005T	विशेष अध्ययन: निम्नलिखित में से कोई एक (संचार और मीडिया लेखन/समाज भाषा विज्ञान/शैलीविज्ञान)।	4	25	25	50	100
आधार पाठ्यक्रम						
PGHND4F001T	प्रयोजनमूलक हिंदी : प्रयोग पक्ष	2	12.5	12.5	25	50
अंतर्विषयी						
PGHND4I001T	आधुनिक हिंदी साहित्य का परिचय	4	25	25	50	100
कुल		22				550

उपरोक्त विस्तृत पाठ्यक्रम योजना को चतुर्थ सत्र की पाठ्यक्रम योजना को अधिसूचना संख्या 4-3/Hindi/CUJ/Reg/2014/1761, dt: 31.10..2016 द्वारा अधिकरण किया जाता है।

30/04/17  
प्रभारी कुलसचिव

संलग्न : चतुर्थ सत्र पाठ्यविवरण की प्रति

सेवा में,

विभागाध्यक्ष, हिंदी विभाग

प्रतिलिपि

प्रभारी परीक्षा नियंत्रक

हिंदी एवं अन्य भारतीय भाषा विभाग

जम्मू केंद्रीय विश्वविद्यालय, सांबा

एम. ए. हिन्दी पाठ्यक्रम

चौथा सेमेस्टर (चौथा सत्र)

(सत्र 2016 से 2017)

PGHND4C002T : विशेष अध्ययन

जयशंकर प्रसाद

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

लहर : प्रलय की छाया, अशोक की चिंता, पेशोला की प्रतिध्वनि, शेरसिंह का शस्त्र—समर्पण।

इकाई. 2

नाटक : अजातशत्रु, चन्द्रगुप्त।

इकाई. 3

उपन्यास : कंकाल।

इकाई. 4

कहानी : प्रतिध्वनि, देवदासी, बिसाती, आंधी, मधुआ, गुंडा, सालवती।

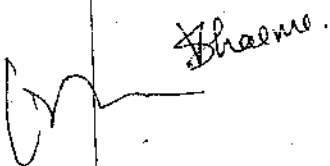
इकाई. 5

काव्य कला तथा अन्य निबंध (विषयक संग्रह)।

अनुशासित ग्रंथ :

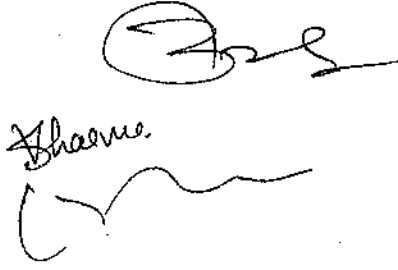


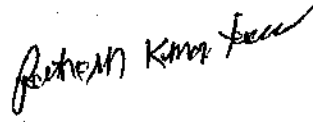
*Pratish Kumar*

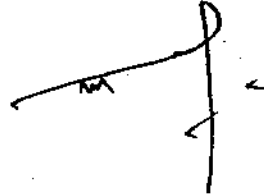
 *Bhaeno.*

000100

1. जयशंकर प्रसाद : आचार्य नन्ददुलारे वाजपेयी
2. नया साहित्य : नये प्रश्न : आचार्य नन्ददुलारे वाजपेयी, मैकमिलन, नई दिल्ली ।
3. जयशंकर प्रसाद : वस्तु और कला : रामेश्वर खण्डेलवाल
4. प्रसाद और उनका साहित्य विनोद शंकर व्यास ।
5. प्रसाद का काव्य : प्रेमशंकर, भारती भंडार, इलाहाबाद
6. प्रसाद के नाटकों का शास्त्रीय अध्ययन : जगन्नाथ प्रसाद शर्मा
7. प्रसाद का जीवन और साहित्य : रामरतन भटनागर
8. हिंदी नाटक : बच्चन सिंह
9. प्रसाद का गद्य साहित्य : राजमणि शर्मा
10. प्रसाद : दुखान्त नाटक : रामकृष्ण शुक्ल श्रीमुख
11. नाटक के रंगमंचीय प्रतिमान : वशिष्ठ नारायण त्रिपाठी, जगताराम एंड संस, मेन बाजार, गांधीनगर, दिल्ली।

Sharma  


Ramesh Kumar  




## निराला

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

राग विराग (सखि वसन्त आया, जुही की कली, जागो फिर एक बार—1, प्रिया के प्रति, बादल राग—1, कौन तम के पार?—(रे कह), वर दे, वीणावादिनी वर! भारति जय विजयकरे!, टूटें सकल बन्ध, सरोज—समति)।

इकाई. 2

राग विराग (तोड़ती पत्थर, स्नेह—निर्झर बह गया है, झींगुर डटकर बोला, राजे ने अपनी रखवाली की, कुकुरमुत्ता—1, फूटे हैं आमों में बौर, बाँधो न नाव इस ठाँव बंधु!, ताक कमसिनवारि, सुख का दिन डूबे डूब जाय, पत्रोत्केटित जीवन का विष बुझा हुआ है)।

इकाई. 3

उपन्यास : कुल्ली भाट।

इकाई. 4

कहानी : चतुरी चमार, सुकुल की बीबी।

इकाई. 5

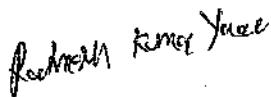
निबंध : प्रबंध प्रतिमा, चाबुक।

अनुशासित ग्रंथ :

1. निराला की साहित्य साधना : भाग—1, 2, 3, रामविलास शर्मा, राजकमल, दिल्ली
2. निराला एक आत्महन्ता आस्था : दूधनाथ सिंह, लोकभारती, इलाहाबाद
3. क्रांतिकारी कवि निराला : बच्चन सिंह
4. निराला के पत्र : जानकी वल्लभ शास्त्री
5. महाकवि निराला : आचार्य नन्ददुलारे वाजपेयी



Shasme



6. निराला : परमानंद श्रीवास्तव, साहित्य अकादेमी, नई दिल्ली
7. छायावाद : नामवरसिंह, राजकमल, दिल्ली
8. नवजागरण और छायावाद : महेन्द्रनाथ राय, राधाकृष्ण प्रकाशन, दिल्ली
9. भारतीय नवोत्थान और निराला : महेन्द्रनाथ राय, संजय बुक सेन्टर, वाराणसी
10. रचना प्रक्रिया और निराला : शिवकरण सिंह

Sharma. 228

Rajkumar Kumar Jais

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अज्ञेय

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

अज्ञेय संचयिता : नंद किशोर आचार्य, महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा (महाराष्ट्र)

काव्य : बावरा अहेरी, हरी घास पर क्षणभर ।

इकाई. 2

आंगन के पार द्वार ।

इकाई. 3

उपन्यास : नदी के द्वीप ।

इकाई. 4

कहानी : मेरी प्रिय कहानियाँ ।

इकाई. 5

निबंध : त्रिशंकु ।

अनुशासित ग्रंथ :

1. अज्ञेय का कथा साहित्य : ओमप्रभाकर
2. अज्ञेय के उपन्यासों की शिल्पविधि : सत्यपाल चुघ
3. अज्ञेय और आधुनिक रचना की समस्या : रामस्वरूप चतुर्वेदी
4. शिखर से सागर तक : रामकमल राय
5. अज्ञेय और नयी कविता : चन्द्रकला त्रिपाठी, संजय बुक सेंटर, वाराणसी

Sharma  
Rakesh Kumar, faculty

000104



PGHND4C003T : विशेष अध्ययन

संतकाव्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न : 10 × 1.5 — 15

पांच लघु उत्तरी प्रश्न : 5 × 8 — 40

तीन दीर्घ उत्तरी प्रश्न : 3 × 15 — 45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

संत काव्य : परिचय, परम्परा, प्रवृत्ति।

इकाई. 2

गोरखबानी : सं. डॉ. पीताम्बरदत्त बड़थवाल (आरंभिक से 25 सबदियों), हिंदी साहित्य सम्मेलन, प्रयाग।

इकाई. 3

संत काव्य संग्रह : सं. परशुराम चतुर्वेदी, नया संस्करण, किताब महल, इलाहाबाद।

नामदेव : (सम्पूर्ण)।

कबीर : पद सं. 1 से 25 तक।

इकाई. 4

संत काव्य संग्रह : सं. परशुराम चतुर्वेदी, नया संस्करण, किताब महल, इलाहाबाद।

नानक (केवल पद)।

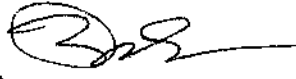
सुन्दरदास (संपूर्ण)।

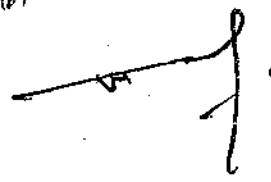
इकाई. 5

संत काव्य संग्रह : सं. परशुराम चतुर्वेदी, नया संस्करण, किताब महल, इलाहाबाद।

रैदास (संपूर्ण)।

दादू दयाल (संपूर्ण)।

*Shaluo...*  *Radhwan Kumar*



अनुशसित ग्रंथ :

1. नाथ सम्प्रदाय : आर्चाय हजारी प्रसाद द्विवेदी, नैवेद्य निकेतन, वाराणसी।
2. हिन्दी साहित्य में निर्गुण सम्प्रदाय : पीताम्बरदत्त बड़थवाल।
3. सन्त साहित्य : राधेश्याम दूबे, विश्वविद्यालय प्रकाशन, वाराणसी।
4. हिंदी काव्य की निर्गुणधारा में भक्ति : श्यामसुन्दर शुक्ल, विश्वविद्यालय प्रकाशन, वाराणसी।
5. उत्तरभारत की सन्त परम्परा : परशुराम चतुर्वेदी, किताब महल प्रयाग।

Sharma.

Rachem Kumar Jaiswal

## रीतिकाव्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

प्रमुख रीतिकवि, रीतिमुक्त काव्यधारा की प्रवृत्तियाँ, रीतिकाव्य की सामान्य विशेषताएँ।

इकाई. 2

मतिराम ग्रंथावली (रसरज, छंद सं. 1 से 50 तक) — गंगा पुस्तक माला, लखनऊ।

इकाई. 3

जगदविनोद : पद्माकर (छंद सं. 604 से लेकर 650 तक), वाणीवितान, काशी।

इकाई. 4

कविप्रिया : केशवदास (केवल नवम प्रभाव), कल्याणदास एण्ड ब्रदर्स, ज्ञानवापी, वाराणसी।

इकाई. 5

देव : भाव विलास (छंद सं 01 से लेकर 25 तक),

अनुशंसित ग्रंथ :

1. रीतिकाव्य की भूमिका : नगेन्द्र, नेशनल पब्लिशिंग हाउस, दिल्ली।
2. भारतीय साहित्य शास्त्र और काव्यालंकार : भोलाशंकर व्यास।
3. पद्माकर : आचार्य विश्वनाथ प्रसाद मिश्र, नागरी प्रचारिणी सभा, काशी।
4. रीतिकालीन कवियों की प्रेमव्यंजना : बच्चन सिंह, ना. प्र. सभा, काशी
5. केशव का आचार्यत्व : विजयपाल सिंह, राजपाल एंड संस, दिल्ली।
6. महाकवि मतिराम : त्रिभुवन सिंह, हिंदी प्रचारक संस्थान, वाराणसी
7. रीतिकालीन काव्य सिद्धान्त : सूर्यनारायण द्विवेदी, संजय बुक सेंटर, वाराणसी।
8. हिन्दी साहित्य का अतीत, भाग-2, विश्वनाथ प्रसाद मिश्र, वाणी वितान, वाराणसी।

Sharma.

Rachna Karmakar

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आधुनिक हिंदी साहित्य (सन् 1919 से 1947)

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

पाठ्यांश :

कविता :

इकाई. 1

लहर : जयशंकर प्रसाद (केवल प्रलय की छाया)

इकाई. 2

तुलसीदास : निराला (संपूर्ण)

इकाई. 3

आधुनिक कवि — महादेवी वर्मा, हिंदी साहित्य सम्मेलन, प्रयाग ।

(चुने हुए 10 गीत : निशा की धो देता राकेश, घोर तम छाया चारों ओर, जिस दिन नीरव तारों से, मधुरिमा के मधु के अवतार, चुभते ही तेरा अरुण बान, कह दे मां क्या देखूँ, प्राणों के अंतिम पाहुन, क्या पूजन क्या अर्चन रे, प्रिय सान्ध्य गगन, चिर सजग आंखे उनींदी, सो रहा है विश्व।)

इकाई. 4

पंत : आधुनिक कवि, हिंदी साहित्य सम्मेलन, प्रयाग ।

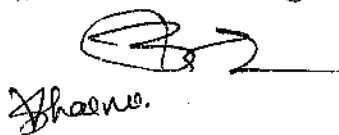
(10 कविताएं चुनी हुई — उच्छ्वास की बालिका, मौन निमंत्रण, अनित्य जग, निष्ठुर परिवर्तन, नित्य जग, चांदनी, मानव, महात्मा जी के प्रति, ताज, कहारों का रुद्र नित्य)।

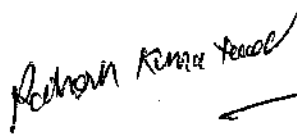
इकाई. 5

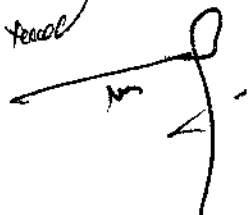
नागार्जुन — प्रतिनिधि कविताएं, सं. नामवर सिंह, राजकमल प्रकाशन, नई दिल्ली ।

(निम्नलिखित पांच कविताएं — बहुत दिनों के बाद, अकाल और उसके बाद, आओ रानी हम ढोयेंगे पालकी, शासन की बंदूक, तीनों बंदर बापू के)।

केदारनाथ अग्रवाल : आधुनिक कवि, हिंदी साहित्य सम्मेलन, प्रयाग ।

Shauro

Kishan Kumar



(केवल पांच कविताएँ— बसंती हवा, चंदगहना से लौटती बेर, धूप, प्रकृति, यथार्थ और मैं, पाब्लो नेरूदा के प्रति।)

अनुशंसित ग्रंथ :

1. आधुनिक साहित्य : आचार्य नंद दुलारे बाजपेयी।
2. प्रसाद का काव्य : प्रेम शंकर।
3. हिन्दी नाटक : बच्चन सिंह।
4. छायावाद : नामवर सिंह।
5. निराला की साहित्य साधना : रामविलास शर्मा, भाग-1, भाग-2, भाग-3, राजकमल प्रकाशन नई दिल्ली।
6. नवजागरण और छायावाद : महेन्द्र नाथ राय, राधाकृष्ण प्रकाशन, नई दिल्ली।
7. रचना प्रक्रिया और निराला : शिव करन सिंह, संजय बुक सेन्टर, बुलानाला, वाराणसी।
8. हिन्दी साहित्य और संवेदना का विकास : रामस्वरुप चतुर्वेदी, लोकभारती, इलहाबाद।

Bhaeno.

Rachan Kumar Yadav

स्वातंत्र्योत्तर हिंदी साहित्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

पाठ्यांश :

इकाई. 1

रागदरबारी : श्रीलाल शुक्ल, राजकमल प्रकाशन, नई दिल्ली ।

इकाई. 2

एक दुनिया समानांतर - सं० राजेन्द्र यादव  
(खोई हुई दिशाएं, एक और जिंदगी, तीसरी कसम, बदबू सेलर)

इकाई. 3

कबिरा खड़ा बाजार में - भीष्म साहनी

इकाई. 4

प्रतिनिधि कविताएँ : नागार्जुन, सं. डॉ. नामवर सिंह  
(प्रतिबद्ध हूँ, हरिजन गाथा, पैसे दाँतों वाली, अकाल और उसके बाद, बहुत दिनों के बाद)

इकाई. 5

हंसो हंसो जल्दी हंसो : रघुवीर सहाय  
(चुनी हुई कविता : दो अर्थ का भय, आज का पाठ है, हंसो हंसो जल्दी हंसो, चेहरा, हैं हैं हैं।)

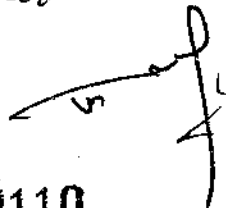
अनुशासित ग्रंथ :

1. तारसप्तक, दूसरा सप्तक, तीसरा सप्तक : (सं.) अज्ञेय, ज्ञानपीठ ।
2. समकालीन कविता का यथार्थ : परमानंद श्रीवास्तव, हरियाणा अकादमी
3. मुक्तिबोध की रचना प्रक्रिया : अशोक चक्रधर ।
4. भाषा और संवेदना : रामस्वरूप चतुर्वेदी, लोकभारती प्रकाशन, इलाहाबाद
5. एक साहित्यिक की डायरी : गजानन माधव मुक्तिबोध, राजकमल प्रकाशन, दिल्ली ।



Shaama

Katohm Kumar Saah



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6. कविता के नये प्रतिमान : नामवर सिंह, राजकमल प्रकाशन, नई दिल्ली ।
7. नयी कविता : स्वरूप और संवेदना : जगदीश गुप्त ।
8. समकालीन हिंदी कहानी — दिशा और दृष्टि : सं. धनंजय ।
9. नयी कहानी : संदर्भ और प्रकृति : सं. देवीशंकर अवस्थी, राजकमल प्रकाशन, दिल्ली ।
10. आधुनिकता और उपन्यास : इन्द्रनाथ मदान ।
11. रंगदर्शन : नेमिचन्द्र जैन, राजकमल प्रकाशन, नई दिल्ली ।
12. आधुनिक परिवेश और नवलेखन : शिव प्रसाद सिंह, लोकभारती इलाहाबाद ।
13. नाटक के रंगमंचीय प्रतिमान : वशिष्ठ नारायण त्रिपाठी, जगताराम एंड संस, दिल्ली ।
14. कहानी : नयी कहानी : नामवर सिंह, लोकभारती, इलाहाबाद ।
15. नई कविता और अस्तित्ववाद : रामविलास शर्मा, राजकमल प्र० दिल्ली ।
16. शब्द और मनुष्य : परमानंद श्रीवास्तव , राजकमल प्रकाशन, नई दिल्ली ।
17. आधुनिक कविता के बदलते प्रतिमान : श्रीनिवास पाण्डेय, आशुतोष प्रकाशन, वाराणसी ।
18. जनवादी समझ और साहित्य : रामनारायण शुक्ल, विश्वविद्यालय प्रकाशन, वाराणसी ।
19. समकालीन कविता की प्रवृत्तियाँ : रामकली सराफ, विश्वविद्यालय प्रकाशन, वाराणसी ।

Sharma.

Rachintra Kumar

PGHND4C004T : विशेष अध्ययन

भारतीय साहित्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

इकाई. 1

भारतीय साहित्य की अवधारणा, अध्ययन की समस्याएं, भारतीयता का समाजशास्त्र, परम्परा और आधुनिकता।

इकाई. 2

संस्कार : यू. आर. अनंतमूर्ति।

इकाई. 3

अपनी डफली अपना राग : मोहन सिंह

इकाई. 4

अक्करमाशी : शरण कुमार लिंबाले

इकाई. 5

रवीन्द्रनाथ की 5.1 कविताएं (साहित्य अकादमी, नई दिल्ली) कुल-15 : निर्झर का स्वप्न-भंग, वधू, व्यक्त प्रेम, सोने की नाव, वसुन्धरा, उर्वशी, वीर-पुरुष, बोलो, विदाई, दो नारियाँ, शाहजहाँ, तपोभंग, प्रथम पूजा, विहंग के जाने का समय हो गया, सूनी चौकी।

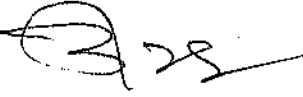
(उपर्युक्त सभी मूल से हिन्दी में अनूदित कृतियां ही पाठ्यक्रम में निर्धारित हैं। इनसे व्याख्या नहीं पूछी जाएगी।)

अनुशंसित ग्रंथ :

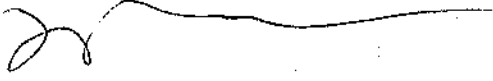
1. इंडियन लिटरेचर सिंस इंडिपेन्डेन्स : सं. के. एस. आर. आयंगर, साहित्य अकादमी, दिल्ली
2. कंपरेटिव लिटरेचर : नगेन्द्र, दिल्ली विश्वविद्यालय, दिल्ली

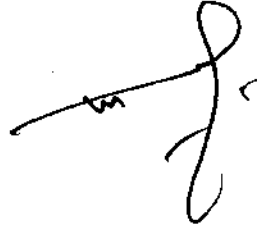


3. भारतीय साहित्य : नगेन्द्र, साहित्य सदन, चिरगांव, झाँसी
4. भारतीय साहित्य : भोलाशंकर व्यास, चौखंभा, वाराणसी
5. भारतीय साहित्य की भूमिका : रामविलास शर्मा, राजकमल , दिल्ली
6. संस्कृति के चार अध्याय : दिनकर, उदयाचल, पटना
7. मृत्युंजय रवीन्द्रनाथ : हजारी प्रसाद द्विवेदी, राजकमल, दिल्ली
8. आधुनिक भारतीय चिंतन : विश्वनाथ नखणे, राजकमल, दिल्ली

  
 धरेन्द्र

Rakesh Kumar Prasad





अनूदित विश्व साहित्य

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

अनूदित विश्व साहित्य का संक्षिप्त इतिहास।

इकाई. 2

उपन्यास : माँ (गोर्की)

एकांत के सौ वर्ष (माखेज)

इकाई. 3

कहानी : आखिरी पत्ता (ओ. हेनरी),

गुलाबी आइसक्रीम (मर्से रूदुरेदा)

इकाई. 4

नाटक : शोकुन्तलम् (कालिदास)

मैकबेथ (शेक्सपियर, अनुवाद— बच्चन)

इकाई. 5

कविता : फ़ैज अहमद फ़ैज,

पाब्लो नेरूदा

Shame

Rashmi Kumer Jindal

.000114

## सिनेमा अध्ययन

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

सिनेमा : उद्भव और विकास, वृत्तचित, सिनेमा उद्योग एवं कला का संबंध, सिनेमा पर पूंजीवाद का प्रभाव

इकाई. 2

आरंभिक हिंदी सिनेमा का स्वरूप, हिन्दी सिनेमा का रुमानी दौर, हिन्दी सिनेमा का वर्तमान परिदृश्य

इकाई. 3

सिनेमा में नायकत्व की अवधारणा, हिंदी सिनेमा में स्त्री और प्रेम, सिनेमा का बदलता स्वरूप

इकाई. 4

हिंदी साहित्य पर आधारित चयनित फिल्मों का प्रदर्शन एवं समीक्षा

इकाई. 5

सिनेमा की भाषा और सामाजिक परिप्रेक्ष्य।

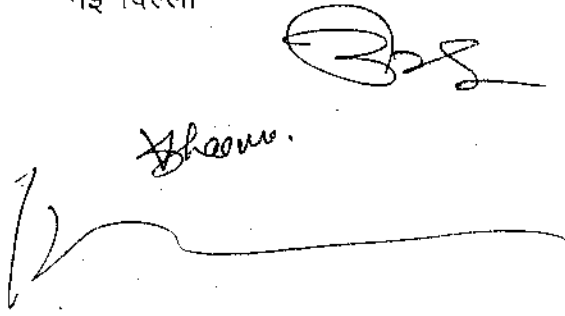
अनुशासित ग्रंथ :

1. वर्ल्ड सिनेमा (हिस्ट्री) : सं. ज्योफ्री नोवेल— स्मिथ, आक्सफोर्ड युनिवर्सिटी प्रेस
2. हिंदी सिनेमा : अनिल सारी, आक्सफोर्ड, दिल्ली

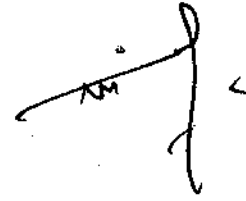
*Shame.*  
*Pratish Kumar*  
*fc*

3. लोकप्रिय सिनेमा और सामाजिक यथार्थ, जबरीमल्ल पारख, अनामिका प्रकाशन, नई दिल्ली
4. सिनेमा : कल, आज, कल : विनोद भारद्वाज, वाणी प्रकाशन, नई दिल्ली
5. भारतीयसिने गिद्धांत : अनुपम ओझा, राधाकृष्ण, नई दिल्ली
6. हिंदी सिनेमा का इतिहास : मनमोहन चड्ढा, सचिन प्रकाशन, नई दिल्ली
7. सिनेमा और साहित्य : हरीश कुमार, संजय प्रकाशन, नई दिल्ली
8. हिंदी सिनेमा : आदि से अनंत : प्रह्लाद अग्रवाल, साहित्य भंडार, इलाहाबाद
9. सिनेमा : समकालीन सिनेमा : अजय ब्रह्मात्मज, वाणी प्रकाशन, नई दिल्ली
10. भारतीय सिनेमा का सफरनामा : पुनीत बिसारिया-राजनारायण शुक्ल, अटलांटिक प्रकाशन, नई दिल्ली

*Bhaou.*



*Retired Kumar Yad*



PGHND4C005T : विशेष अध्ययन

संचार और मीडिया लेखन

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

इकाई .1

संचार : स्वरूप, विभिन्न प्रकार और उसका इतिहास।

इकाई. 2

मीडिया लेखन : जनसंचार-प्रौद्योगिकी एवं चुनौतियाँ, विभिन्न जनसंचार माध्यमों का स्वरूप-मुद्रण, श्रव्य, दृश्य-श्रव्य, इंटरनेट और श्रव्य माध्यम-रेडियो, मौखिक भाषा की प्रकृति, समाचार लेखन एवं वाचन, रेडियो नाटक, उद्घोषणा लेखन, विज्ञापन लेखन, फीचर तथा रिपोतार्ज।

इकाई. 3

दृश्य-श्रव्य माध्यम : (फिल्म, टेलीविजन, वीडियो), दृश्य माध्यमों में भाषा की प्रकृति, दृश्य एवं श्रव्य सामग्री का सामंजस्य, पार्श्व वाचन (वायस ओवर), पटकथा लेखन, टेलीड्रामा, डॉक्यूड्रामा, संवाद-लेखन, साहित्य की विधाओं का दृश्य माध्यमों का रूपांतरण, विज्ञापन की भाषा और इंटरनेट सामग्री सृजन (Content Creation)।

इकाई. 4

समाचार लेखन कला-संपादन के आधारभूत तत्व, व्यावहारिक रूप प्रूफशोधन, पत्रकारिता : शीर्षक की संरचना, लीड, इंट्रो एवं शीर्षक संपादन और संपादकीय लेखन।

इकाई. 5

पृष्ठसज्जा, साक्षात्कार, पत्रकार वार्ता एवं प्रेस प्रबंधन, प्रमुख प्रेस कानून एवं आचार संहिता।

*Shalme.*

*Rakesh Kumar Factor*

अनुशासित ग्रंथ :

1. प्रयोजनमूलक हिन्दी : आर.सी.त्रिपाठी, कैलाश पुस्तक सदन, भोपाल
2. प्रयोजनमूलक हिन्दी : माधव सोनटक्के, लोक भारती प्रकाशन, इलाहाबाद
3. हिन्दी भाषा का प्रयोजनमूलक स्वरूप : कैलाश चन्द्र भाटिया, साहित्य भवन प्रा. लि., इलाहाबाद
4. प्रयोजनमूलक व्यावहारिक हिन्दी : ओम प्रकाश सिंहल, जगत राम एण्ड संस, नई दिल्ली
5. प्रयोजन मूलक हिन्दी : विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली
6. प्रयोजनमूलक हिन्दी : परिभाषिक शब्दावली तथा टिप्पण प्रारूपण : मधु धवन, जय भारती प्रकाशन, इलाहाबाद

*Shame.*

*Radhesh Kumar*

शैलीविज्ञान

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

इकाई. 1

शैलीविज्ञान का इतिहास एवं अध्ययन-परम्परा : शैलीविज्ञान का इतिहास, अध्ययन-परम्परा :  
पाश्चात्य-आंग्ल-अमेरिकी, रूसी-चेक, फ्रांसीसी, जर्मन, स्पेनी एवं भारतीय।

इकाई. 2

भाषा-शैली : सामान्यभाषा, काव्यभाषा, कवि की भाषा, शैली : परिभाषा, स्वरूप-भारतीय  
साहित्यशास्त्र, पाश्चात्य काव्यशास्त्र, अवधारणाएं।

इकाई. 3

शैलीविज्ञान : परिभाषा, स्वरूप, क्षेत्र, विशेषताएं, सीमाएं।

इकाई. 4

शैलीविज्ञान अध्ययन के उपकरण : चयन, विचलन, समानांतरता- परिभाषा, प्रकार।

इकाई. 5

प्रोक्ति : परिभाषा, प्रकार, संरचना, अनुप्रयोग, विश्लेषण सिद्धांत।

अनुशंसित ग्रंथ :

1. भारतीय शैलीविज्ञान : सत्यदेव चौधरी, अंलकार प्रकाशन, दिल्ली
2. शैलीविज्ञान : भोलानाथ तिवारी, नेशनल पब्लिशिंग हाउस, दिल्ली
3. शैलीविज्ञान : नगेन्द्र, नेशनल पब्लिशिंग हाउस, दिल्ली
4. शैलीविज्ञान की रूपरेखा : कृष्ण कुमार शर्मा, संघी प्रकाशन, जयपुर
5. शैलीविज्ञान और आचार्य रामचन्द्र शुक्ल की काव्यभाषा : कृष्ण कुमार गोस्वामी,

Sharma

Ramchandra Kumar

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अभिव्यक्ति प्रकाशन, नई दिल्ली

6. शैलीविज्ञान और आलोचना की नयी भूमिका : रवीन्द्रनाथ श्रीवास्तव, केन्द्रीय हिंदी संस्थान, आगरा
7. भारतीय शैलीविज्ञान : सत्यदेव चौधरी, अलंकार प्रकाशन, नई दिल्ली
8. शैलीविज्ञान : प्रतिमान और विश्लेषण : पाण्डेय शशिभूषण 'शीतांशु' देवधर प्रकाशन, नई दिल्ली
9. शैलीविज्ञान का इतिहास : पाण्डेय शशिभूषण 'शीतांशु,' वाणी प्रकाशन, नई दिल्ली
10. शैली और शैली विश्लेषण : पाण्डेय शशिभूषण 'शीतांशु,' वाणी प्रकाशन, नई दिल्ली
11. शैलीविज्ञान : सुरेश कुमार, मैकमिलन कम्पनी, दिल्ली
12. शैली और शैलीविज्ञान : सुरेश कुमार-रवीन्द्रनाथ श्रीवास्तव, केन्द्रीय हिंदी संस्थान, आगरा
13. शैलीविज्ञान अवधारणा एवं अनुप्रयोग प्रविधि : विनोद कालरा, दीपक पब्लिशर्स, जालंधर
14. शैलीविज्ञान : नीरजा टण्डन, ईस्टर्न बुक लिंकर्स, नई दिल्ली
15. शैलीविज्ञान का स्वरूप : गुप्तेश्वर उपाध्याय, विश्वविद्यालय प्रकाशन, वाराणसी
16. रीतिविज्ञान : विद्यानिवास मिश्र, राधाकृष्ण प्रकाशन, नई दिल्ली
17. आधुनिक आलोचना बनाम शैलीविज्ञान : कृपाशंकर सिंह, प्रासंगिक प्रकाशन, नई दिल्ली
18. शैलीवैज्ञानिक आलोचना दृष्टि : दक्षिण भारत हिन्दी प्रचार सभा (संपा.), मद्रास
19. शैलीविज्ञान और संरचनावाद की परम्परावलम्बिता : नरेन्द्र सैनी, भावना प्रकाशन, नई दिल्ली
20. संरचनात्मक शैलीविज्ञान : रवीन्द्रनाथ श्रीवास्तव, आलेख प्रकाशन, दिल्ली

Sharma..

Ramesh Kumar Yash

NSA



## समाज भाषाविज्ञान

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	-	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	-	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	-	45

100 पूर्णांक

## इकाई. 1

समाज भाषाविज्ञान : समाज भाषाविज्ञान और भाषा का सामाजिक संदर्भ, समाज व्यवस्था एवं भाषा व्यवस्था का अंतःसंबंध, भाषा के सामाजिक व्यवस्था के रूप में अध्ययन, भाषा की समरूपी एवं विषम रूपी प्रकृति।

## इकाई. 2

समाज भाषाविज्ञान की आधारभूत संकल्पनाएं, कोड मिश्रण, कोड परिवर्तन, पिजिन, क्रियोल, मानक भाषा, भाषा अनुरक्षण, विस्थापन, भाषाद्वैत, द्विभाषिकता, बहुभाषिकता, भाषा-नियोजन, विकल्प।

## इकाई. 3

भाषा का सामाजिक परिप्रेक्ष्य : सामाजिक स्तर भेद, सामाजिक शैलियां, हिंदी भाषाई समाज का स्वरूप, क्षेत्र।

## इकाई. 4

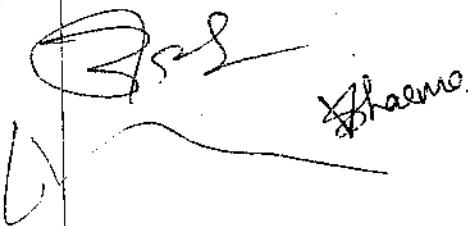
संप्रेषणपरक भाषा : हिंदी और अन्य भाषाओं में नाते-रिश्ते की शब्दावली, हिंदी में सर्वनाम, संबोधन शब्दावली।

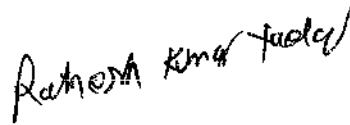
## इकाई. 5

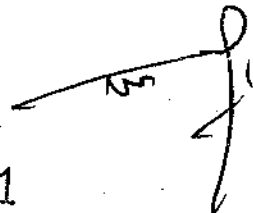
समाज भाषाविज्ञान का हिंदी साहित्य से अंतः संबंध।

## अनुशंसित ग्रंथ :

1. हिंदी का सामाजिक संदर्भ : रवीन्द्रनाथ श्रीवास्तव-रमानाथ सहाय, केन्द्रीय हिन्दी संस्थान, आगरा

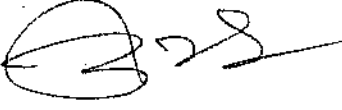




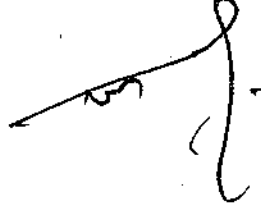
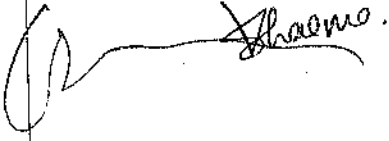


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2. भाषा का समाजशास्त्र : रवीन्द्रनाथ श्रीवास्तव, राधाकृष्ण, नई दिल्ली
3. हिंदी भाषा की सामाजिक भूमिका : भोलानाथ तिवारी—प्रियदर्शिनी मुकुल, दक्षिण भारत हिंदी प्रचार सभा, मद्रास
4. भाषा का समाजशास्त्र : राजेन्द्र प्रसाद सिंह : राजकमल प्रकाशन, नई दिल्ली
5. भारत में नागा परिवार की भाषाएं : राजेन्द्र प्रसाद सिंह : राजकमल प्रकाशन, नई दिल्ली
6. भाषा और समाज : रामविलास शर्मा, : राजकमल प्रकाशन, नई दिल्ली
7. भाषा, बहुभाषिता और हिंदी : रमाकांत अग्निहोत्री—प्रणव कुमार वंद्योपाध्याय, शिलालेख प्रकाशन, नई दिल्ली
8. भाषा, बोली और समाज : एक अंतः संवाद, रमाकांत अग्निहोत्री— संजय कुमार, देशकाल प्रकाशन, नई दिल्ली



Ratnam Kumar



PGHND4<sup>f</sup>001T : प्रयोजनमूलक हिंदी : प्रयोग पक्ष

समय : दो घंटे

आठ बहुविकल्पीय प्रश्न	:	8 × 1.5	—	12
तीन दीर्घ उत्तरी प्रश्न	:	3 × 8	—	24
दो लघुउत्तरी प्रश्न	:	2 × 7	—	14

50 पूर्णांक

इकाई . 1

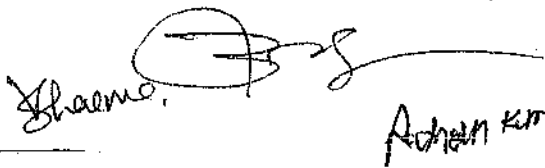
कंप्यूटर : परिचय, रूपरेखा, उपयोग तथा बेब पब्लिशिंग का परिचय, इंटरनेट, संपर्क उपकरणों का परिचय, प्राथमिक रख-रखाव एवं इंटरनेट समय मितव्ययिता के सूत्र, बेब पब्लिकेशन, इंटर एक्सरलोइट अथवा नेट स्केप, लिंक, ब्राउजिंग पोर्टल, ईमेल भेजना/प्राप्त करना, हिंदी के प्रमुख इंटरनेट पोर्टल, डाउनलोडिंग एवं अपलोडिंग और हिंदी सॉफ्टवेयर पैकेज।

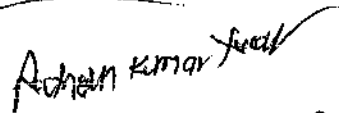
इकाई . 2

प्रयोजनमूलक हिंदी में साहित्यिक विधाओं की उपयोगिता।

अनुशासित ग्रंथ :

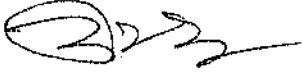
1. प्रयोजनमूलक हिंदी : आर. सी. त्रिपाठी, कैलाश पुस्तक सदन, भोपाल
2. प्रयोजनमूलक हिंदी : माधव सोनटक्के, लोक भारती प्रकाशन, इलाहाबाद
3. हिंदी भाषा का प्रयोजनमूलक स्वरूप : कैलाश चन्द्र भाटिया, साहित्य भवन प्रा. लि., इलाहाबाद
4. प्रयोजनमूलक व्यावहारिक हिंदी : ओम प्रकाश सिंहल, जगत राम एण्ड संस, नई दिल्ली
5. प्रयोजन मूलक हिंदी : विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली
6. प्रयोजनमूलक हिंदी : परिभाषिक शब्दावली तथा टिप्पण प्रारूपण : मधु धवन, जय भारती प्रकाशन, इलाहाबाद
7. व्यावहारिक राजभाषा : आलोक कुमार रस्तोगी

  
Shaome

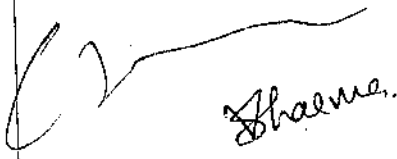
  
Arjun Kumar

000123

8. प्रशासनिक हिंदी : ऐतिहासिक संदर्भ : महेशचन्द्र गुप्त
9. व्यावहारिक हिंदी : महेन्द्र मित्तल
10. प्रशासनिक हिंदी निपुणता : हरिबाबू कंसल
11. हिंदी पत्रकारिता : कृष्णबिहारी मिश्र
12. मध्यप्रदेश में पत्रकारिता : उद्भव और विकास : विजयदत्त श्रीधर
13. मालवा की हिंदी पत्रकारिता : मोहन परमार
14. आधुनिक पत्रकार कला : रा.ट. खण्डेलकर
15. देवनागरी विमर्श : संपा. शैलेन्द्रकुमार शर्मा
16. आधुनिक पत्रकारिता : अर्जुन तिवारी
17. संपूर्ण पत्रकारिता : अर्जुन तिवारी
18. पारिभाषिक शब्दावली : भोलानाथ तिवारी और महेन्द्र
19. प्रयोजन मूलक हिंदी एवं जनसंचार : राजेन्द्र मिश्र



Rachan Kumar



Shame.



PGHND410001T आधुनिक हिंदी साहित्य का परिचय

समय : तीन घंटे

दस बहुविकल्पीय प्रश्न	:	10 × 1.5	—	15
पांच लघु उत्तरी प्रश्न	:	5 × 8	—	40
तीन दीर्घ उत्तरी प्रश्न	:	3 × 15	—	45

100 पूर्णांक

इकाई. 1

आधुनिक हिंदी साहित्य : अवधारणा, उद्भव-विकास, पद्य, गद्य, नाटक आदि विधाएं।

इकाई. 2

भारतेन्दु युगीन साहित्य : कविता, नाटक, पत्र-पत्रिकाएं।

इकाई. 3

द्विवेदी युगीन साहित्य : कविता, निबंध कथा साहित्य (कहानी और उपन्यास)।

इकाई. 4

छायावादी साहित्य : कविता, कहानी, उपन्यास, निबंध, नाटक।

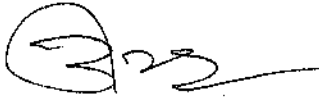
इकाई. 5

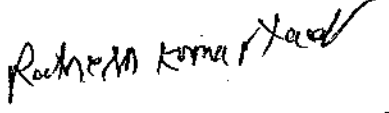
छायावादोत्तर साहित्य : कविता, कहानी, उपन्यास, निबंध, नाटक।

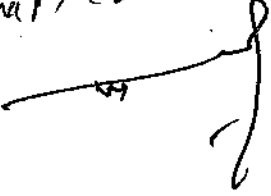
अनुशंसित ग्रंथ :

1. हिंदी साहित्य का इतिहास : रामचन्द्र शुक्ल, नागरी प्रचारिणी सभा, काशी
2. हिंदी साहित्य : उद्भव और विकास : हजारी प्रसाद द्विवेदी, राजकमल प्रकाशन, दिल्ली
3. हिंदी साहित्य और संवेदना का विकास : रामस्वरूप चतुर्वेदी, लोकभारती, इलाहाबाद
4. हिंदी साहित्य का दूसरा इतिहास : बच्चन सिंह, नेशनल पब्लिशिंग हाउस, दिल्ली
5. आधुनिक हिंदी साहित्य का इतिहास : लक्ष्मीसागर वार्ष्णेय नेशनल पब्लिशिंग हाउस, दिल्ली

6. हिंदी साहित्य के इतिहास की समस्याएँ : अवधेश प्रधान, साहित्य वाणी, इलाहाबाद
7. हिंदी नवगीत का संक्षिप्त इतिहास : अवधेश नारायण मिश्र, आर्यभाषा संस्थान, वाराणसी
8. हिंदी साहित्य का इतिहास : सं. नगेन्द्र, नेशनल पब्लिशिंग हाउस, दिल्ली
9. साहित्य का इतिहास-दर्शन : नलिन विलोचन शर्मा, बिहार राष्ट्रभाषा परिषद, पटना
10. साहित्य और इतिहास दृष्टि : मैनेजर पांडेय, पीपुल्स लिटरेसी, दिल्ली
11. स्वातंत्र्योत्तर हिंदी साहित्य : लक्ष्मीसागर वार्ष्णेय, राजकमल प्रकाशन, दिल्ली

  
Shalme.

  
Rachna M. Kumar





# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in


No: 4-3/ENG/CUJ/Reg/2013/249

12<sup>th</sup> May, 2017

## Notification

The detailed Course scheme of 1<sup>st</sup> to 4<sup>th</sup> semester of Department of English has already been notified vide notification no: 4-3/ENG/CUJ/REG/Acad/1761, dated: 20-10-2015 along with syllabus of 1<sup>st</sup> and 3<sup>rd</sup> semester.

Further, on the recommendations of the Board of Studies, Department of English, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the detailed Course syllabus of 2<sup>nd</sup> and 4<sup>th</sup> semester w.e.f Academic Session 2016-17.

  
Registrar  
e

To:  
Head, Department of English

Copy to:  
I/c Controller of Examinations





Detailed Syllabus of MA in English

Semester II

Type of Course: Foundation
Course Code: PGECL2F002T
Course Title: Eco Literature

Objective: The objective of the course is to analyze texts that illustrate environmental concerns and examine the various ways literature treats the subject of nature. The students will be acquainted with key concepts related to ecoliterature. Nature to culture, ecocritic, ecology, green studies, pathetic fallacy, biocentric model, caretaking model, animal studies, cultural ecology, ecolinguistics, ecosophy, ethnobiology, anthropocentrism, ecocentrism, eco-poetics.

Unit I: Essay

- Richard Kerridge "Environmentalism and Eco Criticism" from Modern Literary Theory, ed. Patricia Waugh. Oxford University Press, 2006.
Cheryll Glotfelty "Literary Studies in an Age of Environmental Crises" (From - Ecocritical Reader)
Rachel Carson 'Nature Fights Back' (selection from Silent Spring, 1962)
Raymond Williams 'The Country and the City' (selection from The Country and the City, 1973).

Unit II: Poetry

- Tagore The Tame Bird Was In A Cage
Toru Dutt Our Casuarina Tree
Wendell Berry The Dream
Robinson Jeffers Return

Unit III: Short Fiction

Barbara Kingsolver Flight Behaviour

Unit IV: Short Stories

Ruskin Bond The Civilized Wilderness (The Good Earth, The wilderness in New Delhi, A Village in the Mountains)

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*Into The Wild* (How Far is the River, A Mountain Stream, The Glacier)  
{selection from *The Book of Nature*, 2008 published by Penguin}

**Unit V: Fiction**

Cormac MacCarthy. *The Road*

**Recommended Readings**

- Ghosh, Amitav. "The Great Derangement" Allen Lane, USA. 2007
- Shiva, Vandana. Meis, Maria. *Ecofeminism*. Zed Books: Edition. New (2014)
- Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," from *Science* (1967)
- Ed Abbey, "Industrial Tourism and the National Parks," from *Desert Solitaire* (1968)
- Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (1980)
- Arne Naess, *Philosophical Inquiry* (1986) and *Deep Ecology for the Twenty-First Century* (1995)
- Cold Mountain Poems: Zen Poems of Han Shan, Shih Te, and Wang Fan-chih. Translated by J. P. Seaton ()
- Lawrence Buell, *The Environmental Imagination* (1995); and *Critical Inquiry* (1999)
- William Cronon, *Uncommon Ground: Rethinking the Human Place in Nature* (1995)
- Ursula K. LeGuin, *The Ecocriticism Reader* (1996)
- Michael Pollan, *Second Nature: A Gardener's Education* (1991); and *Omnivore's Dilemma* (2006)
- Robert Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (1990)
- Dana Philips, *The Truth of Ecology: Nature, Culture, and Literature in America* (2003)

**Mode of Examination**

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit. (total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

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**Detailed Syllabus of MA in English  
Semester IV**

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**Type of Course:** Core

**Course Code:** PGECL4C001T

**Title of Course:** Post-Colonial Writings

**OBJECTIVES:**

The objective of this course istoacquaint the students with the development of Postcolonial Literature from the social, historical and literary perspective. The students will be introduced to Literatures from colonised cultures and study literary and theoretical concepts related to these literatures. This will help students to engage critically with the issues and texts these creative works address and study **key issues** that lie at the heart of Postcolonialism such as:

Colonial/Postcolonial, De-colonization, Enlightenment, Eurocentrism, Identity Politics, Region, Race, Gender, Hybridity, Alterity/Otherness, Ambivalence, Culture/Acculturation, Mimicry, Double consciousness, Appropriation/Catachresis, Binarism/Manicheanism, Contact Zone/Transculturation, Contrapuntal Reading, Essentialism/Strategic Essentialism, Globalization/Glocalization, Nation, Negritude, Neo-colonialism/neo-liberalism, World system theory of ImmanuelWallerstein.

**UNIT I: Essays**

- i) Bill Ashcroft et al.'s "Introduction" to The Post-Colonial Studies Reader (1995)
- ii) NgugiwaThiong'o, 'The Language of African Literature', in *Decolonising the Mind*
- iii) Homi K. Bhabha, "Signs Taken for Wonders," in Julie Rivkin and Michael Ryan, eds. *Literary Theory: an Anthology*.
- iv) Aijaz Ahmad. "The Politics of Literary Postcoloniality."

**UNIT II: Poetry**

Kipling, "White Man's Burden"  
H.T. Johnson, "The Black Man's Burden,"  
Derek Walcott, "Ruins of a Great House"  
Judith Wright "Nigger's Leap, New England"

**Unit III: Fiction**

Chinua Achebe, *Things Fall Apart*

**Unit IV: Fiction**

Saman Rushdie, *Midnight's Children*

**Unit V: Fiction**

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Maria Campbell, *Half Breed*

**Recommended Reading:**

Edward Said. *Orientalism*

Edward W. Said, the 1994 Afterword to his 1978 *Orientalism*, pp. 329-352

Aime Cesaire, *Discourse on Colonialism*

Albert Memmi, *Colonizer and Colonized*

Ania Loomba. *Colonialism/Postcolonialism* .

Aijaz Ahmad. *In Theory: Classes, Nations, Literatures*.

Young, Robert J. C. *Postcolonialism: A Very Short Introduction*. New York: Oxford UP, 2003.

Bill Ashcroft, Gareth Griffiths and Helen Tiffin *Post-Colonial Studies The Key Concepts*. London: Routledge, 2000.

Bill Ashcroft, Gareth Griffiths and Helen Tiffin. *The Empire Writes Back: Theory and Practice in Post Colonial Literatures*. 2002.

Bill Ashcroft, *Utopianism in Postcolonial Literatures*. London: Routledge, 2016.

King Bruce. *New Literatures in English*

Trivedi, Harish and Meenakshi Mukherjee, eds. *Interrogating Post-Colonialism: Theory, Text and Context*. Shimla: Indian Institute of Advanced Study, 1996.

Castle, Gregory. *Postcolonial Discourses: An Anthology*. 2001. Malden, MA: Blackwell, 2006. Print.

Patrick Williams & Laura Chisman, eds.: *Colonial Discourse and Post-Colonial Theory: A Reader*

Dennis Walder: *Post-Colonial Literatures in English: History, Language, Theory* March 1998, Wiley-Blackwell

Vishvanathan Gauri. *Masks of Conquest: Literary Study and British Rule in India*

Simone, Sherry and Paul St Pierre, eds. *Changing the Terms: Translating the Postcolonial Era*. New Delhi: Orient Blackswan, 2002.

Appadurai, Arjun. *Modernity at Large: Cultural Dimensions of Globalization*

Elleke Boehmer, *Colonial and Postcolonial Literature*.

Franz Fanon. *Black Skin, White Masks*, tr. Charles Lam Markmann (London: Pluto Press, 2008)

Frantz Fanon, *The Wretched of the Earth*.

**Mode of Examination**

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit. (total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

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**Detailed Syllabus of MA in English**

**Semester IV**

**Type of Course:** Core

**Course Code:** PGECL4C002T

**Title of Course:** Comparative Literature (World)

**OBJECTIVE:** This course aims to introduce students to a selection of classical and modern literary works from various parts of the world in their respective socio-historical contexts, with a special focus on the theme of encounter, textual or cultural.

The course will take a transcultural and transdisciplinary approach to the subject and students will be acquainted with certain key concepts such as World Literature, Transborder/Transculture, Interdependence, Hypertext, Discourse, Intertextuality, Culture, Language, Provincialism, "all higher knowledge is gained by comparison and rests on comparison" (Max Muller), Characterization, Interpretation, Narration, Explanation, Evaluation, Folk-lore, Folk-tales.

**Unit I:**

- i) History of World Comparative Literature (Ancient to Modern).
- ii) Relevance and Contemporary Issues in World Comparative Literature
- iii) Comparative Literature from alternative perspectives
- iv) Myth and Rereading of Myth in World Comparative Literature.
- v) Themes and Interpretation: Issues in Rewriting.

**Unit II: Essays**

- i) Goethe: "*Weltliteratur*"
- ii) Tagore: "*VishwaSahitya*"
- iii) Rene Wellek "*Problem of Methodology of World Literature*"

**Unit III: Poetry**

- i) Rumi "Dervish at the Door" and Bulleh Shah "Be Silent Now"
- ii) Emily Dickinson "Because I Could Not Stop for Death", / GauriDeshpande: "Death"

**Unit IV: Drama**

- i) John Osborne: *Look Back in Anger*
- ii) Eugene O'Neil: *Hairy Ape*

**Unit V: Fiction**

- i) Helen Fielding: *Bridget Jones' Diary*
- ii) Rupa Gulab: *Girl Alone*

Recommended Reading:

- Chaudhary, S. *New Approach to World literature*. DPS Publishing House, 2011.
- Chaudhari, Indranath. *Comparative Indian Literature, Some Perspective*. Delhi, 1992.
- Francois Jost: *Introduction to Comparative Literature*.
- Kapoor, Kapil. *Comparative Literary Throry*. 2014.
- Prawar, S.S. *Karl Marx and World Literature*. Oxford University Press. 1978.
- David Damrosch. *What is World Literature?* Priceton University Press, 2003.
- Sarah Lawall, ed.: *Reading World Literature: Theory, History, Practice*. University of Texas Press, 1994.
- Steiner, George. *The Death of Tragedy*. London: Faber and Faber, 1961.
- Styan, JL. *The Elements of Drama*. Cambridge: CUP, 1969.
- . *Modern Drama. Theory and Practice*. 3 vols. Cambridge: CUP, 1981.
- Wellek, Rene and Austin Warren: *Theory of Literature*.
- Williams, Raymond. *Drama: From Ibsen to Brecht*. London: Chatto & Windus, 1965

Mode of Examination

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit. (total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

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# Detailed Syllabus of MA in English

## Semester IV

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**Type of Course:** Core

**Course Code:** PGECL4C003T

**Title of Course:** Literature of Dissent

**OBJECTIVE:** Literature of Dissent in the twentieth century represents individual, social and political ideologies that run counter to dominant culture. The course will acquaint the students with a sharper understanding and appreciation of literature as an imaginative, ideological and discursive site of dissent, resistance and individual, social, psychological and political empowerment. The course will familiarize the students with key concepts like Progressive Writes Association (PWA), Ideology, Discourse, Hegemony, Subaltern, Nationalistic Historiography/ Subaltern historiography, Contrapuntal Reading, Agitprop, Class Consciousness, Post Progressive Writings and Heterotopias.

### UNIT I: Essays

Jean Paul Sartre: "Why Write?"

Gayatri Spivak: "Can the Subaltern Speak?"

Noam Chomsky: "Notes on Anarchism"

### UNIT II: Poetry

Namdeo Dhasal: "Hunger", "Man You Should Explode".

Arun Kolatkar: "Breakfast Time at Kala Ghoda", "The Ogress"

Menna Kandaswamy: "How They Prostitute a Poem", "A Cunning Stunt"

Tenzin Tsundue: "Horizon", "A Tibetan in Bombay"

### Unit III: Short Stories

Premchand: "The Shroud" (*Kafan*)

Manto: "Toba Tek Singh"

### Unit IV: Drama

Shiv Kumar Batalvi: *Luna*

### Unit V: Fiction

Subhash Vyam and Durgabai Vyam: *Bhimayana*

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The last unit will specifically focus on Case Studies, Project Work on various conceptual, historical and cultural and literary aspects of protest, resistance and empowerment.

**Recommended Readings:**

DeShazer, Mary. *A Poetics of Resistance*. Michigan: University of Michigan Press, 1994

Guha, Ranajit, ed. *A Subaltern Studies Reader 1986-1995*. New Delhi: OUP

\_\_\_\_\_. *Small Voice of History: Collected Essays*, Ed. Partha Chatterjee, New Delhi: Permanent Black, 2009

Harlow, Barbara. *Resistance Literature*. London: Methuen Publishing 1987

Kumar, Akashay. *Poetry, Politics and Culture: Essays on Indian Texts and Contexts*.

Russell, Ferguson, et. al., eds. *Out There: Marginalization & Contemporary Culture*. Massachusetta: The MIT Press, 1994.

Barsky, R.F. *Noam Chomsky. A Life of Dissent*. Cambridge, MA: MIT, 1998

DeShazer, Mary. *A Poetics of Resistance*. Michigan: University of Michigan Press, 1994

Foucault. Michael. *Michael Foucault (Routledge Critical Thinkers)*. London: Routledge. 2003.

Gopal. Priyamvada. *Literary Radicalism in India: Gender, Nation and the Transition to Independence*. London: Routledge. 2005

Gramsci. Antonio. *Antonio Gramsci (Routledge Critical Thinkers)*. London: Routledge. 2006.

Guha, Ranajit and Gayatri Chakravorty Spivak. Eds. *Selected Subaltern Studies*. New York: Oxford UP, 1988

Guha, Ranajit, ed. *A Subaltern Studies Reader 1986-1995*. New Delhi: OUP

\_\_\_\_\_. *Small Voice of History: Collected Essays*, Ed. Partha Chatterjee, New Delhi: Permanent Black, 2009

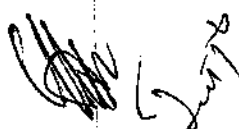
Harlow, Barbara. *Resistance Literature*. London: Methuen Publishing, 1987

Guevara, Che. Rosa Luxemburg, Karl Marx and Friedrich Engel. *Manifesto: Three classic Essays on How to Change the World*. USA: Ocean Press, 2005

Gopal Guru: *Humiliation*. New Delhi: OUP, 2011.:

Freire, P. *Pedagogy of the Oppressed*. Trans: M. B. Ramos. Rev. Ed. New York: Continuum, 1997.

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Limbale, Sharan Kumar: *Towards an Aesthetic of Dalit Literature. Dalit Aesthetics*. Trans. Alok Mukherjee. Hyderabad: Orient Blackswan, 2004.

Kumar, Akashay. *Poetry, Politics and Culture: Essays on Indian Texts and Contexts*. New Delhi: Routledge, 2009.

Russell, Ferguson, et. al., eds. *Out There: Marginalization & Contemporary Culture*. Massachusetts: The MIT Press, 1994.

Sartre. Jean Paul. *What is Literature?*. London: Routledge. 2001

--- Jean Paul Sartre (Routledge Critical Thinkers). London: Routledge. 2009.

Spivak. Gayatri. *Gayatri. Spivak Chakraborty* (Routledge Critical Thinkers). London: Routledge. 2002.

Zecchini. Laetitia. *Arun Kolatkar and Literary Modernism in India*. London: Bloombury. 2014.

### Mode of Examination

There shall be three sections A, B & C

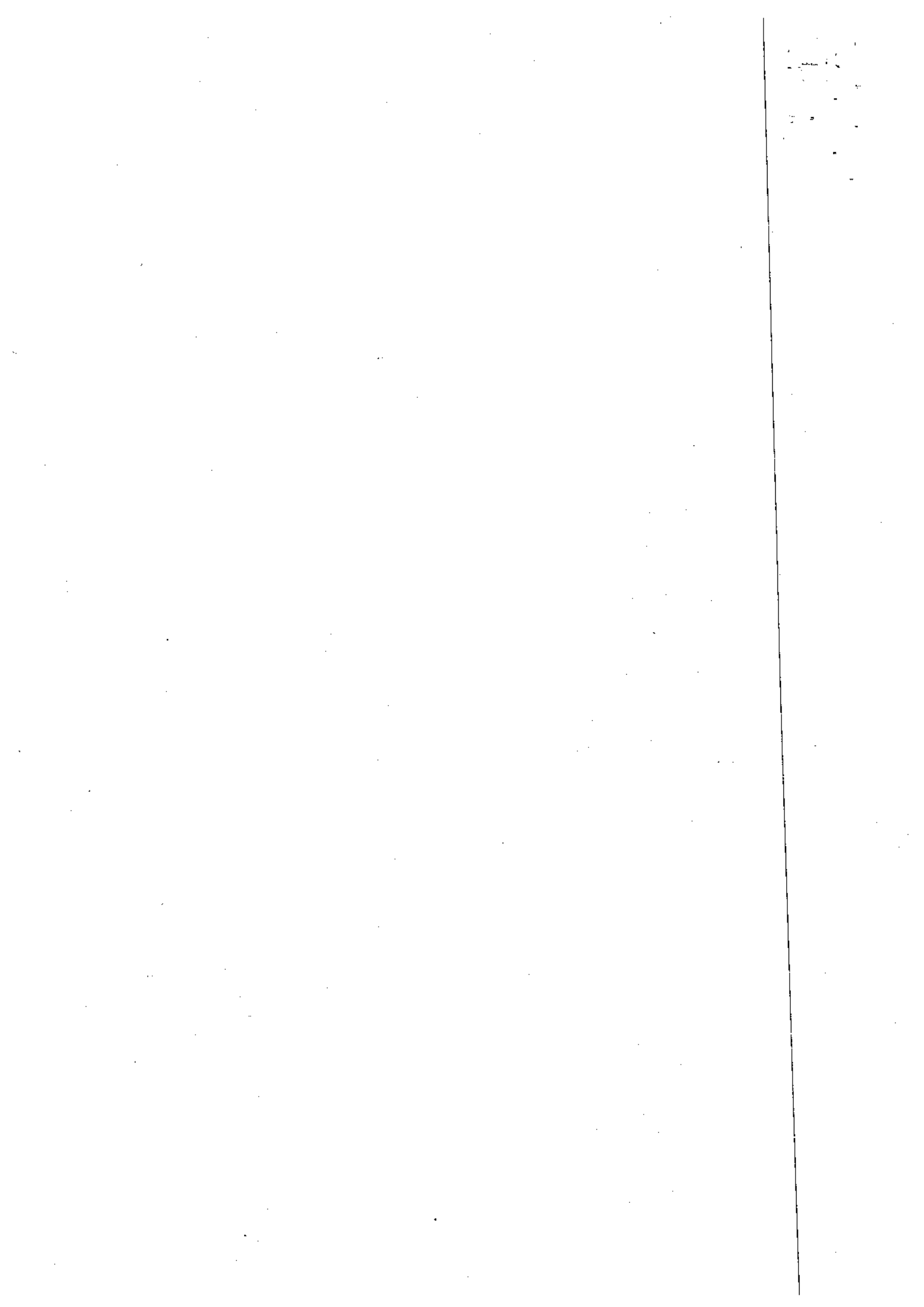
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**Detailed Syllabus of MA in English  
SEMESTER IV**

**Type of Course :** Elective  
**Course Code :** PGECL4E001T  
**Course Title :** Folklore and Theatre in India

**Objective:** This course acquaints the students with the art and structure of theatre and folklore in India to develop their analytical ability.

**Unit I: Folklore**

- a. Definition, Nature and Scope
- b. Relation of Culture, Tradition to Folklore and Society
- c. Mono Culture and Cultural Pluralism
- d. Tribal Culture – Folk – Elite
- e. 'Little' Tradition and 'Great' Tradition

**Unit II: Theatre**

1. Introduction to the art of Theatre.
2. Elements of Theatre.
3. Structure of a dramatic text.
4. Types of Theatre: street, musical, dance, opera theatre
5. Smaller Drama Theatre:

**Unit III: Folklorists: An Introduction**

- a. Definition and Growth of Folklorists
- b. Scope and Characterizes of Folklorists
- c. Relation between Folk, Folklore and Folklorists
- d. Concept of Folkways and Folklife

**Unit IV: Essays**

JawaharLalHandoo.  
Vladimir Propp.

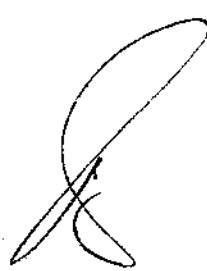
*Folklore in Modern India.* Mysore: CIIL Press, 1972  
*Theory and History of Culture*, Chapter 1- "The Nature of Folklore". Trans. Aradna Y. Martin .Ed. Anatoly Liberman. Manchester: Manchester University Press, 1984.

Professor Penny Gay: "PYGMALION MEETS THE 20TH CENTURY WOMAN"  
University Of Sydney

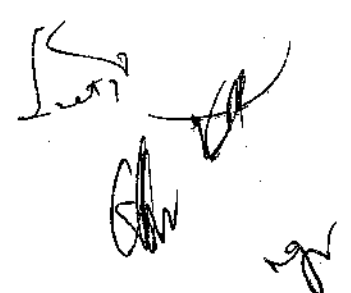
Robert Chohen, Eric Bentley (Essays on theatre)

**Unit V: Folklore and Theatre in J&K**

- a. Heren
- b. Kud
- c. BhandPathar
- d. Rouf
- e. Alley Yate



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### Recommended Reading:

1. N.C. Jain : Indian Theatre , Vikash Publishing House, New Delhi,1992.
2. O.G. Brocket : History of Theatre ,Allyn and Bacon Inc, London 1991.
3. O.G. Brocket : The Essential Theatre , Holt Rinehart & Winston Inc. New York.
4. A. Nicoll : Theory of Drama , Doaba House, New Delhi
5. Sophocles 'The Theban Plays' E.F Watling Penguin Goup, 1974
6. NavnindraBehl :NatakiSahit, Publication Bureau, Punjabi Uni.Patiala 1991
7. BalwantGargi :Rangmanch, Navyug Publisher Delhi.
8. Satish Kumar Verma,PunjabiSahit Da Itihas,Punjabi Academy Delhi. 2005
9. Medhni,Swarajbir,Chetna Parkash,Ludhiana,2002.
10. Amritsar Da Rangmanch,KewalDhaliwal (ed.),manchrangmanch,Amritsar.
11. Mohan Rakesh,'AshaadKaEk Din',Rajpal and Sons.kashmiri Gate Dehli,2004.
12. Nemichandra Jain, 'Mohan RakeshKeSampuranNatak', Rajpal and Sons.Kashmiri Gate, Delhi 1999.
13. Three Plays:nagamandala,Hayavadan,Tughlaq,GirishKarnad.Oxford University Press,usa(1996).

### Mode of Examination

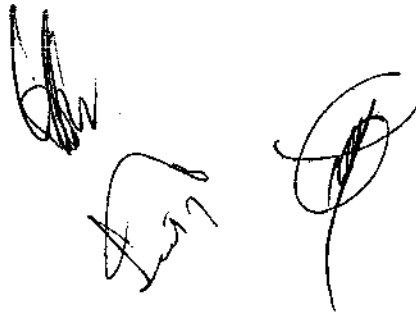
There shall be three sections A, B & C

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**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)



**Detailed Syllabus of MA in English**  
**SEMESTER IV**

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**Type of Course:** Elective  
**Course Code :** PGECL4E002T  
**Course Title :** Film and Media Studies

**Objective:** The objective of this course is to enable students to understand the language of Cinema and Media. Students will be familiarized with the basic concepts, various creative and critical practices in the discipline. It will help them recognize significant film movements and theories as well as filmmakers who have shaped the course of world cinema and Indian cinema. This course aims to make students appreciate the language of cinema and media in an academic way and acquaint them with the key concepts of film and media theory and to explore the relations between media, power and social justice by integrating film and media theory with critical and creative practice.

**Key Concepts:** *Storytelling/ Screenplay, Lighting, Cinematography, Special Effects Montage, Mis-en scene, Flashback, Blockbuster, Dialogue, Editing, Sound, Novelization/ Adaptation, Twist Endings, Antagonist/ Protagonist, Musical, theory, Media, Media Power, Broadcast/ Podcast/ Webcast, Mainstream/ Alternative Media, Advertisement/ Commercial, Jingle, Audio-visual Media*

**Unit I: Overview of the Development of Cinema**

- a) History, Development of Cinema and Types of Cinema
- b) Film theory or Cinema Studies: Formalist, Feminist, Auteur, Neo formalism, S.L.A.B theory, Apparatus, Marxist, Psychoanalytic, Screen, Structuralist
- c) Technique of Filmmaking
- d) Indian Cinema: Popular/ Parallel Cinema
- e) Adaptation: Text to Screen

**Unit II: Overview of the Development of Media**

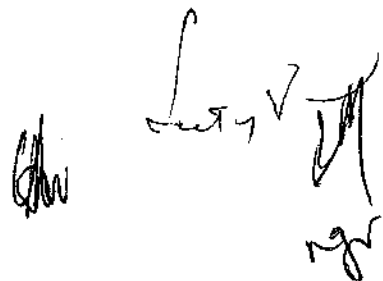

- a) Communication (Verbal, Non-Verbal, Body Language Signs), Interpersonal, Social Media.
- b) Overview of Media Industry. Role and influence of Mass Media
- c) Brief Introduction to Communication theories and models.
- d) Elements of News, difference between article, news feature, backgrounder and editorial.
- e) Journalism as fourth estate. Overview of Cyber journalism.

**Unit III: Essays on Film and Media Theory**

- a) **Andre Bazin:** What is Cinema?
- b) **Laura Mulvey:** Visual Pleasure and Narrative Cinema
- c) **Marshal McLuhan:** "The Medium is the Message"
- d) **Noam Chomsky:** "What makes Mainstream Media Mainstream"

**Unit IV: Book and Film Adaptation**

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## Unit V

- a) Film Review b) Book Review c) Media Product

### Recommended Reading

1. Satyajit Ray, *Our Films Their Films*
2. Sergei Eisenstein, *Film Sense*
3. Vinay Lal and Ashis Nandy (Ed), *Fingerprinting Popular Culture: The Mythic and the Iconic In Indian Cinema*
4. Making Meaning in Indian Cinema – R. Vasudevan
5. *Ideology of the Hindi Film: A Historical Construction* – M. Madhava Prasad
6. *Our Films Their Films* – S. Ray
7. *A Case Study of Indian Popular Cinema* – R. Vasudevan
8. *An Intelligent Critic's Guide to Indian Cinema* – A. Nandy
9. *Bombay Cinema* (Ranjani Mazumdar), Orientblackswan pvt. Ltd
10. Screen Education: From Film Appreciation to Media Studies; By Terry Bolas
11. *Film Study: An Analytical Bibliography*, Volume 1 By Frank Manchel
12. *A Short History of Film* By Wheeler W. Dixon, Gwendolyn Audrey Foster
13. *Film As Film: Understanding And Judging Movies* by Victor F. Perkins
14. *Understanding the Film: An Introduction to Film Appreciation*, Student Edition by Jan Bone, Ron Johnson
15. *Theory of Film: The Redemption of Physical Reality*; By Siegfried Kracauer
16. *Media Studies: The Basics* by Julian M cDougall
17. *Media Studies: The Essential Resource* by Sarah Benyahia, Abigail Gardener, Philip Rayner and Peter Wall
18. *The Sage Handbook of Media Studies* by John Downing 2004.
19. Peter Fourie. *Media History, Media and Society*. 2008.
20. *A Theory of Adaptation*. Linda Hutcheon. 2006

### Mode of Examination

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit.(total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

DETAILED SYLLABUS OF M.A. ENGLISH

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SEMESTER IV

**Type of Course:** Elective

**Course Code :** PGECL4E003T

**Course Title:** Literature and Philosophy

**Objectives:** This course is meant for non- literature students. It will bring out the philosophical foundation of literary texts. The course will survey the relationship of Philosophy and Literature from the times of Socrates to the 20<sup>th</sup> Century.

**UNIT I**

**Introduction: Philosophy and Reality**

- (i) Idealism
- (ii) Realism
- (iii) Pragmatism
- (iv) Existentialism
- (v) Post modernism: Philosophy and Literature

**UNIT II**

**The Ancient Philosophers**

Life, times, and philosophical contribution of

- (i) Socrates
- (ii) Plato
- (iii) Aristotle

**UNIT III**

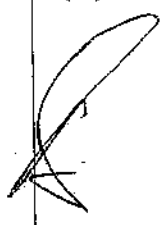
**Introduction: Challenging the Ancients**

- (i) Rene Decartes
- (ii) Francis Bacon
- (iii) John Locke

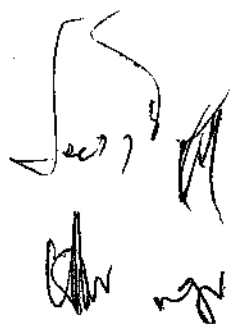
**UNIT IV**

**Knowledge and Self**

- (i) Jean – Jacques Rousseau
- (ii) Immanuel Kant
- (iii) Georg Hegel Wilhelm Fredrick
- (iv) Karl Marx



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## UNIT V

### Subjectivity and Truth

- (i) Soren Kierkegaard
- (ii) Jean Paul Sartre

### Required Readings:

Johann Friedrich Habart  
William James  
John Dewey

### Recommended Readings:

- Charlesworth ,M. *The Existentialists and Jean Paul Sartre*. London: George Prior,1976.
- Durrant ,Will. *The Story of Philosophy*. New York: Simon & Schuster,1933.
- Feibleman ,James,Kern. *Understanding Philosophy*. New York: Horizon Press, 1973.
- Kenny. A. L. Ed.*The Oxford History of Western Philosophy*. Oxford, England: OUP, 2000.
- Krant, R. ed. *The Cambridge Companion to Plato*. Cambridge: Cambridge University Press.
- Russell ,Bertrand. *History of Western Philosophy*. New York: Simon & Schuster, 1945.

### Mode of Examination

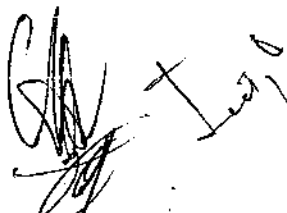
There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit.(total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

  
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**DETAILED SYLLABUS OF M.A. ENGLISH**  
**Semester IV**

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**Course Type:** Elective

**Course Code:** PGECL4E004T

**Course Title:** Basic Course in Linguistic II

**Objective:** This course is aimed at an understanding of the development of the English language and structure of modern English. Many of the Latin-based rules and prescriptive approaches to English language have given way to a descriptive account of the language at all levels. The course is expected to familiarize students with the developments in the English language up to the present.

**Unit 1.** Levels of Linguistics Analysis II: The study of grammar-traditional (the latinate fallacy, the semantic fallacy) structural (IC analysis, NP and VP, phrase structure rules, practice of the diagram for analyzing sentence structure).

**Unit 2.** Transformational generative grammar with reference to Chomsky's distinction between deep and surface structures, kernel sentences and transformations and familiarity with some important transformational rules, lexical restrictions.

**Unit 3.** The Grammar of English -- Basic sentence patterns in English, Description of the structure of Noun Phrase, Verb Phrase, Adjective and Adverbial Phrase in English (with practical exercises). Some types of complex sentences. Sentence connection and cohesion in English.

**Unit 4.** Levels of Linguistic Analysis III: Theories of semantics, Synonymy hyponymy, entailment, polysemy, ambiguity (with examples from the semantics of English).

**Unit 5.** Diachronic changes in English- sound and spelling change and the influence of other languages on English. The development of English grammars and

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dictionaries. English as global language varieties of English in Britain and around the world with special reference to Indian English.

### **Recommended Readings:**

Bauer, Laurie, *Watching English Language* (London, Longman, 1994).

Biber, Conrad and Leech, *A Student Grammar of Spoken and Written English*, London, Longman, 2002.

Crystal, D., *English as a Global Language* (Cambridge, CUP, 1997)

Kachru, B., *The Indianization of English* (New Delhi, OUP, 1988)

Knowles, J., *A Cultural History of English Language* (London, Longman, 1998).

Leech, Svartvik, Quirk and Greenbaum, *A Comprehensive Grammar of English Language* (London, Longman, 1988).

Lyons, J., *Chomsky* (London, Fontana Modern Classics, 1983).. Krishnaswamy and Verma, *Modern Linguistics* (Delhi, OUP, 1988).

Palmer, F., *Grammar* (Cambridge, Cambridge Univ. Press, 1983).

### **Mode of Examination**

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit. (total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

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Detailed Syllabus of MA in English

Semester IV

Type of Course: Elective

Course Code: PGECL4E005T

Title of Course: English for Academic and Professional Communication

Objectives: The course focuses on speaking, listening, reading and writing skills in a professional environment. You will learn how to write short academic texts effectively, as well as to improve your grammar and vocabulary. Strategies for scan and skim reading are also included. Furthermore, you will gain confidence in speaking English in an academic and professional context.

Unit 1: Listening

At the completion of the course students will be able to:

- 1. Use academic listening strategies; including prediction, identification of main ideas  
And specific details and note taking.
- 2. Respond appropriately to spoken instructions.
- 3. Recognize formal and informal spoken English.
- 4. Identify phonetic differences in spoken American English.

Unit II: Speaking

At the completion of the course, students will be able to:

- 1. Speak with appropriate accuracy and fluency using basic and moderately complex Sentence structures.
- 2. Verbally connect ideas in paragraph like discourse.
- 3. Use appropriate verbal intonation and rhythm.
- 4. Engage in verbal role playing in formal and informal situations.
- 5. Express advice and personal opinions with supporting information.
- 6. Paraphrase stories and information.
- 7. Make formal and informal oral presentations.

Unit III: Reading

At the completion of the course, students will be able to:

- 1. Read and comprehend authentic English language publications relating to university life; including print and online newspapers, brochures, course catalogues, campus maps, and internet based communication platforms.
- 2. Demonstrate a working knowledge of appropriate reading and pre-reading strategies; including scanning, annotating, predicting outcomes, making inferences,

- and identifying stated or implied main ideas and supporting details.
3. Use strategies to ascertain meaning from unfamiliar vocabulary encountered in context.
  4. Increase reading rate.
  5. Understand a writer's purpose.

#### **Unit IV: Writing and Grammar**

At the completion of the course, students will be able to:

1. Demonstrate an at level understanding and application of grammar rules; including  
The appropriate use of verb tenses, subject verb agreement, modals, personal Pronouns and articles.
2. Use adverbs and adjective clauses.
3. Use comparative and superlative forms.
4. Use gerund and infinitive phrases.
5. Apply capitalization and comma use rules.
6. Compose simple, complex, compound, and compound complex sentences.
7. Use structural conventions of written English to compose paragraphs and essays.
8. Practice peer editing, self editing, and revising skills.

#### **Unit V: Across Multiple Language Domains**

At the completion of the course, students will be able to:

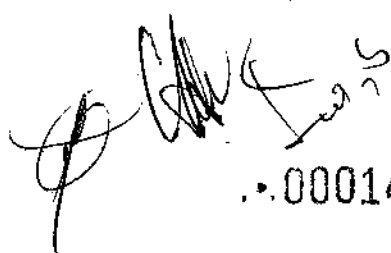
1. Acquire and use new academic vocabulary.
2. Demonstrate at level understanding of grammar in speaking and writing.
3. Understand inconsistencies between pronunciation and spelling.
4. Accurately compose moderately complex sentences with basic transitions to connect ideas in spoken and written discourse.
5. Identify written and spoken language patterns; including sequential events, cause and effect, compare and contrast, and problem/solution narratives.

#### **Recommended Reading**

*"Fluency in English – A Course book for Engineering Students"* by Board of Editors: Hyderabad: Orient BlackSwan Pvt. Ltd. 2016. Print.

Raman, Meenakshi and Sharma, Sangeeta. *"Technical Communication- Principles and Practice"*. Third Edition. New Delhi: Oxford University Press. 2015. Print.

*'Technical Communication- Principles and Practice'*. Third Edition published by Oxford University Press.



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'Good Manners' by J.C. Hill from *Fluency in English – A Course book for Engineering Students* published by Orient Blackswan, Hyderabad.

'Father Dear Father' by Raj Kinger from *Fluency in English – A Course book for Engineering Students* Published by Orient BlackSwan, Hyderabad

Green, David. *Contemporary English Grammar –Structures and Composition*. MacMillan India. 2014 (Print)

Rizvi, M. Ashraf. *Effective Technical Communication*. Tata Mc Graw –Hill. 2015 (Print).

**Mode of Examination**

There shall be three sections A, B & C

Four credit course shall be of three hour duration and shall comprise the following:

**Section A:** will consist of 10 multiple choice questions, two from each unit. Each question shall be of 1.5 marks (total 15 marks).

**Section B:** will consist of 10 short answer questions, two from each unit. Each question shall be of 8 marks. The candidate is required to conduct any 5 questions, selecting at least 1 from each unit.(total 40 marks)

**Section C:** will consist of 5 long answer questions, one from each unit. Each question shall be of 15 marks. The candidate is required to attempt any three questions (total 45 marks)

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**Detailed Syllabus of MA in English  
SEMESTER IV**

**Type of Course: Interdisciplinary**

**Course Code : PGECL11001T**

**Course Title : Interfaith/ Interpath Studies**

**Objective:** The purpose of the course is to develop student's understanding of the living religions of the world with a major emphasis on their origins, historical development, teachings and current practices. This course also will help students to interact more with the people of other faiths in the context of problems and challenges. It helps to equip and build the students on the importance of spirituality, ethics and human values by learning multi-religious scriptures and cultural heritage of India. It prepares students to contribute and transform the society by promoting communal harmony, mutual appreciation and the spirit of tolerance in the context of pluralism.

**Unit I - Origin and Development of Interfaith Studies**

1. Origin and Development of Interfaith/Interpath Studies
2. Definitions of the terms - Faith, Interfaith, Interfaith Co-operation, Inter Religious Dialogue etc.
3. Importance of Interfaith Studies
4. Significance of World Parliament of Religions
5. Interfaith Organizations & Its Contributions towards Promotion of Peace

**Unit II - Comparative Religious Studies**

1. Similarity, Dissimilarity and Peculiarity of the concepts such as God, Human Being, World, Bondage and Liberation in;
  - i. Hinduism
  - ii. Buddhism
  - iii. Jainism
  - iv. Christianity
  - v. Islam
  - vi. Sikhism
2. Common Themes - Grace, Mercy, Love, Forgiveness etc. in all Major Indian Religions

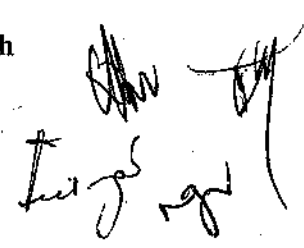
**Unit III - Lords and Prophets Approach to the People of other Faith**

1. Lord Krishna's approach to the people of other faith
2. Lord Buddha's approach to the people of other faith
3. Lord Mahavir's approach to the people of other faith
4. Lord Jesus Christ's approach to the people of other faith
5. Prophet Muhammad's approach to the people of other faith
6. Shri. Guru Nanak's approach to the people of other faith

**Unit IV - Modern Thinkers and Contemporary Gurus view on Interfaith**

1. Raja Ram Mohan Roy

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2. Swami Dhayananda Saraswathi
3. Swami Ramakrishna Paramahansa
4. Swami Vivekananda
5. Aurabindo Ghosh
6. Mahatma Gandhi
7. Dr. B R Ambedkar
8. Pandit Ramabai
9. Sathya Sai Baba

#### Unit V - Thinkers from the State of J & K and their view on Interfaith

1. Nagarjun
2. Asvaghosh
3. Abinavagupta
4. Utpal Dev
5. Lal Ded
6. Nundrishi
7. Others - Shanthirakshit, Kshemendra, Rupa Bhawani & Lakshman Joo etc.

#### Recommended Readings

- Aleaz, K.P. *Dimensions of Indian Religions*. Calcutta: Punthi Pustak, 1995.
- Bishop, Peter and Darton, Michael, eds. *Encyclopedia of World Faiths: An Illustrated Survey of the World's Living Religions*. New York: Facts on File, 1988.
- Bowker, John. *World Religions*, New York: Doris Kindersley, 2003.
- Breuilly, Elizabeth et al. *Religions of the World: The Illustrated Guide to Origins, Beliefs, Traditions and Festivals*. New York: Checkmark, 2005.
- Daniel, P.S. David C.Scott, G.R.Singh. *Religious Traditions of India*. Delhi: ISPCK, 2001.
- Eliade, Mircea. *History of Religious Ideas*, 3 vols. Chicago: Chicago, 1981.
- Esposito, John L. et al. *World Religions Today*. New York: Oxford, 2005.
- Fowler, Jeaneane D. *Hinduism: Beliefs and Practices*. Sussex Academic Press, 1997.
- Jain, Jyotiprasad. *Religion and culture of the Jain*, New Delhi: Bhartiya Janapeeth Publication, 1975
- James, E. E. *A Study of Religions*, Bangalore: theological Book Trust, 2006.
- Jones, L. Bevan. *The People of the Masque*, Delhi: ISPCK,



Leung's





1998. Lalrinawma, V. S. *Major Faith Traditions of India*, Delhi:

ISPCK, 2007.

Ludden, David E. *Contesting the Nation: Religion, Community and the Politics of Democracy in India*. University of Pennsylvania Press, 1996.

Radhakrishnan, S & Moore, C. A. *A Sourcebook in Indian Philosophy*. Princeton University Press, 1967.

Rahman, Fazlur. *Islam*, London: Weidenfield & Nicolson, 1966.

Ray, Reginald A. *Buddhist Saints in India: A Study in Buddhist Values & Orientations*, Oxford & New York: OUP, 1994.

Scott, David C. Israel Selvanayagam. *Re-visioning India's Religious Tradition*. Delhi: ISPCK, 1997.

Singh, N K. *Ideal, Ideology and Practice: Studies in Jainism(Ed)*, Jaipur: Print well Publisher, 1987

Varma, V. P. *Early Buddhism and Its Origin*, New Delhi: Motilal Banarsidass, 1973.

Warder, A. K. *Indian Buddhism*, (Reprint), New Delhi :Motilal Banarsidass, , 2004.

#### **Mode of Examination**

There shall be three sections A, B & C

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DEAN SCHOOL OF LANGUAGES  
CENTRAL UNIVERSITY OF JAMMU

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जम्मू केन्द्रीय विश्वविद्यालय *Annexure XI*  
**Central University of Jammu**

Rahya - Suchani (Bagla), District Samba, Jammu - 181143 (I & K)  
Ph: 01923-249657-58 Website: www.cujammu.ac.in

No.4-13/CUJ/Reg/2015/22

24<sup>th</sup> Jan. 2017

**NOTIFICATION**

It is hereby notified on the recommendations of the Board of Studies, Department of Plant Sciences, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of 2<sup>nd</sup> semester for Integrated M.Sc in Plant Sciences w.e.f Academic Session 2016-17. The approved Course Scheme is as under:

**Semester-2<sup>nd</sup>**

Course Code	Course Title	Credit	MSA	CIA	ESE	Total
	<b>CORE COURSES</b>					
ICBOT2C001T	Phycology	4	25	25	50	100
ICBOT2C002L	Phycology Lab	2	12.5	12.5	25	50
ICCHM2C001T	Chemistry-II	4	25	25	50	100
ICCHM2C002L	Chemistry Lab-II	2	12.5	12.5	25	50
ICZOL2C001T	Zoology-II	4	25	25	50	100
ICZOL2C002L	Zoology Lab-II	2	12.5	12.5	25	50
ICZOL2F001T	<b>FOUNDATION COURSE</b>	4	25	25	50	100
	<b>INTERDISCIPLINARY COURSE</b>	2	12.5	12.5	25	50
	<b>Total</b>	<b>24</b>				<b>600</b>

*AM* 24/01/17  
I/c. Registrar,  
*Q. Oj*

Encl: Copy of 2<sup>nd</sup> semester syllabus

To:  
Head, Department of Plant Sciences

Copy to:  
I/c Controller of Examinations

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- ❖ The Department reserves the right to add or delete any practical in any semester during the course of running the semester.

### TEXT BOOKS:

1. M. Ekambaranatha Ayyar, 1973 A Manual of Zoology -Part -I, Invertebrata S. Viswanathan(Printers and Publishers)Pvt.Ltd.Madras.
2. Jordon ,E.L and P.S .Verma ,1985, Invertebrate Zoology. S.Chand and Co. Ltd.New Delhi
3. Adam Sedgwick,1960, A students text book of zoology Vol I .General book depot. Allahabad.
4. 1960, A students text book of zoology Vol III General book depot. Allahabad.
5. Hyman,L.H. The Invertebrate 1951, Vol.I, McGraw Hill Book Co,Newyork,London
6. Hyman ,L.H. The Invertebrate 1951 Vol.II, McGraw Hill Book Co., New York, London.
7. Hyman,L.H. The Invertebrate 1951, Vol.III, McGraw Hill Book Co.,New York, London
8. Hyman,L.H, The Invertebrate 1959, Vol.IV McGraw Hill Book Co.New York,London
9. Hyman L.H, The Invertebrate 1959, Vol.V McGraw Hill Book Co.New York London
- 10.Parker and Haswell, Vil.1, McMillan & Co. 1986, New York, Text Book of Zoology

### Semester - II

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~~000151~~ PHYCOLOGY

### THEORY

4 Credits: (3-1-0)

**Unit-1** Classification of algae by R.E. Lee (2008). Distribution of algae in soil, fresh water and marine environment. Origin and evolution of sex in Algae. Fossil account of algae. Algal pigments (Chlorophylls, carotenoids and phycobilin) and economic importance of algae.

**Unit-II** Range of structure, reproduction, life history and evolutionary trends in Cyanophyceae. Detailed study of Anabaena, Nostoc, Oscillatoria and Scytonema. Current status of cyanophyceae as cyanobacteria.

**Unit-III** Range of structure, reproduction, life history and evolutionary trends in Chlorophyceae. Detailed study of Chlamydomonas, Volvox, Hydrodictyon, Ulva, Fritschella, Oedogonium and Acetabularia.

**Unit-IV** Range of structure, reproduction, life history and evolutionary trends in Bacillariophyceae (Diatoms), and Xanthophyceae, Phaeophyceae. Detailed study of Ectocarpus; Laminaria; Sargassum, Navicula and Vaucharia.

**Unit-V** Range of structure, reproduction, life history and evolutionary trends in Rhodophyceae. Detailed study of Batrachospermum, Polysiphonia, Gelidium and Porphyra.

### IBOL191:

### Practicals

2 Credits (0-0-4)

Structure, reproduction and Diagnostic features of algal forms available in our fresh water ponds and Indian sea coast from the list of specimen mentioned in the theory.

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- ❖ The Department reserves the right to add or delete any practical in any semester during the course of running the semester.

**Text Books:**

- 1.H.D. Kumar and H.N.Singh, 1971. A text book on Algae. Affiliated East west press Pvt.Ltd. New Delhi.
- 2.Gangulea and Khar, 1985. College Botany. Vol.II. New Central Book Agency, Calcutta.
- 3.Chapman V.J. and Chapman, H.J.1961. The Algae . 2nd Ed.

**Reference Books:-**

- 1.F.E. Fritsch.1945.The structure and reproduction of Algae. Vol. I & II.
- 2.F.E. Round . 1965. The Biology of Algae.
- 3.Bold and Wynn. 1978. Introduction of Algae. Structure and Reproduction.
- 4.Smith, S.M. 1951. Manual of Phycology.
- 5.Rai, L.C. and Gaur, J.P.2001.
- 6.Algal adaptation to Environmental Stress. Springer Verlag, Germany.
- 7.Graham, L.E and L.W, Wilcox.2000. Algae. Prentice Hall Inc., New Jersey.
- 8.C. Van Dew Hoek.1998.Algae.Introduction to Phycology.Cambridge Univ.Press(UK)

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~~000153~~: CHEMISTRY-II

**THEORY**

**4 Credits: (3-1-0)**

**Unit- I:**

Definition of colloid, Classification of colloids. Solids in liquids (sols): properties – kinetic, optical and electrical: Stability of colloids, Protective action, Hardy-Schulze law, Gold number. Liquids in solids (gels): Classification, preparation and properties; Inhibition, General application of colloids.

Arrhenius, Bronsted-Lowry, solvent system, Lewis and HSAB concept of acids and bases.

**Unit-II:**

Introduction to chemical kinetics, Theories of chemical kinetics: Effect of temperature on rate of reaction, Rate expression for first order and second order reaction, Half life, Methods for determining order of reaction, Arrhenius equation, Concept of activation energy, Simple collision theory based on hard sphere model, Transition state theory (equilibrium hypothesis), Expression of the rate constant based on equilibrium constant and thermodynamic aspects.

**Unit III:**

Comparative study, diagonal relationships, salient features of hydrides, solvation and complexation tendencies, an introduction to alkyls and aryls. Chemical properties of the noble gases, chemistry of xenon, structure and bonding xenon compounds Role of Mg, Na, K, Ca ions in biology.

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#### Unit IV:

Aromatic hydro carbons and aromaticity, resonance in benzene, Huckel's  $(4n+2)$  rule and its simple applications. Acidic character of phenols - explanation on the basis of resonance stabilization. Electrophilic substitution reactions in aromatic compounds. General mechanisms of nitration, halogenation, sulphonation, Friedel-Craft's acylation and alkylation, ortho/para/meta directive influence with examples.

SN1 and, SN2 reaction mechanism: effects of structure, substrate, solvent, nucleophile and leaving groups. Mechanisms of E1 and E2 reactions, Hoffmann and Sayetzeffs rules cis and trans eliminations, Elimination Vs substitution.

#### Unit V:

Stereochemistry introduction, Concept of Isomerism, Classification of Stereoisomers, Optical isomerism, Chirality & Elements of symmetry, Wedge formula, Fischer projection, Newmann projection. Relative and absolute configurations, sequence rules, D & L, R & S systems of nomenclature. Understanding with examples for Enantiomers, mesoform, erythro/threo forms, diastereoisomers. Conformational understanding with an example of ethane, n-butane and Cyclohexane.

#### Books Recommended:

1. Fundamentals of Organic Chemistry Solomons, John Wiley
2. Introduction to Organic Chemistry, Streitwieser, Hathcock and Kosover, Macmillan.
3. Physical Chemistry Vol. 2, by K.L Kapoor, McMillan.
4. Physical Chemistry: A Molecular Approach by McQuarrie & Simon Viva
5. Concise Inorganic Chemistry by J D Lee, Amazon.
6. Comprehensive Co-ordination Chemistry by G. Wilkinson, R. D. Gillars & J. A. McCleverty, Pergamon
7. Chemistry of the Elements by N. N. Greenwood & Earnshaw, Pergamon
8. A Text Book of Physical Chemistry by S. Glasstone, McMillan.

~~IC00101~~ ICCHM2C002L Practicals

2 Credits: (0-0-4)

#### 1. Volumetric analysis

- (a) Determination of acetic acid in commercial vinegar using NaOH
- (b) Estimation of calcium content in chalk as calcium oxalate by permanganometry.
- (c) Estimation of hardness of water by EDTA.
- (d) Estimation of copper using thiosulphate

2. Synthesis and analysis

- (a) Preparation of Ni-DMG complex,  $[\text{Ni}(\text{DMG})_2]$
- (b) Gravimetric analysis of Ni as Ni-DMG complex
- (c) Qualitative inorganic analysis of mixtures containing not more than 4 radicals from the following:

**Cation Radicals:**  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^{+2}$ ,  $\text{Sr}^{+2}$ ,  $\text{Ba}^{+2}$ ,  $\text{Al}^{+3}$ ,  $\text{Cr}^{+3}$ ,  $\text{Mn}^{+2}$ ,  $\text{Fe}^{+3}$ ,  $\text{Co}^{+3}$ ,  $\text{Ni}^{+3}$ ,  $\text{Cu}^{+2}$ ,  $\text{Zn}^{+2}$ .

**Anion Radicals:**  $\text{F}^-$ ,  $\text{Cl}^-$ ,  $\text{Br}^-$ ,  $\text{BrO}_3^-$ ,  $\text{I}^-$ ,  $\text{SCN}^-$ ,  $\text{S}^{2-}$ ,  $\text{SO}_4^{2-}$ ,  $\text{S}_2\text{O}_3^{2-}$ ,  $\text{NO}_3^-$ ,  $\text{NO}_2^-$ ,  $\text{PO}_4^{3-}$ ,  $\text{BO}_3^{3-}$ ,  $\text{CrO}_4^{2-}$ ,  $\text{Cr}_2\text{O}_7^{2-}$ ,  $\text{Fe}(\text{CN})_6^{4-}$ ,  $\text{Fe}(\text{CN})_6^{3-}$ .

**Insoluble Materials:**  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Cr}_2\text{O}_3$ ,  $\text{SnO}_2$ ,  $\text{SrSO}_4$ ,  $\text{BaSO}_4$ ,  $\text{CaF}_2$ .

**Experiment A:** Preliminary Tests for acid and basic radicals in given samples.

**Experiment B:** Wet tests for Acid and Basic radicals in given samples.

**Experiment C:** Confirmatory tests.

- ❖ The Department reserves the right to add or delete and practical in any semester during the course of running the semester.

Books Recommended:

1. G. Svehla: Vogel's Qualitative Inorganic Analysis.
2. J. Mendham, R. C. Denny, J. D. Barnes, M. J. K. Thomas: Vogel's Text Book of Quantitative Chemical Analysis.
3. Vogel's Textbook of Quantitative Chemistry.
4. Synthesis & characterization of Inorganic Compounds by W. L. Jolly, Prentice Hall.

IC20L2C01T

~~020020~~: ANIMAL DIVERSITY-II

**THEORY**

**4 Credits: (3-1-0)**

**Objective:** To understand higher invertebrate diversity

**UNIT I** Annelida –Salient features-Type study-Earthworm, Nereis, Leech-Coelom and excretory system-Adaptive radiations in polychaetes.

**UNIT II** Onychopora-Type study and affinities

**UNIT III** Arthropoda-Salient features-classification upto orders – Type study – Penaeus and grasshopper, Crustacean Larvae.

**UNIT IV** Molluscs-Salient features-classification upto orders-Type study-Fresh water mussel, Pila and Sepia; Torsion in mollusca, Foot in mollusca, Shell in mollusca .

**UNIT V** Echinodermata-Salient features-classification upto orders-Type study-Asterias-Echinoderm larvae-their significance

~~EX0001~~ ICZOLLE002L PRACTICALS

2 Credits (0-0-4)

1. Cockroach – dissections and mounts
2. Prawn-dissections and mounts
3. Spiders, ticks, mites – specimens
4. Pila – dissections
5. Mounts of Radula, ctenidium
6. Echinoderm -specimen study
7. Minor phyla-specimen study

❖ The Department reserves the right to add or delete any practical in any semester during the course of running the semester.

**TEXT BOOKS:**

1. M. Ekambaranatha Ayyar, 1973, A Manual of Zoology Part –I, Invertebrata S.Viswanathan (Printers and Publishers) Pvt.Ltd.Madras.
2. Jordan, E.L and P.S. Verma, 1985, Invertebrate Zoology. S.Chand and Co. Ltd.New Delhi
3. Adam Sedgwick, 1960, A students text book of zoology Vol I .General book depot. Allahabad.
4. 1960, A students text book of zoology Vol II General book depot. Allahabad.
5. 1960, A students text book of zoology Vol III.General book depot.Allahabad
6. Hyman, L.H. The Invertebrate 1951, Vol.I, McGraw Hill Book Co., New York, London
7. Hyman, L.H. The Invertebrate 1951 Vol.II, McGraw Hill Book Co., New York, London.
8. Hyman, L.H. The Invertebrate 1951, Vol.III, McGraw Hill Book Co., New York, London
9. Hyman, L.H, The Invertebrate 1959, Vol.IV McGraw Hill Book Co. New York, London
10. Hyman L.H, The Invertebrate 1959, Vol.V McGraw Hill Book Co. New York London

**Semester - III**

**IBO201: MYCOLOGY AND LICHENS**

**THEORY**

4 Credits: (3-1-0)

**Unit-I** Introduction, classification with reference to Alexopoulos and Mims (1979), Range of thallus structure, reproduction, life history and evolution of the following classes of fungi. Myxomycetes –Stemonitis; Chytridiomycetes -Synchytrium.

**Unit-II** Oomycetes-Pythium, Phytophthora, Albugo, Peronospora. Plasmodiophoromycetes: Plasmodiophora. Zygomycetes : Pilobolus, Rhizopus, Mucor.

**Unit-3** Ascomycetes : Yeast, Taphrina, Emericella, Claviceps, Peziza, Morchella Venturia. Basidiomycetes: Puccinia, Ustilago, Agaricus, Lycoperdon, Cyathus. Deuteromycetes: Alternaria, Aspergillus, Penicillium, Cercospora, Fusarium, Colletotrichum.





जम्मू केन्द्रीय विश्वविद्यालय *Annexure XII*  
**Central University of Jammu**

Rahya - Suchani (Bagla), District Samba, Jammu - 181143 (J & K)  
Ph. 01923-249657-58, Website: www.cujammu.ac.in

No.4-12/CUJ/Reg/2015/23

24<sup>th</sup> Jan. 2017

**NOTIFICATION**

It is hereby notified on the recommendations of the Board of Studies, Department of Animal Sciences and Wildlife, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of 2<sup>nd</sup> semester for Integrated M.Sc in Animal Sciences and Wildlife w.e.f Academic Session 2016-17. The approved Course Scheme is as under:

**Semester-2<sup>nd</sup>**

Course Code	Course Title	Credit	MSA	CIA	ESE	Total
	<b>CORE COURSES</b>					
ICZOL2C001T	Animal Diversity-II (Invertebrata)	4	25	25	50	100
ICBOT2C002L	Animal Diversity Lab-II	2	12.5	12.5	25	50
ICCHM2C001T	Chemistry-II	4	25	25	50	100
ICCHM2C002L	Chemistry Lab-II	2	12.5	12.5	25	50
ICBOT2C001T	Botany-II	4	25	25	50	100
ICBOT2C002L	Botany Lab-II	2	12.5	12.5	25	50
ICBOT2F001T	<b>FOUNDATION COURSE</b>	4	25	25	50	100
	<b>INTERDISCIPLINARY COURSE</b>	2	12.5	12.5	25	50
	<b>Total</b>	<b>24</b>				<b>600</b>

Encl: Copy of 2<sup>nd</sup> semester syllabus

To:

Head, Department of Animal Sciences and Wildlife

Copy to:

I/c Controller of Examinations

*Abh*  
I/c. Registrar  
*9*

**Unit-III** Shoot - Branching types, modifications, functions of stems, difference between dicot and monocot stems, Leaf parts, modifications and functions, venation. Differences between dicot and monocot leaves.

**Unit-IV** Inflorescence and its special types; Flower-Diversity of floral structure in monocots and dicots.

**Unit-V** Pollination and fertilization-types of pollination, seed development and maturation. Fruits - classification, special types, parts of the seed. Fruit and seed dispersal, seed germination and its types.

~~12011~~: UGZOL1006L Practical (Botany Lab-1) 2 Credits (0-0-4)

1. Parts of the plant
2. Root system and their modifications
3. Stem and their modifications
4. Leaves and their modifications
5. Inflorescence and their types
6. Floral parts of Angiosperms
7. Classification of fruits
8. Seed Structures of monocots and dicots
9. Seed germination
10. Seed dispersal

❖ The Department reserves the right to add or delete any practical in any semester during the course of running the semester.

**References:-**

1. Dutta, A.C. 1995. Introduction to Botany Oxford IBH Press, New Delhi.
2. Pandey, B.P. 1999. College Botany S.Chand & Co.
3. Subramanian, 1996. Modern Taxonomy
4. Vashista, B.R. 1999. Botany. S.Chand & Co. New Delhi.

1CZOL2C001T

~~12011~~: ANIMAL DIVERSITY-II

**THEORY**

4 Credits: (3-1-0)

**Objective:** To understand higher invertebrate diversity

**UNIT I** Annelida -Salient features-Type study-Earthworm, Nereis, Leech-Coelom and excretory system-Adaptive radiations in polychaetes.

**UNIT II** Onychopora-Type study and affinities

**UNIT III** Arthropoda-Salient features-classification upto orders - Type study - Penaeus and grasshopper, Crustacean Larvae.

**UNIT IV** Molluscs-Salient features-classification upto orders-Type study-Fresh water mussel, Pila and Sepia; Torsion in mollusca, Foot in mollusca, Shell in mollusca .

**UNIT V** Echinodermata-Salient features-classification upto orders-Type study-Asterias-Echinoderm larvae-their significance

AA /

~~ICCHMLC002L~~: CHEMISTRY LAB-II

## PRACTICAL

2 Credits (0-0-4)

## 1. Volumetric analysis

- (a) Determination of acetic acid in commercial vinegar using NaOH
- (b) Estimation of calcium content in chalk as calcium oxalate by permanganometry.
- (c) Estimation of hardness of water by EDTA.
- (d) Estimation of copper using thiosulphate

## 2. Synthesis and analysis

- (a) Preparation of Ni-DMG complex,  $[\text{Ni}(\text{DMG})_2]$
- (b) Gravimetric analysis of Ni as Ni-DMG complex
- (c) Qualitative inorganic analysis of mixtures containing not more than 4 radicals from the following:

**Cation Radicals:**  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^{+2}$ ,  $\text{Sr}^{+2}$ ,  $\text{Ba}^{+2}$ ,  $\text{Al}^{+3}$ ,  $\text{Cr}^{+3}$ ,  $\text{Mn}^{+2}$ ,  $\text{Fe}^{+3}$ ,  $\text{Co}^{+3}$ ,  $\text{Ni}^{+3}$ ,  $\text{Cu}^{+2}$ ,  $\text{Zn}^{+2}$ .

**Anion Radicals:**  $\text{F}^-$ ,  $\text{Cl}^-$ ,  $\text{Br}^-$ ,  $\text{BrO}_3^-$ ,  $\text{I}^-$ ,  $\text{SCN}^-$ ,  $\text{S}^{2-}$ ,  $\text{SO}_4^{2-}$ ,  $\text{S}_2\text{O}_3^{2-}$ ,  $\text{NO}_3^-$ ,  $\text{NO}_2^-$ ,  $\text{PO}_4^{3-}$ ,  $\text{BO}_3^{3-}$ ,  $\text{CrO}_4^{2-}$ ,  $\text{Cr}_2\text{O}_7^{2-}$ ,  $\text{Fe}(\text{CN})_6^{4-}$ ,  $\text{Fe}(\text{CN})_6^{3-}$ .

**Insoluble Materials:**  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Cr}_2\text{O}_3$ ,  $\text{SnO}_2$ ,  $\text{SrSO}_4$ ,  $\text{BaSO}_4$ ,  $\text{CaF}_2$ .

**Experiment A:** Preliminary Tests for acid and basic radicals in given samples.

**Experiment B:** Wet tests for Acid and Basic radicals in given samples.

**Experiment C:** Confirmatory tests.

- ❖ The Department reserves the right to add or delete and practical in any semester during the course of running the semester.

**Books Recommended:**

1. G. Svehla: Vogel's Qualitative Inorganic Analysis.
2. J. Mendham, R. C. Denny, J. D. Barnes, M. J. K. Thomas: Vogel's Text Book of Quantitative Chemical Analysis.
3. Vogel's Textbook of Quantitative Chemistry.
4. Synthesis & characterization of Inorganic Compounds by W. L. Jolly, Prentice Hall.

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determining order of reaction, Arrhenius equation, Concept of activation energy, Simple collision theory based on hard sphere model, Transition state theory (equilibrium hypothesis), Expression of the rate constant based on equilibrium constant and thermodynamic aspects.

### Unit III:

Comparative study, diagonal relationships, salient features of hydrides, solvation and complexation tendencies, an introduction to alkyls and aryls. Chemical properties of the noble gases, chemistry of xenon, structure and bonding xenon compounds Role of Mg, Na, K, Ca ions in biology.

### Unit IV:

Aromatic hydro carbons and aromaticity, resonance in benzene, Huckel's  $(4n+2)$  rule and its simple applications. Acidic character of phenols - explanation on the basis of resonance stabilization. Electrophilic substitution reactions in aromatic compounds. General mechanisms of nitration, halogenation, sulphonation, Friedel-Craft's acylation and alkylation, ortho/para/meta directive influence with examples.

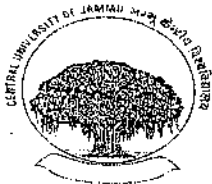
SN1 and, SN2 reaction mechanism: effects of structure, substrate, solvent, nucleophile and leaving groups. Mechanisms of E1 and E2 reactions, Hoffmann and Sayetzeffs rules cis and trans eliminations, Elimination Vs substitution.

### Unit V:

Stereochemistry introduction, Concept of Isomerism, Classification of Stereoisomers, Optical isomerism, Chirality & Elements of symmetry, Wedge formula, Fischer projection, Newmann projection. Relative and absolute configurations, sequence rules, D & L, R & S systems of nomenclature. Understanding with examples for Enantiomers, mesoform, erythro/threo forms, diastereoisomers. Conformational understanding with an example of ethane, n-butane and Cyclohexane.

### Books Recommended:

1. Fundamentals of Organic Chemistry Solomons, John Wiley
2. Introduction to Organic Chemistry, Streitwiesser, Hathcock and Kosover, Macmillan.
3. Physical Chemistry Vol. 2, by K.L Kapoor, McMillan.
4. Physical Chemistry: A Molecular Approach by McQuarrie & Simon Viva
5. Concise Inorganic Chemistry by J D Lee, Amazon.
6. Comprehensive Co-ordination Chemistry by G. Wilkinson, R. D. Gillars & J. A. McCleverty, Pergamon
7. Chemistry of the Elements by N. N. Greenwood & Earnshaw, Pergamon
8. A Text Book of Physical Chemistry by S. Glasstone, McMillan.



Annexure XVII

# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya - Suchani (Bagla), District Samba, Jammu - 181143 (J & K)  
Ph: 01923-249657-58. Website: www.cujammu.ac.in

No.4-13/CUJ/Reg/2015/24

24<sup>th</sup> Jan. 2017

## NOTIFICATION

It is hereby notified on the recommendations of the Board of Studies, Department of Chemistry and Chemical Sciences, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of 2<sup>nd</sup> semester for Integrated M.Sc in Chemistry and Chemical Sciences w.e.f Academic Session 2016-17. The approved Course Scheme is as under:

**Semester-2<sup>nd</sup>**

Course Code	Course Title	Credit	MSA	CIA	ESE	Total
	<b>CORE COURSES</b>					
ICCHM2C001T	Chemistry-II	4	25	25	50	100
ICCHM2C002L	Chemistry Lab-II	4	25	25	50	100
ICPHY2C001T	Physics-II	4	25	25	50	100
ICBOT2C001T	Botany-II					
ICPHY2C002L	Physics Lab-II	4	25	25	50	100
ICBOT2C002L	Botany Lab-II					
ICZOL2C002L	Zoology Lab-1I					
ICAMT2C001T	Mathematics-II	4	25	25	50	100
ICZOL2C001T	Zoology-II					
ICEVS2C001T	Environmental Science	4	25	25	50	100
ICICT2C001T	Introduction to Computers	4	25	25	50	100
	<b>Total</b>	<b>28</b>				<b>700</b>

Encl: Copy of 2<sup>nd</sup> semester syllabus

To:

Head, Department of Chemistry and Chemical Sciences

Copy to:

I/c Controller of Examinations

*(Signature)*  
I/c. Registrar

- a. Simple distillation of ethanol-water mixture using water condenser
  - b. Distillation of nitrobenzene and aniline using air condenser
8. Macro analysis (qualitative) of cations and anions (known samples)

**Books Recommended:**

1. Vogel's Textbook of Practical Organic Chemistry, 5<sup>th</sup> Edition, 1989.
2. Experiments in General chemistry, C. N. R. Rao and U. C. Agarwal Fourth Edition 1973.
3. Vogel's Inorganic Practical Chemistry. 7<sup>th</sup> Ed., 1996.
4. Vogel's Textbook of Practical Organic Chemistry. 5<sup>th</sup> Ed.

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**Semester-2**

ICCHM2C001T

~~00019~~: CHEMISTRY-II

**THEORY**

**4 Credits: (3-1-0)**

**Unit-I: Thermodynamics- I**

**12Hrs**

Thermodynamic terms, State and path functions and their differentials, Thermodynamic process, Concept of heat and work, First Law of thermodynamics, Energy and enthalpy, Heat capacity, Heat capacities at constant volume and pressure and their relationship, Joule's law, Joule – Thomson coefficient and inversion temperature, Calculation of  $w$ ,  $q$ ,  $dU$  &  $dH$  for the expansion of ideal gases under isothermal and adiabatic condition for reversible process, Zeroth law of thermodynamics, Absolute temperature, Thermo chemistry: Exothermic and Endothermic reactions; Standard enthalpy changes, Types of enthalpy changes: Formation, Combustion, Neutralization, Ionization, Solution (Integral heat and Differential heat), Transition, Hydration; Kirchhoff's equation, bond energy and its applications, Numericals.

**Unit-II: Chemical Equilibrium**

**12 Hrs**

Dynamic nature of Chemical equilibrium, Attainment and characteristics of chemical equilibrium, Law of mass action and its thermodynamic derivation, Relation between  $K_p$ ,  $K_c$  and  $K_x$ , De Donder's treatment of chemical equilibria, Thermodynamic relations for chemical affinity, Homogeneous equilibria, Temperature dependence of equilibrium constant and integrated form of van't Hoff equation, Pressure dependence of equilibrium constant ( $K_p$ ,  $K_c$  and  $K_x$ ), Heterogeneous equilibria, Le Chatelier's principle, Thermodynamic treatment of Le Chatelier's principle.

**Unit III: Chemical Bonding-II**

**12 Hrs**

Ionic Solids, Ionic Structures, radius ratio effect and coordination number, limitations of radius ratio rule, lattice defects, semiconductors, lattice energy and Born – Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarizability of ions, Fajan's rule. Metallic bond – free electrons, Valence bond and band theories, weak interactions – hydrogen bonding and Van der Waals forces

**Unit IV: Aromaticity, Substitution and Elimination reactions**

**12 Hrs**

Aromatic hydrocarbons and aromaticity, resonance in benzene, Huckel's  $(4n+2)$  rule and its simple applications. Acidic character of phenols - explanation on the basis of resonance stabilization.

Electrophilic substitution reactions in aromatic compounds. General mechanisms of nitration, halogenation, sulphonation, Friedel-Craft's acylation and alkylation, ortho/para/meta directive influence of substituents (with examples).

SN<sup>1</sup> and, SN<sup>2</sup> reaction mechanism: effects of structure, substrate, solvent, nucleophile and leaving groups. Mechanisms of E1 and E2 reactions, Hoffmann and Sayetzeff rules, cis and trans eliminations, Elimination Vs substitution.

### Unit V: Stereochemistry

12 Hrs

Stereochemistry: Concept of Isomerism, Classification of Stereoisomers, Optical isomerism, Chirality & Elements of symmetry, Wedge formula, Fischer projection, Newmann projection. Relative and absolute configurations, sequence rules, D & L, R & S systems of nomenclature. Understanding of Enantiomerism, diastereoisomerism. mesoform. Erythro and threo nomenclature, Conformational understanding with an example of ethane, n-butane and Cyclohexane.

### Books Recommended:

1. Fundamentals of Organic Chemistry by Solomons, John Wiley, 5<sup>th</sup> Edition 1998.
2. Introduction to Organic Chemistry, Streitwieser. Heathcock and Kosover, Macmillan. 4<sup>th</sup> Edition, 1992.
3. Physical Chemistry Vol. 2, by K. L Kapoor, McMillan. 5th Ed. 2014.
4. Chemical Thermodynamics by R. P. Rastogi and R. R. Mishra, 6th Ed. 2009.
5. Concise Inorganic Chemistry by J D Lee, Amazon. John Wiley & Sons. Ed 5<sup>th</sup>. 1996.
6. Comprehensive Co-ordination Chemistry by G. Wilkinson. R. D. Gillars & J. A. McCleverty, Pergamon 1987.
7. Chemistry of the Elements by N. N. Greenwood & Earnshaw, Pergamon
8. A Text Book of Physical Chemistry by S. Glasstone, McMillan.
9. Physical Chemistry by P. W. Atkins, Oxford

LCCHM2C002L

COLEB1: CHEMISTRY LAB-II

### PRACTICAL

4 Credits: (0-0-8)

#### 1. Volumetric analysis

- (a) Determination of acetic acid in commercial vinegar using NaOH
- (b) Estimation of calcium content in chalk as calcium oxalate by permanganometry.
- (c) Estimation of hardness of water by EDTA.
- (d) Estimation of copper using thiosulphate

#### 2. Synthesis and analysis

- (a) Preparation of Ni-DMG complex, [Ni(DMG)<sub>2</sub>]
- (b) Gravimetric analysis of Ni as Ni-DMG complex
- (c) Qualitative inorganic analysis of mixtures containing not more than 4 radicals from the following:

**Cation Radicals:** Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>+2</sup>, Sr<sup>+2</sup>, Ba<sup>+2</sup>, Al<sup>+3</sup>, Cr<sup>+3</sup>, Mn<sup>+2</sup>, Fe<sup>+3</sup>, Co<sup>+3</sup>, Ni<sup>+3</sup>, Cu<sup>+2</sup>, Zn<sup>+2</sup>.  
**Anion Radicals:** F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, BrO<sub>3</sub><sup>-</sup>, I<sup>-</sup>, SCN<sup>-</sup>, S<sup>2-</sup>, SO<sub>4</sub><sup>2-</sup>, S<sub>2</sub>O<sub>3</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup>, NO<sub>2</sub><sup>-</sup>, PO<sub>4</sub><sup>3-</sup>, BO<sub>3</sub><sup>3-</sup>, CrO<sub>4</sub><sup>2-</sup>/Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup>, Fe(CN)<sub>6</sub><sup>4-</sup>, Fe(CN)<sub>6</sub><sup>3-</sup>.

**Insoluble Materials:** Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub>, SrSO<sub>4</sub>, BaSO<sub>4</sub>, CaF<sub>2</sub>.

**Experiment A:** Preliminary Tests for acid and basic radicals in given samples.

**Experiment B:** Wet tests for Acid and Basic radicals, in given samples.

Experiment C: Confirmatory tests.

**Books Recommended:**

1. G. Svehla: Vogel's Qualitative Inorganic Analysis, 7th Ed, 1996
2. J. Mendham, R. C. Denny, J. D. Barnes, M. J. K. Thomas: Vogel's Text Book of Quantitative Chemical Analysis, Prentice Hall, 6th Ed.
3. Vogel's Textbook of Quantitative Chemistry, 5th Ed. 1989
4. Synthesis & characterization of Inorganic Compounds by W. L. Jolly, Prentice Hall. Vol - 83 (6), 1971.

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**Semester-3**

**ICY-201: CHEMISTRY-III**

**THEORY**

**4 Credits: (3-1-0)**

**Unit I: Hydroxy and Carbonyl Compounds**

**12 Hrs**

Preparation of monohydric alcohols from carbonyl compounds using Grignard reagents, Methods to distinguish between Primary, secondary and tertiary alcohols (Lucas, Victor Meyer's and oxidation method) Preparation of aldehydes and ketones by Rosenmund's reduction, Oppenauer oxidation. Reactions of aldehydes and ketones (Reduction using  $\text{LiAlH}_4$ , Clemensen and Wolf-Kishner reduction, reaction with alcohols) Mechanism of Aldol condensation, Cannizzaro's reaction, Reimer - Tiemann reaction, Perkin's reaction, Benzoin condensation.

**Unit II: Carboxylic Acids and its derivatives-I**

**11Hrs**

Acidity of Carboxylic Acids, Effects of Substituent's on Acid Strength. Preparation and reactions of carboxylic acids. Hell-Volhard-Zelinsky reaction. Synthesis of acid chlorides, esters and amides. Reduction of carboxylic acids. Mechanism of decarboxylation, effect of heat and dehydrating agents, Mechanisms of esterification and hydrolysis (acidic and basic).

**Unit III: Spectroscopic Characterization of Organic Molecules and Introduction to Biomolecules**

**12 Hrs**

Basic principles of UV-VIS and, FTIR, spectroscopy. Brief application of spectroscopic characterization of organic molecules.

Classifications and nomenclature of monosaccharides, Mechanism of osazone formation, Interconversion of glucose and fructose, formation of glycosides, Cyclic structure of D(+)-glucose, Mechanism of mutarotation.

**Unit IV: Chemical Kinetics**

**12 Hrs**

Introduction to chemical kinetics, order and molecularity of chemical reaction. Rate expression for first order, second order and third order reaction, Half life, Methods for determining order of reaction, Effect of temperature and catalyst on rate of reaction, Arrhenius equation, Concept of activation energy, Simple collision theory based on hard sphere model, Transition state theory (equilibrium hypothesis), Expression





# जम्मू केन्द्रीय विश्वविद्यालय

## Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu - 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No.CUJ/Acad/2016/PHY/5

24<sup>th</sup> Jan. 2017

### NOTIFICATION

It is hereby notified on the recommendations of the Board of Studies, Department of Physics and Astronomical Sciences, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of 2<sup>nd</sup> semester for Integrated M.Sc in Physics and Astronomical Sciences w.e.f Academic Session 2016-17. The approved Course Scheme is as under:

Semester-2<sup>nd</sup>

Course Code	Course Title	Credit	MSA	CIA	ESE	Total
	<b>CORE COURSES</b>					
ICPHY2C001T	Physics-II	4	25	25	50	100
ICPHY2C002L	Physics Lab-II	4	25	25	50	100
ICCHM2C001T	Chemistry-II	4	25	25	50	100
ICCHM2C002L	Chemistry Lab-II	4	25	25	50	100
ICAMT2C001T	Mathematics-II	4	25	25	50	100
ICEVS2C001T	Environmental Sciences	4	25	25	50	100
ICICT2C001T	Introduction to Computer	4	25	25	50	100
	<b>Total</b>	<b>28</b>				<b>700</b>

*[Signature]*  
I/c. Registrar

Encl: Copy of 2<sup>nd</sup> semester syllabus

To:  
Head, Department of Physics and Astronomical Sciences

Copy to:  
I/c Controller of Examinations

000165

IC PHY LC 001T  
**Semester-II**  
**PH151: Physics-II**  
**(Electricity, Magnetism)**

**Theory**

**4 Credits: 3-1-0**

**Unit-I**

A.C Circuits: - Complex Reactance and Impedance, Series LCR Circuit: (1) Resonance, (2) Power Dissipation and (3) Quality Factor, and (4) Band Width, Parallel LCR Circuit. Network theorems: - Ideal Constant – Voltage and Constant –current Sources. Network Theorems: - (1) Thevenin theorem, (2) Norton theorem, (3) Superposition theorem, (4) Reciprocity theorem.

**Unit-II**

Electric Field: - Electric Field and Lines. Electric Field  $E$  due to Ring of Charge, Electric flux, Gauss's Law in differential form, Applications of Gauss's Law:  $E$  due to (1) Infinite Line of Charge, (2) Charged Cylindrical Conductor, (3) Infinite Sheet of Charge and Two Parallel Charged Sheets, (4) Charged Spherical Shell, (5) Charged Conducting Sphere, (6) uniformly Charged Sphere, (7) Two Charged Concentric Spherical Shells and (8) Charged Conductor. Force on the Surface of a Charged Conductor and Electrostatic Energy in the Medium surrounding a Charged Conductor. Electric Potential: - Line Integral of Electric Field, Electric Potential Difference and Electric Potential  $V$  (Line integral), Conservative Nature of Electrostatic Field, Relation between  $E$  and  $V$ , Electrostatic Potential Energy of a System of Charges, Potential and Electric Field of (1) Dipole, (2) Charged wire (3) Charged disc. Description of a System of Charged Conductors, an Isolated Conductor and Capacitance. Method of Images and its Applications to: - (1) Plane Infinite Sheet and (2) Sphere, Electrostatic Energy of (1) Point Charge, (2) System of Point Charges, (3) Uniform Sphere, (4) Capacitor

**Unit-III**

Dielectrics: - Electric Field in Matter, Dielectric Constant, Parallel Plate Capacitor with a Dielectric Polarization, Polarization Charges and Polarization Vector, Electric Susceptibility, Gauss's law in Dielectrics, Displacement vector  $D$ . Relations between the three Electric Vectors. Magnetic Field of Currents: - Magnetic Field  $B$ , Magnetic Force between Current Elements and Definition of  $B$ , Magnetic Flux, Biot-Savart's Law,  $B$  due to

(1) Straight current carrying conductor and (2) Current loop. Current loop as a magnetic dipole and its dipole moment (Analogy with Electric Dipole). Ampere's Circuital law (Integral and Differential Forms):  $B$  due to (1) Solenoid and (2) Toroid, Properties of  $B$ , Curl and Divergence of  $B$  Vector Potential, Forces on an isolated moving charge, Magnetic force on a current wire, torque on a current loop in a uniform magnetic field.

#### Unit-IV

Magnetism of matter: - Gauss's law of magnetism (Integral and Differential Forms), Magnetization current, Relative permeability of a material, Magnetic susceptibility, Magnetization vector ( $M$ ), Magnetism intensity ( $H$ ), Relation between  $B$ ,  $M$  and  $H$ , Stored magnetism energy in matter, Magnetic  $B$ - $H$  Curve and energy loss in hysteresis.

#### Unit-V

Faraday's law (differential and integral forms), Lenz's law, Self and Mutual induction, Energy stored in a magnetic field, Potential energy of a current loop, Ballistic galvanometer: Current and charge sensitivity, Electromagnetic damping, Logarithmic damping, Critical damping resistance.

#### Suggested Books:

1. Electricity and Magnetism By Edward M. Purcell (McGraw-Hill Education, 1986)
2. Fundamentals of Electricity and Magnetism by Arthur F. Kip (Mc Graw-Hill, 1968)
3. Electricity and Magnetism by J. H. Fewkes & John Yarwood. Vol. 1 (Oxford Univ. Press, 1991).
4. Introduction to Electrodynamics by David J. Griffiths, 3<sup>rd</sup> Edition, (Benjamin Cummings, 1988)

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*[Signature]*

**PH101: Physics Lab -II****Practical****4 Credits: 0-0-8****1. Springs**

- (i) To study the Motion of a Spring and calculate (a) spring Constant (b) value of g, and (c) Modulus of Rigidity
- (ii) To investigate the Motion of Coupled Oscillators

**2. Melde's Experiment**

To Determine the Frequency of an Electricity Maintained Tuning Fork by Melde's Experiment.

**3. Resistance**

- (i) To test a Diode and Transistor using (a) a Multiplier and (b) a CRO.
- (ii) To measure (a) Voltage, (b) Frequency and (c) Phase Difference using a CRO.
- (iii) To study the characteristics of a Series RC Circuit using R, L and C
- (iv) To determine a Low Resistance by Carey Foster's Bridge.
- (v) To determine a Low Resistance by a Potentiometer.
- (vi) To determine High Resistance by Leakage of a Capacitor.

**4. Ballistic Galvanometer (BG)**

- (i) To determine the (a) Charge Sensitivity and (b) Current Sensitivity of B.G.
- (ii) To determine the (a) Logarithmic Decrement and (b) Critical damping resistance. (CDR) of a B.G.

**6. Capacitance**

- (i) To determine the Ratio of Two Capacitances by de Sauty's Bridge.
- (ii) To determine the Dielectric Constant of a Dielectric placed inside a parallel plate capacitor using a B.G.

**7. Self & Mutual Inductance**

- (i) To determine Self Inductance of a Coil by Anderson's Bridge using AC
- (ii) To determine Self Inductance of a Coil by Rayleigh's Method.
- (iii) To determine the Mutual Inductance of Two Coils by Absolute method using a B.G.

**8. A.C Circuits**



Annexure XV

# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: CUJ/Acad/2016/Phy/251

May, 2017

## NOTIFICATION

On the recommendations of the Head, Department of Plant Sciences, Animal Science and Wildlife, Chemistry and Chemical Sciences, Physics and Astronomical Sciences, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of Foundation and Interdisciplinary course for 2<sup>nd</sup> semester students with following details:

Course Code	Course Title	Credit	GIA	MSE	ESE	Total Mark
<b>FOUNDATION COURSE</b>						
ICICT2F001T	Introduction Computers	4	25	25	50	100
<b>INTERDISCIPLINARY COURSE</b>						
ICEVS2I001T	Environmental Sciences	4	25	25	50	100

Registrar

To:

1. Head, Department of Plant Sciences
2. Head, Department of Animal sciences
3. Head, Department of Physics
4. Head, Department of Chemistry

Copy to:

W/c Controller of Examinations

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# Core Module Syllabus for Environmental Studies for Undergraduate Courses of all Branches of Higher Education

## Unit 1: The Multidisciplinary Nature of Environmental Studies

- Definition, scope and importance
- Need for public awareness

(2 lectures)

## Unit 2: Natural Resources

- Renewable and non-renewable resources
- Natural resources and associated problems
  - a) Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction, mining, dams and their effects on forests and tribal people.
  - b) Water resources: Use and over-utilisation of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
  - c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
  - d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertiliser-pesticide problems, water logging, salinity, case studies.
  - e) Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources, case studies.
  - f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification
- Role of an individual in conservation of natural resources
- Equitable use of resources for sustainable lifestyles

(8 lectures)

## Unit 3: Ecosystems

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem

- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristics, structure and function of the following ecosystems:
  - a) Forest ecosystems
    - i) Grassland ecosystems
    - ii) Desert ecosystems
  - b) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lectures)

## Unit 4: Biodiversity and Its Conservation

- Introduction: Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hotspots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In situ and Ex situ conservation of biodiversity

(6 lectures)

## Unit 5: Environmental Pollution

- Definition
- Causes, effects and control measures of:
  - a) Air pollution
  - b) Water pollution
  - c) Soil pollution
  - d) Marine pollution
  - e) Noise pollution
  - f) Thermal pollution
  - g) Nuclear hazards
- Solid waste management: Causes, effects and control measures of urban and industrial wastes
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquakes, cyclones and landslides

(8 lectures)

## Unit 6: Social Issues and the Environment

- From unsustainable to sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management

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iii Core Module Syllabus for Environmental Studies

Core Module Syllabus for Environmental Studies

- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies
- Wetland reclamation
- Consumerism and waste products
- Environment Protection Act
- Air (Prevention and Control of Pollution) Act
- Water (Prevention and Control of Pollution) Act
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

(7 lectures)

Unit 7: Human Population and the Environment

- Population growth, variation among nations
- Population explosion— Family Welfare Programme
- Environment and human health
- Human Rights
- Value Education
- HIV/AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and human health
- Case Studies

(6 lectures)

Unit 8: Field Work

- Visit to a local area to document environmental assets—river/forest/grassland/hill/mountain
- Visit to a local polluted site—urban/rural/industrial/agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems—pond, river, hill slopes, etc.

(Fieldwork equal to 5 lecture hours)

Teaching Methodologies

The Core Module Syllabus for Environmental Studies includes classroom teaching and fieldwork. The syllabus is divided into 3 units, covering 50 lectures. The first 7 units, which cover 45 lectures, are classroom-teaching based and intended to enhance knowledge skills and attitude to environment. Unit 8 is based on field activities, to be covered over five lecture hours, and would provide students with first-hand knowledge on various local environmental aspects. Field experience is one of the most effective learning tools for environmental concerns. This moves education out of the scope of the textbook mode of teaching and into the realm of hands-on learning in the field, where the teacher acts as a catalyst to interpret what the student

observes or discovers in his/her own environment. Field studies are as essential as class work and form a unique synergistic tool in the entire learning process.

The course material provided by UGC for classroom teaching and field activities should be effectively utilised.

The Universities/colleges can draw upon the expertise of outside resource persons for teaching purposes.

The Environmental Core Module will be integrated into the teaching programs of all undergraduate courses.

**Annual system:** The duration of the course will be 50 lectures. The exam will be conducted along with the Annual Examination.

**Semester system:** The Environment Course of 50 lectures will be conducted in the second semester and the examinations shall be conducted at the end of the second semester.

**Credit system:** The core course will be awarded 4 credits.

**Exam pattern:** In case of awarding marks, the question paper should carry 100 marks. The structure of the question paper being:

- Part A: Short-answer pattern—25 marks
- Part B: Essay-type built-in choice—50 marks
- Part C: Field work—25 marks

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**Unit IV: Environmental Policy, legislation & Statistical Application**

International Environmental Policies, International Agreements and Treaties, National Environmental Legislation related to water, air, mining etc , Constitutional provisions for Environmental Protection , National Policy on Environment, Environmental Legislation related to CRZ & PIL, Data analysis, Measures of dispersions, Probability and distributions, Testing of hypothesis

**Unit V: Environmental Planning & Management**

Environmental Management Plan (EMP) ISO 14000 Series, Fair environmental practices in trade, commerce and industry, Global environmental initiatives, Environmental planning, micro and macro planning, rural and urban planning, Concept of sustainable Development, Concept of eco-development Vs growth, Introduction to Hazards and Disasters, Disaster management, EIA and Environmental Audit.

**References:**

1. Environmental Impact Assessment, Canter, L.W., 1977, McGraw Hills, New York.
2. Environmental Hazards: Assessing Risk and Reducing Disaster Smith, Keith, Routledge Publication
3. Environmental Geology, K. Valdia, Tata McGraw Hill Publishing House
4. Lal D.S., Climatology, Parag Pustak Bhavan, Allahabad
5. Environmental Policy in India, Shekhar Singh, IIPA, New Delhi
6. Our Common Future, WECD, 1991
7. Environmental Conservation: R. F. Dasman (1968) John Wiley and Sons , New York .
8. Environmental Science , Miller T. G. Jr., Wadsworth Publishing Company.
9. Renewable Energy Programmes in India : some recent developments , Sinha P.C., Natural Resource Forum, 18(3), 1994.

*K. Das*



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**Note: Course to be taught to second semester students of Integrated M.sc Programme**

**Course Title: Introduction to Computers**

**Course Code: ICICT2F001T**

**Unit-1 Introduction of Computers**

History of Computer, Definition, Evolution of Computer, Components of Computer Systems: Central Processing Unit (CPU), Input Devices, Output Devices, Memory and its Types, Storage Devices, Generation of Computer, classification of Computers, Uses of Computer, Computer Applications in different fields like Educational Institutes, Hospitals, Banks, Railways etc.

**Unit-2 Data Representation**

Representation of Characters in Computers, Representation of Integers and fractions, Hexadecimal and octal representation of numbers, Number System, Conversions, 1's complements of numbers, 2's complements of numbers, Addition/Subtraction of numbers using 2's complement notation.

**Unit: 3 Computer Software and Operating System**

Software and its types (Application Software, System Software), Operating System: Definition, types and functions, Operating System Examples (DOS, UNIX, Windows), Computer Languages: Machine, Assembly and High-Level Languages, Computer Language Translators: Assemblers, Compilers and Interpreters.

**Unit: 4 Computer Networks and Data Communication**

Computer Network and its Types (LAN, MAN, WAN), Network Topology (Bus, Star, Ring etc), Internet, its uses and impact (e.g. Cyber Crime, Cyber Security etc), WWW, Internet Protocol, IP Address and its classes.

Data Transmission Modes (Simplex, Half-Duplex, Full-Duplex), Transmission Media (wired/Wireless), Switching Techniques (Circuit, Packet, Message).

**Unit-5 MS-word, Excel and Power-point**

Introduction to MS-word and its features, Formatting text and paragraph, page formatting, Symbols, Footnotes, Endnotes, Pictures, Tables, Drawing Shapes.

Introduction to MS-Excel, cell referencing-Relative and Absolute, Entering data and formula, formatting cells, sorting and filtering data, formulas-mathematical, statistical and logical functioning.

Introduction to MS-Power point, slide layouts, slide design, task pane, slide show, slide transition, slide animation, customised show, rehearse timing.

**Basic Reading List:**

- 1- Sinha P K (1992): Computer Fundamentals, BPB Publications, New Delhi.
- 2- Raja Raman V (2010): Fundamentals of Computers, PHI, New Delhi.
- 3- Kerns (2005) Essentials of Microsoft Windows, Word and Excel, PHI, New Delhi.

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Annexure XVI

# जम्मू केन्द्रीय विश्वविद्यालय Central University of Jammu

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: CUJ/Acad/S05/2015/129

9<sup>th</sup> March, 2017

### CORRIGENDUM

**Reference Notification:** CUJ/Acad/S05/2015/812-820, dated: 03.09.2015

This has reference to the above mentioned notification dated 03.09.2015, the marks of the Core Course earlier notified may be read as under:

Course Code	Course Title	Credit	CIA	MSE	ESE	Total Marks
PGSSW1C004T	Theory and Skills of Working with Individuals	4	25	25	50	100

Rest of the details of the notification remains unchanged.

*[Signature]*  
9/3/17  
I/c. Registrar  
*[Signature]*

**To:**

Head, Department of SSW

**Copy to:-**

I/c. Controller of Examinations





Annexure XVII

जम्मू केन्द्रीय विश्वविद्यालय  
Central University of Jammu

Rahya - Suchani (Bagla), District Samba, Jammu - 181131 (I & K)  
Ph: 01923-249657-58. Website: www.cujammu.ac.in

No: 4-12/CUJ/Reg/2015/48

Date 7-2-2017

CORRIGENDUM

**Reference Notification:** 4-12/CUJ/Reg/2015/23, dated: 24.01.2016

This has reference to the above mentioned notification dated 24.01.2016 the marks of the Interdisciplinary Course earlier notified may be read as under

Course Title	Credit	CIA	MSE	ESE	Total Marks
Interdisciplinary Course	4	25	25	50	100

The total credits and marks for the 2<sup>nd</sup> Semester will be 26 and 650 instead of 24 and 600. Rest of the details of the notification remains unchanged

*AM* 06/02/17  
I/c. Registrar

To:

Head, Department of Animal Sciences and Wildlife

Copy to:

I/c. Controller of Examinations

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# जम्मू केन्द्रीय विश्वविद्यालय

## Central University of Jammu

Rahya - Suchani (Bagla), Distriet Samba, Jammu - 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-13/CUJ/Reg/2015/49

Date: 7-2-2017

### CORRIGENDUM

**Reference Notification:** 4-13/CUJ/Reg/2015/22, dated. 24 01 2016

This has reference to the above mentioned notification dated 24.01.2016, the marks of the Interdisciplinary Course earlier notified may be read as under

Course Title	Credit	CIA	MSE	ESE	Total Marks
Interdisciplinary Course	4	25	25	50	100

The total credits and marks for the 2<sup>nd</sup> Semester will be 26 and 650 instead of 24 and 600. Rest of the details of the notification remains unchanged.

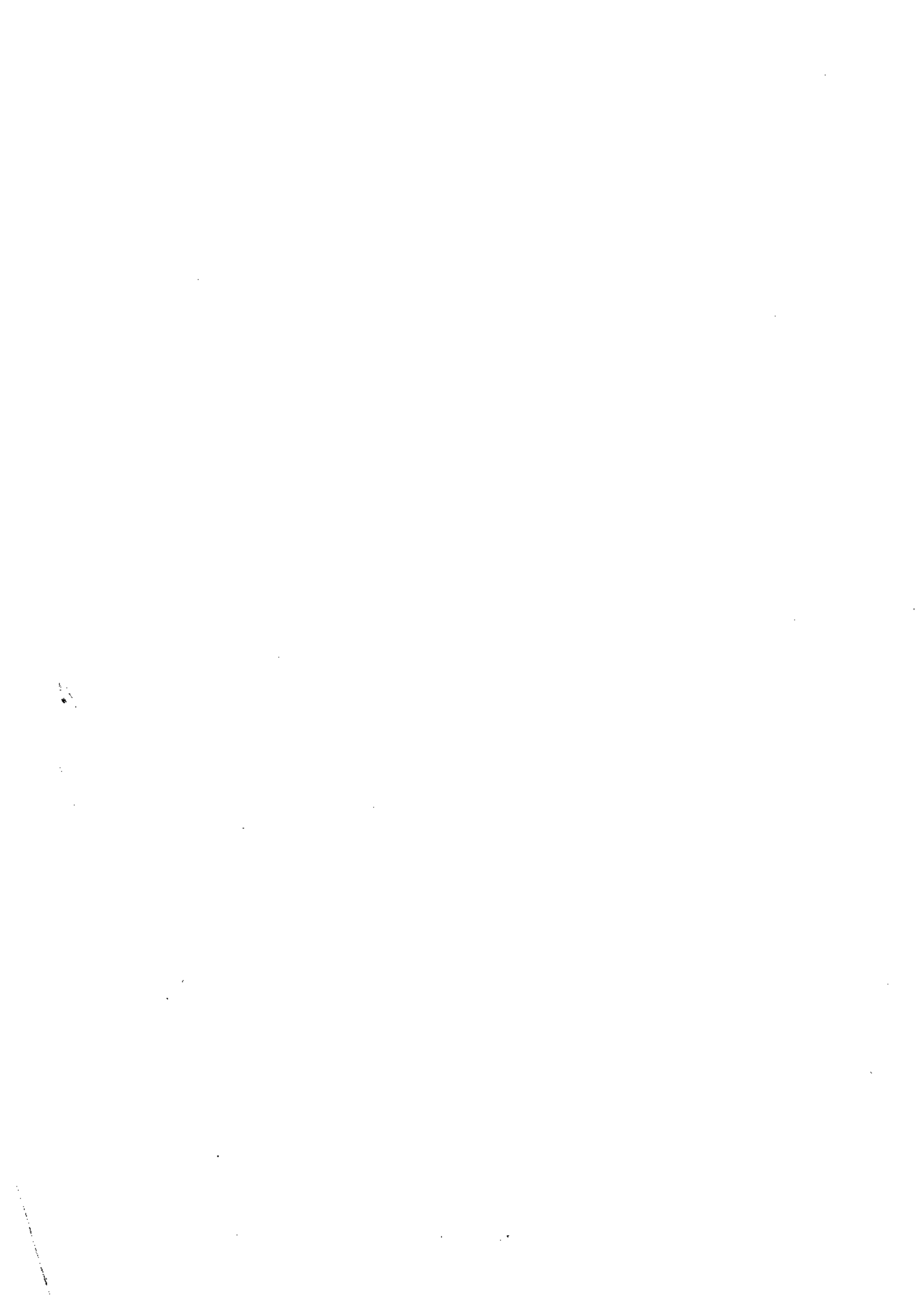
*am* at 06/02/17  
I/c. Registrar  
②

To:

Head, Department of Plant Sciences

Copy to:

I/c. Controller of Examinations







जम्मू केन्द्रीय विश्वविद्यालय  
Central University of Jammu

Annexure XIX

Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No:4-7/MCA/CUJ/Reg/2013/ 260

NOTIFICATION

19/05/17  
May, 2017

It is hereby notified on the recommendations of the Board of Studies, Department of Computer Science and IT, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus 1<sup>st</sup> semester (course work) for Ph.D programme in Computer Science and IT with following details:

Semester-I

Dec (2016, 2017, 2018)

Course Code	Course Title	Credit	Total Mark
<b>CORE COURSES</b>			
PHCSA1C001T	Research Methodology	4	100
PHCSA1C002T	Simulation and Modelling	4	100
<b>ELECTIVE COURSE (Any one)</b>			
PHCSA1E001T	Image Processing and Pattern Recognition	4	100
PHCSA1E002T	Computer Networks		
PHCSA1E003T	Advance Database Concepts		
PHCSA1E004T	Grid and Cloud Computing		
PHCSA1E005T	Soft Computing		
PHCSA1E006T	Information Assurance		
PHCSA1E007T	Advance Software Engineering		
Synopsis preparation and Presentation		4	100
<b>Total</b>		<b>16</b>	<b>400</b>

Registrar

To:  
Head, Department of CSIT

Copy to:  
I/c Controller of Examinations

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**COURSE TITLE: Research Methodology**  
**Duration of Exam: 3 Hours**

**COURSE NO:**  
**Lectures: 4 hours per week**

**UNIT I**

Research, Objectives of Research, Scientific Research, Research and Theory, Conceptual and Theoretical Models, Meaning and Scope, Objectivity, Limitations of Social Science Research, Ethics of Social Science Research, Research Methods: Traditional Methods, Historical, Institutional, Legal, Philosophical, Comparative, Ethical methods etc.

**UNIT II**

Review of Literature, Need for Reviewing Literature, Planning of Review work, Note Taking, Planning of Research, The planning Process, Selection of a Problem for Research, Formulation of the Selected Problems, Hypothesis Formation, Measurement, Research Design/Plan Modern Methods- Questionnaire, Measurement of Scales and Indices, Pilot Studies and Pre-tests, Field work, Schedule etc., Interview method and Focus Group discussion, Observation Method, Case Study method, Content analysis, Delphi method, Statistical Method, Experimental method, Brainstorming Techniques etc.

**UNIT III**

Meaning and Importance of Data, Sources of Data, Use of Secondary Data, Methods of Collecting, Primary Data, Observation Method, Experimentation, Simulation, Tools for data collection, Types of Data, The Nature of Field Work, Field Operation, Field Administration, Processing of Data, Editing, Classification and Coding, Transcription, Tabulation, Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non Response. Characteristics of a good sample, types of samples.

**UNIT IV**

Statistical Analysis of Data, Statistical Analysis, Measures of Central Tendency, Measures of Dispersion, Measures of Association/Relationship, Regression and Correlation Analysis, Hypothesis Testing (For Proportion and Means), Test of Significance, parametric and non-parametric tests.

**UNIT V**

Introduction to Statistical Software: SPSS/MATLAB/PsiLAB or any other free ware tools, Graphical Representation, Report writing, Types of Reports, Planning of Report Writing, Research Report Format, Principles of Writing, Documentation, Data and Data Analysis reporting in a Thesis, Writing of Report, Typing of Report, Briefing.

**REFERENCES**

- 1) C.R. Kothari, "Research Methodology", Second Revised Edition
- 2) Naresh k. Malhotra, Satyabhushan Dash, "Marketing Research – An Applied Orientation", Sixth Edition
- 3) Wayne L. Winston, "Microsoft Excel Data Analysis and Business Modeling", Microsoft Press.
- 4) Holt, Rinehart and Winston Inc, Best, John, W and Kahn, " James Introduction to Research in Education", New York: V (2001), Research in Education, New Delhi, Prentice Hall.

**COURSE TITLE: Research Methodology**

**COURSE NO:**

**Duration of Exam: 3 Hours**

**Lectures: 4 hours per week**

**UNIT I**

Research, Objectives of Research, Scientific Research, Research and Theory, Conceptual and Theoretical Models, Meaning and Scope, Objectivity, Limitations of Social Science Research, Ethics of Social Science Research, Research Methods: Traditional Methods, Historical, Institutional, Legal, Philosophical, Comparative, Ethical methods etc.

**UNIT II**

Review of Literature, Need for Reviewing Literature, Planning of Review work, Note Taking, Planning of Research, The planning Process, Selection of a Problem for Research, Formulation of the Selected Problems, Hypothesis Formation, Measurement, Research Design/Plan  
Modern Methods- Questionnaire, Measurement of Scales and Indices, Pilot Studies and Pre-tests, Field work, Schedule etc., Interview method and Focus Group discussion, Observation Method, Case Study method, Content analysis, Delphi method, Statistical Method, Experimental method, Brainstorming Techniques etc.

**UNIT III**

Meaning and Importance of Data, Sources of Data, Use of Secondary Data, Methods of Collecting, Primary Data, Observation Method, Experimentation, Simulation, Tools for data collection, Types of Data, The Nature of Field Work, Field Operation, Field Administration, Processing of Data, Editing, Classification and Coding, Transcription, Tabulation, Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non Response. Characteristics of a good sample, types of samples.

**UNIT IV**

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Introduction to Statistical Software: SPSS/MATLAB/PsiLAB or any other free ware tools, Graphical Representation, Report writing, Types of Reports, Planning of Report Writing, Research Report Format, Principles of Writing, Documentation, Data and Data Analysis reporting in a Thesis, Writing of Report, Typing of Report, Briefing.

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- 3) Wayne L. Winston, "Microsoft Excel Data Analysis and Business Modeling", Microsoft Press.
- 4) Holt, Rinehart and Winston Inc, Best, John, W and Kahn, "James Introduction to Research in Education", New York: V (2001), Research in Education, New Delhi, Prentice Hall.

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COURSE TITLE: Simulation & Modelling

COURSE No.:

DURATION OF EXAM: 3 HOURS

Lectures: 4 hours per week

**UNIT-I**

System and system environment, components of system, discrete and continuous System, static and dynamic systems, model of a system, steps required in deriving a model of a system. Verification and validation of simulation model. Introduction to the simulation, why and when simulation is an appropriate tool, advantages and disadvantages of Simulation, Areas of application, general steps followed in simulation experiment.

**UNIT-II**

Simulation of continuous system, description of continuous model using differential equations, chemical reactor system, integration vs. simulation, selection of integration formula, other examples of continuous system simulation, water reservoir system. Discrete system simulation, fixed time step vs. next event models, use of random numbers, generation of uniform and non uniform random numbers, test of randomness, Monte-Carlo vs. stochastic simulation.

**UNIT-III**

Simulation of queuing system, elements of queueing theory, Poisson arrival pattern, negative exponential service time, simulation of *single server queue, two servers queue and more general queues.*

**UNIT-IV**

Simulation of *PERT*, network model of project, critical path computation, uncertainties in the activity durations, normal PERT calculations, simulation of activity network, comparison of normal PERT calculation and PERT calculation through simulations. Case Studies: Simulation of manufacturing systems, Simulation of computer systems, Simulation of super market, Simulation of pert network

Simulation of inventory system, elements of inventory theory, more complex inventory models, examples of simulation of inventory system : with respect to *service level* considerations and *minimum cost* considerations, generation of *Erlang* distributed variates. simulation languages, continuous and discrete simulation languages, features of some popular

**UNIT-V**

General Purpose Simulation System (GPSS): introduction, GPSS block preliminaries, GENERATE Block, QUEUE and DEPART block, TERMINATE block, SEIZE and RELEASE blocks, ADVANCE block, Table of definitions, ENTER, LEAVE and STORAGE blocks, PRINT block, Random Transfer of transactions, conditional transfer of transactions PRIORITY block, SELECT block, SELECT block with MIN and MAX mode, Equivalence Declaration Card, residence time and transmit time of transaction, TABLE entity

REMUL, Arithmetic variables in GPSS, TEST blocks, Matrix SAVEVALUES, LOOP block, logic switches  
Simula language, SIMSCRIPT III language, SIMAN language, SLAM II  
Arena simulation software, ProModel simulation software

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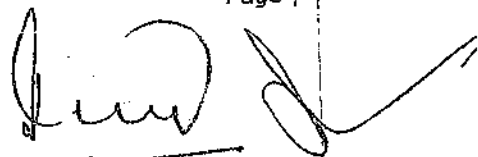
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REFERENCES

- 1) Gorden, G, " System Simulation", Parentice Hall, 1978
- 2) Payer T. A., "Introduction to Simulation", McGraw-Hill, 1982
- 3) Reitman, J, "Computer Simulation Application", Wiley, 1971
- 4) Spriet, W.A, " Computer-aided Modeling and Simulation", Academic Press, 1982
- 5) Barnes, B, " Modelling and Performance measurement of Computer Systems", 1982
- 6) Deo, N, "Systems Simulation with Digital Computer, Prentice Hall", New Delhi, 1979
- 7) Banks J, "Carson II J.S., Nelson B.L. : Discrete-Event system Simulation", Prentice Hall, New Delhi, 1996

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REFERENCES

- 1) Gordon, G, " System Simulation", Parentice Hall, 1978
- 2) Payer T. A., "Introduction to Simulation", McGraw-Hill, 1982
- 3) Reitman, J, "Computer Simulation Application", Wiley, 1971
- 4) Spriet, W.A, " Computer-aided Modeling and Simulation", Academic Press, 1982
- 5) Barnes, B, " Modelling and Performance measurement of Computer Systems", 1982
- 6) Deo, N, "Systems Simulation with Digital Computer, Prentice Hall", New Delhi, 1979
- 7) Banks J, "Carson II J.S., Nelson B.L. : Discrete-Event system Simulation", Prentice Hall, New Delhi, 1996

**COURSE TITLE: Image Processing & Pattern Recognition**

**COURSE No:**

**Duration of Exam: 3 Hours**

**Lectures: 4 hours per week**

**UNIT-I**

Digital Image Processing, Basic image pre-processing (contrast enhancement, simple noise reduction, color balancing), Spatial transformation Gray Level liner and non-linear transformation, Histogram Processing, Hadamard and Walsh transformation. Image enhancement in spatial and frequency domain: Basics, smoothing and sharpening domain filters, Sampling & Quantization.

**UNIT-II**

Image Processing filters, Image Segmentation & Analysis, Implementation Feature extraction: Edges, Lines & corners detection, Texture & shape measures. Segmentation & thresholding, region extraction, edge (Canny) & region based approach, use of motion in segmentation. Feature extraction Edges, Lines & corners detection, Texture & shape measures.

**UNIT-III**

Image Restoration & Reconstruction: Introduction, Model of Image degradation, Noise Models, Classification of image restoration techniques, Blind-deconvolution techniques, Lucy Richardson Filtering, Wiener Filtering. Image Compression & Object Recognition: Introduction to Image Compression and its need, Coding Redundancy, Classification of Compression Techniques (Lossy and Lossless - JPEG, RLE, Huffman, Shannon fano), Scalar & Vector Quantization.

**UNIT-IV**

Basics of pattern recognition: Features, Feature Vectors and Classifiers, Supervised versus Unsupervised Pattern Recognition, Comparison of Supervised and unsupervised Pattern Recognition, Feature Vectors and Classifiers. Bayesian decision theory: Classifiers, Linear Discriminant Functions and Decision Hyper planes, Perceptron, Least Squares Methods, Mean Square Estimation Revisited.

**UNIT-V**

Parameter estimation methods, Non-parametric techniques for density estimation, Context-dependent classification, Sequential Pattern classification, Context-dependent classification Discrete hidden Markov models, Continuous density hidden Markov models, Dimension reduction methods: Fisher Discriminant analysis, Principal component analysis(FDA, PCA).

**REFERENCES**

- 1) Digital Image Processing using MATLAB, R.C. Gonzalez, R.R. Woods(Person), 2nd Edition.
- 2) M. Sonka et.al Image Processing, Analysis and Machine Vision, 2/e, Thomson, Learning, India Edition, 2007.
- 3) Anil Jain, "Fundamentals Of Digital Image Processing", Anil Jain PHI, ISBN-81- 203-929-4
- 4) W.K.Pratt.-Digital Image Processing ,3/e Edn., John Wiley & sons, Inc. 2006.
- 5) Introduction to Digital Image Processing with MATLAB, Alasdair McAndrew, Cengage Learning.
- 6) S.Theodoridis and K.Koutroumbas, Pattern Recognition, 4th Ed., Academic Press, 2009

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**COURSE TITLE: Computer Networks**

**COURSE No:**

**Duration of Exam: 3 Hours**

**Lectures: 4 hours per week**

**UNIT I**

Introduction to Networks: OSI & TCP/IP models, Internet, Network Topologies WAN, LAN, MAN. Physical Layer: analog and digital data signals and conversions, Transmission modes- parallel and serial, packet and circuit switching. Data Link Layer- code redundancy, link layer addressing (ARP), RARP, Design issues.

**UNIT-II**

Network Layer: Virtual circuit and Datagram subnets, Routing algorithm- shortest path routing, Flooding, Hierarchical routing, Broad cast, Multi cast, distance vector routing. Dynamic routing - Broadcast routing: Rotary for mobility. Congestion Control Algorithms, QoS.

**UNIT-III**

Transport Layer: Transport Services, Connection management, TCP and UDP protocols; ATM AAL Layer Protocol. Application Layer - Domain name system, SNMP, Electronic Mail; World WEB, HTTP, FTP.

**Unit IV**

Network Security: Need & Importance of Security in Networks, OSI security architecture, Security Attacks, Security services & Mechanisms, Security Model. Threats & Vulnerabilities: Types of threats, Unauthorized Access, Impersonation, Denial of Service, Client side and server side vulnerabilities. Malicious Softwares, Viruses & Anti-viruses. Strategies & Processes, Importance of Security Policies and Audits.

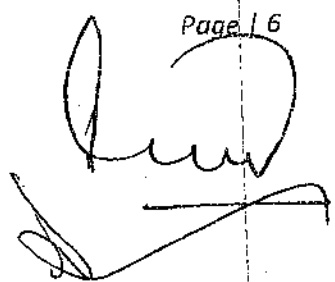
**UNIT-V**

Web Security: Threats, Secure Naming, IPSec, SSL/TLS, Security features, Server privileges, Security configuration setting for browsers. Email Security: PGP, PEM, S/MIME. Public Key Infrastructure, Digital Certificates, Certificate Authorities.

**REFERENCES**

- 1) Forouzan, "Data Communications and Networks", Mc GrawHill Indian Edition
- 2) Tannenbaum, "Computer Networks", Pearson Publishing.
- 3) Michael G. Solomon and David Kim, Jones & Bartlett Learning, "Fundamentals of communications and Networking"
- 4) William Stallings, "Data and computer communications", Pearsons Publishing
- 5) William Stallings, "Network Security Essentials", Applications and Standards, Pearson.
- 6) William Stallings, "Cryptography and Network Security: Principles and Practice", Pearson Publishing.

4





**COURSE TITLE:** Advanced Database Concepts  
**DURATION OF EXAM: 3 HOURS**

**COURSE No:**  
**Lectures: 4 hours per week**

**UNIT-I**

**Overview:** Database system concepts, Advantages of database systems over file systems, database users; Data models, Database schema, Three-level Schema architecture, Data Independence. Database languages; DDL, DML, DCL.

**UNIT-II**

**Database design concepts:** The ER model revisited, Enhanced ER model: Subclasses, Super classes, Inheritance, Specialization and Generalization, Constraints, Relational model concepts, Relational database design: Functional Dependencies, Normalization (Upto 5<sup>th</sup> Normal Form). Relational Algebra, Relational Calculus, SQL and PL/SQL.

**UNIT-III**

**Transaction Processing & Concurrency control:** Transactions concept, ACID Properties, concurrent execution problems, isolation, testing for Serializability, Concurrency control Techniques: lock based, time-stamp based, validation based protocols, multi-version schemes, deadlock handling. Database security, Database recovery, Backup techniques.

**UNIT-IV**

**Overview of database technologies:** Parallel databases, Distributed Database, Client-Server Architecture Object oriented databases, Active database concepts, temporal database concepts, spatial databases, Deductive databases.

**UNIT-V**

**Advance trends in Database:** Mobile databases, Multimedia Databases, Geographic information systems (GIS); XML and Internet Databases: Structured, Semi-structured and Unstructured Data, Mobile databases, Big data concepts.

**REFERENCES**

- 1) Elmasri and Navathe, "Fundamentals of Database Systems", [5e], Pearson Education.
- 2) Korth, Silberchatz, Sudarshan, "Database System Concepts", [5e], McGraw-Hill.
- 3) Raghu Ramakrishnan, Johannes Gehrke, "Database Management Systems", McGraw-Hill.
- 4) Shaum's Outlines, "Relational Data Base systems", McGraw-Hill.
- 5) Peter Rob and Coronel, "Database Systems, Design, Implementation and Management", Thomson Learning
- 6) C.I.Date, Longman, "Introduction to Database Systems", Pearson Education.
- 7) Thomas Connolly, Carolyn Begg, "Database Systems, [3e]", Pearson Education.
- 8) Chris Eaton, Dirk deroos et al., "Understanding Big data", McGraw Hill, 2012.

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**COURSE TITLE: Grid and Cloud Computing**

**COURSE No:**

**Duration of Exam: 3 Hours**

**Lectures: 4 hours per week**

**UNIT I: Introduction to Grid Computing:** Definition, history of Grid, need for Grid technology, types of Grid, Grid Requirements, Grid Architecture Models, Grid Components  
**Grid:** User's perspective, an administrator's perspective and an application developer's perspective, benefits of Grid.  
**Grid Middleware:** Definition, Types, Importance of Middleware in Grid Environment.

**UNIT II: Resource and Service Management:** Resource Management on the Grid, Requirements, Resource Management framework, Resource Discovery and Selection, Challenges in Resource Management, Grid Resource Scheduling: Concept, Models.

**UNIT III:**  
**Introduction to Cloud Computing:** Cloud Computing definition, Central ideas behind cloud computing, Cloud types: Deployment Models (Public, private, hybrid), Service Models (IaaS, PaaS, SaaS), desired features of a cloud, Benefits of Cloud computing, Benefits and challenges of cloud computing. Understanding the Cloud architecture: cloud computing stack.

**UNIT IV:**  
Virtualization Technology, load balancing and virtualization, types of virtualization.

Understanding the Service Oriented Architecture (SOA), Managing and Monitoring SOA,

Concept and need of cloud middleware, cloud middleware functionalities, QoS Issues in Cloud, Data Migration and Streaming in Cloud, Performance Monitoring tools in cloud.

**UNIT V:**  
**Security in Grid and Cloud:**  
Grid Security Fundamentals: authentication, access control, data integrity, Managing trust and reputation, Security Threats, Security technologies, protocols and principles.

Cloud Security Fundamentals, Cloud computing and Data Security Risks, Cloud computing and identity, Cloud Computing Security Architecture, Vulnerability assessment tool for cloud.

**REFERENCES**

- 1) Ian Foster and Carl Kesselman, "THE GRID2", Elsevier, 2004, second edition.
- 2) Lizhe Wang, "Grid Computing, Infrastructure, Service and Application", CRC Press, 2009
- 3) Luis Ferreira, Viktors Berstis, "Fundamentals of Grid Computing", ibm.com/redbooks, 2002.
- 4) Luis Ferreira, Viktors Berstis, "Introduction to Grid Computing with Globus", ibm.com/redbooks, 2002.
- 5) Rajkumar Buyya, James Broberg, "Cloud Computing: Principles and Paradigms", Wiley, 2011.
- 6) Kai Hawang, "Distributed and Cloud Computing", Elsevier, 2012.
- 7) Barrie Sosinsky, "Cloud Computing: Bible", Wiley Publishing, 2011.

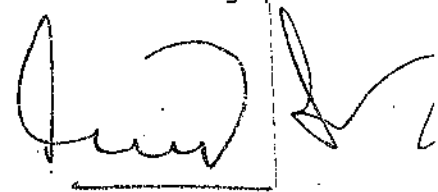


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Ph.D (Computer Science & Information Technology)

- 8) Kris Jamsa," Cloud Computing: Saas,Paas,Iaas,Virtualization",Jones & Bartlett learning,2013.
- 9) John Rittinghouse and James Ransome," Cloud Computing, Implementation, Management and Strategy", CRC Press, 2009.
- 10) Thomas Eri, Zaigham Mahood, Ricardo Puttini, "Cloud Computing, Concept, Technology & Architecture", Prentice Hall, 2013.
- 11) Rajkumar Buyya, Christian Vecchiola, S. Thamarai Selvi, "Mastering Cloud Computing", Tata McGraw-Hill, 2013.



**COURSE TITLE:** Soft Computing

**COURSE No:**

**Duration of Exam:** 3 Hours

**Lectures:** 4 hours per week

**UNIT I**

Introduction to Soft Computing, Features of Soft computing, Applications, techniques in soft computing, Concepts of Neural Computing, Applications of NN. Linear Separability, XOR problem, Stability- Plasticity Dilemma, Multi feed forward networks, pattern recognition, pattern classification, pattern clustering.

**Unit II**

Learning in Neural networks- Supervised, Unsupervised, Competitive learning and re-inforced learning, various learning rules, back propagation, Simulated Annealing, Associative Memories, Hopfield network's, Boltzman's machine, ART, ART2, Competitive learning Networks, Recurrent Networks, Kohonen networks, SOM Associative Memories, RBF

**Unit III**

Fuzzy Sets, comparison with classical sets, Operations on Fuzzy Sets: Compliment, Intersections, Unions, fuzzy membership, propositions, connectives, quantifiers, functions, inference, Fuzzy rule based systems, defuzzification, applications of fuzzysystems.

**Unit IV**

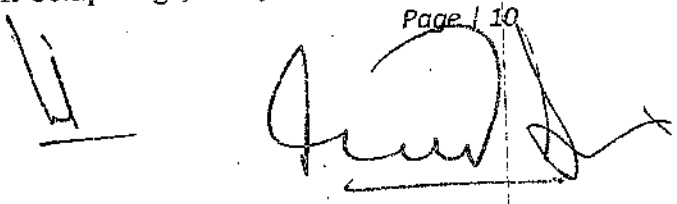
Introduction to Genetic Algorithms (GA), Fundamentals of GA, History of GA, Difference between Genetic Algorithm and traditional methods, Basic Concepts(biological background, creation of offsprings), working principle, encoding- Binary, Octal, Hexadecimal, Fitness Function, Reproduction, Selection

**Unit V**

Introduction, tasks in NLP, issues/ challenges, Stages in NLP- Phonology, Morphology, Syntactic Analysis, Semantics, Pragmatic and Discourse Analysis. PoS Tagging, Ambiguity, WSD, evaluation techniques, Application areas of NLP.

**REFERENCES**

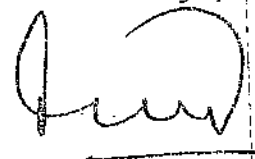
1. Yegnanarayan, Introduction to neural networks, PHI
2. Klir G.J. & Yuan B., Fuzzy Sets & Fuzzy Logic, PHI.
3. S.Rajeskaran, G.A.Vijayalakshmi PAI, Neural Networks, Fuzzy Logic And Genetic Algorithm - PHI
4. Haykin, Neural networks: a comprehensive foundation, Pearson.
5. Mitchell M., An Introduction to Genetic Algorithms, Prentice-Hall, 1998.
6. K.H.Lee.. First Course on Fuzzy Theory and Applications, Springer-Verlag.
7. S. N. Sivanandam, S.N. Deepa, "Principles of Soft Computing", Wiley-India, 2008.



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8. "Introduction to Neural Networks using MATLAB 6.0 ", Tata McGraw-Hill, New Delhi, 2006.
9. SPEECH and LANGUAGE PROCESSING, An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition Second Edition by Daniel Jurafsky and James H. Martin-PHI

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IT (Computer Science & Information Technology)

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**COURSE TITLE: Information Assurance**

**COURSE No:**

**Duration of Exam: 3 Hours**

**Lectures: 4 hours per week**

**Topics**

**UNIT-I**

Information security: Introduction to information & network security, CIA triad, challenges to information security, OSI security architecture, Security Attacks, security mechanisms and security services, Security model, Entity Authentication. Malicious software, Viruses and countermeasures, generations of antiviruses.

**UNIT-II**

Cyber Security: Introduction, Evolution of cyber crime, classifications of cybercrimes, categories of cybercrimes, types of cybercriminals, planning of attacks, cyberstalking, Internet bots, Information warfare, advanced persistent threat (APT)

**UNIT-III**

Computer Systems Security: Introduction, Cryptography, Authentication, Enterprise Identity and Access management, Audit and Logging, Host Hardening, Software Security, Data Security. The organizational implication- Insider threats, security & privacy implications, web threats to organizations, protecting privacy in organizations. DLP, IDS.

**UNIT-IV**

Ethics, Privacy and Digital Rights: Introduction, Ethics, and the Law, Information Security and Internet, Brief History of the Internet And Jurisdiction, Trademarks on the Internet, Copyright Law and the Internet, Online Obscenity and Liability

**UNIT-V**

Security Risk Management: Introduction to Information Security, Risk management concepts and practices, Risk Assessment Process and methodology, Principles of Security Baselines, Security controls to manage IA risks, Access Control Risk Management, Network Risk Management, Database and Applications Risk Management, Risk Analysis, Mitigation and Reporting

**Text & Reference Books:**

1. Cyber Security, Nina Godbole, Sunit Belapure, Wiley India

Ph.D. (Computer Science & Information Technology)

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2. Network Security Essentials, William Stallings, Pearson
3. Data Communications and Networking, Behrouz A Forouzan, McGrawHill
4. Information Security, Richard E. Smith, Jones & Bartlett Learning
5. Information Systems Security, Nina Godbole, Wiley India

**COURSE TITLE:** Advanced Software Engineering

**COURSE No.**

**Duration of Exam:** 3 Hours

**Lectures:** 4 hours per week

#### UNIT I

**Formal Methods:** Basic concepts, mathematical preliminaries, Applying mathematical notations for formal specification, formal specification languages, using Z to represent an example software component, the ten commandments of formal methods, formal methods- the road ahead. **Cleanroom Software Engineering:** approach, functional specification, design and testing.

#### UNIT II

**Component-Based Software Engineering:** CBSE process, domain engineering, component-based development, classifying and retrieving components, and economics of CBSE.

**Client/Server Software Engineering:** Structure of client/server systems, software engineering for Client/Server systems, analysis modeling issues, design for Client/Server systems, testing issues.

#### UNIT III

**Web Engineering:** Attributes of web-based applications, the WebE process, a framework for WebE, formulating, analyzing web-based systems, design and testing for web-based applications, Management issues.

**Reengineering:** Business process reengineering, software reengineering, reverse reengineering, restructuring, forward reengineering, Economics of reengineering..

#### UNIT IV

**Computer-Aided Software Engineering:** Building blocks for CASE, taxonomy of CASE tools, integrated CASE environments, integration architecture, CASE repository, case Study of tools like TCS Robot.

#### UNIT V

**Mobile Development Process:** Model View Controller, Presentation Abstraction Control, UML based development, Use cases, Testing: Mobile infrastructure, validating use cases, Effect of dimensions of mobility on testing, Case study: IT Company, Requirements, Detailed design, Implementation.

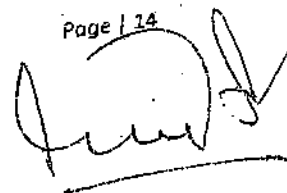
#### REFERENCES

- 1) Roger S. Pressman, "Software Engineering a Practitioners Approach", McGraw-Hill, 8 th Edition, 2014.

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- 2) Quality Software Management, Volume 1: Systems Thinking, 2011, Dorset House Publishing.
- 3) Metrics and Models in Software Quality Engineering 2 Edition, Pearson, 2003.
- 4) Capers Jones, "Applied Software Measurement", Tata McGraw Hill, 2008 3<sup>rd</sup> ed.
- 5) J. Bowan, "Formal Specification and Documentation using Z - A Case Study Approach", International Thomson Computer Press, 2003.
- 6) Marcus S. Fisher, "Software Verification and Validation: An Engineering and Scientific Approach", Springer, 2007.
- 7) Pankaj Jalote, "An Integrated Approach to Software Engineering", 3<sup>rd</sup> Edition, Narosa Publishing House, 2005.







# Central University of Jammu

Annexure XX

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Rahya – Suchani (Bagla), District Samba, Jammu – 181143 (J & K)  
Ph: 01923-249657-58, Website: www.cujammu.ac.in

No: 4-28/MCNM/CUJ/Reg/2014/336

Date: 27 July 2018

## Notification

It is hereby notified that on the recommendations of the Board of Studies, Department of Mass Communication and New Media, the Vice Chancellor, in anticipation of the approval of the Academic Council, has approved the Course Scheme and Syllabus of 1<sup>st</sup> semester for Ph.D programme in MCNM for the Academic Session 2016-17. The approved Course Scheme and syllabus are as under:

### Semester-1<sup>st</sup>

Course Code	Course Title	Credit	CIA	ESE	Total Marks
	<b>CORE COURSES</b>				
PHMCM1C001T	Research Methodology and Computer Applications	4	25	75	100
PHMCM1C002T	Media Discourse	4	25	75	100
PHMCM1C003T	Development Communication	4	25	75	100
<b>Total</b>		<b>12</b>	<b>75</b>	<b>225</b>	<b>300</b>

Registrar

Encl: Ph.D Syllabus of 1<sup>st</sup> semester

To:  
Head, Department of MCNM

Copy to:  
i/c. Controller of Examinations

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# Department of Mass Communication and New Media

## Tentative syllabus for PhD Course work in Mass Communication and New Media

(As per UGC Minimum Standards and Procedure for Award of M.Phil/Ph.D.Degree Regulation,2016 )

(Academic Session 2016-17)

**Semester: I**

**Duration:Six Month**

Course Code	Course Title	Credit	Marks	Teaching Hours	Continuous Internal Assessment	End semester Examination
Ph.D MCNM 101	Research Methodology and Computer Applications	4	100	40	25	75
Ph.D MCNM 102	Media Discourse	4	100	40	25	75
Ph.D MCNM 103	Development Communication	4	100	40	25	75
<b>Grand Total</b>		<b>12</b>	<b>300</b>	<b>120</b>	<b>75</b>	<b>225</b>

**Ph.D MCNM 101: Research Methodology and Computer Applications**  
Credit 4 ( PHMCM 1001T)

### Unit I: Introduction to Research

Research: Concept and Objectives – Scope and Significance, Basic Elements of Research.

Types of Research in Social Sciences, Inductive and Deductive Reasoning in Research, Scientific Research, Experimental Research, Participatory Research, Action Research, Socio-Political Context of Research, Theoretical Framework and Analytical Framework, Qualitative and Quantitative Research, Case Study Method and FGD(Focus Group Discussion).

### Unit II: Research Design

Area of Research, Selection of the research problem, Title, Formulation of Hypothesis , Literature Review, Preparation of Synopsis

### Unit III. Tools and Techniques

Questionnaire, Schedule, Interview, Observation, Peoples Meter, Diary Writing, Area Study, Telephone Survey, Online Survey, Opinion Poll, Exit Poll.

Statistics in Communication Research (Measure of Central Tendency, Correlation , T-Testing and Chi Square), Probability and Non Probability Sampling (Concept and Types), Method of Research: Survey Research, Exploratory

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Research and Observation Research, Variables, Data Collection and Data Analysis, Validity and Reliability of Tools, Survey Research.

**Unit IV: Computer Applications & Report Writing**

Fundamentals of Computer Application, Use of Digital Tools for Media Research, Report Writing: Purpose, Steps and Reference & Documentation.

**Ph.D MCNM 102: Media Discourse ( PH MCNM 1002T) Credit 4**

**Unit I: Mass Media and Ideology**

Role of Ideology in Understanding the Mass Media

Prominent Ideologies in Media studies: Critical Theory, Political Economy of Mass Media, Multiculturalism and Structuralism.

**Unit II: Contemporary Media Discourse**

Hegemony (Gramsci), Cultural Industry (Adorno), Public Sphere (Habermas), Public Opinion (Walter Lippman), Medium is the Message (Mc Luhan), Agenda Setting (Mc Comb), Manufacturing Consent/ Propaganda Model (Noam Chomsky).

**Unit III: Media Ownership**

Media Ownership Pattern, Cross Media Holding and its Regulations, Diversity and Pluralism in Media.

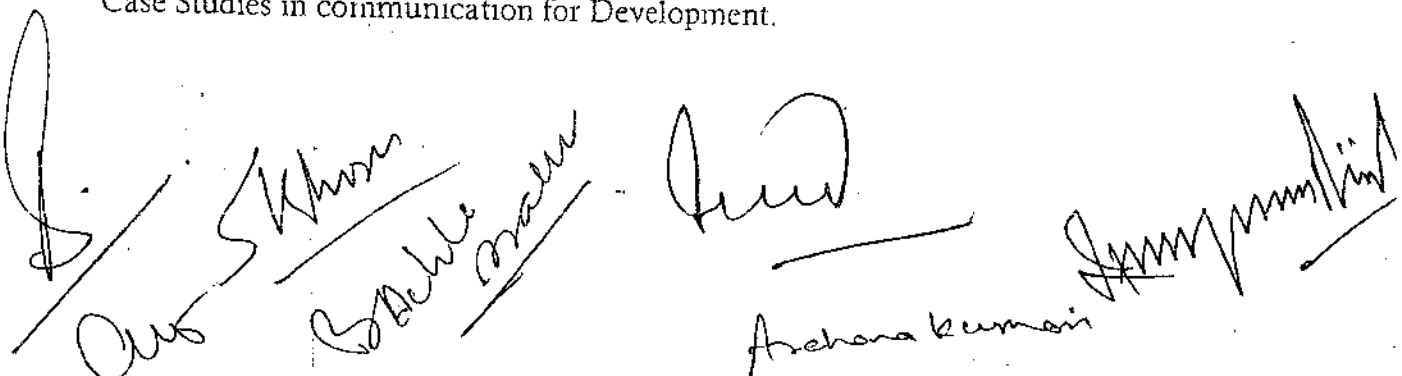
**Ph.D MCNM 103: Development Communication ( PH MCNM 1003T) Credit 4**

**Unit I:** Concept of Development Communication, Theories of development Communication, Prominent Theoreticians, Approaches to Development Communication.

**Unit II:** Development Communication and Mass Media, Role of Government in Development, Development Communication and National-Global Agencies.

**Unit III:** Communicating Development, Communication gaps in Development Programmes, Development Scene in India: Issues and Challenges.

**Unit IV:** Rural and Urban Development, Development for Marginalised Communities, Case Studies in communication for Development.

  
The block contains five handwritten signatures in black ink, each with a horizontal line underneath. From left to right, the signatures appear to be: 1. A stylized signature that could be 'S. Khanna'. 2. A signature that looks like 'Sachin'. 3. A signature that looks like 'Anand'. 4. A signature that looks like 'Arshana Kumari'. 5. A signature that looks like 'S. Khanna'.

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जम्मू केन्द्रीय विश्वविद्यालय  
Central University of Jammu

Annexure XXI  
217

Rahya Suchani (Bagla), District Samba, Jammu - 181143 (I & K)  
Ph: 01923-249657-58. Website: www.cujammu.ac.in

No: 4-4/Eco/CUJ/REG/2013/50

Date: 7-2-2017

NOTIFICATION

It is hereby notified that on the recommendations of the Board of Studies, Department of Economics, the Vice Chancellor, in anticipation of the approval of the Academic Council has approved the Course Scheme and Syllabus of 1<sup>st</sup> semester for Ph.D programme in Economics effective from the Academic year 2016-17. The approved Course Scheme and syllabus are as under:

Course Code	Course Title	Credit	CIA	MSE	ESE	Total Marks
	<b>CORE COURSES</b>					
PHECO1C001T	Advanced Microeconomics	4	25	25	50	100
PHECO1C002T	Advanced Macroeconomics	4	25	25	50	100
PHECO1C003T	Applied Development Economics	4	25	25	50	100
PHECO1C004T	Research Methodology in Economics	4	25	25	50	100
<b>Total</b>		<b>16</b>				<b>400</b>

*[Signature]*  
6/2/17  
I/c. Registrar

Encl: Ph.D Syllabus of 1<sup>st</sup> semester

To:  
Head, Department of Economics

Copy to:  
I/c. Controller of Examinations

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## ANNEXURE - II

### *PhD Programme in Economics(2016)*

The students admitted to Ph.D Programme in Economics shall have to study four courses of 4 credits each and to appear in an exam in these courses within six months of their enrolment. They can proceed for their Dissertation work only after the successful completion of the Course Work. The Courses and the detailed syllabi thereof is as follows.

#### Course Details

Course No. ~~PHD00105~~ **PH E CO 1 CO 01 T**

**Advanced Microeconomics**

#### UNIT - I

##### **CHOICE INVOLVING RISK**

Describing Risky Outcomes; Evaluating Risky Outcomes; Expected Income and Expected Utility Maximisation: Neumann-Morgenstern Utility function; Bearing and Eliminating Risk; Comparison of Payoff Matrix in terms of Return and Risk; Investor's Choice Problem; Analysing Risky Decisions through Decision Tree; Rules of Thumb and Biases in Decision Making.

#### UNIT - II

##### **GAME THEORY**

Representation of the Game ( Extensive and Normal ); Randomized Choices; Nash Equilibrium; The Repeated Prisoner's Dilemma and the Tit-for-Tat Strategy; Simultaneous-Move Games; Dominant and Dominated strategies; Mixed Strategies; Rationalized Strategies; Sequential Move Games and Strategic Moves; Games of Incomplete Information (Bayesian Nash Equilibrium); Trembling -hand Mistakes.

#### UNIT -III

##### **INFORMATION ECONOMICS**

Asymmetric Information and Adverse Selection; Quality Uncertainty and the Market for Lemons and Insurance; Adverse Selection, Annuities and Social Security Reforms; Market Signaling and Screening. A Simple Model of Job Market Signaling; Moral Hazard in Financial Markets and Labour Markets; The Principal Agent Problem in Private and Public Enterprises; Managerial Incentives in an Integrated Firm.

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## UNIT-IV

### **AUCTIONS AND MECHANISM DESIGN**

The Four Standard Auctions: English Auction, Dutch Auction, First Price Sealed-Bid and Second Price Sealed-bid Auction; Auctions when bidders have Private values and Common values (The Winner's Curse); Bidding Strategies; How to sell at Auctions; Auctions on the Internet.

The Mechanism Design Problem; Price Discrimination; Cost-Plus and Fixed Price Contracts (High way construction); Evidence concerning Information Relevance Mechanisms; Incentives for Effort.

#### **Suggested Reading List:**

1. Osborne, Martin J (2003): "An Introduction to Game Theory", Oxford University Press.
2. Wolfstetter, Elmar, (1999): "Topics in Microeconomics: Industrial Organization, Auctions, and Incentives", Cambridge University Press.
3. Dixit, A and B J Nalebuff, (1993): "Thinking Strategically: The Competitive Edge in Business, Politics and Every Day Life" W W Norton and Company.
4. Nicholson Walter and Christopher Snyder (2011): "Microeconomic Theory: Basic Principles and Extensions" ,Cengage Learning.
5. Gravelle H and Ray Rees, (2004): "Microeconomics", Pearson .
6. Varian, Hal. R, (1992): "Microeconomic Analysis", W W Norton & Company.
7. Dutta Prajit, (1999): "Strategies and Games: Theory and Practice", MIT Press, Cambridge.
8. Besanko, D and Ronald Braeutigam, (2010): "Microeconomics", John Wiley & Sons.
9. Mas-colell, M Whinston and J R Green, (1995): "Microeconomic Theory", Oxford University Press.
10. Breit, William and Harold M Hochman, (1971): "Readings in Microeconomics", Dryden Press

Course No. ~~PHIC002~~ **PHIC01002T**

**Advanced Macroeconomics**

## UNIT - I

### **DEVELOPMENTS IN MACROECONOMICS**

The Keynesian System, Keynes vs Classics; The Monetary Counter Revolution; Output, Inflation and Employment; Alternative Theories: Emergence of New Classical Economics, Real Business Cycles and New Keynesian Economics.

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## UNIT - II

### MACROECONOMIC POLICY

Stabilization and Counter Cyclical Macroeconomic Policy; The Monetary Policy and its Efficacy in the light of Recent International Experience; Fiscal Policy and its Efficacy; Fiscal Policy Controversies since Reagan Era; Growth Promotion Policy.

## UNIT - III

### ISSUES IN CONTEMPORARY INTERNATIONAL MACROECONOMICS

- i) Global Financial Crisis
- ii) Energy and Environmental Security
- iii) Global Imbalances and Rise of New Powers
- iv) Currency Crisis and Volatility in Exchange Rates
- iv) Global Poverty

### UNIT - IV CONTEMPORARY MACROECONOMIC ISSUES IN INDIA

- i) Behaviour of Savings and Investment
- ii) Growth vs Inflation
- iii) Budgetary and Fiscal Deficit
- iv) FDI

#### Suggested Reading List:

1. Ackley Gardener (1978): "Macro Economic Analysis. New York", MacMillan
  2. Sargent Thomas, (1987): "Dynamic Macroeconomic Theory", Harvard University Press.
  3. Surrey, M.J.C. (ed) (1976): "Macroeconomic Themes", Oxford University Press, London
  4. Evans, MK (1969): "Macroeconomic Activity", Harper and Row publishers
  5. Muller, M G (ed) (1973): "Readings in Macroeconomics". Holt Rinehart & Winston of Canada Ltd.
  6. Dornbusch, R.S. Fischer and Startz (2004): "Macroeconomics", Tata Mc-Graw Hill
  7. Froyen, Richard T (2005): "Macroeconomics; theories and policies", Pearson
  8. Branson, W.H (1972): "Macro Economic Theory And Policy", New York Harper and Row
  9. Romer, D. L (1996): "Advanced Macroeconomics", New York: McGraw-Hill.
  10. Allen, R.G.D (1968): "Macroeconomic theory: A Mathematical Treatment", MacMillan, London.
  11. Blanchard, O.J and S. Fischer (1989): "Lectures on Macroeconomics", M.I.T Press Cambridge.
  12. Branson, H. William (2006): "Macroeconomics: Theory and Policy", AITBS Publishers.
  13. S. Rogoff, Kenneth and Obstfeld Maurice (1996): "Foundations of International Macroeconomics", M.I.T Press.
  14. E. Stiglitz, Joseph and Antonio Jose (2008): "Capital Market Liberalization and Development", Oxford University Press.
- RL



(Applied Development Economics)

**UNIT – I**

**POVERTY ISSUES**

Nature and incidence of poverty in the developing economies. Methodologies of poverty estimation. Genesis of poverty studies with particular reference to India. Millennium Development Goals and Poverty eradication.

**UNIT – II**

**ISSUES IN ECONOMICS OF EDUCATION**

Public Expenditure in Education in developing countries with special reference to India. Role of Private Sector in Education. Educational Outcomes and Wastages in education. Priorities in Education sector – enrolment and expenditure at various stages. Professional vs Non-Professional. Quality vs Quantity.

**UNIT – III**

**ISSUES IN HEALTH ECONOMICS**

Individual Health vs Community health in developing economies. Development of health status Index. MIMIC model of estimating health status Index. Issue of public health. Control of communicable diseases. Prevention vs Curation.

**UNIT – IV**

**ENVIRONMENTAL ISSUES**

Environmental problems in developing countries. Environment Policy and Environmental legislation in India. Protection of Environment --- Role of International agencies, Government, NGOs and common people.

**Suggested Readings**

1. Folland, Goodmand, and Stano (2012): "The Economics of Health and Health Care", Pearson Prentice Hall Press.
2. Thirlwall, A.P (1999): "Growth and Development", Macmillan, London.
3. Human Development Report: UNDP, Oxford University Press, Various Issues.
4. India Human Development Report: Planning Commission, Oxford University Press.
5. Jalan, Bimal (2006): "The Future of Indian Politics, Economics & Governance", Penguin.
6. Ray, Devraj (1998): "Development Economics", Oxford University Press.
7. Todaro, M P & S C Smith (2009): "Development Economics", Pearson.
8. A. Sloan Frank and Chee-Ruey Hsieh (2012): "Health Economics", MIT Press.
9. Jalan, Bimal (1996): "India's Economic Policy: Preparing for the 21st century", Viking.

- 119
10. Jalan, Bimal (2006): "The Future of Indian Politics, Economics & Governance", Penguin.
  11. Ray, Debraj (1998): "Development Economics", Oxford University Press.
  12. Drez J & A Sen (2002): "Indian Development and Participation", Oxford University Press.
  13. Sen Amartya (1984): "Resources, Values and Development", Oxford University Press.
  14. Jayaraj D & S Subramanian (2010): "Poverty, Inequality and Population", Oxford University Press.
  15. Perspectives on Poverty in India, World Bank, Oxford University Press.
  16. Kumar, C Raj (2011): "Corruption and Human Rights in India: Comparative Perspectives on Transparency and Good Governance", Oxford University Press.
  17. Bhattacharya R N (2001): "Environmental Economics: An Indian Perspective" OUP India.
  18. Kolestad D. Charles (2010): "Environmental Economics", Oxford University Press.

Course: ~~PHECO1001~~ PHECO1004T

(Research Methodology in Economics)

### UNIT - I

#### INITIATION TO RESEARCH

Approach to Research in Social Sciences. Research Problem Formulation. Survey of Literature. Research Objectives and Formulation of Hypothesis. Concepts and Methodology. Data Analysis and Report Writing.

### UNIT - II

#### DATA AND ITS ANALYSIS

Sources of Data with special reference to Indian Economy. Cross Section, Time Series and Panel Data. Sampling Techniques. Collection, Processing and Interpretation of Data. Scaling Techniques and Development of Indices.

### UNIT - III

#### ECONOMETRIC ANALYSIS - I

Correlation and Regression, The Simple Linear Regression Model. Multiple Regression Analysis, Econometric Problems: Autocorrelation, Multicollinearity, Heteroscedasticity, Specification errors.

### UNIT - IV

#### ECONOMETRIC ANALYSIS -II

Dummy Variable Technique, Hypothesis Testing: Parametric and Non parametric. Multivariate Analysis: Principal Component Analysis, Factor Analysis. Cluster Analysis. Introduction to Simultaneous Equation Model. Time Series Analysis.

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Note: Unit III and IV are to be conducted with the help of various software packages viz Gretl, SPSS and Metlab. However, no question will be asked on any software package.

### Suggested Reading List

1. Blaug Mark (1992): "Methodology of Economics", Cambridge University Press.
2. Raiyani J R (2012): "Research Methodology: Theory and Techniques", New Century Publications.
3. Kumar Ranjit (2012): "Research Methodology", Sage Publications.
4. Bryman Alan (2008): "Social Research Methods", Oxford University Press.
5. Baker H K, Singleton Clay And Veit (2011): "Survey Research in Corporate Finance", Oxford University Press.
6. Daniel P Sam and Aroma G Sam (2011): "Research Methodology", Kalpaz Publications.
7. Gujarati, D.N. (1995): "Basic Econometrics", McGraw Hill, New Delhi.
8. Kmenta J. (1997): "Elements of Econometrics", University of Michigan Press, New York.
9. Koutsoyiannis, A. (1997): "Theory of Econometrics", The Macmillan Press Ltd., London.
10. Krishna, K.L. (ed.) (1997): "Econometric Applications in India", Oxford University Press, New Delhi.
11. Maddala, G.S. (Ed.) (1993): "Econometric Methods and Applications", Aldershot, U.K.
12. Theil, H. (1981): "Introduction to Econometrics", Prentice Hall of India, New Delhi.
13. Intrilligator, M.D. (1978): "Econometric Methods: Techniques and Applications", Prentice Hall.
14. Johnston, J. (1991): "Econometric Methods", McGraw Hill.
15. Chow, G.C. (1983): "Econometrics", McGraw Hill, New York.
16. Greene (2000): "Econometric Analysis", Pearson Education, Delhi.
17. Dougherty, C. (2007): "Introduction to Econometrics", Oxford University Press, New Delhi.
18. Stock, J.H. and M.W. Watson (2004): "Introduction to Econometrics", Pearson Education, New Delhi.
19. Klein L R (1962): "Introduction to Econometrics", Prentice Hall.
20. Kothari C R (2004): "Research Methodology: Methods and Techniques", New Age Internationals.

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*Joint Master Degree Programme between Department of Nano Sciences and Materials, Central University of Jammu, India and École nationale supérieure de chimie et de physique de Bordeaux, University of Bordeaux1, Bordeaux, France*

The École nationale supérieure de chimie et de physique de Bordeaux (ENSCBP), University of Bordeaux1 has been contacted by Department of Nano Sciences and Materials, Central University of Jammu, India to start a joint master degree.

The first two semesters (I & II) all students will be taught at Department of Nano Sciences and Materials, Central University of Jammu, India and last two semesters (III & IV) at ENSCBP, University of Bordeaux1, France. The Central University of Jammu, India will award the master degree based on their two years performance.

The University of Bordeaux1 will also award them a master degree based on their performance at ENSCBP, Bordeaux, France. The University of Bordeaux1 will also teach in English.

The syllabi for semesters (I & II) are mentioned in ANNEXURE-1 and the syllabi for semesters (III & IV) are mentioned in ANNEXURE-2. The University of Bordeaux 1 has promised to offer courses without any course fee and consent letter is attached in ANNEXURE-3.

-46-  
Endorsed by

for Asst. Prof. Dr. SK Sharma  
31/05/2017  
SK Sharma  
31/05/2017  
प्रमुख / Head  
नैनो विज्ञान एवं पदार्थ विज्ञान  
Dept. of Nano Sciences and Materials  
जम्मू केन्द्रीय विश्वविद्यालय  
Central University of Jammu  
Jammu

Annexure-1

Course module at Department of Nano Sciences and Materials, Central University of Jammu, India

Semester-I

Courses	Taught (hours)
Crystal Structures and Properties of Materials	50-60 /4 Credits
Quantum Mechanics	50-60/4 Credits
Computer Programming & Numerical Analysis	50-60/4 Credits
Polymer Science	50-60/4 Credits
Laboratory-I	100-120/4-Credits
Molecular Biology	25-30/ 2-Credits

Semester-II

Courses	Taught (hours)
Thermal Behaviour of Materials	50-60/4 Credits
Nano-materials	50-60/4 Credits
Experimental Techniques in Material Science-I	50-60/4 Credits
Semiconductor Devices	50-60/4 Credits
Laboratory-II	100-120/4 Credits
Environmental Science	50-60/4 Credits
Fundamentals of Computer	50-60/4 Credits

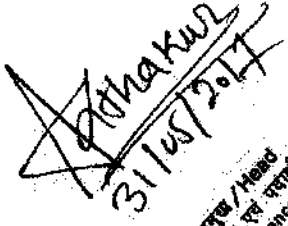
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31/05/2017

Head / Head  
Dept. of Nano Sciences and Materials  
Central University of Jammu  
Jammu

**Annexure-2**

**Course module at ENSCPB, University of Bordeaux1**

<b>September to November</b>	All students start with a three months internship in one of the academic laboratories and French language lesson
<b>December</b>	One month opening module to choose among one of the following a) Innovation b) Geo-economy c) Marketing and Purchasing d) Wine and Marketing e) Aromas, Flavours
<b>January to March</b>	<b>Students have to select minimum one module</b> a) Applied Formulations of Polymers and Colloids (76 hours) b) Inorganic Materials Design and Processing (70 hours) c) Micro- and Nanotechnology (75 hours)
<b>April to August</b>	Five months internship in relation with chosen module

  
**31/05/2017**  
**Prof/Head**  
**Dept. of Nano Sciences and Materials**  
**Central University of Jammu**

Annexure-3

Mon, Apr 3, 2017 at 5:33 PM

Wantz Guillaume <Guillaume.Wantz@enscbp.fr>  
To: Vignau Laurence <Laurence.Vignau@enscbp.fr>  
Cc: Anil Thakur <akthakur74@gmail.com>

Dear Anil,

Thanks a lot.

This is a great opportunity that we at ENSCBP will be happy to start !  
I am the Head of International Office at ENSCBP now. So the MoU should be sent to me !

Also Mr. Breton (cc) is the officer of the service and will help us.

Your proposition of schedule is PERFECT ! for us !!! Since the M2 here is taught in english !

Also if we have an agreement then, student will not to pay tuition in Bordeaux (only at host Univ in India).

Wonderful Anil,

I look forward to start this program.

We can host students anytime starting Sept 2017.

*Akthakur*  
*31/05/2017*

Head / Head  
Dept. of Nano Sciences and Materials  
Central University of Jammu  
Jammu



Minutes of the meeting of Board of Studies in Dept. of Nano Science and Materials held on 27-04-2017 at 03:30 PM in the Temporary Academic block of Central University of Jammu, Sainik Colony Jammu.

**Present**

1. Prof. S.K.Khosa
2. Prof. Akashdeep
3. Prof. K.K.Bamzai
4. Dr. Anil Kumar Thakur
5. Dr. Princy Gupta
6. Dr. Vishal Singh
7. Dr. Pawan Kumar
8. Dr. Pragati Kumar
9. Dr. Tanuj Kumar

The head of the department welcomed the members to the second meeting of Board of Studies in Dept. of Nano Science and Materials. After that the agenda items were taken up for discussion.

**Item No. 1:** To prepare the scheme and detailed Syllabi for the M.Sc. semester III<sup>rd</sup> and IV<sup>th</sup> and Ph.D. course work as per UGC guidelines and the University Ordinance.

**Decision of Board of Studies:** The syllabi of last two semesters of M.Sc. programme of Nano Science and Materials were taken up for the discussion semester wise by the members. The modified syllabus was drafted and approved.

**Item No.2:** To prepare the panel of Paper Setters/Answer Scripts/Dissertation/Thesis evaluators for M.Sc./Ph.D programme in Nano Science and Materials.

For this purpose the list of examiners was drawn up and approved by the Board of Studies. The Head of Department was authorised to withdraw or include any other reputed examiner if such a need arises in future. Besides this the Head of Department was authorised to send approved list of examiners, by the Board of Studies to the Dean of the Faculty for necessary action.

**Item No. 3:** To prepare a list of Journals in the field of Nano Science and Materials to which the University should subscribe.

For this the list was prepared and approved by the Board of Studies.

*Handwritten signatures and dates:*  
S.Khosa 27/04/2017  
A. K. Bamzai 27/04/17  
Anil Kumar Thakur 27/04/17  
Princy Gupta 27/04/17  
Vishal Singh 27/04/17  
Pawan Kumar 27/04/17  
Pragati Kumar 27/04/17  
Tanuj Kumar 27/04/17

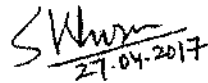
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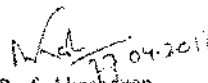
*Signature of Head*  
31/05/2017

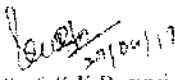
Head / Head  
Dept. of Nano Science and Materials  
Central University of Jammu  
Jammu


**Item No.4:** Joint Master Degree Programme between Department of Nano Science and Materials, Central University of Jammu, India and École nationale supérieure de chimie et de physique de Bordeaux, University of Bordeaux I, Bordeaux, France.

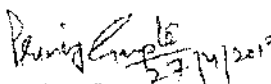
The members of the Board of Studies have discussed the programme. They all were excited and approved for immediate implementation. The matter shall be discussed and taken up with the UGC before taking further action.

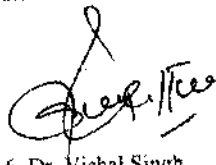
  
27.04.2017  
1. Prof. S.K. Khosa

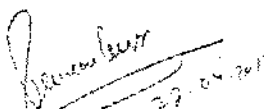
  
27.04.2017  
2. Prof. Akashdeep

  
27/04/17  
3. Prof. K.K. Banzai

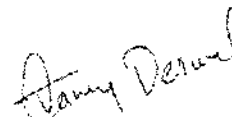
  
27/04/2017  
4. Dr. Anil Kumar Thakur

  
27/04/2017  
5. Dr. Princy Gupta

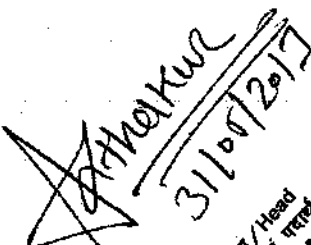
  
6. Dr. Vishal Singh

  
27.04.2017  
7. Dr. Pawan Kumar

8. Dr. Pragati Kumar


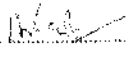
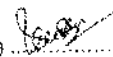
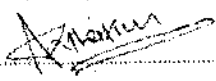


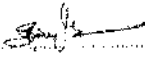
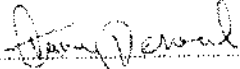
  
9. Dr. Tanuj Kumar

The meeting ended with a vote of thanks to the chair.

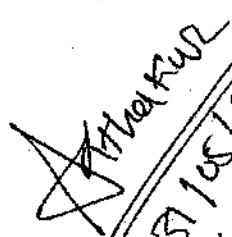
  
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Head / Head  
Dept. of Nano Sciences and Materials  
Central University of Jammu  
Jammu

Members and Special Invitees present in the meeting of Board of Studies of Nano Science and Materials held on 27-04-2017 at 3:30 PM in the Temporary Academic Block of Central University of Jammu, Jammu.

1. Prof. S.K. Khosa (Head of Department Nano Science and Materials, CUJ) 
2. Prof. Akashdeep (Subject Expert) (Nanotechnology Lab, CSIR, CSIO, Chandigarh) 
3. Prof. K.K. Bamzai (Subject Expert) (Professor, Department of Physics, University of Jammu, Jammu) 
4. Dr. Anil Kumar Thakur (Associate Professor) (Department of Nano Science and Materials, CUJ) 
5. Dr. Princy Gupta (Assistant Professor) (Department of Chemistry and Chemical Science, CUJ) 
6. Dr. Vishal Singh (Assistant Professor) (Department of Nano Science and Materials, CUJ) 
7. Dr. Pawan Kumar (Assistant Professor) (Department of Nano Science and Materials, CUJ) 
8. Dr. Pragati Kumar (Assistant Professor) (Department of Nano Science and Materials, CUJ) 
9. Dr. Tanuj Kumar (Assistant Professor) (Department of Nano Science and Materials, CUJ) 

- 4 -

  
S.K. Khosa  
31/05/2017  
Prof. / Head  
Dept. of Nano Science and Materials  
CUJ, Jammu  
Central University of Jammu  
Jammu

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Anil Thakur <akthakur74@gmail.com>

## Request for starting joint master programme

3 messages

Mon, Apr 3, 2017 at 2:32 PM

Anil Thakur <akthakur74@gmail.com>  
To: Lionel HIRSCH <lionel.hirsch@ims-bordeaux.fr>, Laurence VIGNAU  
<laurence.vignau@ims-bordeaux.fr>  
Cc: Laurence Vignau <lvignau@enscbp.fr>

Dear Lionel and Prof. Laurence,

As you are aware, I have joined Department of Nano Sciences and Materials, Central University of Jammu. We are planning to start 2- years master in Nano Sciences and Materials. I have been directed by the Head of Department to explore the possibilities of joint master program with ENSCBP, University of Bordeaux 1. I know, there are many joint master programs are running with University of Bordeaux 1 and international universities.

The first two semester students will be taught in Central University of Jammu, India and last two semester in ENSCBP, Bordeaux, France. The students will pay the fee of University of Bordeaux 1 for 1 year.

Please, tell me whom to contact for this memorandum of understanding (MOU).

With kind regards,

Yours sincerely,

Anil

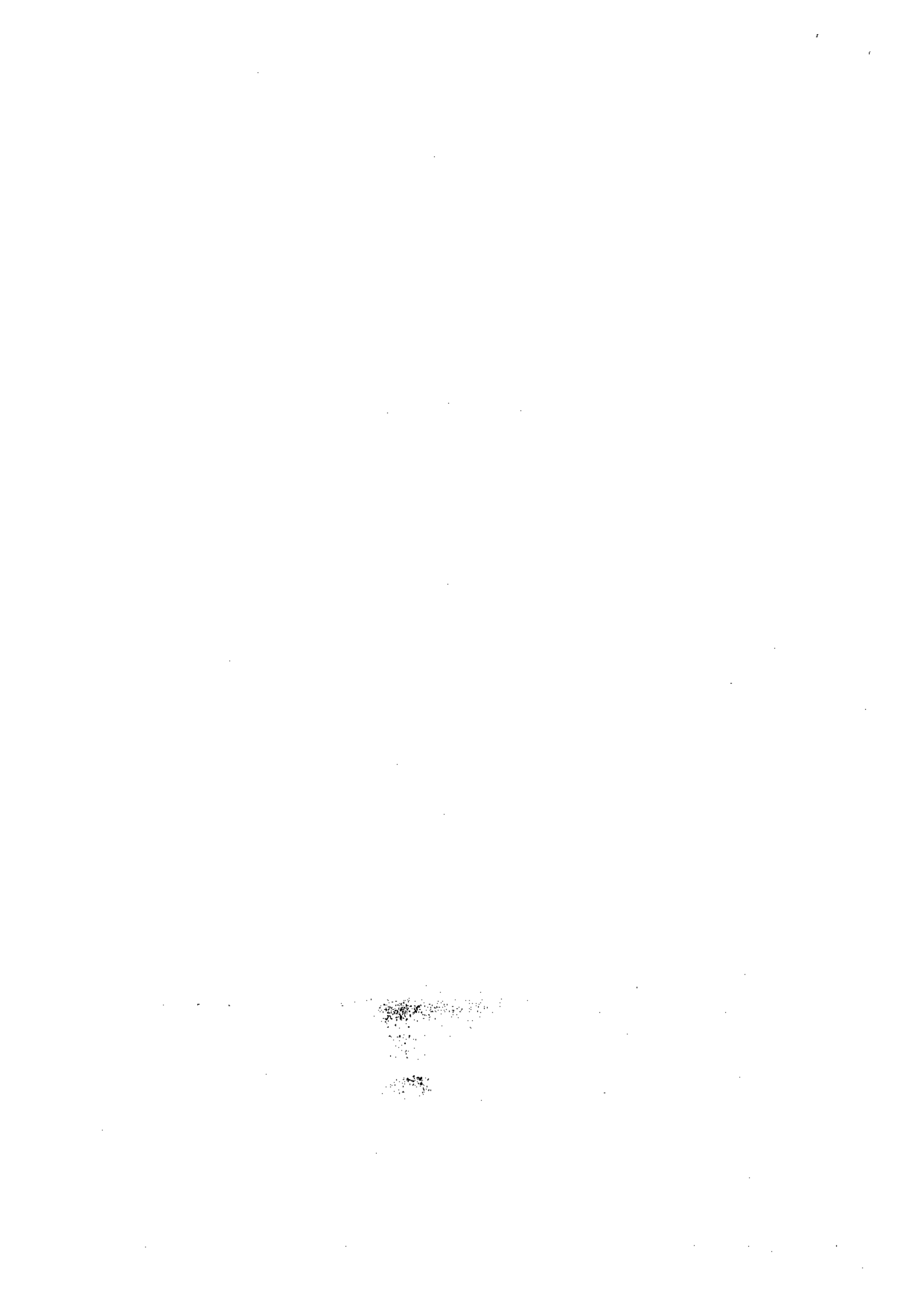
--  
Dr. ANIL K THAKUR (Associate Professor)  
Department of Nanoscience and Materials  
Central University of Jammu  
TAB-Sainik Colony, Jammu 180011  
India  
Mob. No.- +91 (0)8527856101

Mon, Apr 3, 2017 at 5:19 PM

Vignau Laurence <Laurence.Vignau@enscbp.fr>  
To: Wantz Guillaume <Guillaume.Wantz@enscbp.fr>  
Cc: Anil Thakur <akthakur74@gmail.com>

Guillaume,

Anil sent us this email concerning a joint Master program with the University of Jammu and ENSCBP. As you are the head of the International relationships maybe you can help with this?



Cheers



Laurence

Acceptance  
ENSCBP  
forever!

De : Anil Thakur [mailto:akthakur74@gmail.com]

Envoyé : lundi 3 avril 2017 11:03

À : Lionel HIRSCH <lionel.hirsch@ims-bordeaux.fr>; Laurence VIGNAU <laurence.vignau@ims-bordeaux.fr>

Cc : Vignau Laurence <Laurence.Vignau@enscbp.fr>

Objet : Request for starting joint master programme

[Quoted text hidden]

Wantz Guillaume <Guillaume.Wantz@enscbp.fr>  
To: Vignau Laurence <Laurence.Vignau@enscbp.fr>  
Cc: Anil Thakur <akthakur74@gmail.com>

Mon, Apr 3, 2017 at 5:33 PM

Dear Anil,

Thanks a lot.

This is a great opportunity that we at ENSCBP will be happy to start !

i am the Head of International Office at ENSCBP now. So the MoU should be sent to me !

Also Mr. Breton (cc) is the officer of the service and will help us.

Your proposition of schedule is PERFECT ! for us !!! Since the M2 here is taught in english !

Also if we have an agreement then, student will not to pay tuition in Bordeaux (only at host Univ in India).

Wonderful Anil,

i look forward to start this program.

We can host students anytime starting Sept 2017.

In this scheme, please find enclosed a call for highly motivated student to receive a 10 kEuros grant this year !

Feel free to spread the info to good students.

2 attachments

enscbp\_jjdaward2017\_leaflet.pdf  
1153K

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Course modules

Bordeaux INP  
AQUITAINE



# MASTER OF SCIENCE



Three programs:

- Applied Formulation of Polymers and Colloids
- Inorganic Materials Design and Processing
- Micro- and Nanotechnology

## BORDEAUX INP

Bordeaux INP is an Institution of Higher Education composed of 8 graduate schools of engineering :

- ENSC, Cognitics
- ENSCBP, Chemistry-Physics and Food Science
- ENSEGID, Environment and Geological Resources
- ENSEIRB-MATMECA, Electronics, Computer Science, Telecommunication, Mathematics and Mechanics
- ENSTBB, Biotechnology
- Bordeaux Sciences Agro, Agronomic sciences
- ENSGTI, Chemical Engineering
- ISA BTP, Building, Public Works

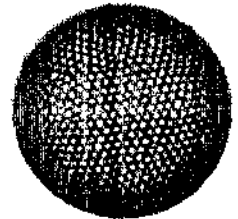
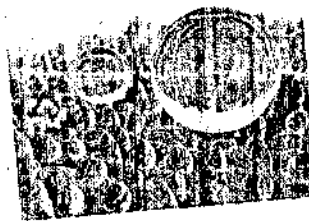
The Master of Science, delivered by Bordeaux INP is fully in English and has been established by ENSCBP as an answer to the rapid evolution of today's needs in industry and academics, allowing the students to adapt efficiently to the most recent technological innovations. It is based on the well-established know-how of ENSCBP and its partner laboratories concerning topics at the interface between Chemistry, Physics and Biology.

[www.enscbp.fr](http://www.enscbp.fr)

000212



# Master of Science



## September to November

Foreign student starts with a three months internship in one of the academic partner laboratories.  
French lessons

## December

One month opening module to choose among :

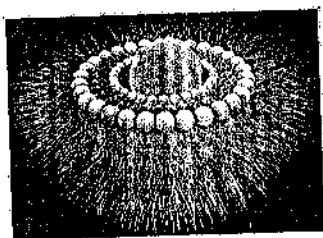
- Innovation
- Geoeconomy
- Marketing and Purchasing
- Wine and Marketing
- Aromas, flavours...

## January to March

Three months courses following 1 of the 3 programs of the Master of Science

## April to August

Five months internship in relation with the chosen program of the Master of Science



## Applied Formulation of Polymers and Colloids

From January to March, three month courses in Macromolecular Engineering and Formulation including experimental training and a personal project in cooperation with an industrial partner.

### COURSES

with the participation of industrial partners : Arkema, BASF, Dow Corning, L'Oréal, Michelia...

### MODULE 1 67h

#### FORMULATION: BASIC CONCEPT AND TOOLS

- Formulation: principles and applications
- Polymers and Surfactants in solution
- Polymers and Surfactants at interfaces
- Sustainable chemistry, Ecodesign

Applications in Cosmetics, Detergency, Building Materials.

### MODULE 2 71h

#### NANO- AND MESO-ORGANIZATION IN SOFT MATTER

- Controlled polymerizations
- Self-assembling
- Latex and Particles
- Foams and Emulsions
- Hybrid materials and Nanocomposites

Applications in Coatings, Nanomedicine, Biomaterials...

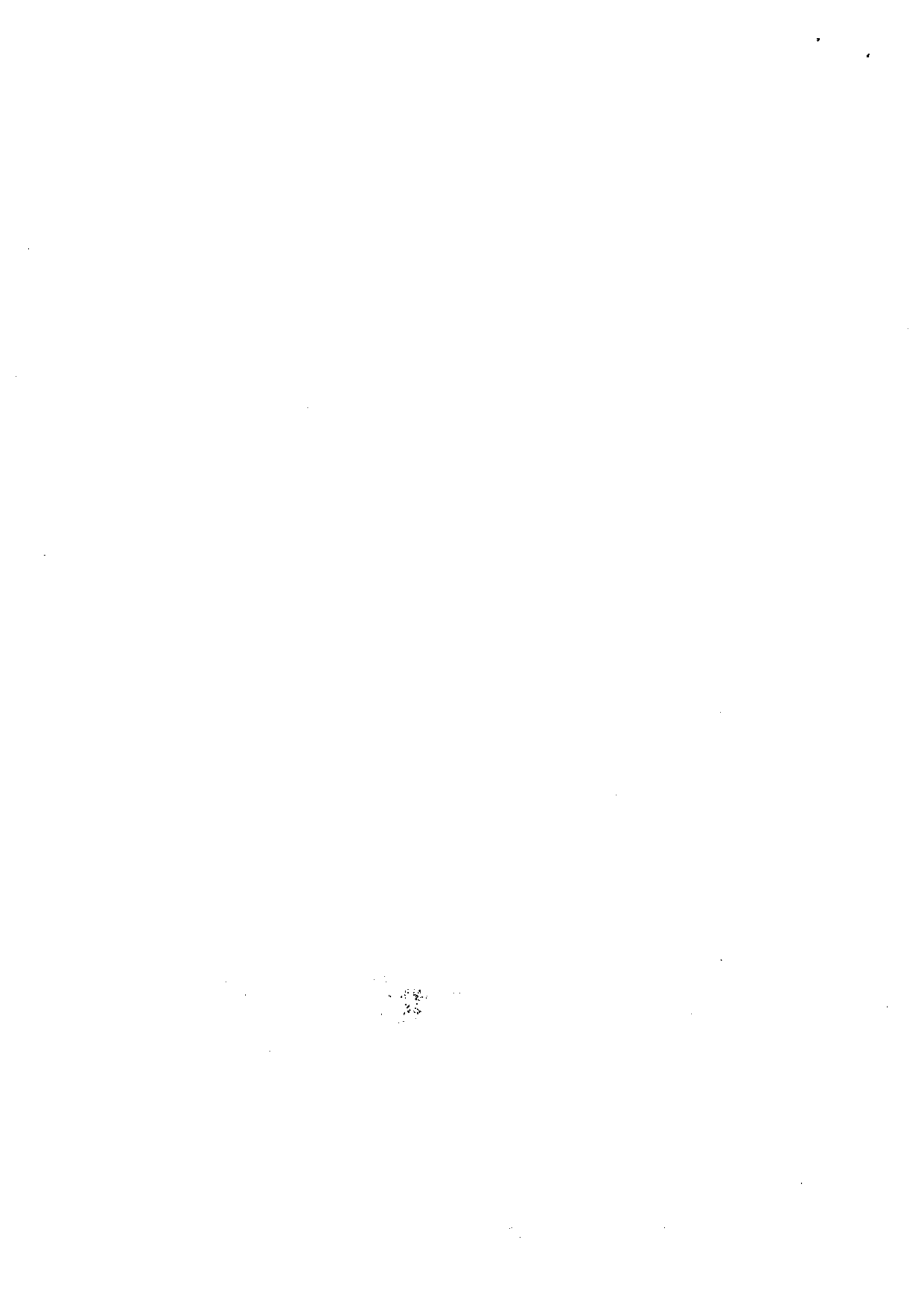
### MODULE 3 70h

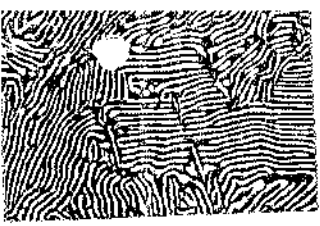
#### CHARACTERIZATIONS OF FORMULATED SYSTEMS

- Imaging techniques
- Spectroscopy
- Chromatography
- Rheology
- Wave Scattering

Applications in Polymer materials, Adhesives, Paints...

000213





# Inorganic Materials Design and Processing

From January to March, three month courses in materials design and processing including practical case studies in laboratories and projects in cooperation with industrial partners.

## COURSES

with the participation of industrial partners : Arcelor Mittal, Areva, EADS, Renault, Snecma...

### MODULE 1 78h

#### FROM MATERIALS SELECTION TO MATERIALS DESIGN

- Materials (Engineering alloys, composite materials, functional materials)
- Materials selection (material property charts, selection strategy, life-cycles of materials, CES software)
- Materials by design

### MODULE 2 66h

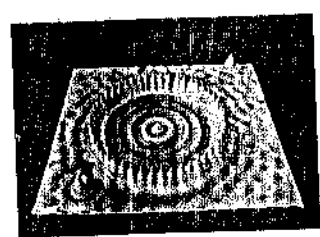
#### FROM MICROSTRUCTURE MODELLING TO MICROSTRUCTURE CHARACTERIZATION

- Microstructure formation
- Phase diagram, computational thermodynamics, phase transformation modelling
- Microstructural characterisation of materials
- Non-destructive testing of structure

### MODULE 3 72h

#### MATERIALS PROCESSING

- Shaping processes
- Surface treatment processes
- Numerical simulation of processes



# Micro- and Nanotechnology

From January to March, three month courses in micro- and nanotechnology including different laboratory courses (AFM, STM, Microfluidics...), a one week hands-on training in clean room conditions and a personal project in cooperation with an industrial partner.

## COURSES

with the participation of industrial partners : Arkema, BASF, Merck, Rhodia, Thalès...

### MODULE 1 75h

#### FABRICATION TECHNIQUES AND CHARACTERISATION

- Near-field scanning techniques
- Characterisation techniques
- High-resolution spectroscopy
- Nano- and microfabrication techniques
- Materials and thin films
- Engineering of surfaces and interfaces
- Nanobiotechnologies

### MODULE 2 60h

#### NANO-OBJECTS & AUTO-ORGANISATION

- Inorganic, polymer and metal nanoparticles
- Nanotubes and nanofibres
- Nanostructured materials and applications
- Toxicology of nanomaterials and nanotechnologies

### MODULE 3 60h

#### APPLICATIONS

- Micro- and nanofluidics
- Analytical nanosystems
- Sensors and microsystems
- Nanophotonics
- Organic electronics
- Lab course on microfabrication and clean room technology



Bordeaux INP  
ENSCBP



# Graduate School of Chemistry Biology and Physics



## Programs

- ~ 5 Engineering training programs (Master) :
  - Chemistry-Physics
  - Food Science
  - Materials Engineering (apprenticeship)
  - Structural Analysis of Composite Materials (apprenticeship)
  - Food production (apprenticeship)
- ~ 1 Master's level degree  
Eco-Design and Risk Management
- ~ Master of Science  
3 programs in English
  - Applied Formulation of Polymers and Colloids
  - Inorganic Materials Design and Processing
  - Micro- and Nanotechnology

2 industrial Chairs (ENSCBP - Arkema - Région Aquitaine)  
Dr. Georges Hadziioannou « Advanced functional materials for information and communication technology and for energy »  
Dr Patrice Gaillard « Nanostructured materials based on carbon nanotubes or block co-polymers »

## International

- ~ 70% graduate students with international experience
- ~ 10% foreign students

## Research

- ~ 8 laboratories
- ~ 64 academics and researchers
- ~ 100 PhD, post-docs
- ~ Carnot Institute:
  - LISA (Lipids for Industry and Health)

## & Technology Transfer

- 2 dedicated buildings :  
Cheminnov, Agir

For more information  
[www.enscbp.fr](http://www.enscbp.fr)

Office of International Relations  
+33(0)5 40 00 66 94  
[international@enscbp.fr](mailto:international@enscbp.fr)



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