

No.

No.

100

1

N.T.S.

3

1

3

100

10,00

10.

23

100

101

-

1.

1

### GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY Sector – 16C Dwarka, New Delhi – 110078 (Coordination Branch)

F.No. IPU/JR(C)/44<sup>th</sup> AC/2018/454 <u>Circular</u>

The  $44^{th}$  meeting of the Academic Council of the University was held on 03/05/2018. Please find enclose herewith the proceedings of the  $44^{th}$  meeting of the Academic Council for kind information.

6.5

(Registrar)

### F.No. IPU/JR(C)/44th AC /2018/

### Dated:04/07/2018

- 1) All Deans and Directors of Guru Gobind Singh<sup>§</sup>Indraprastha University
- 2) Prof. Sanjiv Mittal, Professor, University School of Management Studies
- 3) Prof. U.K. Mandal, Professor, University School of Chemical Technology
- 4) Prof. Udayan Ghose, Professor, University School of Information Communication & Technology
- 5) Dr. Nimisha Sharma, Associate Professor University School of Biotechnology
- 6) Dr. Gulshan Kumar, Asst. Professor, University School of Basic and Applied Science.

### Copy for kind information of the competent authority:

- (i) AR to the Vice Chancellor GGSIP University
- (ii) SO to the Pro-Vice Chancellor GGSIP University
- (iii) AR to the Registrar GGSIP University

(Registrar) coordination112@gmail.com AC 44th / 03th May, 2018-Thrusday/PROCEEDINGS/Page 1 of 18

## <u>GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY</u> <u>SECTOR – 16 C, DWARKA, NEW DELHI - 110078</u>

1



### FORTY FOURTH MEETING OF THE ACADEMIC COUNCIL

DATE :  $03^{rd}$  May, 2018 (Thursday)

TIME · : 03.30 P.M. Onwards

VENUE: (Conference hall, Vice Chancellor's Secretariat)

PROCEEDINGS OF 44<sup>th</sup> ACADEMIC COUNCIL MEETING

	Cr	· · · ·	INDEX OF PROCEEDINGS		in the state
	SI.No	AGENDA ITEM(S)	Particulars	Page No.	한 문화 영화
	01	No.	To confirm the minutes of 43 <sup>rd</sup> meeting of the	08	
n i si ni i Line si ni i	·····	AC44.01	Academic Council held on 25/05/2017.	08	
	02	AC44.02	on the proceedings of 43 <sup>rd</sup> meeting of the Academic Council held on 25/05/2017.		
	03	AC44.03	To consider and approve the Scheme and Syllabus of Bachelors in Hotel Management and Catering Technology, to be implemented from the Academic Session 2018-2019.	08	
ti sa silai A	.04	AC44.04	To ratify the revised Scheme of Examination andSyllabusfor,BBA,BBA(B&I),B.Com(Hons),implementedfromthe Academic Session 2017-2018.	08	
	05	AC44.05	To ratify the minor revision(Inclusion of Course in GST) in the Courses: BBA(G),BBA(B&I),BBA(TTM), B.COM(H) and all undergraduate and Post Graduate Courses offered by University School of Management Studies, implemented from the Academic Session 2017-2018.	09	
	06	AC44.06	To ratify the Course Work for Ph.D. programme offered by University School of Management Studies, implemented from the Academic Session 2017-2018.	09	
	07	AC44.07	To ratify the Syllabus, Course content and Scheme of Examination of the M.Phil. (English), 2 Semesters (one year) duration Course, implemented from the Academic Session 2017- 2018.	09	
	08	AC44.08	To ratify the revision of Ph.D. Course work, the Course content and Scheme of examination for Ph.D. course in English, offered by University School of Humanities and Social Sciences, implemented from the Academic Session 2017-2018.	10	
				10	
	09	AC44.09	To consider and approve the Course content for 3 <sup>rd</sup> & 4 <sup>th</sup> Semester of B.A Economics (Hons) (three year) programme to be implemented from the Academic Session 2018-2019.		
a					

# INDEX OF PROCEEDINGS

.

1)

Ç

Su.

.

		AC 44th / 03td May, 2018-Thrusday/PROCEEDINGS/P	age 3 of 18
10	AC44.10	To ratify (i)Syllabus of M.Tech. (Bio Chemical Engg.) for B.Tech./M.Tech.(Bio-Chemical Engineering/Dual Degree Programme (ii) minor modification of Chemical Engg. Courses, being taught at the University School of Biotechnology for B.Tech. (Biotechnology) students, implemented from the Academic Session 2017-2018.	
11	AC44.11	To consider and approve the harmonization of evaluation structure of LLM (Regular) programme, offered by University School of Law and Legal Studies in accordance with existing norms of Ordinance -11 of the University.	11
12	AC44.12	To consider and approve the harmonization of the Paper Code and Paper ID of Subjects being taught in LLM programme of One year duration offered by University School of Law and Legal Studies.	11
13	AC44.13	To consider and approve the Syllabus, Curriculum, Evaluation Scheme, CET Syllabus and Eligibility Criteria for, Post Basic B.Sc. Nursing Programme to be implemented from the Academic Session 2018-2019.	
14	АС44.14	To ratify the change in Curriculum of M.Phil. Clinical Psychology programme, implemented from the Academic Session 2017-2018.	12
15	AC44.15	To ratify the minor modification of Ph.D. Course work, offered by University School of Biotechnology, implemented from the Academic Session 2017-2018.	13
16	AC44.16	To ratify the Scheme of Examination and syllabi of Ph.D. Course work, offered by University School of Basic and Applied Sciences, implemented from the Academic Session 2017-2018.	13
17	AC44.17	To ratify the Ph.D. course work, offered by University School of Environment Management, implemented from the Academic Session 2017- 2018.	13
18	AC44.18	To consider and approve the recommendations with respect to the grievance of B.Tech. programme students for mandatory papers.	14
19	AC44.19	To ratify the Admission Brochure of the University for the Academic Session 2018-19, Part-A containing details of various Programmes being offered, CET form filling Procedure, CET (s) to be conducted, eligibility conditions, syllabus of CET (s), Counselling Procedures etc., Part-B containing various Appendices, Part-C Counselling Schedule Summary and Part-D Refund Policy.	14

In

•

.

11

.

$\bigcirc$		et en dit selle sones La sues dit i sere	AC 44 <sup>th</sup> / 03 <sup>rd</sup> May, 2018-Thrusday/PROCEEDINGS/Pa	14.15	
			To consider and approve the Course outline and	14-13	0
	20	A C 44 20	Scheme of Examination and detailed Course content of the three year Bachelor of Arts		
1. 1	20	AC44.20	(Honours) English Programme to be implemented		
	•		from the Academic Session 2018-2019 in various	0	
	· · · · · · · · · · ·		To consider and approve the adoption of the	15	
erzysti in here yn talje. Na series an e	la su de la della del Na su della	가는 가려는 가슴을 가다. "가고 가 다 다 다 다	University Grants Commission (Minimum		
			Qualifications for Appointment of reachers and other Academic Staff in the Universities and	a na sina ang ing Taong kabupatèn ang ing	
			colleges, and measures for the Maintenance of		
10000000000	21	AC44.21	Standards in Higher Education)(4	the second second	
		Sec. Cares	University Grants Commission notification		
Na kana sa kangadéka <mark>arak</mark>		and the second second second	no.F1-/2016 (PS/Amendment), New Delhi, dated	en fan en seren er.	
		· · · · · · · · · · · · · · · · · · ·	To consider and approve the Ph.D. Course work	15	
1.000	· · · ·	AC44.22	offered at University School Information		
	22		Communication & Technology from the Academic		
en el el 📙			Session 2018-2019 onwards.	15	
	22	AC44.23	University School Information Communication &		2.00
	23		Technology from the Academic Session 2017-2010		L .
			To consider and approve number of credits for	16	100
	24	AC44.24	the award of B.Voc Printing Technology.	16	12 3
			To consider and approve the change in subject	10	F
			Communication and Networks (6 <sup>th</sup> Semester	1. J. S. S. S.	
	25	AC44.25	Instrumental and Control Engg) from ETEC 310 -	Ed attraction	
			ETIC -312 applicable for batch 2013-2016 onwards for B. Tech, in Affiliated Institutions.		
Same te st			To consider and approve the suggestions	16	
	26	AC44.26	regarding issue of Diploma, Advance Diploma and		
	20		B. Voc as deliberated by the committee difference chairmanship of Controller of Examinations (O).		1000
				17	
			To consider and approve		
a in the second second			advanced entrepreneurship as a part of the	Shine Provident	
			M.Tech.(Biotechnology) Scheme and curriculum		
-California (	d Southe		Session 2018-2019.	1 1 2 5 C 1 Z	
•			(ii) The minor corrections in the course codes as		
	27	AC44.27	incorporated in the B.Tech. (Biotechnology)		
			by the University School of Basic & Applied		
			Sciences as per the original course codes approved		
			by the Board of School of Studies of USBAS. (The remaining scheme and course contents shall	ĩ	
			remain the same).		
			( h		
	-				

	21. AN	(ما ئورۇشار ا	To consider and approve the revised Course	17
- spin prove and	- n		Content, (Syllabus) of MBA	
	28	AC44.28	(Disaster Management) Weekend Programme,	
	20		offered by Centre for Disaster Management	
a an		4	Studies, to be implemented from Academic	Sector Marca
			Session 2018-2019 onwards.	
initia attai	01-0 (Sec)	Color Top - Hard	To co-opt maximum 10 expert members for their	18
19 17 No. 1 19 2 1 2 2 2 2 2 2 2 2		at a i transferada a a a a a a a	special knowledge as per the provisions of	
	29	AC44.29	Statute 11 Sub-Section (viii) of Section (1) of the	a series of the series of the
0 1 s d	4 N S		Guru Gobind Singh Indraprastha University Act	
			to be members of the Academic Council.	
			To consider and approve the regulations under	18
	30	AC44.30	Ordinance 12 for programmes leading to the	
			Degree of Doctor of Philosophy (Ph.D.)	

n de

•

}

;

a

AC 44<sup>th</sup>/03<sup>rd</sup> May, 2018-Thrusday/PROCEEDINGS/Page 15 of 18 The approved Course outline and Scheme of Examination and detailed Course content of the three year Bachelor of Arts (Honours) English Programme is annexed as Annexure-XVI,page(XVI-01 to XVI-04).

3

Sex of

1000

1

Ì

J

Ì

9

102

A

Agenda Item No.AC44.21 :To consider and approve the adoption of the University Grants Commission(Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and colleges and measures for the Maintenance of Standards in Higher Education)(4<sup>th</sup> Amendment),Regulations,2016 notified vide the University Grants Commission notification no.F1-2/2016 (PS/Amendment), New Delhi, dated 11<sup>th</sup> July,2016.

Agenda Item No.AC44.22:To consider and approve the Ph.D. Course work offered at University School Information Communication & Technology from the Academic Session 2018-2019 onwards.

The Academic Council noted that in accordance to the revised Ph.D Ordinance12 (2017) in the University, the Ph.D course work is made at par with the overall curriculum framework of the University (lecture+ tutorials). The overall credits increased from 3 to 4. This is the minor modification as the rest of scheme and the course titles and contents for the Ph.D course work essentially remain same.

The Academic Council considered and approved the Ph.D. Course work of the University School Information Communication & Technology to be implemented from the Academic Session 2018-2019.

Details annexed as Annexure -XVII,page(XVII-01).

#### Agenda Item No.AC44.23:To ratify the Ph.D. Course work offered at University School Information Communication & Technology from the Academic Session 2017-2018 onwards.

The Academic Council noted that in accordance to the revised Ph.D Ordinance12 (2017) in the University, the Ph.D course work is made at par with the overall curriculum framework of the University (lecture+ tutorials). The overall credits increased from 3 to 4. This is the minor modification as the rest of scheme and the course titles and contents for the Ph.D course work essentially remain same.

The Academic Council ratified the Ph.D. Course work of the University School Information Communication & Technology ,implemented from the Academic Session 2017-2018.

Details annexed as Annexure -XVIII.page(XVIII-01).

# Scheme and Syllabus

## for

# Ph. D. course work

# offered

## at

### University School of Information, Communication & Technology Guru Gobind Singh Indraprastha University, Delhi From AY 2018-19

Scheme and syllabus for PhD course work in accordance with PhD ordinance 2017 is approved in 44<sup>th</sup> AC held on 3<sup>rd</sup> May, 2018 (Agenda item no. AC44.22) wef 2018-19.

#### Rules of Course work as mentioned in PhD ordinance 2017, Clause 7

Credit requirements, number duration, syllabus, minimum standards for completion etc.

The credit assigned to the PhD course work shall be minimum of 08 credits and a maximum of 16 credits

In the course work, a minimum of four credits shall be assigned to one or more courses on research methodology which could cover areas such as quantitative methods, computer application, research ethics and review of published research in the relevant field, training field work etc, other course shall be advanced level course preparing the student for PhD degree

The detailed course work for PhD shall be designed and recommended by concerned SRC and approved by the concerned BoS.

7.4-75 M.Phil related

The SRC governing the discipline in which the scholar pursue his/her research shall prescribe the course(s) to him/her based on the recommendation of the RAC of the research scholar.

All candidates admitted to PhD programmes shall be required to complete the coursework prescribe by the SRC during the initial one or two semesters. The maximum period for completion of the course work shall be two years from the academic session in which the scholar is admitted. If a scholar fail in any course/paper, the scholar shall reappear as and when the course/paper examination is scheduled subsequently.

7.8-7.9 M.Phil related

7.10. The grading system and divisions for the course work shall be as specified in the ordinance 11 of the university. Each paper/course of the course work shall be of maximum of 100 marks. The teacher's continuous evaluation component shall be of 25 marks and end-term semester examination component shall be of 75 marks. Attendance requirement in the course work shall be of minimum 75% of the classes held, the SRC may condone up to 5% of the attendance in specific instances, with reasons recorded in writing. Under no circumstances, a scholar with less than 70% attendance in the course shall be allowed it to appear in the end-tem semester examination by the SRC . The list of detained scholars shall be notified at least 5 working days before the controller of examination for non-issuance of admit card.

The teacher's continues evaluation of 25 marks, for every course shall be conducted by the concerned faculty who is allocated the responsibility of teaching the course by the SRC. The concerned faculty shall communicate their marks to the controller of examination through the Dean, within a week of the completion of the semester.

For the rest 75 marks, the Controller of examination shall conduct the examination. The panel of paper setter, as approved by the BoS shall be communicated to the controller of Examination. The controller of Examinations shall declare the result combining the teacher's continuation evaluation and the end-term semester examination. The duration of the semester shall be of 15 weeks.

A PhD scholar has to obtain a minimum of B+ grade in the course work in order to be eligible to continue in the programme and submit the thesis. If, a scholar does not obtain the minimum grade, the scholar may reappear in one or more course work paper/course to improve the grad. The reappear fee applicable shall be as notified for other examination of the university. If the minimum grade required is not obtained in the maximum of duration for the course work as specified the registration/admission of the scholar shall be automatically cancelled.

Scheme and syllabus for PhD course work in accordance with PhD ordinance 2017 is approved in 44<sup>th</sup> AC held on 3<sup>rd</sup> May, 2018 (Agenda item no. AC44.22) wef 2018-19.

### **Programme Outcomes:**

- PO1: Demonstrate substantive knowledge and ability to teach courses in their area of research / specialization.
- PO2: Apply analytical and methodological skills to evaluate and conduct research in their area of specialization and other related areas.
- PO3: Independently design and conduct original research in their area of specialization.
- PO4: Demonstrate the ability to communicate the results of their research in a clear and effective manner.
- PO5: Apply the understanding for the high ethical concerns and standards in carrying out engineering research, teaching and service.

### PhD Course work of USIC&T, GGS Indraprastha University, Delhi

Paper Code	Particulars	Paper ID	Credits					
COMPULSORY PAPER								
CWICT-101	Research Methodology	900101	4					
ELECTIVE PAPERS								
MEEC-701	Adhoc Sensor Network	42701	4					
MECS-601	Advanced Data Structure	48601	4					
MECS-701	Advanced Data Warehousing & Data Mining	48701	4					
MERF-601	Advanced Electromagnetic Engineering	06601	4					
MEEC-707	Artificial Neural Networks	42707	4					
MECS-705	Cloud Computing	48705	4					
MECS-717	Cyber Crime Investigations & Cyber Forensics	48717	4					
MEVS-601	Digital System Design with Verilog	52601	4					
MERA-603	Robotics Engineering	187603	4					
MEVS-603	VLSI Technology	52603	4					
MEVS-613	Wireless Networks	52613	4					
MECS-606	Advanced algorithm Analysis & Design	48606	4					
MEDC-602	Advanced Information Theory & Coding	07602	4					
MEIT-602	Advanced Mobile Computing	53602	4					
MEEC-604	Advanced Signal Processing	42604	4					
MEIT-604	Advanced Software Project Management	53604	4					
MEEC-606	Advanced VLSI Design	42606	4					
MERA-608	Image Processing	187608	4					
MEEC-626	Fuzzy Logic & Design	42626	4					
MEEC-610	Microwave Integrated Circuits	42610	4					
MECS-602	Object Oriented Analysis & Design	48602	4					
MERA-618	Optimization Techniques	187618	4					
MECS-612	Soft Computing	48612	4					

Scheme and syllabus for PhD course work in accordance with PhD ordinance 2017 is approved in 98thSRC dated 6th April, 2018 and 47th BoS dated. 13th April 2018, and 44th AC held on 3rdMay, 2018 (Agenda item no. AC44.22) wef 2018-19.Page 4

### PhD Course work of USIC&T, GGS Indraprastha University, Delhi

MECS-616	Software Metrics	48616	4
MECS-608	Software Requirement & Estimation	48608	4
MERA-606	Artificial Intelligence	187606	4
MERA-721	Machine Learning	187721	4
MECS-703	Advanced Software Testing	48703	4
MECS-711	Software Quality Management	48711	4
MERA-602	Mobile Robots	187602	4

Paper Code: CWICT-101	$\mathbf{L}$	Т	С
Subject: Research Methodology	4	-	4

#### **INSTRUCTIONS TO PAPER SETTERS: MAXIMUM MARKS: 75** 1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 23 marks. 2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 13 marks CO1: To Develop an experiment model using Probabilities set Theory. CO2: To Develop a probability distribution function for given application. CO3: To develop a model for Hypothesis Testing CO4: To Develop a regression model for engineering application Unit I Descriptive statistic: Data measurements, Data graph: Line graph, Bar Graph, pie chart, histograms, Measure of central tendency: Mean, Median and Mode. Measure of variability: Range, Quartile deviation, standard deviation, average deviation and coefficient of variation. Measure of relative position: percentile ranks, standards scores and T-score. Probabilities Set Theory: Applying Set Theory to Probability, Probability Axioms, Some Consequences of the Axioms, Conditional Probability Independence. Correlation: Karl Pearson's Product Moment Correlation Coefficient (r), Spearman's Rank order correlation coefficient (rho). [T1,R1] Unit II Random Variables: Introduction to discrete and continuous random variables, probability Mass Function

Cumulative Distribution Function (CDF), Functions of a Random Variable, Expected Value of a Derived Random Variable , Variance and Standard Deviation , Conditional Probability Mass Function. Continuous random variables: The Cumulative Distribution Function (CDF), Probability Density Function (PDF). Statistical Distributions: Properties and applications of Normal, log-normal and t-distributions, Chi-Square and F distributions, properties of normal curve, applications of normal curve. Measure of shape: skewness and Kurtosis. [T1,T2, R1]

#### Unit III

Statistical Inference: Concept of standard error and its uses. The significances of statistical measures, Test of the significance difference between two means: Z-Test, T-Test, Analysis of variance and analysis of covariance: Assumptions of ANOVA, one way ANOVA, two way ANOVA. Post Hoc tests: Duncan's multiple range test, Tukey's test. Non-parametric tests: chi-square test, medium test, Friedman test, Wilcoxon test, Nemenyi test.

D	nit	IV
U	шι	1 1

[T1,T2]

Regressio	n: The Sim	ple Regres	sion M	Iodel, Multip	ole Regression	Analysis:	Estimation	, Multiple	Regression
Analysis:	Infere	nce,	Multi	ple Re	gression	Analysis:	OLS	S A	symptotics
Multiple	Regression	Analysis	with	Qualitative	Information:	Binary	(or I	Dummy)	Variables.
Heteroske	dasticity.							[T1,R2]	

Text Books:

- [T1]. Ken Black: Business Statistics for contemporary decision making, Wiley India, 5th edition, 2009
- [T2]. Montgomery, D. C., G.C. Runger, Applied Statistics and Probability for Engineers. 5th ed.NewDelhi: Wiley-India, 2011.

Reference Books:

- [R1]. Roy D. Yates, David J. Goodman, Probability and Stochastic Processes : A Friendly Introduction for Electrical and Computer Engineers, Second edition, John Wiley and Sons, 2005
- [R2]. Jeffery M. Wooldridge, Introductory Econometrics, New York, South Western, 4th edition, 2002

Scheme and syllabus for PhD course work in accordance with PhD ordinance 2017 is approved in 98th SRC dated 6th April, 2018 and 47th BoS dated. 13th April 2018, and 44th AC held on 3rd May, 2018 (Agenda item no. AC44.22) wef 2018-19. Page 5

### **Elective Papers**

The Elective papers are from the M. Tech. / MCA (SE) Programmes offered at University School of Information, Communication and Technology. The detailed syllabus for these papers are available in the corresponding scheme and syllabus documents.

Scheme and syllabus for PhD course work in accordance with PhD ordinance 2017 is approved in 98th SRC dated 6th April, 2018 and 47th BoS dated. 13th April 2018, and 44th AC held on 3rd May, 2018 (Agenda item no. AC44.22) wef 2018-19. Page 6