



DELHI TECHNOLOGICAL UNIVERSITY

**Minutes of
16th Meeting
of
Academic Council**

held on 26.05.2017

Shahbad Daulatpur, Bawana Road, Delhi-110042



DELHI TECHNOLOGICAL UNIVERSITY

Established under Govt. of Delhi Act 6 of 2009

(Formerly Delhi College of Engineering)

BAWANA ROAD, SHAHBAD DAULATPUR, DELHI-42

No. F.DTU/Org/AC/Meeting/01(1)/10/Vol-VII/

993-10012

Dated: 14/6/17

Minutes of the 16th meeting of the Academic Council held on 26.05.2017 at 11.00 A:M in the Senate Hall of DTU.

The 16th meeting of the Academic Council of DTU was held on 26.05.2017 at 11.00 A:M in the Senate Hall of DTU.

The following members were present:

1. Prof. Yogesh Singh, Vice Chancellor, DTU.
2. Prof. Anu Singh Lather, Pro Vice Chancellor (2), DTU.
3. Prof. Vishal Verma, Dean (International Affairs), DTU
4. Prof. Madhusudan Singh, Dean Academic (UG), DTU
5. Prof. H.C. Taneja, Dean Academic (PG), DTU
6. Prof. Ashutosh Trivedi, Dean (IRD), DTU.
7. Prof. S.K. Singh, Dean (Alumni Affairs), DTU
8. Prof. Pragati Kumar, Dean (Continuing Education)
9. Prof. Surendra Yadav, Professor of Management, IIT, Delhi
10. Sh. Lokesh Mehra, (FICCI nominee)
11. Prof. R.S. Mishra, HOD, Mechanical Engg. Department
12. Prof. S.C Sharma, HOD (Deptt. of Applied Physics)
13. Prof. A.K. Gupta, HOD, Env. Engg. Department
14. Prof. D. Kumar, HOD (Bio-Technology Deptt.)
15. Prof. Nirendra Dev, HOD (Civil Engg. Deptt.)
16. Dr. Rajni Jindal, HOD (Comp. Sc. Engg.)
17. Dr. Archana Rani, HOD (Applied Chem. Deptt.)
18. Dr. Seema Singh, HOD (Humanities)
19. Dr. Sangita Kansal, HOD (Applied Mathematics Deptt.).
20. Dr. S. Indu, HOD (E & C Deptt.)
21. Dr. Rajan Yadav, HOD (DSM)
22. Dr. Kapil Sharma, HOD (Deptt. of I.T.)
23. Dr. R.S. Walia, HOD (T&P)
24. Prof. Rakesh Kumar, Civil Engg. Deptt.
25. Prof. Samsher, Registrar, DTU
26. Sh. Kamal Pathak, Controller of Examinations, DTU
27. Dr. M.M. Tripathi, Associate Professor
28. Dr. Nitin Puri, Assistant Professor

[Signature]

Following special invitees were also present:

1. Prof. G.C. Maheshwari
2. Prof. P.K. Suri
3. Prof. Daya Gupta
4. Prof. Reeta Wattal
5. Prof. Narendra Kumar II
6. Prof. A.K. Sahu
7. Prof. K.C. Tiwari
8. Prof. Vipin
9. Prof. Uma Nangia
10. Dr. Neeta Pandey
11. Dr. Rajeshwari Pandey
12. Dr. Mukhtiyar Singh
13. Dr. V.P. Kaushik
14. Dr. Anubha Mandal

Prof. S.K. Garg, Pro Vice Chancellor (2), DTU., Prof. Smriti Srivastava, Head-Division of ICE, NSIT, Delhi, Prof. Tarun Kumar Das, Registrar, University of Delhi, Dr. Bhim Singh, IIT Delhi, Prof. Narendra Kumar-I, Elec. Engg. Deptt., Prof. Naveen Kumar, Mech. Engg. Deptt., and some Professors of the University could not attend the meeting due to their pre-occupation.

Agenda 16.1 : Opening Remarks by the Chairman.

The Chairman, Academic Council welcomed all the members of newly constituted Council and presented shawls and books to the outside members and Prof. Anu Singh Lather, Pro VC (2), DTU.

He informed the council that the process of recruitment of faculty in various departments has been completed and in all 31 assistant professors have joined the University. The process of recruitment for other remaining departments has also been initiated and is likely to be completed soon.

Proposal for construction of phase- II of present DTU amounting to Rs.246.86 crores was submitted to the Finance Department, Delhi. And it was decided to allocate funds for the above project will be made by the Govt. of NCT, Delhi through Grand-in-Aid in next four years as follows:-

Year	Funds requirement (Rs. in crore)
2016-17	5.00
2017-18	90.00
2018-19	90.00
2019-20	61.86
Total	246.86

The target date of completion of the project is 2019-2020 i.e. 36 months (06 months for planning and award of work + 30 months for execution).

The Career Advancement Scheme applicable to the teachers has also been taken up and first round of the scheme has been completed.

It is proposed to start East Delhi Campus from the academic year 2017-18 onwards. Proposal for creation of teaching as well as non-teaching posts has been submitted to the Government of Delhi for its concurrence. Renovation, procurement of furniture and other related activities have also been initiated.

Implementation of National Pension Scheme for DTU employees has also been initiated and a proposal to implement the same from the inception of the University is being taken up to the Board of Management for its approval.

Agenda 16.2 : Confirmation of the minutes of the 15th meeting of Academic Council held on 18.11.2016.

The Minutes of the 15th meeting of the Academic Council held on 18.11.2016, were circulated among all the members vide Ref. No.DTU/ORG/AC/Meeting/01(1)/2010/Vol-VI/10668-84 dated 25.11.2016, no comments have been received from any of the members.

Decision : The Academic Council confirmed the minutes of 15th AC meeting.

Agenda 16.3 : Action taken report on the decisions taken in the 15th meeting of the Academic Council.

The Academic Council discussed and noted the Action Taken Report.

Decision : The Academic Council took the action taken report on record.

Agenda 16.4 : Approval for revision of fee structure for UG/PG programmes, for the students to be admitted in academic session 2017-18.

It was informed to the Council that the University has envisaged for revision of fee for both UG and PG programmes for the academic year 2017-18, with a view to bridge the gap in expenses and resource generation in the University. The matter was discussed in the weekly meeting held on 15.05.2017. Accordingly proposal has been received from Dean, Academic (UG) which is placed as under:

Proposal for revision of fee for Indian students to be admitted in the Academic Year 2017-18.

(A) Bachelor of Technology (Full Time)

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)	3 rd Year Fee (in Rs.)	4 th Year Fee (in Rs.)
A. Components charged annually					
1.	Tuition Fee	82,000	90,500	99,500	1,14,500
2.	Non Govt. Component				
2.1	Student Welfare fee (Co-curricular Activities, Training & Placement, Extra Curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	16,500	18,000	20,000	20,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	22,000	25,000	28,000	35,000
2.3	Economically weaker section fund	5,000	5,000	5,000	5,000
2.4	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	11,000	12,000	13,000	15,000
2.5	Premium amount for medi- claim of student (per annum)	500	500	500	500
Total (A)		1,37,000	1,51,000	1,66,000	1,90,000
B. Components charged once at the time of admission					
1.	Alumni Association life membership, registration fee (one time, non- refundable)	1,000			
Total (B)		1,000			
Grand Total (A+B)		1,38,000	1,51,000	1,66,000	1,90,000

GA

(B) Master of Technology (Full Time)

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)
A. Components charged annually			
1.	Tuition Fee	82,000	90,500
2.	Non Govt. Component		
2.1	Student Welfare fee (Co-curricular Activities, Training & Placement, Extra Curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	16,500	18,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	22,000	25,000
2.3	Economically weaker section fund	5,000	5,000
2.4	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	11,000	12,000
2.5	Premium amount for medi- claim of student (per annum)	500	500
Total (A)		1,37,000	1,51,000
B. Components charged once at the time of admission			
1.	Alumni Association life membership, registration fee (one time, non- refundable)	1,000	
Total (B)		1,000	
Grand Total (A+B)		1,38,000	1,51,000



(C) Master of Business Administration (Full Time)

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)
A. Components charged annually			
1.	Tuition Fee	82,000	90,500
2.	Non Govt. Component		
2.1	Student Welfare fee (Co-curricular Activities, Training & Placement, Extra Curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	16,500	18,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	22,000	25,000
2.3	Economically weaker section fund	5,000	5,000
2.4	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	11,000	12,000
2.5	Premium amount for medi- claim of student (per annum)	500	500
Total (A)		1,37,000	1,51,000
B. Components charged once at the time of admission			
1.	Alumni Association life membership, registration fee (one time, non- refundable)	1,000	
Total (B)		1,000	
Grand Total (A+B)		1,38,000	1,51,000

Gan

(D) Master of Technology (Part Time) (3 Years)

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)	3 rd Year Fee (in Rs.)
A. Components charged annually				
1.	Tuition Fee	82,000	90,500	99,500
2.	Non Govt. Component			
2.1	Student Welfare fee (Co-curricular Activities, Training & Placement, Extra Curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	16,500	18,000	20,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	22,000	25,000	28,000
2.3	Economically weaker section fund	5,000	5,000	5,000
2.4	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	11,000	12,000	13,000
2.5	Premium amount for medi- claim of student (per annum)	500	500	500
Total (A)		1,37,000	1,51,000	1,66,000
B. Components charged once at the time of admission				
1.	Alumni Association life membership, registration fee (one time, non- refundable)	1,000		
Total (B)		1,000		
Grand Total (A+B)		1,38,000	1,51,000	1,66,000

Signature

(E) Bachelor of Technology (Evening)

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)	3 rd Year Fee (in Rs.)	4 th Year Fee (in Rs.)
A. Components charged annually					
1.	Tuition Fee	71,500	78,500	86,500	90,000
2.	Non Govt. Component				
2.1	Student Welfare fee (Co-curricular Activities, Extra curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	13,000	14,500	16,000	16,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	11,500	14,000	16,000	21,000
2.3	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	9,000	10,000	11,000	12,000
2.4	Premium amount for medi- claim of student (per annum)	500	500	500	500
Total (A)		1,05,500	1,17,500	1,30,000	1,39,500
B. Components charged once at the time of admission					
1.	Alumni Association life membership, registration fee (one time, non-refundable)	1,000			
Total (B)		1,000			
Grand Total (A+B)		1,06,500	1,17,500	1,30,000	1,39,500

Sats

(F) Executive MBA

S.No.	Particulars	1 st Year Fee (in Rs.)	2 nd Year Fee (in Rs.)
A. Components charged annually			
1.	Tuition Fee	1,43,000	1,64,500
2.	Non Govt. Component		
2.1	Student Welfare fee (Co-curricular Activities, Training & Placement, Extra curricular Activities, Annual Gathering, Students welfare, Institutional Development, Outsourcing, conference, seminar, workshop, innovative projects, skill development activities and Misc. Expenditure on unspecified items)	22,000	22,000
2.2	Facilities & Services Charges (Research initiatives, training programmes, Awards, automation, facilities, entrepreneurship activities and any misc. expenditure on unspecified items)	16,500	22,000
2.3	Examination fee (Examination Infrastructure strengthening, expenditure on examination activities, confidential printing etc.)	11,000	12,000
2.4	Premium amount for medical claim of student (per annum)	500	500
Total (A)		1,93,000	2,21,000
B. Components charged once at the time of admission			
1.	Alumni Association life membership, registration fee (one time, non-refundable)	1,000	-----
Total (B)		1,000	-----
Grand Total (A+B)		1,94,000	2,21,000

Decision : The Academic Council deliberated and recommended the enhancement of fee for all UG & PG programmes to the Board of Management for its approval.



Agenda 16.5 : Approval for Recruitment Regulations for the post of Professor and Associate Professor in various departments of the University.

It was submitted to the Academic Council that the Recruitment Regulations (Pay Scale, Essential Qualification, Relevant Branch, Age Limit and Relaxations) for the posts of Professor (PB-IV, AGP Rs.10000/-) and Associate Professor (PB-IV, AGP Rs.9000/-) sanctioned at DTU for the following disciplines are proposed based on the guidelines of AICTE on the subject. The details are as under:-

1. Discipline of Biotechnology.
2. Disciplines of Applied Chemistry and Polymer Science & Chemical Technology.
3. Disciplines of Applied Physics and Engineering Physics.
4. Disciplines of Applied Mathematics and Mathematics & Computing.
5. Disciplines of Computer Engineering, Software Engineering and Information Technology.
6. Discipline of Electronics & Communication Engineering.
7. Disciplines of Electrical Engineering and Electrical & Electronics Engineering.
8. Discipline of Civil Engineering.
9. Disciplines of Mechanical Engineering, Production Engineering, Industrial Engineering and Automobile Engineering.
10. Discipline of Environmental Engineering.
11. Discipline of Management.
12. Discipline of Humanities.

Decision : The Academic Council deliberated and recommended the Recruitment Regulations for the post of Professor and Associate Professor in various departments with some modifications to the Board of Management for its approval.

Agenda 16.6 : Approval for rationalization and enhancement of intake in B.Tech. (Software Engineering, Mathematics & Computing, Production & Industrial Engineering, Bio-Technology, Mechanical Engineering, Automobile Engineering).

It was submitted to the Academic Council that the University proposes to rationalize the intake of students in the following UG programme so to have a class strength of 60-65 in multiple section classes in B.Tech. Software, Mechanical, Production & Industrial Engineering, Bio-Tech Engineering, Mathematics & Computing and Automobile Engineering. The matter regarding rationalization of seats was deliberated in the HODs meeting held on 01.05.2017 at 3:00 pm which recommended the following rationalization in seats of B.Tech. programs.

B.Tech programs	Existing Number of Seats	Revised Number of Seats	Net increase in Number of Seats
SOFTWARE ENGG (SW)	93	120	27
MATHEMATICS & COMPUTING (MC)	94	120	26
PRODUCTION & IND ENGG. (PIE)	47	60	13
BIO-TECHNOLOGY (BT)	33	60	27
AUTOMOBILE ENGG. (AE)	93	60	-33
MECHANICAL ENGG. (ME)	185	240	55
Total			115

Decision : The Academic Council deliberated and recommended the rationalization of intake in B.Tech (Software Engineering, Mathematics & Computing, Production & Industrial Engineering, Bio-Technology, Mechanical Engineering, Automobile Engineering) to the Board of Management for its approval.

Agenda 16.7 : Approval for Admission Policy for foreign students.

It was submitted to the Academic Council that a proposal for admission of foreign students from academic year 2017-18 for 15% supernumerary seats has been envisaged by the University. The salient points in the proposal are as follows:

Academic Eligibility Criteria: At par with normal entrant other than JEE (Mains)/GATE scores. The validity of degree/certificate obtained, in Indian context shall be verified from AIU.

Modes of Admission:

Out of the 15% seats on supernumerary basis, three modes of admission of Foreign Nationals/Persons of Indian Origin/ Indian Nationals studying abroad/ Overseas Citizen of India are prescribed.

Mode 1. Admission through DASA (5% seats supernumerary basis):

Mode 2. Direct Admission for Foreign Nationals- Applications routed through Government of India agencies (3% seats supernumerary basis):

Mode 3. Direct Admission for Foreign Nationals-(7% seats supernumerary basis)-

- (a) 4% for Foreign Nationals from SAARC, ASEAN countries and,
- (b) 3% for Foreign Nationals from countries other than (a) above:

This academic year DTU has not applied for DASA registration for PG programs, therefore the Mode-1 category seats(5% seats) is proposed to be filled as per Mode-3 category.

ADMISSION PROCEDURE FOR FOREIGN STUDENTS

Fifteen per cent (15%) seats shall be allowed to be filled on supernumerary basis over and above the approved intake from amongst Foreign Nationals/Persons of Indian Origin/ Indian Nationals studying abroad/Overseas Citizen of India in programmes of the university and institutions under MoU with DTU in India and abroad. These seats are provided by the MHRD under the PIHEAD (Promotion of Indian Higher Education Abroad) programme. The trifurcations of number of seats shall be as following, and under no circumstances, a seat remaining unfilled in one category shall be allocated to other category.

Definitions:

(i) Indian Nationals studying abroad: An Indian citizen who is ordinarily residing outside India and holds an Indian Passport and must have had at least 3 (three) years of education in a Foreign country during the last 6 (six) years and must pass the qualifying examination (inclusive of 11th and 12th standard or equivalent) from abroad only.

(ii) Persons of Indian Origin (PIO): Persons who are citizens of other countries (except Pakistan and Bangladesh) who at any time held an Indian Passport, or who or either of his parents or any of his grand parents were a citizen of India by virtue of the provisions of the Constitution of India or Sec 2(b) of Citizenship Act, 1955 (Act No. 57 of 1955).

(iii) Overseas Citizen of India (OCI): A person registered as OCI Cardholder under section 7A of the Citizenship Act, 1955. The student admitted under this category can do all activities except research work for which special permission is required from the Indian Mission/Post/FRRO concerned.

(iv) Foreign Nationals: Citizens of all countries other than India, who are not of Indian Origin as defined under PIO and OCI.

Academic Eligibility Criteria:

60% aggregate marks or 6.75 CGPA on a 10 point grade or equivalent grades in all subjects of qualifying examination i.e. senior secondary [10+2] or equivalent from any system of education as recognized by the Association of Indian Universities (AIU) with Physics and Mathematics as compulsory subjects and any one of these as optional subjects Chemistry, Bio-technology, Computer Science, Biology. The other essential requirement is stated as per the categories listed below. The contact details of the AIU office is:

AIU House
16, Comrade Indrajit Gupta Marg,
New Delhi-110002, India
Phone: (91)-11-23230059, (91)-11-23232429
Fax: (91)-11-23232131
Email: aiu@del2.vsnl.net.in
Website: <http://www.aiuweb.org>

Proof of Residency:

Copy of the passport issued by their respective countries (Nationals of Nepal who do not have a passport, copy of Authenticated Citizenship Card has to be submitted).

Registration Fee and First Year Tuition Fee (UG and PG students): Total amount of US\$ 5300 shall be required to be remitted, which includes a non-refundable registration fee of US\$ 300 [*US Dollar three hundred only*] and first year Tuition Fee of US\$ 5,000 [*US Dollar Four Thousand only*].

Foreign Nationals from **SAARC** and **ASEAN** countries shall be allowed 50% fee waiver (*Tuition fee only*) provided they have studied/are studying in SAARC countries only. They are required to submit an amount of US\$ 2800 towards the above.

The candidates from Nepal and Bhutan can submit their fees in Equivalent Indian Rupees. However, they will be required to get Exchange Rate Certificate from the bankers and submit the same. In such cases, the total fee [registration and first year tuition fees] would be equivalent to US\$ 2900 (instead of US\$ 2800) inclusive of service tax as per Government of India norms for which they have to produce the exchange rate certificate from the concerned banks.

Tuition Fee for first year and subsequent years of study (UG and PG students):

The annual tuition fee of US\$ 5000/US\$ 2500 (as applicable) for the subsequent years of study is to be paid by the candidates to the University, at the beginning of each academic year.

For Ph.D. students annual fees of US\$ 2500 (1st year) and US\$ 1000 (for subsequent year) shall be charged. The application cum registration charges (non-refundable) shall be US\$ 300.

Hostel Accommodation and Other Expenses:

Hostel fee and other expenses, which may typically range from US\$ 800 per annum.

Age Requirement

Maximum age as on 1st August

- I. For all Undergraduate Programs where entry qualification is 12th class-21 Years
- II. For all other Post Graduate Programs where entry qualification is graduation-35 Years

Medical Insurance:

International students must have adequate medical insurance during their entire stay in India on their own initiative.

Categories for Admission & specific requirements/additional qualifications:

Out of the 15% seat on supernumerary basis, three modes of admission of Foreign Nationals/Persons of Indian Origin/ Indian Nationals studying abroad/Overseas Citizen of India are prescribed:

Mode 1. Admission through DASA (5% seats supernumerary basis):

Under this category the student directly apply online, fill an online application form and make fee payment and do the other formalities given on the DASA website through portal only.

Additional requirement/additional qualifications (UG)-

- (i) should have a valid SAT-II (Scholastic Aptitude Test - II) score (Physics, Chemistry and Mathematics level –II).
- (ii) Any other requirement prescribed by DASA from time to time.

Additional requirement/additional qualifications (PG)-

- (i) should have passed the qualifying examination i.e. Four/Five year undergraduate programme in Engineering/Technology or equivalent in relevant discipline for M.Tech. and an appropriate UG degree for MBA programme from any stream of education recognized as equivalent by the AIU/UGC/AICTE/other statutory bodies as applicable. (Refer the eligibility matrix on DASA website).
- (ii) Any other requirement prescribed by DASA from time to time.

Admission shall be done centrally through the central counselling held at nodal centre, DASA appointed by MHRD, Govt on yearly basis.

Mode 2. Direct Admission for foreign nationals- Applications routed through Government of India agencies (3% seats supernumerary basis):

Under this category the application of the candidates shall be routed directly through ICCR, Government of India. The form shall be accompanied by relevant documents attested by the authorized persons of their respective countries.

Additional requirement/additional qualifications (UG)-

- (i) Should have a valid TOEFL/IELTS score. The condition shall be waived-off in the event the University/Board from where the candidate has obtained the degree/certificate for qualifying examination that the medium of instruction of the courses taught for qualifying degree has been English.

- (ii) Any other requirement prescribed by the University from time to time.

Admission shall be done on the basis of their aggregate score in the subjects Physics, Mathematics and the other core subject, and the marks obtained on the basis of online interview organized by International office, DTU.

Additional requirement/additional qualifications (PG)-

- (i) should have passed the qualifying examination i.e. Four/Five year undergraduate program in Engineering/Technology or equivalent in relevant discipline for M.Tech. and an appropriate UG degree for MBA program from any stream of education recognized as equivalent by the AIU/UGC/AICTE/other statutory bodies as applicable.
- (ii) Should have a valid TOEFL/IELTS score. The condition shall be waived-off in the event the University/Board from where the candidate has obtained the degree/certificate for qualifying examination that the medium of instruction of the courses taught for qualifying degree has been English.
- (iii) Any other requirement prescribed by the University from time to time.

Admission shall be done on the basis of their aggregate score in the subjects Physics, Mathematics and the other core subject (for UG)/ CGPA or aggregate score in the qualifying degree, and the marks obtained on the basis of online interview organized by International office, DTU.

Mode 3. Direct Admission for Foreign Nationals - Directly applied to DTU (7% seats supernumerary basis)-

- (c) 4% for Foreign Nationals from SAARC and ASEAN and,**
- (d) 3% for Foreign Nationals from countries other (a) above:**

Under this category candidates shall apply on-line in the prescribed format before the last date directly on the web portal of the office of International Affairs, Delhi Technological University. The form shall be accompanied by relevant documents attested by the authorized persons of their respective countries. Alternatively the application may be received from the foreign Embassies in India and/or through EDCIL for which a consent shall be obtained from Ministry of External Affairs, Government of India, before finalization of admission.

Additional requirement/additional qualifications-

- (i) should have a valid TOEFL/IELTS score. However, candidates with SAT score shall be preferred.
- (ii) Any other requirement prescribed by the University from time to time.

Additional requirement/additional qualifications (PG)-

- (i) should have passed the qualifying examination i.e. Four/Five year undergraduate program in Engineering/Technology or equivalent in relevant discipline for M.Tech. and an appropriate UG degree for MBA program from any stream of education recognized as equivalent by the AIU/UGC/AICTE/other statutory bodies as applicable.
- (ii) Should have a valid TOEFL/IELTS score. The condition shall be waived-off in the event the University from where the candidate has obtained the degree for qualifying examination that the medium of instruction of the courses taught for qualifying degree has been English.

- (iii) Any other requirement prescribed by the University from time to time.

Admission shall be done on the basis of their aggregate score in the subjects Physics, Mathematics and the other core subject (for UG)/ CGPA or aggregate score in the qualifying degree, and the marks obtained on the basis of online interview organized by International affairs office, DTU. Students from schools/Universities with ABET/ accreditation process approved under WTO agreement shall be given preference.

Note: Students who are awarded scholarships by any Indian / International agencies shall be given preference for admission and for hostel accommodation.

The admission in any course shall not be granted on predicted scores.

Decision : The Academic Council approved the admission policy for foreign students with some modification in the annual tuition fee structure. The Academic council authorized Vice Chancellor to make changes wherever necessary.

Agenda 16.8 : Approval for mobility of the students (UG/PG/PhD) by creating scope in academic curricula and stay requirements if selected for conducting R&D work at Foreign University.

It was submitted to the Academic Council that the University has proposed the procedures for mobility of the students (UG/PG/Ph.D.) for conducted R&D work at foreign university as under:

UG Students:

- (a) The UG students shortlisted for carrying out Senior Design Research (Major Project) under joint supervision of Foreign and DTU supervisor as per the procedures placed as **Annexure at page 01 to 02** shall be allowed to take the Departmental Core Course of the 8th Semester in 6th Semester and two other Departmental Electives of 8th Semester in 7th Semester by cross listing the elective courses.
- (b) be allowed to stay in the allocated foreign University for 8th Semester for conduct of research work for the Major Project on their own cost.

PG Students:

- (a) The PG students shortlisted for carrying out research work towards Major and Minor Projects under joint supervision of Foreign and DTU supervisor as per the procedures placed as **Annexure at pages 03 to 04** shall be allowed to take the elective courses of the 3rd Semester in 2nd Semester by cross listing

the elective courses for *one year sandwich program*, or *one semester stay program*. The student may also be allowed to audit/credit the elective courses offered at the foreign University as alternatives to the credit course in the curriculum for credit transfer adding more value and flexibility in academic collaborations for award of joint PG degree. The final viva-voce shall be conducted either at foreign University with DTU faculty joint through live streaming, or, vice-versa as per the terms and conditions of the MoU.

- (b) For the DTU PG students conducting research at Foreign University, the semester fees at the Foreign University, travel expenditure and the expenditure towards cost of living etc shall be met by respective student or may be met from the research grants available with DST/CSIR and other Government agencies. DTU will help the deserving students to interface with banks for facilitation of educational loan for such purpose. However, they will continue to get their GATE scholarship as usual, which shall be directly credited to their accounts. Such students shall also be allowed to receive the TA from the University (if permissible) for maintenance and stay at the Foreign University.
- (c) At the end of the successful conduct of the thesis work, the said students may be awarded either the certificate/ joint PG degree from both the Universities (as per MoU).

Ph.D./Post Doc. Fellows:

- (a) The PDF/ PhD students shortlisted for carrying out research work towards their thesis work under joint supervision of Foreign and DTU supervisor as per the procedures placed as **Annexure at pages 05 to 07** shall be required to complete the courses requirement, comprehensive evaluation, research plan submission at DTU as per the ordinance. The student may also be allowed to audit the elective courses offered at the foreign University for adding more value and flexibility in academic collaborations.
- (b) The PhD student be allowed to stay in the foreign University under two/three year sandwich program. The final viva-voce shall be conducted either at foreign University with DTU faculty joint through live streaming, or, vice-versa as per the terms and conditions of the MoU.
- (c) For the DTU PhD students conducting research at Foreign University, the semester fees at the Foreign University, travel expenditure and the expenditure towards cost of living etc shall be met by respective student or may be met from the research grants available with DST/CSIR and other Government agencies or from education loans. However, they will continue to get their University/JRF scholarship as usual, which shall be directly credited to their accounts. Such students shall also be allowed to receive the TA from the foreign University (if permissible) for maintenance and stay at the foreign University.

- (d) At the end of the successful conduct of the research work, the said students may be awarded either the certificate/ joint ,PG degree from both the Universities (as per MoU).

Decision : The Academic Council approved the mobility of the students (UG/PG/PhD) by creating scope in academic curricula and stay requirements if selected for conducting R&D work at Foreign University.

Agenda 16.9 : Approval for Transfer/Inclusion of Course credits for Short Courses organized by Foreign Faculty (1 week- 4 weeks) for specialized courses at DTU.

It was submitted to the Academic Council that DTU organizes various courses such as GIAN courses, Fulbright Expert Lectures, USSTF, UKEIRI, Workshops having expert lecture series, etc, involving Foreign Expert Faculty/Scientist. These courses include expert lectures mandatorily from international faculty(s) in addition to Guest Lectures from experts from renowned universities and institutions, Laboratory sessions, tutorials followed by an exam for evaluation the student performance in the course. The duration of course varies from one week to two weeks.

Their schedule usually (with little variation from organizers) is as follows:

	One Week	Two Weeks	Three Weeks	Four Weeks
Expert Lectures (International Expert)	10-12 hrs	18-22 hrs	28-32 hrs.	38-42 hrs.
Guest Lectures (National Experts)	2-4 hrs.	4-6 hrs.	6-8 hrs.	8-10 hrs.
Tutorial	2-4 hrs.	3-6 hrs.	6-8 hrs.	8-10 hrs.
Laboratory (if required in lieu of Tuts)	4-6 hrs.	8-12 hrs	12-18 hrs.	16-24 hrs.
Industrial Presentation/ Industrial Visits (Optional)	1-2 hrs.	2-4 hrs.	3-6 hrs.	3-6 hrs.
Examination	1-2 hrs	2-3 hrs.	3-4 hrs.	4-5 hrs

The elective courses of 3 credits with LTP break-ups (3-1-0/3-0-2) offered to our students in UG/PG usually have 42-46 hours of lecture and/or 10-12 hours of tutorials, or 22-26 hours of Laboratory session.

Comparing the numbers of LTP of the short course as aforesaid vis-à-vis electives offered to our UG/PG programs, it may be inferred that equivalent credits can be as follows:

Duration of Short Course	Equivalent Credits
1 week	1 credit
2 weeks	2 credits
3 weeks	3 credits
4 weeks	4 credits

Organization of such courses if given due credits not only benefit our own students (*in lieu of the elective courses as per their degree program*), but also attract sizeable number of students from other inland Universities and foreign Universities particularly from SAARC and ASEAN countries. Similarly our students attending such courses organized in other inland Universities/ foreign Universities on the recommendation of respective Board of Studies of the concerned Department be given due credit to offset the credits due against elective courses. It is imperative that three one credit courses shall offset one elective course in the curriculum of the UG/PG in the University.

The provision of award of the credit shall be against **floating electives** with course numbers corresponding to that of odd/ even semesters.

Decision : The Academic Council decided to constitute a committee with following members to examine the matter and to submit their recommendations to the Vice Chancellor:

1. Dean Academic (PG)	:	Chairperson
2. Dean (IRD), Dean Academic (UG)	:	Member
3. Dean (International Affairs)	:	Member
4. Dean (Continuing Education)	:	Member
5. Dr. M.M. Tripathi, Electrical Deptt.	:	Member
6. Dy. Registrar (Acad.)	:	Secretary

Agenda 16.10 : Approval for the new proposed Ph.D. Ordinance, 2107 along with Ph.D. related forms.

It was submitted to the Academic Council that to make it more effective and student friendly, new Ph.D. Ordinance has been prepared in which latest guidelines of UGC has been incorporated. The qualifications and eligibility criteria has also been kept as per UGC. A committee was constituted for drafting the new Ph.D. Ordinance under the Chairmanship of Prof. H.C. Taneja, Dean (Acad-PG). Accordingly, the University has framed new Ph.D. Ordinance, 2017 applicable to all programs leading to degree of Doctor of Philosophy, DTU.

Decision : The Academic Council deliberated and recommended the Ph.D. Ordinance, 2107 with some modifications along with Ph.D. related forms to the Board of Management for its approval.

Agenda 16.11 : Approval for formal registration of Ph.D. students upon successful completion of course work and comprehensive examinations and research plan by respective DRCs.

It was submitted to the Academic Council that Dean, Academic (PG) has submitted a proposal for formal registration of following Ph.D. students who have successfully completed course work and comprehensive examinations:

Decision : The Academic Council approved the formal registration for Ph.D. program.

Agenda 16.12 : Approval for Cancellation/ Withdrawal of admissions in the Academic Year 2016-17 for Ph.D., M.Tech. & MBA programmes.

It was submitted to the Academic Council that 03 students in Ph.D., 03 students in M.Tech. and 03 students in MBA have withdrawn/cancelled their admissions during the academic year 2016-17 for Ph.D., M.Tech. and MBA programs:

Decision : The Academic Council approved the cancellation/withdrawal of registration of Ph.D., M.Tech. and MBA programmes.

Agenda 16.13 : Approval for Guidelines for offering course work of "Research Methodology" to Ph.D. students.

It was submitted to the Academic Council that DTU admits Ph.D. students in engineering, management and humanities disciplines and the need of research methodology is different for different disciplines. Even engineering disciplines use different methodologies. At present DTU is offering a common syllabus to all the students and a need was expressed by the HoDs and Research Guides to offer more relevant topics in research methodology paper. Keeping in view the same, a committee was constituted comprising of the following members:

1. Prof. S.K. Garg, Pro VC-I	Chairman
2. Prof. H.C. Taneja, Dean (PG)	Member
3. Prof. A. Trivedi, Dean (IRD)	Member
4. Prof. O.P. Verma, HOD (CSE)	Member
5. Prof. S.C. Sharma, HOD (Applied Phy.)	Member
6. Prof. G.C. Maheshwari, Professor, DSM	Member
7. Dr. Pravir Kumar, Asso.Profesor (Biotech)	Member
8. Dr. Neeta Pandey, Assco. Prof. (E&C)	Member
9. Mr. Anil Kumar, Dy. Registrar (Acad PG)	Member Secy.

With this background, the members deliberated the issue and agreed that the syllabus be prepared consisting of different modules. Modules A with 40% weightage consisting of literature review, report writing, ethics etc. can be made common for all. Addition to that students be allowed to select and undergo two more modules of 30% weightage each from the basket of modules offered in that semester.

The details of the Modules are as under:

Module	Focus Area	Department to offer The Module	Weightage	Teaching Hours
A	Common for All the Research Scholars Literature Review, Report Writing, Ethics, Latex, etc	DSM	40%	16
B	Statistical Analysis	Applied Mathematics	30%	12
C	Computational Techniques	Civil Engineering	30%	12
D	Soft Computing	E&C Engineering	30%	12
E	MATLAB	Computer Engineering	30%	12
F	Bio Technology	Biotechnology	30%	12
TOTAL (Module A + Any other Two)				40

Syllabus for SM: 901 Research Methodology: (L/T/P): (4/0/0)
(Module A + Any other Two)

Module A : INTRODUCTION (Common for all the Research Scholars) 16 Hours

- Phenomena, Scientific proofs and conjunctions
- Research concept, Basis and nature of inquiry and research, Types, Scientific research and Falsification Critical thinking.
- Introduction to Research, Need, Ethics, Research Plan, Literature review, citation, plagiarism, report structure and writing;
- Hypothesis, Modeling, Data Collection, Test of Hypothesis, validation;
- Literature review- Longitudinal and thematic.
- Nature of Data- Primary, Secondary, Techniques of Measurement & Scaling, sampling methods, Sample design.
Collection of data- Research questionnaire- types of questions, questionnaire design, survey methods.
- Research design- Exploratory, Experimental, Causal, Analytical, Empirical, Case research.

Module: B- STATISTICAL ANALYSIS 12 Hours

- Normal Distribution and its Area Property, Skewness and kurtosis; Sampling Distribution of the Mean and Proportion. Point and Interval Estimation. Hypothesis Testing. The p-Value Approach. One –Sample and Two-Sample Tests. Analysis of Variance.

- Types of Regression Models. Simple Linear Regression Equation. The Least Square Method. Prediction in Regression Analysis. Introduction to Multiple Regression Model.
- Time Series Forecasting. Least Square Trend Fitting and Forecasting. Autoregressive Modeling for Trend Fitting and Forecasting. Choosing an Appropriate Forecasting Model.

Module: C COMPUTATIONAL TECHNIQUES

12 Hours

- Introduction to Computation Techniques: motivation and applications. Mathematical Modelling, Numerical Methods, and Problem Solving. (2 lectures)
- Simple Mathematical Model. approximation of function with a Taylor series, solution to partial differential equations, numerical integration and differentiation. (2 lectures)
- Linear Algebraic Equations in Matrix Form, Matrices: matrix notation, matrix operating rule, Eigenvalues. Curve fitting: Descriptive Statistics, The Distributions, regression, over-fitting of data, Cross-Validation of data, (3 lectures)
- Computational Intelligence: Computational Intelligence Paradigms, Artificial Neural Networks, Evolutionary Computation, Swarm Intelligence, artificial Immune Systems, Fuzzy Systems. (3 lectures)

Module: D- SOFT COMPUTING

12 Hours

- Neural Networks: History, overview of biological Neuro-system, Mathematical Models of Neurons, ANN architecture, Learning rules, Learning Paradigms Supervised, Unsupervised and reinforcement Learning, ANN training Algorithms-perceptions, Training rules, Delta, Back Propagation Algorithm, Multilayer Perceptron Model, Hopfield Networks, Associative Memories, Applications of Artificial Neural Networks.
- Fuzzy Logic: Introduction to Fuzzy Logic, Classical and Fuzzy Sets: Overview of Classical Sets, Membership Function, Fuzzy rule generation. Operations on Fuzzy Sets: Compliment, Intersections, Unions, Combinations of Operations, Aggregation Operations.
- Introduction of Neuro-Fuzzy Systems: Architecture of Neuro Fuzzy Networks.
- Introduction to Genetic Algorithms

Module: E- MATLAB

12 Hours

- MATLAB basics: The MATLAB environment, Basic computer programming, Variables and constants, operators and simple calculations, Formulas and functions, MATLAB toolboxes
- Matrices and vectors: Matrix and linear algebra review - Vectors and matrices in MATLAB - Matrix operations and functions in MATLAB
- MATLAB programming: Algorithms and structures, MATLAB scripts and functions (m-files), Simple sequential algorithms, Control structures (if...then, loops), Reading and writing data, file handling, Personalized functions, Toolbox structure, MATLAB graphic functions
- Statistics Toolbox: Probability Distributions, Descriptive Statistics, Linear & Nonlinear Models, Hypothesis Tests, Statistical Plots

- Optimization Toolbox: Optimization Problem Setup, Nonlinear Optimization, Linear Programming and Mixed-Integer Linear Programming, Quadratic Programming, Nonlinear least squares.

Module F- Biotechnology

12 hours

- Techniques and instrumentation: Microscopy, Centrifugation, Chromatography, DNA sequencing, Hybridoma technology and monoclonal antibody, SDS-PAGE and Agarose gel electrophoresis, Polymerase chain reaction, Spectroscopy, Immunostaining, Microtomy, Plant, animal and stem cell culture,
- Drug administration and testing, Cytotoxicity and LD/CD50 value,
- Biosensor, Aquaculture, Microbial culture and bacterial strain analysis,
- NCBI and EBI Biological databases, Sequence alignment, Data mining and annotation.

Decision : The Academic Council approved the above modules.

Agenda 16.14 : Approval for Guidelines for joining of the candidates as UGC/CSIR/DST Junior Research Fellowship.

It was submitted to the Academic Council that the University has framed guidelines for the candidates who intends to join as UGC/CSIR/DST Joint Research Fellowship (JRF). The proposed guidelines are as under:

1. The candidate must join the fellowship within the time limits from the date of issue of the award letter from the sponsoring agency like UGC, DST etc.;
2. When a candidate approaches to the department for joining as JRF, the respective HoD will first get it formally approved from the Dean (PG) before allow the candidate to join. Also he will ensure that prospective Supervisor is eligible as per Ph.D. Ordinance and also has availability of seat. The HoD will forward all the documents related to candidate to the office of the Dy. Registrar (Acad.-PG).
3. The candidate will have to apply for Ph.D. programme as normal candidate along with other candidates in response to DTU advertisement. As, the candidate has already passed the JRF examination, he/she will be exempted from screening test but he/she will have to appear before the interview committee. Appearing before the interview committee does not guarantee to admission in Ph.D. The candidate will have to score the minimum passing marks as laid down by the DTU from time to time. If admitted, he/she will be governed by Ph.D. Ordinance of DTU. His date of registration will be w.e.f. the date of admission in the course.

Decision : The Academic Council approved the above guidelines.

Agenda 16.15 : Approval for revision of course/curriculum of M.Tech. Programme in Microwave and Optical Communication Engg.

It was submitted to the Academic Council that the HOD, Department of Electronics & Communication has proposed revision of course/curriculum of M.Tech. program in Microwave and Optical Communication Engineering in course EC-502: Advance Microwave devices and Circuits and EC 501: Advanced Communication Systems. Details of syllabus is placed **Annexure at page 08 to 11.**

Decision : The Academic Council approved the proposed revision of course/curriculum of M.Tech. Programme in Microwave and Optical Communication Engg..

Agenda 16.16 : Approval for Academic Calendar, 2017-18.

It was submitted to the Academic Council that the University has formulated the academic calendar for the academic year 2017-18. A proposal to this effect has been forwarded by the Dean, Academic (UG) which is placed as **Annexure at page 12.**

Decision : The Academic Council approved the academic calendar for the year 2017-18.

Agenda 16.17 : Approval for courses in East Delhi Campus.

It was submitted to the Academic Council that Delhi Technological University proposes to start various Management Programs and other academic activities from the session 2017-18 catering to the needs of East Delhi Students. The Board of Management, DTU has already approved the following courses to be started in the East Delhi Campus:

S.No	Program	Duration	Intake	Total students
1	Bachelors of Business Administration (BBA)	3	120	360
2	B.A. (Hons) Economics	3	120	360
3	Masters of Business Administration (MBA)	2	120	240
4	Masters of Business Administration (MBA) with specialization in Public Policy Management	2	30	60
5	Masters of Business Administration (MBA) in Business Analytics	2	60	120
6	Masters of Business Administration (MBA) in Family Business and Entrepreneurship	2	60	120

7	Masters of Business Administration (MBA) in Financial Market	2	60	120
8	Ph.D. program	4	30	120
	Total		600	1500

The new East Delhi campus will primarily focus on-

- Introduction of new UG and PG programs in the emerging areas of management such as Entrepreneurship and Family Business, Public Policy, Business Analytics and Financial Markets etc. along with traditional Management Programs.
- Focus on Employability by designing Industry relevant programs.
- Knowledge creation and innovation through research and development.
- Techno-entrepreneurship and Knowledge Enterprise Development.

Decision : The Academic Council recommended the above courses for East Delhi Campus to the Board of Management for its approval.

Agenda 16.18 : Approval for revision of syllabus and scheme of examination for MBA (Regular) programme.

It was submitted to the Academic Council that the MBA programme was started in the University in the year 2009 and the first revision of the course was carried out in 2012. This programme equips students with the knowledge, analytical ability and attitudes towards new paradigms of management. It also enables the students to develop pro-active and critical thinking in dynamic business environment. In view of the changing paradigms of industry, government and business practices, society and nation it is proposed to revise the syllabus and scheme of examination for MBA (Regular) programme for both DTU as well as East Delhi Campus. Details of revised syllabus and scheme of examination is placed as **Annexure at page 13 to 23**.

Decision : The Academic Council approved the revision of syllabus and scheme of examination for MBA (Regular) programmes.

Agenda 16.19 : Approval for syllabus and scheme of examination for undergraduate and post graduate programmes in East Delhi Campus.

It was submitted to the Academic Council that the University has formulated syllabus and scheme of examination for both undergraduate and post graduate courses starting in East Delhi Campus from the academic session 2017-18. The proposed course structure seeks to address the question of management of public policy in the conduct of social welfare and will be useful for civil servants, academicians, trade negotiators who are expected to analyse development and good governance issues and contribute to the articulation of the required policy response along with its implementation and assessment. Details of syllabus and scheme of examination for different courses are placed as **Annexure at pages 24 to 53.**

Decision : The Academic Council approved the syllabus and scheme of examination for undergraduate and post graduate programmes in East Delhi Campus and authorized the Vice Chancellor to make changes wherever necessary.

Agenda 16.20 : Approval for merger of B.Tech. Electrical Engineering and B.Tech. Electrical & Electronics Engineering w.e.f Academic Session 2017-18.

It was submitted to the Academic Council that the Department of Electrical Engineering Delhi Technological University offers two fulltime UG programmes namely B.Tech. Electrical Engineering (EE) & B.Tech. Electrical and Electronics Engineering (EEE). The UG programme of EEE with an intake of 100 was started in 2009 when DCE was reconstituted into DTU. The intake of B.Tech. EE programme is 140. The Curriculum of both the programmes is framed to cater to needs of Electrical Power and associated industries and other utilities.

This merger is also important as the university has implemented new course structure from 2015-16. The B.Tech curriculum of all the disciplines has now been reoriented with a provision of generic electives and open electives in line with choice based credit system. In B.Tech (Electrical Engineering) Programme the departmental electives will be grouped in three separate specialization, one each in the area of (i) Power System (ii) Power Electronics, Machines & Drives and (iii) Electronics, Communication and Control. This will ensure that all the 240 students are not offered the same elective courses and they will have the option to graduate with different flavors of Electrical Engineering by an appropriate choice of the elective subjects. This will also result in optimal utilization of the faculty available in the Department.

Four batches of B.Tech. EEE have now graduated. It has also been reported by the students of B.Tech. (EEE) branch that many companies do not allow them to participate in either Electrical Engineering or Electronics & Communication stream as the prospective employers get confused between EE & EEE and EEE & E&C. It has resulted in lot of heart-burn to the students of B.Tech. EEE programme.

The BOS of EED, held on March 8th, 2015 had recommended (as an outcome of a curriculum development workshop) that w.e.f the Academic year 2015-2016, these two B.Tech. programmes namely B.Tech. (EE) & B.Tech. (EEE) be merged without any reduction in the total intake (240). The same resolution has again been passed by the department of Electrical Engineering in a meeting held on 22.05.2017.

All the sanctioned positions of faculty and technical staff of B.Tech. EEE program shall be merged with the faculty and staff of B.Tech. EE program and henceforth will be treated as members of the Department of Electrical Engineering.

Decision : The Academic Council deliberated and recommended matter of merger of B.Tech- Electrical Engineering and B.Tech- Electrical & Electronics Engg. w.e.f. Academic Session 2017-18 to the Board of Management for its approval.

Agenda 16.21 : Approval of change in the category of Departmental Elective Courses (DEC) & University Elective Courses (UEC), as Generic Elective Courses (GEC).

It was submitted to the Academic Council that the scheme of teaching and examination for 15 B.Tech. (regular) programmes and 04 B.Tech. (Evening) programmes were passed in the 11th meeting of the AC held on 24.06.2015. Alongwith the teaching scheme the detailed syllabus of I and II semester were approved.

The detailed syllabus for all the course of III-VIII semester was placed in the 13th meeting of the AC held on 02.05.2016. The AC had passed the detailed syllabus for III & IV semester and desired that the scheme of teaching and examination for V-VIII semester should be reviewed keeping in view the Choice Based Credit System (CBCS) of UGC.

It was decided in the meeting of HODs and Deans held on 15.05.2017 at 3:30 PM that the Department Core Courses (DCC), Department Elective Courses (DEC) courses being offered in respective department should be made available to the students of all other department against their respective DEC/UEC Courses. This will increase the choice available in DEC/UEC/OEC to students of every branch. When a student of a particular branch opts for a DEC or DCC being offered in other branches these electives will be termed as GENERIC elective for him/her.

It was also decided that the University Elective course (UEC) being offered in V/VI Semester will be renamed as Open Elective Course (OEC). A student will be allowed to take upto two courses (8 credit) in DEC/Generic/OEC category in online/offline mode from any other Institute/University with the approval of their BOS of the respective Department.

Decision : The Academic Council approved the category of Departmental Elective Courses (DEC) & University Elective Courses (UEC), as Generic Elective Courses (GEC) for the students of other discipline and the Council also urged the academic departments to identify the specialized courses (if any) and authorized Vice Chancellor to approve the same.

Agenda 16.22 : Approval of scheme of examination & syllabus from 5th to 8th semester of B.Tech. programmes.

It was submitted to the Academic Council that the scheme of teaching and examination for 15 B.Tech (regular) programmes and 04 B.Tech (Evening) programmes were passed in the 11th meeting of the AC held on 24.06.2015. Along with the teaching scheme the detailed syllabus of I and II semester were also approved.

The B.Tech. ordinance 1 (A) containing a new scheme of teaching and examinations for B.Tech. (regular) and B.Tech. (Evening programmes) was also approved in the 11th meeting of the AC held on 24.06.2015. Along with the ordinance and regulation applicable w.e.f the academic session 2015-16 the detailed syllabus for I year for both B.Tech. programmes was also approved.

There were minor typographical mistakes in the scheme of teaching and examination passed in the 11th and 13th meeting of the AC in r/o distribution of LTP in some courses. These mistakes have now been rectified.

The AC had passed the detailed syllabus for III & IV semester and desired in the 13th meeting of the AC held on 02.05.2016 that the scheme of teaching and examination for V-VIII semester should be reviewed keeping in view the Choice Based Credit System (CBCS) system of UGC.

The complete scheme of teaching and examinations for all 15 B.Tech. (regular) programmes and 04 B.Tech (Evening) programmes along with syllabus for these programmes was tabled on the day of the meeting before the members for their perusal. The complete syllabus and scheme of examination have been distributed to all the departments.

Decision : The Academic Council approved the syllabus and scheme of examination of 15 B.Tech. (regular) programmes and 04 B.Tech. (Evening) programmes. The Academic Council also authorized Vice Chancellor to accept minor modification from 5th to 8th semester applicable w.e.f. the academic session 2015-16.

Agenda 16.23 : Approval for proposed changes to strengthen B.Tech. (Evening) programme.

It was submitted to the Academic Council that the admissions in B. Tech (Evening) program are declining at alarming rate since past couple of years due to multiple reasons. To address the issues, a committee was constituted and based on their recommendation, the following changes in the admission policy are proposed for the consideration and approval of Academic Council:

1. The admission to B. Tech (Evening) program shall be made in two categories: **Direct** and **Sponsored**.
2. The candidate having three year regular diploma in any branch of Engineering for DIRECT category and relevant branch for SPONSORED category, awarded by any state board of technical education/diploma recognized by AICTE, Delhi with a minimum aggregate (aggregate of all six semesters/three years) of 55% (45% for SC/ST) shall be eligible to take admission in B. Tech (Evening) Program being offered by DTU.
3. The candidates admitted under DIRECT category shall be allowed to seek campus placement through Training & Placement, DTU. However, the candidates admitted under SPONSORED category shall not be allowed to seek campus placement through Training & Placement, DTU.
4. The admission under DIRECT category shall be available to candidates as per clause (1) without any requirement of experience and NOC from employer, However for the admission under **sponsored** category shall be available to the candidates having more than 5 year of experience in reputed organizations registered under company act or having valid TIN/GST No and they have to submit NOC from the employer. The self employed shall not be eligible for the Sponsored category admission.
5. For DIRECT category, the candidate having diploma in any branch of Engineering may seek admission in any branch of his choice offered in the Evening program. However, for SPONSORED category, the students having diploma in relevant branch may seek admission in relevant B. Tech (Evening) program only.
6. The present intake in each branch shall be enhanced from 45/46 to 60 out of which 40 and 20 seats shall be offered to **Direct** and **sponsored** categories respectively. Accordingly, the detailed distribution of seat matrix is as given below:

Branch	Open: 40/Branch				Sponsored: 20/Branch				Total
	GEN.	SC	ST	OBC	GEN.	SC	ST	OBC	
Civil	20	6	3	11	10	3	2	5	60
Electrical	20	6	3	11	10	3	1	6	60
Electronics	20	6	3	11	10	3	2	5	60
Mechanical	20	6	3	11	10	3	1	6	60
Total	80	24	12	44	40	12	6	22	240*

***7 seats (3% of total seats) are reserved for PWD category (4-GEN., 1-SC, 1-ST, 1-OBC)**

7. For DIRECT category seats, there shall be one combined merit list based on common entrance exam (CEE) for admission to B. Tech (Evening) program for all branches. The candidate having diploma in any branch may seek admission in any branch of his choice from the available seats strictly as per the rank in merit list of relevant category. In case more than one candidate have same rank in the CEE, the marks obtained in the qualifying examination as stated in the eligibility conditions will form the basis of merit for admission. In the event of marks in the qualifying examination also being equal, the candidate born earlier will be given preference.
8. For SPONSORED category, the branch wise merit list shall be based on the marks awarded at diploma level and admissions shall be offered strictly in compliance of branch wise merit list. In the event of marks in the qualifying examination being equal, the candidate born earlier will be given preference.
9. The vacant seats in regular and sponsored categories are interchangeable.

Academic council was requested to authorize the VC to approve the other incidental decisions related to B. Tech. Evening admissions.

Decision : The Academic Council made some modifications and recommended the proposal to the Board of Management for its approval.

Agenda 16.24 : Matter for ratification:

- i. **Structure for grading of academic performance of B.Tech. Ordinance (A-1) 2015, amendment therein.**

It was submitted to the Academic Council that the Competent Authority has already approved and notified the structure for grading of academic performance dated 28.12.2016.

Annexure-B1 to Regulation R-19 of B.Tech. Ordinance and Regulations (Ordinance 1A) 2015 is amended as follows:

"The grade boundaries are left to the discretion of BOS. However, a minimum of 'P' / 'I' Grade will be awarded if the student scores more than or equal to 35 marks in aggregate in a course.

A minimum of 'C' Grade will be awarded to students who score 46 or more marks out of 100. A 'C' Grade can however be awarded for less than 46 marks also depending on the mean and the standard deviation of marks obtained of all the students in a course."

ii. Revision of rates of remuneration to the staff for exams.

It was submitted to the Academic Council that the Competent Authority has revised the rates of remuneration for secrecy work performed in the Examination Cell subject to the maximum of 7 days for Mid-Semester and 13 days for End-Semester/ Supplementary Examination. The revised rates will be effective from 01.08.2016 as under:

S.No.	Designation	Amount (in Rs.)
1.	Dy. Controller of Examination/In-charge Secrecy	1500/-
2.	Asstt. Controller of Examination/Additional In-charge Secrecy	1000/-
3.	Examination Assistant	400/-
4.	Office Attendant	250/-

The Competent Authority has also revised the rates of remuneration to the following staff for Mid-Semester, End-Semester and Supplementary Examinations as under:

S.No.	Designation	Amount for End-Sem. Exam (in Rs.)	Amount for Mid-Sem Exam (in Rs.)
1.	Assistant Invigilator	325/- per session	175/- per session
2.	Daftari	225/- per session	150/- per session
3.	Office Attendant/Helper/Waterman/ Safaiwala/Security Guard/ Electrician	175/- per session	100/- per session

The change in the nomenclature from "Examination Assistant" to "Assistant Invigilator" has also been approved.

iii. Reconstitution of Board of Studies for Deptt. of Applied Chemistry & Polymer Technology.

It was submitted to the Academic Council that the Competent Authority has reconstituted the Board of Studies (BOS) for the Department of Applied Chemistry & Polymer Technology of DTU. The term of the BOS shall be two years. Following shall be the members of the BOS:

- | | |
|-----------------------------------------------------------------------------------|----------|
| 1. Dr. Archana Rani, Head of the Department | Chairman |
| 2. Prof. D. Kumar, Professor of the Deptt. | Member |
| 3. Dr. S.G. Warkar, Associate Prof. of the Deptt. | Member |
| 4. Dr. Arinjay Kumar Jain, University School of Chemical Technology, GGIPS, Delhi | Member |
| 5. Prof. Sharif Ahmad, Deptt. of Chemistry
Jamia Milia Islamia, New Delhi | Member |

ii. Admission Brochure for M.Tech. admissions 2017-18.

It was submitted to the Academic Council that the Admission Brochure of M.Tech. has been finalized. In this brochure, new additions have been incorporated like one seat has been kept reserved for Kashmiri Migrant in each of the M.Tech. programme. M.Tech. has also been offered as part time in all the disciplines. As the Admission Process is initiated, brochure has been uploaded on the website.

iii. Admission Brochure for Ph.D. admissions 2017-18.

It was submitted to the Academic Council that the Admission Brochure of Ph.D. has been finalized as per proposed new Ordinance. The eligibility and other conditions have been kept as per guidelines of UGC. As the Admission Process is initiated, brochure has been uploaded on the website.

Decision : The Academic Council ratified the above actions of the University.

Agenda 16.25 : Any other matter with the permission of the Chair.

Supplementary Agenda 26 : Fee Concession

It was submitted to the Academic Council that In present practice the student willing to avail fee concession initially deposits his/her annual fee for the current academic year and applies for fee concession. Fee concession scrutiny committee examines the cases and recommend for either full fee or half fee concession. Accordingly, after approval of the competent authority the fee concession amount is reimbursed. It has been observed that many students find it extremely difficult to arrange the fee amount at the beginning of the academic session because of socio-economic background. Further, the procedural requirement of bank loan is not easy and the logistic involved in fee reimbursement is cumbersome.

In view of above the University proposes to extend fee concession benefit for a student of 1st year to 2nd year of his/ her programme and of a student of 3rd year to 4th year of his/ her programme on the basis of his/her application of 1st and 3rd year respectively.

The Academic Council, DTU in its 16th meeting held on 26.05.2017 vide supplementary agenda has recommended the revised criteria and guidelines for the fee concession for students belonging to economically weaker sections from the academic session 2017-18 to the Board of Management for its approval as under:

All the desirous and eligible students of DTU may apply for fee concession through respective Head of the Departments to Academic-UG Section. The criteria and guidelines for the fee concession are as under:

S.No.	Existing	Revised
1.	The students whose family income from all sources is less than Rs. 4,50,000/- per annum will only be eligible for fee concession. Submit the Income Certificate/ Form -16 duly issued by the parent's Employer or an Affidavit duly issued by Distt. Revenue Authority, if self employed.	The students whose family income from all sources is less than Rs. 4,50,000/- per annum only will be eligible for fee concession. They have to Submit the Income Certificate/ Form -16 duly issued by the parent's Employer or an affidavit duly issued by Distt. Revenue Authority, if self employed.
2.	The student has to submit the University Fee Receipt of the session for which fee concession claimed.	The students of 1st year and 3rd year shall deposit the University annual fee at the start of the academic session and fee concession amount will be reimbursed if he/she fulfills the criteria of fee concession. In 2nd and 4th year the student will deposit the fee as per the applicable fee concession received in 1st and 3rd year respectively.

3.	First year student has to submit the copies of all mark sheets starting from 12 th class and JEE Rank Card.	First year student has to submit the copies of all mark sheets starting from 12 th class and JEE Rank Card.
4.	The students not have any pending back paper/re-appear/supplementary in any of the subject. In case any student has any pending back paper/re-appear/supplementary in any of the subject he/she will not be eligible for Fee Concession.	Any student who availed fee concession in 1st year will continue to be eligible for Fee Concession in 2nd year also, similarly student availing fee concession in 3rd year will continue to be eligible for the same in 4th year also provided he/she has acquired minimum required credits for promotion from 1st year to 2nd year / 3rd year to 4th year respectively.
5.	The student has to submit an undertaking duly counter signed by his/her parents on stamp paper of Rs. 10/- duly attested by public Notary the "he/she has not obtained or applied for any grant /financial help for the same purpose from any other Ministry/ Govt. Department of India/State. Any Public/ Private Organization." The application of the candidate concealing the facts will automatically stand cancelled.	The student has to submit an undertaking duly counter signed by his/her parents on stamp paper of Rs. 10/- duly attested by public Notary the "he/she has not obtained or applied for any grant /financial help for the same purpose from any other Ministry/ Govt. Department of India/State. Any Public/ Private Organization." The application of the candidate concealing the facts will automatically stand cancelled.
6.	The student should not be involved in any indisciplinary activity (ies) in the University.	The student should not be involved in any indisciplinary activity (ies) including use of unfair means in examination in the University.
7.	Copies of Death Certificate of earning parent/s.	Copy (ies) of Death Certificate of earning parent(s).
8.	Copy of award letter of Scholarship/fellowship if any, being awarded any Govt. or non/govt. organization.	Copy of award letter of Scholarship/fellowship if any, being awarded by any Govt. or non/govt. organization.
9.	Copy of Bank Passbook mentioning IFSC and Bank A/C No.	Copy of Bank Passbook mentioning IFSC and Bank A/C No.
10.	The full fee concession may be given to the student's maximum up to five (05)% of the sanctioned intake for the particular year in the respective programme or equivalent to the number of double, the half fee concession may be granted to the deserving students.	The full fee concession may be given to the students maximum up to five (05)% of the sanctioned intake for the particular year in the respective programme or equivalent to the number of double, the half fee concession may be granted to the deserving students. However, Vice Chancellor may enhance such fee concession to deserving candidates.
11.	The full fee concession will be granted to the wards (up to two children only) of all the Group C' employees and half fee concession may be granted to the wards	The full fee concession will be granted to the wards (up to two children only) of all the "Group C" employees and half fee concession may be granted to the wards (up

(up to two children only) of all the "Group B" employees of the DTU/DCE over and above the student's maximum upto five (05)% of the sanctioned intake for the particular year.	to two children only) of all the "Group B" employees of the DTU/DCE over and above the student's maximum upto five (05)% of the sanctioned intake for the particular year.
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The students are to submit their application duly forwarded by respective HoD along with above mentioned documents. All shortlisted students will be required to appear for personal interaction by a designated Committee for which dates will be announced later on. Applications will be accepted which can be only in prescribed format download from www.academic.dce.edu.

Decision : The Academic Council deliberated and recommended the matter to the Board of Management for its approval.

Supplementary Agenda 27 : Adhoc Admission Policy for the Management Programs to be started in East Delhi Campus of Delhi Technological University only for the academic session 2017-18.

It was submitted to the Academic Council that the University has formulated an adhoc admission policy for the management programmes to be started in East Delhi Campus for the academic session 2017-18.

Eligibility conditions and other details are as under:

1. MBA

Eligibility

A candidate who has passed any graduate examination with 50% marks in aggregate from a recognized university/institution is eligible to apply for Masters in Business Administration Programme. Those who are appearing in final semester examination may also apply, provided that they submit the proof of eligibility by a specific date declared by the university.

Admission criteria:

1. 70% weightage shall be given to marks scored at graduation level and 30% weightage shall be given to marks scored in the personal interview.

2. MBA (Entrepreneurship and Family Business)

Eligibility

1. A candidate who has passed any graduate examination with 50% marks in aggregate from a recognized university/institution is eligible to apply for Masters in Entrepreneurship and Family Business Programme. Those who are appearing in final semester examination may also apply, provided that they submit the proof of eligibility by a specific date declared by the university.

Admission criteria:

1. 70% weightage shall be given to marks scored at graduation level and 30% weightage shall be given to marks scored in the personal interview.

3. MBA (Business Analytics)

Eligibility:

1. A candidate who has passed any graduate examination with 50% marks in aggregate from a recognized university/institution is eligible to apply for Masters in Business Analytics. Those who are appearing in final semester examination may also apply, provided that they submit the proof of eligibility by a specific date declared by the university.

2. Any engineering graduate or any graduate who had studied mathematics or statistics as one of the subjects during graduation will be eligible.

Admission criteria:

1. 70%weightage shall be given to marks scored at graduation level and 30% weightage shall be given to marks scored in the personal interview.

2. Good working knowledge of computers is desirable.

4. MBA (Executive Program) on weekend basis with specialization in Public Policy.

Educational Qualification:

1. The applicant must have a minimum of 50%marks or an equivalent CGPA in graduation or its equivalent examination.

Experience:

1. The candidate should have at least two-year post qualification executive/supervisory/teaching experience.

2. The candidate would be required to submit "No objection certificate" from the current employer at the time of admission.

5. BBA

Eligibility:

The applicant must have scored at least 50% marks in 12th board examination from a recognized board and must also have passed English (Core/Elective/Functional) as a subject in the 12th board exams. Those who are appearing in the examination may also apply, provided that they submit the proof of eligibility by a specific date declared by the university.

1.

Admission Criteria:

1. The merit list shall be drawn on the basis of marks in 12th board examination or its equivalent examination.

6. B.A. (Hons) in Economics

Eligibility:

The candidate must have passed the 12th board examination with at least 50% marks from a recognized Board in order to be eligible to apply for admission to a BA Honours in Economics. The candidate must have passed in the subject of Mathematics which will also be counted among the best four subjects. Those who are appearing in the examination may also apply, provided that they submit the proof of eligibility by a specific date declared by the university.

Admission criteria:


1. The merit list shall be drawn on the basis of 12th board examination or its equivalent examination.

Relaxation and reservation policy:

1. The reservation policy for SC/ST/PH/OBC and other categories for all programs shall be as per policy of Government of NCT, Delhi and as may be adopted by the university.


Decision : The Academic Council has approved the adhoc admission policy for the session 2017-18.

The minutes are issued with the approval of the Chairman for circulation to Hon'ble Members.


(Prof. Samsher)
Registrar

Copy to:

1. Pr. Secretary to Hon'ble Lt. Governor (Delhi), 6, Raj Niwas, Civil Lines, Delhi.
2. PA to V.C. for kind information of the Vice Chancellor, DTU.
3. Prof. S. K. Garg, Pro VC (1), DTU
4. Prof. Anu Singh Lather, Pro VC (2), DTU
5. All Deans, DTU.
6. Prof. Surendra Yadav, Professor of Management, IIT, Delhi
7. Sh. Lokesh Mehra, (FICCI nominee)
8. Prof. Smriti Srivastava, Head-Division of ICE, NSIT, Delhi
9. Prof. Tarun Kumar Das, Registrar, University of Delhi
10. Dr. Bhim Singh, IIT Delhi
11. All HODs, DTU.
12. Prof. Rakesh Kumar, Civil Engg. Deptt.
13. Prof. Narendra Kumar-I, Elec. Engg. Deptt.
14. Prof. Naveen Kumar, Mech. Engg. Deptt.
15. Registrar, DTU
16. Controller of Examination, DTU.
17. Dr. M.M. Tripathi, Associate Prof.,
18. Dr. Nitin Puri, Assistant Prof.,
19. Special Invitees (All Professors, DTU)
20. Dy. Registrar, Accounts, DTU.


(Prof. Samsher)
Registrar

ANNEXURE

For

Minutes

of 16th Meeting of

Academic Council,

DTU

26-05-2017

stc

Access foreign markets with reference to the university
Quality of intake at PG and PhD level would increase
Increase in presence of Post Doctoral Research

The opportunities may be tapped through multi-level academic and research collaborations.

✓ Academic Collaborations

Academic collaboration shall act as the vehicle for larger research collaboration involving multifaceted development of the DTU. The primary stakeholder the students and faculty/staff shall play the key role in realization of such arrangements.

Undergraduate Collaboration -

1. UG students at DTU visit Foreign University for the final (8th) semester to conduct a Senior Design Project (Major Project) –

- a. In the 6th semester, DTU UG students will submit propositions for Senior Design Research(Major Project) to respective coordinator of the Department, who will down select to size the number of students to fit into the terms and conditions of the MoUs. The propositions for these students (along with their CV) will be reviewed jointly by Foreign University and DTU faculty engaged in identified areas of research to further down size the list students for actual exchange.
- b. In the 7th semester, these students will initiate their Senior Design Research(Major Project) under the joint supervision of the DTU and the faculty members of the respective Foreign University.
- c. In the 8th semester, all or a subset of these students may conduct their Senior Design Research(Major Project) at Foreign University or at DTU under joint supervision of the his/her respective faculty advisor and supervisor from Foreign University.
 - i. For the DTU UG students conducting 8th semester research at Foreign University, the semester fees at the Foreign University, travel expenditure and the expenditure towards cost of living etc shall be met by respective student or may be met from the research grants available with DST/CSIR and other Government agencies. DTU will help the deserving students to interface with banks for facilitation of educational loan for such purpose.
 - ii. The DTU UG students selected for the said program under the collaboration with Foreign Universities may have to finish their course work requirements by the 7th semester.

my

- 470
- iii. Under MoU the request may be made to the Foreign Universities to treat the DTU students at par with the "In-state" candidate, where the fees for the semester are very nominal. Further the Foreign University may give a certificate of the successful conduct of Senior Design Research(Major Project) at the respective Foreign University.

Benefit of the collaboration –

- i. Exposure to international level research,
- ii. Possibility of transitioning eventually to R&D positions in India,
- iii. Betterment of chances in getting admission to MS degree program at Foreign Universities.
- iv. Long term interactions and collaborations regarding research and teaching.

2. Post Graduate/Doctorate/Post Doctorate Collaboration –

PG Student Exchange Mechanism-

1. PG students at DTU visit Foreign University for the final (IV) semester to conduct their Major Project-II (Thesis Research Work) –
 - a. In the 2nd semester, DTU PG students will submit propositions for Major Project-II to respective coordinator of the Department, who will down select to size the number of students to fit into the terms and conditions of the MoUs. The propositions for these students (along with their CV) will be reviewed jointly by Foreign University and DTU faculty engaged in identified areas of research to further down size the list students for actual exchange.
 - b. In the 3rd semester, these students will initiate their Major Project problem under the joint supervision of the DTU and the faculty members of the respective Foreign University.
 - c. In the IV semester, all or a subset of these students may conduct their Thesis Research Work (Major Project-II) at Foreign University or at DTU under joint supervision of the his/her respective faculty advisor and supervisor from Foreign University.
 - i. For the DTU PG students conducting IVth semester research at Foreign University, the semester fees at the Foreign University, travel expenditure and the expenditure towards cost of living etc shall be met by respective student or may be met from the research grants available with DST/CSIR and other Government agencies. DTU will help the deserving students to interface with banks for facilitation of educational loan for such purpose. However, they will continue to get their GATE scholarship as usual.

- 3/c
- ii. The DTU PG students selected for the said program under the collaboration with Foreign Universities may have to finish their course work requirements by the 3rd semester.
 - iii. Under MoU the request may be made to the Foreign Universities to treat the DTU students at par with the "In-state" candidate, where the fees for the semester are very nominal. Further the Foreign University may give a certificate of the successful conduct of Thesis Research Work(Major Project-II) at the respective Foreign University.

Benefit of the collaboration –

- i. Exposure to international level research,
- ii. Possibility of transitioning eventually to R&D positions in India,
- iii. Joint research publications and IPRs
- iv. Betterment of chances in getting admission to PhD degree program at Foreign Universities.
- v. Long term interactions and collaborations regarding research and teaching.

Doctoral Student Exchange Mechanism –

- a. On an average about 20-30 Ph.D. students are graduated per year, DTU with an average Ph.D. completion time of around 4-5 years.
- b. Given this backdrop, the possibility of exchange exists, that, a DTU student spends the 1st and 2nd year at DTU and spends the 3rd and the 4th year at Foreign University. And, finally the student return back to DTU to write the thesis and submit the same for possible award of the degree. It is anticipated that the Ph.D. student on the Foreign University will participate in an internship and joint workshop at DTU during the course of his/her studies.
- c. The funding (travel support and stipend) for the DTU student may be provided through different schemes under UGC/CSIR and schemes of the Government of India, different schemes under MoU signed between GoI and the respective Govt. of the particular country. The DTU shall support only to the extent of the scholarship amount being disbursed to the research scholars, in case the candidate fails to get the funding from any other sources. The funding for the students from Foreign Universities are expected to be provided by federal grants and India centric grants instituted by the different countries.

Benefits of the collaboration –

- i. Exposure to international level research,

- 4 - 4 - 5 -

- 07/2
- ii. Possibility of students to transition eventually to R&D and faculty positions in India,
 - iii. Joint publications in reputed journals,
 - iv. Patents with international reach,
 - v. Sustainable long – term research partnerships,
 - vi. Getting benefit of Joint advising

Under the MoU the Foreign University shall acknowledge by awarding the certificate for conduct of research at their University and also shall provide the certificate from the co-supervisor for conduct of the thesis research work in their lab at the respective Foreign University.

Post Doctoral Student Exchange

- a. Post Doctoral DTU student spends the 1st year at DTU and spends the 2nd year at Foreign University. And, finally the student return back to DTU to write the report over the research hypothesis and submit the same at both the Universities. Both DTU and the Foreign University shall acknowledge the post doctoral research work done by the candidate through award of certificate jointly.
- b. The funding (travel support and stipend) for the DTU student may be provided through different schemes under UGC/CSIR and schemes of the Government of India, different schemes under MoU signed between GoI and the respective Govt. of the particular country. The DTU shall support only to the extent of the scholarship amount being disbursed to the post doctoral research scholars, in case the candidate fails to get the funding from any other sources. The funding for the students from Foreign Universities are expected to be provided by federal grants and India centric grants instituted by the different countries.

Benefits of the collaboration –

- i. Exposure to international level research,
- ii. Possibility of students to transition eventually to R&D and faculty positions in India,
- iii. Joint publications in reputed journals,
- iv. Patents with international reach,
- v. Sustainable long – term research partnerships,
- vi. Getting benefit of Joint advising
- vii. Technology to Product level work as potput-Technology Know-how

3. Faculty Collaboration –

1. Large – scale joint proposals with funding coming to DTU and Foreign Universities from host agencies (e.g., NSF, DOE, DST, MNRE).
2. Short – and long – term visiting faculty for research and teaching (DTU faculty can be supported by Govt. of India; Foreign University faculty supported by either some – India centric funds under MoU signed between GoI and the respective Govt. of the particular country. or some Foreign federal funds.
3. Indian faculty visiting the Foreign University may be given short teaching assignment for sustenance in the Foreign for carrying out the research work against the vacant position/ visiting fellows/adjunct faculty. Whereas, at DTU the faculty from Foreign University shall be treated as visiting fellow and shall be given honorarium as per the norms followed under UGC/CSIR/DST and Govt. of India.
4. Brainstorming and research outcome workshop every other year at Foreign University and at DTU (for instance, with support from GIAN for Foreign faculty).
5. Joint publications and patents with global reach.

Long Term Sustenance of the Collaboration

The goal is to establish at least one research centre each in Electrical Engg, Electronics & Communication Engineering, Mechanical Engg, Civil Engg, Bio-Technology and Computer Engg.

These centres shall undertake the research projects to develop new products, processes, analyse the existing infrastructure, developing system for the optimal use of resources in favour of productivity from faculty, students and researchers.

The University will also explore the best model for collaboration for adaptation of best practices of incubation centres existing with the foreign universities after entering into possible MoU on case to case basis.

Course Objectives

The main objective of the course is to

- To understand the building blocks of communication system.
- To understand and analyze the various information sources and measurement of information content.
- To analyze error performance of a digital communication system in presence of noise and other interferences.
- To understand concept of spread spectrum communication system.
- Provide student with theoretical background and applied knowledge so that they can design an optimum Single and multi-carrier communication system under given power, spectral and error performance constraints.

Course Outcomes

At the end of the course, student should be able

- Analyze the design parameters of a single and multi-carrier communication system.
- Use probability theory and stochastic processes in communication system applications.
- Analyze Performance of spread spectrum communication system.

Course Contents:

Unit	Topics	Contact Hours
1	Introduction: Introduction to analog and digital communication systems, communication channels and their characteristics, mathematical models for communication channels, deterministic and random signal analysis, baseband, band-pass and equivalent low-pass signal representations, orthogonal expansion of signals. Introduction to Random Variables, Functions of Random Variable, Some useful Distributions, Stochastic Processes.	08
2	Information sources and source coding: Modelling of Information Sources, Measure of Information, Joint and Conditional Entropy, Source-Coding Theorem, Source-Coding Algorithms, The Huffman Source-Coding Algorithm, The Lempel-Ziv Source-Coding Algorithm, Rate-Distortion Theory, Mutual Information, Differential Entropy, Rate-Distortion Function, Quantization, Scalar Quantization, Vector Quantization, Waveform Coding, Pulse-Code Modulation (PCM), Differential Pulse-Code Modulation (DPCM), Delta Modulation, Analysis-Synthesis Techniques.	08
3	Digital modulation Schemes: Gram Schmidt orthogonilazation procedure, Representations of digitally modulated signals, memory less modulation methods, PAM, PM, QAM, multidimensional signalling, Signalling scheme with memory,	08

	CPFSK, CPM, Power spectrum of Digitally modulated signals, PSD of a digitally modulated signals with memory, PSD of linearly modulated signals.	
4	Optimum Receivers for AWGN Channels: Correlation demodulator, Matched filter demodulator, optimum detector, maximum likelihood sequence detector, A symbol by symbol MAP detector for signals, Probability of error calculations for binary modulation, M-ary PAM, M-ary PSK, QAM, orthogonal signals, bi-orthogonal signals. Optimum	06
5	Multicarrier Modulation Techniques: Multipath & fading in wireless communication systems, Doppler spread, delay spread, OFDM Vs (TDM, FDM, CDMA), building blocks of OFDM transmitter & receiver, OFDM applications, direct sequence spread spectrum signals (DS-SS), frequency hopped spread spectrum signals (FH-SS), introduction to multicarrier (MC) DS-CDMA and time hopping TH/MC-CDMA	06

Books:

- **Text**

1. Proakis, John G. and Salehi, "Communication Systems Engineering" PHI Learning Private Limited 2nd Edition.
2. Bernard SKLAR: "Digital communications", Pearson, 2nd Edition.

- **Reference**

1. Simon Haykin: "Digital communications", Wiley Publications
2. B.P Lathi and Zhi Ding "Modern Analog & Digital Communication Systems", Oxford Publication, 4th Edition.

R. Pandey *Indira* *Kiclipalady* *6/10/9*
ADRI *NEETAN*

Course Syllabus
EC – Advanced Microwave Circuit Design

Department: Electronics and Communication Engineering
Course Number: EC
Course Title: Advanced Microwave Circuit Design
Credit Units: 3

Course Description

In-depth analysis of microwave devices and their applications with microwave integrated circuits designs are discussed. Practical design issues of microwave circuits will be emphasized. Materials, mask layout and fabrication techniques of microwave integrated circuits will also be treated. Apart from this the new technologies such as EBG structure's metamaterials etc will be introduced, its design aspects and fabrication etc. will be dealt with. The industry standards to be maintained for the above will be discussed.

Prerequisite by Topic

Students taking this course should have senior or graduate standing in electronics and communication engineering. Specifically students should be familiar with analysis and design techniques of basic RF circuits as well as microwave frequency electronic devices (particularly diodes and transistors) and related circuits. Understanding phasors and their application in transmission lines and microwave circuits, basic microwave circuit elements, circuit theorems, poynting theorem and vector, average power, effective and complex power, analyzing and solving linear microwave circuits is the main prerequisite for taking this course.

Text, References & Software

Recommended Text:

"Microwave Solid State circuit Design," I. Bahl and P. Bhartia, Wiley Interscience, 1998.

Additional References:

1. Microwave Solid-State Circuits and Applications, K. Chang, New York: John Wiley & Sons, 1994
2. Microwave Circuit Analysis and Amplifier Design, S. Y. Liao, Upper Saddle River, : Prentice Hall, 1987
3. "Microwave Transistor Amplifiers, Analysis and Design", G. Gonzalez, 2nd edition, Prentice Hall, 1997.
4. "Microwave Engineering", D. M. Pozar, 2nd edition, Wiley & Sons, 1998.
5. Wiley: RF MEMS: Theory, Design, and Technology - Gabriel M. Rebeiz
6. Metamaterials with Negative Parameters: Theory, Design and Microwave Applications : Ricardo Marqués, Ferran Martín, Mario Sorolla
7. Wiley: Electromagnetic Compatibility Engineering - Henry W. Ott
8. Metamaterials Theory, Design, and Applications: Cui, Tie Jun, Smith, David, Liu, Ruopeng

Software:

Microwave based softwares such as ADS, CST, IE3D, EMPro, HFSS etc..

Indresh *SPR* *Plaudy* *neetha*

Course Objectives – After completing this course the students should be able to:

1. Understand microwave distributed circuit elements with analysis, circuits and characterization techniques with matching networks..
2. Apply the ZY Smith chart stability criteria to design microwave matching networks.
3. Design of microwave devices such as power amplifiers, power dividers detectors, mixers etc.
4. Understand microwave integrated circuits (MICs) and processing techniques.
5. Understanding of new technologies such as EBG structures and metamaterials.
6. Modelling of MEMS devices and analysis of MEMS circuits.
7. Overview of industrial practices for manufacturing of microwave circuits.

Topics Covered/Course Outline

Unit I: IMPEDANCE TRANSFORMATION AND MATCHING

Impedance Matching with Reactive Elements and Lumped Elements, Design of Complex Impedance Terminations, Transformers (Quarter-Wave, Binomial, Chebyshev), Tapered Transmission Lines (Exponential Taper, Taper with Triangular Distribution), Power amplifiers, Power Dividers and Couplers (odd-even mode analysis).

Unit II: MICRO-ELECTRO-MECHANICAL SYSTEMS

Modelling of MEMS devices (Static and Dynamic analysis), MEMS switch circuits (Design, Reliability, Power Handling), MEMS varactors, tunable oscillators and reconfigurable subsystems, Phase Noise Analysis

Unit III: EBG STRUCTURES AND METAMATERIALS

EBG structures: - Introduction and numerical methods, Hypothesis and Floquet Bloch Transform with Decomposition of Initial Problem, Theory Analysis and Application of artificial ground plane.

Metamaterials: - (ENG, MNG, DNG) metamaterials, Homogenization of structured materials and modeling, Transmission lines media with negative refractive index, CRLH transmission, Metamaterials Couplers and Resonators

Unit IV: EMI/EMC

Designing of electromagnetic compatibility, Cabling, Grounding, Balancing and Filtering, Passive and Active devices' noise, Digital Circuit Radiation, Pre-compliance Measurements' Test procedures and cautions.

Relationship to Program Outcomes

This supports the achievement of the following outcomes:

- a) Ability to apply knowledge of advanced principles to the analysis of microwave engineering problems.
- b) Ability to apply knowledge of advanced techniques to the design of microwave engineering systems.
- c) Ability to apply the appropriate industry practices, emerging technologies, state-of-the-art design techniques, software tools, and research methods of solving microwave engineering problems.
- d) Ability to learn new breakthrough technologies that are required to solve problems in industry without being dependent on a classroom environment.
- e) Ability to be competitive in the engineering job market or be admitted to an excellent Ph. D. program.

Prepared by:

Dr. N. S. Raghava

May, 8th 2017

— 11 —

Indira Raghava N. S. Raghava

ACADEMIC CALENDAR (2017-18)

ODD SEMESTER

20.07.2017 to 27.07.2017 : Filling of online registration forms by all students for

UG : III, V and VII Semester regular courses and /or back papers / improvements/re-registration as applicable including all Ex-Students.

PG: III Semester regular /back papers as applicable including all Ex- students

PhD: Continuing PhD students/scholars

01.08.2017 (Tue)

: On campus registration in person by all UG and PG students (except I semester students), continuing PhD students/scholars & all Ex-Students (*for back papers, improvements, re-registration*). Teaching starts for UG: III, V and VII Semester courses; PG: III Semester courses.

02.08.2017(Wed)

: Vice Chancellor's Address to newly admitted Students (Forenoon); Registration of first year students (Afternoon) and teaching starts from 03.08.2017.

16.08.2017(Wed)

: Last date of registration of the courses, addition/deletion of courses for all regular and Ex-students (*except those students whose admission is confirmed later to this date*).

Supplementary Examination: 14th August 2017 (Monday) onwards

22.09.2017(Fri)

: Mid Term notification of shortage of attendance.

MID Semester Examination: 25th Sept-30th Sept 2017 (Monday-Saturday)

Notification of Make up for MID Semester Examination: 16th Oct-20th Oct 2017 (Monday-Friday)

10.11.2017 (Fri)

: Teaching ends for all classes; Display of marks and shortage of attendance

END Semester Theory & Practical Examination: 13.11.2017 (Monday) onwards

05.12.2017 (Tue)

: Grade moderation and display of grades for I, III and V semester (UG) courses.

06.12.2017 to 01.01.2018

: *Winter Vacation, Workshop Training, Survey Camp, Industrial Training*

22.12.2017 (Fri)

: Declaration of End semester results

EVEN SEMESTER

23.12.2017 to 01.01.2018 : Filling of online registration forms by all UG, PG and Ph.D. students including Ex-Students (*for back papers, improvements re-registration*).

02.01.2018(Tue)

: On campus registration in person by all students including Ex-Students (*for back papers, improvements, re-registration*) by submitting copy of online registration form & Teaching starts for all classes.

16.01.2018(Tue)

: Last date of registration for all students, including Ex-students.

Supplementary /Makeup Examination: 15th Jan 2018 (Monday) onwards

02.03.2018 (Fri)

: Mid Term notification of shortage of attendance

MID Semester Examination: 05th March -10th March, 2018 (Monday-Saturday)

Notification of Make up for MID Semester Examination 26th March-30th March, 2018 (Monday-Friday)

27.04.2018(Fri)

: Teaching ends for all classes; Display of sessional marks and shortage of attendance.

END Semester Theory & Practical Examination: 30.04.2018 (Monday) onwards

31.05.2018 (Thu)

: Grade moderation & display of grades for II,IV and IV semester (UG) courses.

01.06.2018 (Fri)

: Summer Vacation, Workshop Training, Industrial Training

15.06.2018 (Fri)

: Declaration of End semester results *except Major Project-II* for PG program.

31.07.2018 (Tue)

: University reopens after summer vacation

1. Technical Fest

: 13th -15th Feb, 2018 (Tuesday to Thursday)

2. Engifest

: 15th -17th Feb, 2018 (Thursday-Saturday)

3. Sports Meet

: 23rd -25th March 2018 (Friday to Sunday)



Syllabus and Scheme of Examination

Master of Business Administration (MBA)

**Delhi School of Management
Delhi Technological University**

Preamble: MBA programme was started in University in 2009 and last revision of the course was carried out in 2012. In view of the changing paradigms of industry, government and business practices, growing complexity and dynamism in business environment, growing integration of technology in business decision making, emergence of new business and organizational structures and the evolving expectations of key stakeholders viz. recruiters, students, industry, society and nation. It takes into account the changing national priorities and the intense impact of globalization on business practices. Specifically, the triggers for revamping are: improvement in the application oriented thinking, focus on group activities, experiential learning, sensitization towards cross cultural skill sets, application of technology tools, conversant with necessary and new age analytical-quantitative tools and techniques, faculty and experts from industry were of the considered opinion that a thorough revision of the course be carried out. This will lead to enhancement of the abilities and skills of the students in tune with the industry needs.

Programme Objectives: The MBA program equips students with the knowledge, analytical ability and attitudes towards new paradigms of management. This will enable students acquire skill sets which will help them gain perspectives and skills needed to provide business leaders to organization. Specifically the objectives of the programme are to:

- Equip the students with requisite knowledge, skill set(technological and behavioural).
- Develop effective leadership in changing global business scenario.
- Develop proactive and critical thinking in dynamic business environment.
- Sensitize participants towards ethical values and national priorities.

Criteria for Assessment

All theory courses shall have internal weightage of 40% (20% + 20%) and 60% weightage for written end semester examination. The internal assessment of the students (out of 40 marks) shall be as per the criteria given below:

1. **Mid semester examination** **-20%**
Written Test Compulsory (to be conducted on the date
Communicated by the Dept)
2. **Individual Presentation/Viva-Voce/Group Discussion/Class Participation** **-20 %**
3. **End Semester Written Examination will be conducted by the University** **which shall**
have weightage of **60%**
4. Each candidate for his/her Summer internship (100 marks) and project report (200 marks) shall be
valuated by presentation and viva voce.

Note: All record shall be maintained by each faculty and made available to the examination branch of the University through department/ centre coordinator.



DELHI SCHOOL OF MANAGEMENT DELHI TECHNOLOGICAL UNIVERSITY

Master of Business Administration

First Semester

Course Code	Name of the Course	Nature of Course	Workload			Marks for		Total Marks	Credits
			L	T/P	Total	IA	ESE		
MGT-11	Management Process and Organizational Behavior	Core	4	-	4	40	60	100	4
MGT-12	Financial Accounting and Cost Accounting	Core	4	-	4	40	60	100	4
MGT-13	Marketing Management	Core	4	-	4	40	60	100	4
MGT-14	Managerial Economics	Core Course	4	-	4	40	60	100	4
MGT-15	Decision Sciences	Core	4	-	4	40	60	100	4
MGT-16	Legal Aspects of Management	Core Course	4	-	4	40	60	100	4
MGT-17	Business Communication	Soft Core	4		4	40	60	100	4
MGT-18	Data Analysis Lab	Soft Core	-	2	2	50	-	50	2
Total			28	2	30				30
Following course shall also be offered by DSM for other departments as open electives during the semester: <ul style="list-style-type: none"> • MGT-11 Management Process and Organizational Behavior • MGT-13 Marketing Management • MGT-16 Legal Aspects of Management 									

Note: There will be at least one Industrial Visit in the 1st year either in the First Semester or Second Semester for the Students. The students will be required to submit a report and present the same to their Industrial Visit In-Charge.



DELHI SCHOOL OF MANAGEMENT DELHI TECHNOLOGICAL UNIVERSITY

Master of Business Administration

Second Semester

Course Code No.	Paper	Nature of Course	Workload			Marks for		Total Marks	Credits
			L	T/P	Total	IA	ESE		
MGT-21	Human Resource Management	Core	4	-	4	40	60	100	4
MGT-22	Financial Management	Core	4	-	4	40	60	100	4
MGT-23	Business Research Methods	Core	4	-	4	40	60	100	4
MGT-24	Business Environment	Core	4	-	4	40	60	100	4
MGT-25	Knowledge and Intellectual Capital Management	Core	4	-	4	40	60	100	4
MGT-26	Operations and Supply Chain Management	Core	4	-	4	40	60	100	4
MGT-27	Management Accounting	Core	2		2	40	60	100	2
MGT-28	Information Technology and Innovation Management	Core	4			40	60	100	4
MGT-29	#NCC/NSS/Sports/Dramatics/Yoga(NUES)	Open elective	-	2	2	50	-	50	2
Total			30	2	32				32

These course shall also be offered by DSM for other departments as open electives during the semester:

- MGT-21 Human Resource Management
- MGT-22 Financial Management
- MGT-24 Business Environment

NUES: Non University Exam System

Note: Summer Internship: The students are required to undertake a Summer Internship Project (SIP) for 6-8 weeks duration at the end of second semester.



DELHI SCHOOL OF MANAGEMENT
DELHI TECHNOLOGICAL UNIVERSITY
Master of Business Administration
Third Semester

Code No.	Paper	Category	Workload			Marks for		Total Marks	Credits
			L	T/P	Total	IA	ESE		
MGT-31	Business Analytics	Core	2	-	2		50	50	2
MGT-32	Corporate Governance	Core	2	-	2		50	50	2
MGT-33	Strategic Management	Core	4	-	4	40	60	100	4
	Elective-I	Two papers each from the same specialization	4	-	4	40	60	100	4
	Elective-II		4	-	4	40	60	100	4
	Elective-III		4	-	4	40	60	100	4
	Elective-IV		4	-	4	40	60	100	4
MGT-34	Summer Internship Report	Skill Based	-	-	-	-	-	100	4
MGT-35	Managerial Skills Development (NUES)	Skill Based	-	2	2	50	-	50	2
Total			24	2	26				30
These course shall also be offered by DSM for other departments as open electives during the semester: <ul style="list-style-type: none"> • MGT-32 Corporate Governance • MGT-33 Strategic Management 									

NUES: Non University Exam System



DELHI SCHOOL OF MANAGEMENT
DELHI TECHNOLOGICAL UNIVERSITY
Master of Business Administration
Fourth Semester

Code No.	Paper	Category	Workload			Marks for		Total Marks	Credits
			L	T/P	Total	IA	ESE		
MGT-41	Project Management	Core	4	-	4	40	60	100	4
MGT-42	Entrepreneurship Development	Core	2	-	2	40	60	100	2
MGT-43	Business Intelligence	Core	2	2	4	40	60	100	2
	Elective-I	Two papers each from the same specialization	4	-	4	40	60	100	4
	Elective-II		4	-	4	40	60	100	4
	Elective-III		4	-	4	40	60	100	4
	Elective-IV		4	-	4	40	60	100	4
MGT-44	Major Research Project	Skill Based	-	2	2	-	-	200	6
MGT-45	Emotional Intelligence and Managerial Effectiveness(NUES)	Skill Based	-	2	2	50	-	50	2
Total			24	4	28				32
These course shall also be offered by DSM for other departments as open electives during the semester: <ul style="list-style-type: none"> • MGT-41 Project Management • MGT-42 Entrepreneurship Development 									

NUES: Non University Exam System

List of Electives

Finance

Semester: III

- MGF- 01 Investment Management
- MGF-02 Tax Planning and Management
- MGF-03 Investment Banking and Financial Services
- MGF-04 Financial Markets and Institutions
- MGF-05 International Financial Management

Semester: IV

- MGF-06 Corporate Mergers, Acquisitions and Restructuring
- MGF-07 Derivatives and Risk Management
- MGF-08 Financial Modeling and Analysis
- MGF-09 Management Control Systems
- MGF-10 Strategic Cost Management

Human Resource Management

Semester III

- MGH-01 Industrial Relations & Labour Legislation
- MGH-02 Compensation Management
- MGH-03 Organizational Development
- MGH-04 Strategic Human Resource Management
- MGH-05 Changing Paradigms in Leadership

Semester IV

- MGH-06 Cross Cultural and International Human Resource Management
- MGH-07 Performance Management
- MGH-08 Training and Development

- MGH-09 Interpersonal Processes and Counseling Skills for Managers
- MGH-10 Team Building

Marketing

Semester: III

- MGM-01 Consumer Behavior
- MGM-02 Advertising and Brand Management
- MGM-03 Rural and Social Marketing
- MGM-04 International Marketing
- MGM-05 Sales and Distribution Management
- MGM-06 Marketing Research

Semester IV

- MGM-07 Retail Management
- MGM-08 Promotion Management and Business 2 Business Marketing
- MGM-09 Marketing of Services
- MGM-10 Digital Marketing
- MGM-11 Customer Relationship Management
- MGM-12 Entrepreneurial Marketing and Sales

IT Management

Semester: III

- MGI-01 Business Process Reengineering and Change Management
- MGI-02 Business Systems Analysis and Design
- MGI-03 Database Management System
- MGI-04 Data Warehousing and Online Analytical Process
- MGI-05 E-Business
- MGI-06 Knowledge Management and Big Data (Common to Knowledge Management Specialization)

Semester: IV

- MGI-07 E-Governance

- MGI-08 Strategic Telecommunications Management
- MGI-09 Knowledge and Innovation Management
- MGI-10 E-Learning and Knowledge Management(Common to Knowledge Management Specialization)
- MGI-11 KM Tools and E-Businesses(Common to Knowledge Management Specialization)

Knowledge Management

Semester: III

- MGK-01 Knowledge Creation, Critical Thinking and Innovation
- MGK-02 Knowledge Management and Big Data
- MGK-03 Knowledge Creation and Skill Development
- MGK-04 Business Intelligence and Knowledge Management
- MGK-05 Knowledge System Strategy and Development

Semester: IV

- MGK-06 Integrating Knowledge Management with Strategic Initiatives
- MGK-07 Advanced Knowledge Management Concepts
- MGK-08/ MGI-10 E-Learning and Knowledge Management
- MGK-09 Intellectual Property and Knowledge Capital
- MGK-10/ MGI-10 KM Tools and E-Businesses

Operations and Supply Chain Management

Semester: III

- MGS-01 SCM and E-Commerce
- MGS-02 Operations Analytics
- MGS-03 Logistics Planning and Strategy
- MGS-04 Total Quality Management
- MGS-05 Business Process Management and Change
- MGS-06 Computer Aided Design and Manufacturing

Semester: IV

- MGS-07 Supply Chain Strategy and Innovation
- MGS-08 Transportation and Distribution Management
- MGS-09 IT Applications in SCM
- MGS-10 Operations Research and Strategy
- MGS-11 Materials and Store Management

Syllabus and Scheme of Examination

**BACHELOR OF BUSINESS ADMINISTRATION
(BBA)**

Delhi School of Management

**Delhi Technological University
(East Delhi Campus)**

Preamble for Under Graduate Courses in Business Administration and Economics (H)

Government of NCT, Delhi is of considered opinion that a programme in Bachelor of Business Administration and Bachelor of Arts – Economics (H) be offered at East Campus of Delhi Technological University to deepen the reach and accessibility of quality education in these courses due to the shifting of Sukhdev and Rajguru College of Delhi University to Sector- 17, Rohini, so that people of the area are not deprived, and education needs are met. Due to growing demand, there is a felt need to expand the availability of these courses.

Course on Bachelor of Business Administration caters to the requirement of lower level executives who act as support to middle and senior level management. However, there is no linkage between BBA and MBA as far as academic progression because candidates are required to meet different conditiond to MBA course which is to develop budding for the trade, commerce and industry.

In the same vein, a course of the level of BA (H) in Economics is envisaged which can provide a take off to Masters, Industry and Business and Civil Services.

First Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 101	Principles of Management	Foundation Course – Compulsory	4	-	4
BBA 102	Business Mathematics	Core Discipline	4	-	4
BBA 103	Financial Accounting	Core Discipline	4	-	4
BBA 104	Business Economics	Core Discipline	4	-	4
BBA 105	Computer Application	Skill-based	4	-	4
BBA 106	Computer Application Lab	Skill-based	-	2	2
BBA 107	Generic Elective – I	Elective Course	4	-	4
		Total	20	2	22

Second Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 111	Business Environment	Core Discipline	4	-	4
BBA 112	Business Statistics & Operations Research	Core Discipline	4	-	4
BBA 113	Business Laws	Core Discipline	4	-	4
BBA 114	E-Commerce	Core Discipline	4	-	4
BBA 115	Business Communication	Core Discipline	2	-	2
BBA 116	E-Commerce-Lab	Skill-based	-	2	2
BBA 117	Generic Elective – II	Elective Course	4	-	4
		Total	22	2	24

Third Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 201	Organization Behavior	Core Discipline	4	-	4
BBA 202	Marketing Management	Core Discipline	4	-	4
BBA 203	Business Ethics and Corporate Social Responsibility	Core Discipline	4	-	4
BBA 204	Management Accounting	Core Discipline	4	-	4
BBA 205	Environmental Science* (NUES)	Skill-based	2	-	2
BBA 206	Generic Elective – III	Elective Course	4	-	4
		Total	22	-	22

*NUES: Non University Examination System

Fourth Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 211	Human Resource Management	Core Discipline	4	-	4
BBA 212	Business Policy & Strategy	Core Discipline	4	-	4
BBA 213	Research Methodology	Core Discipline	4	-	4
BBA 214	Management Information System	Core Discipline	4	-	4
BBA 215	Research Methodology – Lab	Skill Based	-	2	2
BBA 216	Generic Elective – IV	Elective Course	4	-	4
		Total	20	2	22

Note: At the end of the Fourth Semester all the students shall have to undergo Summer Training for Eight Weeks.

Fifth Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 301	Income-tax Law and Practice	Core Discipline	4	-	4
BBA 302	Financial Management	Core Discipline	4	-	4

BBA 303	Entrepreneurship Development	Core Discipline	4	-	4
BBA 304	Summer Training Report & Viva Voice	Skill-based	-	6	6
BBA 305	Discipline Specific Elective-I	Elective Course	4	-	4
BBA 306	Discipline Specific Elective-II	Elective Course	4	-	4
		Total	20	6	26

Sixth Semester

Code No.	Paper	Discipline	L	T/P	Credits
BBA 311	Project Management	Core Discipline	4	-	4
BBA 312	International Business Management	Core Discipline	4	-	4
BBA 313	Project Report and Viva-Voce	Skill-based	-	6	6
BBA 314	Discipline Specific Elective-III	Elective Course	4	-	4
BBA 315	Discipline Specific Elective-IV	Elective Course	4	-	4
		Total	16	6	22

Generic Elective / Interdisciplinary Course (Choose Any FOUR)

1. Entrepreneurship Development
2. Ethics & Corporate Social Responsibility
3. Tax Planning
4. Econometrics
5. Production & Operations Management
6. India's Diversity
7. Indian Economy
8. Digital Marketing Analytics

DISCIPLINE SPECIFIC ELECTIVE COURSE: A Student would be free to choose any FOUR papers from ONE group. The COURSE offers FOUR groups viz. Finance (DSE - I), Marketing (DSE - II), Human Resource (DSE - III) and Management of Global Business (DSE - IV)				
	DSE - I (Finance)	DSE - II (Marketing)	DSE - III (Human Resource)	DSE - IV (Management of Global Business)

1.	International Finance	Consumer Behaviour	HRD: Systems & Strategies	International Trade Policy & Strategy
2	Investment Banking & Financial Services	Personal Selling & Sales Force Management	Training & Development	Global Business Environment
3	Investment Analysis & Portfolio Management	Advertising & Brand Management	Management of Industrial Relations	Transnational & Cross Cultural Marketing
4	Project Appraisal	Retail Management	Performance & Compensation Management	International Distribution & Supply Chain Management
5	Business Analysis & Valuation	Distribution & Supply Chain Management	Counselling & Negotiation Skills for Managers	International Accounting & Reporting System
6	Financial Modelling & Derivatives	Marketing of Services	Cross Cultural HRM	Multinational Business Finance
7	Strategic Corporate Finance	International Marketing	Talent & Knowledge Management	International Joint Ventures, Mergers & Acquisitions

Criteria for Assessment

All theory courses have internal assessment of 25 marks and end semester examination of 75 marks.. For the courses related to projects, internal assessment is 50 marks and external examination is 50 marks. The courses related to Lab have 40 marks as internal assessment and 60 marks for external examination. The internal assessment of the students (out of 25 marks) will be done on the basis of following suggestive components: class Tests/ individual presentation/viva-voce/group discussion/ attendance etc.

The Project shall carry 100 marks i.e., marks equivalent to one course and it shall be pursued by every student under the supervision of one internal supervisor. The Internal Supervisor shall award marks out of 50 and the External Examiner shall award marks out of 50. The External Examiner shall be appointed by the University.

Scheme and Syllabus of Examination

BACHELOR OF ARTS (Honors) Economics

Delhi School of Management

Delhi Technological University

DELHI TECHNOLOGICAL UNIVERSITY
BACHELOR OF ARTS (Honors) Economics PROGRAMME

B.A. Hons. Economics(Three-Years)

First Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 101	Introductory Microeconomics	Core Discipline	5	1/0	6
BA 102	Mathematical Methods for Economics – I	Core Discipline	5	1/0	6
BA 103	Environmental Studies	Ability Enhancement Course	2	0	2
BA 104	Generic Elective– I	Elective Course	5	1/0	6
		Total	17	3	20

Second Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 111	Introductory Macroeconomics	Core Discipline	5	1/0	6
BA 112	Mathematical Methods for Economics – II	Core Discipline	5	1/0	6
BA 113	English Communication	Ability Enhancement Course	2	0	2
BA 114	Generic Elective– II	Elective Course	5	1/0	6
		Total	17	3	20

Third Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 201	Intermediate Microeconomics - I	Core Discipline	5	1/0	6
BA 202	Intermediate Macroeconomics - I	Core Discipline	5	1/0	6
BA 203	Statistical Methods for Economics	Core Discipline	5	1/0	6
BA 204	Ability Enhancement Elective-I	Ability Enhancement Course	2	0	2
BA 205	Generic Elective- III	Elective Course	5	1/0	6
		Total	22	4	26

Fourth Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 211	Intermediate Microeconomics – II	Core Discipline	5	1/0	6
BA 212	Intermediate Macroeconomics – II	Core Discipline	5	1/0	6
BA 213	Introductory Econometrics	Core Discipline	5	1/0	6
BA 214	Ability Enhancement Elective-II	Ability Enhancement Course	2	0	2
BA 215	Generic Elective- IV	Elective Course	5	1/0	6
		Total	22	4	26

Fifth Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 301	Indian Economy – I	Core Discipline	5	1/0	6
BA 304	Development Economics – I	Core Discipline	5	1/0	6
BA 305	Discipline Specific Elective Course - I *	Elective Course	5	1/0	6
BA 306	Discipline Specific Elective Course – II *	Elective Course	5	1/0	6
		Total	20	4	24

*From List of Group - I

Sixth Semester Examination

Code No.	Paper	Discipline	L	T/P	Credits
BA 311	Indian Economy – II	Core Discipline	5	1/0	6
BA 312	Development Economics – II	Core Discipline	5	1/0	6
BA 313	Discipline Specific Elective Course – III *	Elective Course	5	1/0	6
BA 314	Discipline Specific Elective Course – IV *	Elective Course	5	1/0	6
		Total	20	4	24

*From List of Group – II

General Elective – I

- (a) Financial Markets and Institutions
- (b) Financial Management
- (c) Financial Accounting

General Elective – II

- (a) Business Communication
- (b) Customer Relationship Management
- (c) Organizational Development

General Elective – III

- (a) Marketing Management
- (b) Sales and Distribution Management
- (c) Investment Management

General Elective –IV

- (a) Human Resource Management
- (b) Training and Development

(c) Compensation Management

Group-I Discipline Specific Elective (DSE)
(i) Economics of Health and Education
(ii) Applied Econometrics
(iii) Economic History of India (1857-1947)
(iv) Topics in Microeconomics-I
(v) Political Economy-I
(vi) Money and Financial Markets
(vii) Public Economics

Group-II Discipline Specific Elective (DSE)
(viii) Political Economy-II
(ix) Comparative Economic Development (1850-1950)
(x) Financial Economics
(xi) Topics in Microeconomics-II
(xii) Environmental Economics
(xiii) International Economics
(xiv) Dissertation/Project

Select Ability Enhancement Elective-I & II from the following:

Code	Name of Foundation Elective	LTP Allocation		
		L	T	P
AE01	Sports-I	0	0	2
AE02	Sports-II	0	0	2
AE03	NSS	0	0	2
AE04	NCC	0	0	2
AE05	Corporate Social Responsibility	2	0	0
AE06	Environment development and Society	2	0	0

AE07	Financial Literacy	2	0	0
AE08	Introduction to Indian society	2	0	0
AE09	Soft Skills and Personality Development	1	0	1
AE10	Business Communication	1	0	1
AE11	Theatre	0	0	2
AE12	Dance	0	0	2
AE13	Yoga	0	0	2
AE14	Digital Film Making	0	0	2
AE15	Music	0	0	2
AE16	Sociology of development	2	0	0
AE17	Universal Human Values 1: Self and Family	2	0	0
AE18	Universal Human Values 2: Self Society and Nature	2	0	0

Criteria for Assessment

All theory courses have internal assessment of 25 marks and end semester examination of 75 marks. For the courses related to projects, internal assessment is 50 marks and external examination is 50 marks. The courses related to Lab have 40 marks as internal assessment and 60 marks for external examination. The internal assessment of the students (out of 25 marks) will be done on the basis of following suggestive components: class tests/ individual presentation/viva-voce/group discussion/ attendance etc.

The Project shall carry 100 marks i.e., marks equivalent to one course and it shall be pursued by every student under the supervision of one internal supervisor. The Internal Supervisor shall award marks out of 50 and the External Examiner shall award marks out of 50. The External Examiner shall be appointed by the University.



Syllabus and Scheme of Examination

Master of Business Administration

with specialization in

Public Policy Management (PPM)

DELHI SCHOOL OF MANAGEMENT

DELHI TECHNOLOGICAL UNIVERSITY

(Weekend Mode)

PREAMBLE

The proposed course structure seeks to address the question of management of public policy in the context of social welfare. It encompasses courses on public policy and international trade and relations with attendant ramification. Therefore, it is proposed to start Master of Business Administration with specialization in Public Policy Management.

This course would be useful for civil servants, academicians, policy analysts, trade negotiators, public sector employees, who in their professional engagements are expected to analyze development and good governance issues and contribute to articulation of required policy response, its implementation and assessment. It will be useful for those who aspire to be policy makers and community leaders and understand the policy ramifications in the context of corporate enterprises.

A student will be able to identify key policy issues in his/ her area of engagement along with importance of context in policy making and implementation from a multi disciplinary perspective.

SCHEME OF EXAMINATIONS

— 38 —

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

MBA with specialization in PUBLIC POLICY MANAGEMENT

Criteria for Assessment

All theory courses shall have internal weightage of 40% (20% + 20%) and 60% weightage for written end semester examination. The internal assessment of the students (out of 40 marks) shall be as per the criteria given below:

1. **Mid semester examination** **-20%**
Written Test Compulsory (to be conducted on the date
Communicated by the Dept)
2. **Individual Presentation/Viva-Voce/Group Discussion/Class Participation** **-20 %**
3. **End Semester Written Examination will be conducted by the University**
which shall have weightage of
60%
4. Each candidate for his/her Summer internship and project report shall be evaluated by presentation and viva voce.

Note: All record shall be maintained by each faculty and made available to the examination branch of the University through department/ centre coordinator.

FIRST SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MP 101	Management Process & Organizational Behavior	3	-	3	Core
MP 102	Foundations of Public Policy	3	-	3	Core
MP 103	Decision Sciences	3	-	3	Core
MP 104	Public Financial Management	3	-	3	Core
MP 105	Written Analysis and Communication	3	-	3	Core
MP 106	Policy Analysis and Issues	3	-	3	Core
MP 107	Yoga and Meditation (NUES)**(2+1)	3	-	3	Skill Based
MP 108	E Governance	3	-	3	Skill based
MP109	Minor Project-I	-	4	4	
	Total	21	9	30	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

**Seminar Course, Seminar to be given by each student

SECOND SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MP 201	Knowledge Creation, Critical Thinking and Innovation	3	-	3	Core & Inter Disciplinary
MP 202	Financial Management in Government	3	-	3	Core
MP 203	Public Human Resource Management	3	-	3	Core
MP 204	Negotiation and Conflict Resolution	3	-	3	Core & Inter Disciplinary
MP 205	Marketing Management	3	-	3	Core
MP 206	Public Policy and Economic Analysis	3	-	3	Core & Inter Disciplinary
MP 207	Public Sector Management	3	-	3	Skill Based
MP 208	Business Analytics (NUES) *	-	4	4	Skill Based
MP 209	Minor project based Seminar	-	1	1	Skill Based
	Minor Project II**	-	4	4	
	Total	21	9	30	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

** Minor project will be the outcome of internship for a period of 6-8 weeks which shall commence at the end of second semester and close before the beginning of third sem and report thereof shall be submitted to the department.

THIRD SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MP 301	Topics in Constitutionalism, Parliamentary Systems and Governance	3	-	3	Core
MP 302	Politics, Government and Public Policy	3	-	3	Core
MP 303	Entrepreneurship Development	3	-	3	Core
MP 304	International Relations and Foreign Policy	3	-	3	Core & Inter Disciplinary
MP 305	Territorial Governance and Regional Blocs	3	-	3	Elective
MP 306	Discipline Specific Elective – I	3	-	3	Elective
MP 307	Yoga and Meditation (NUES) *	2	-	2	Skill Based
	Seminar	1		1	
MP 308	Generic Elective – I	-	3	3	Skill Based
MP 309	Major Project-Policy Analysis Exercise	-	6	6	Skill Based
	Total	21	9	30	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

FOURTH SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MP 401	Public Policy Strategy	3	-	3	Core
MP 402	Project Management	3	-	3	Core
MP 403	Public Policy Evaluation	3	-	3	Core
MP 404	Generic Elective – II	3	-	3	Elective
MP 405	Discipline Specific Elective – II	3	-	3	Elective
MP 406	Discipline Specific Elective – III	3	-	3	Elective
MP 407	Yoga and Meditation (NUES) *	2	-	2	Skill Based
	Seminar	1		1	
MP 408	Policy Based Seminar (NUES) *	-	3	3	Skill Based
MP 409	Major Project-II	-	6	6	Skill Based
	Total	21	9	30	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

Discipline Specific Electives (Choose any three of the following)

1. Information and Communications Technology Policy
2. Urban Planning Policy
3. Rural Development Policy
4. Agricultural and Food Policy
5. Environmental and Public Policy
6. Science and Public Policy
7. Law and Public Policy
8. Health and Public Policy
9. Social Policy
10. Foreign Policy
11. Corporate Mergers, Acquisitions and Restructuring
12. Financial Derivatives and Risk Management
13. Management Control Systems
14. Management Accounting
15. Financial Markets and Institutions

Generic Electives (Choose any two from the group)

1. Compensation Management
2. Industrial Relations and Labour Legislation
3. Training and Development
4. Business Systems Analysis and Design
5. Enterprise Systems
6. Network Applications and Management
7. Database Management System
8. International Financial Management
9. Investment Banking and Financial Services
10. Investment Management
11. Entrepreneurship, Creativity and Innovation
12. Financing the Entrepreneurial Business
13. Corporate Governance
14. Total Quality Management
15. Logistics Planning & Strategy
16. Operations Research and Strategy

Syllabus and Scheme of Examination

**DELHI SCHOOL OF
MANAGEMENT**

**DELHI TECHNOLOGICAL
UNIVERSITY (East Delhi Campus)**

**Master of Business Administration
(Business Analytics)**

SCHEME OF EXAMINATIONS

DELHI TECHNOLOGICAL UNIVERSITY, DELHI

MASTER OF BUSINESS ADMINISTRATION (MBA)

BUSINESS ANALYTICS

Criteria for Assessment

All theory courses have internal assessment of 40 marks and End Semester Examination of 60 marks. For the courses related to projects, internal assessment is 40 marks and external examination is 60 marks. The courses related to Lab have 40 marks as internal assessment and 60 marks for external examination.

The internal assessment of the students (out of 40 marks) shall be as per the criteria given below:

1. **Mid semester examination** **20 marks**
Written Test Compulsory (to be conducted on the date
Communicated by the University)

2. **Individual Presentation/Viva-Voce/Group Discussion/Class Participation** **20 marks**

Note: Record should be maintained by faculty and made available to the examination branch of the University.

-44-

FIRST SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 101	Management Process & Organizational Behaviour	4	-	4	Core
MB 102	Marketing Management	4	-	4	Core
MB 103	Business Research Methods	4	-	4	Core
MB 104	Financial Accounting & Cost Analysis	4	-	4	Core
MB 105	Managerial Economics	4	-	4	Core
MB 106	Business Communication	2	-	2	Core
MB 107	Introduction to Business Analytics	4	-	4	Core
MB 108	Database Management Systems	4	-	4	Core
MB 109	Data Visualization Lab	-	2	2	Skill Based
	Total	30	2	32	

SECOND SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 201	Human Resource Management	4	-	4	Core
MB 202	Knowledge Creation, Critical Thinking and Innovation	4	-	4	Core
MB 203	Financial Management	4	-	4	Core
MB 204	Data Warehousing and Data Mining	4	-	4	Core
MB 205	International Marketing	4	-	4	Core
MB 206	Operations and Supply Chain Management	2	-	2	Core
MB 207	Predictive Modeling	4	-	4	Core
MB 208	Changing Paradigm in Leadership	2	-	2	Skill Based
MB 209	Predictive Analytics Lab	-	2	2	Skill Based
	Total	28	2	30	

-45-

THIRD SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 301	Summer Internship	-	2	2	Skill Based
MB 302	Machine Learning	4	-	4	Core
MB 303	Big Data Analytics	4	-	4	Core
MB 304	R for Machine Learning	-	4	4	Skill Based
MB 305	Big Data Analytics Lab	-	2	2	Skill Based
MB 306	Generic Elective – I	4	-	4	Elective
MB 307	Generic Elective – II	4	-	4	Elective
MB 308	Discipline Specific Elective – I	4	-	4	Elective
MB 309	Discipline Specific Elective – II	4	-	4	Elective
	Total	24	8	32	

FOURTH SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 401	Project Dissertation	-	8	8	Skill Based
MB 402	Enterprise Performance Management	4	-	4	Core
MB 403	Entrepreneurship Development	4	-	4	Core
MB 404	Project Management	4	-	4	Core
MB 405	Generic Elective – III	4	-	4	Elective
MB 406	Discipline Specific Elective – III	4	-	4	Elective
MB 407	Discipline Specific Elective – IV	4	-	4	Elective
	Total	24	8	32	

- 46 -

Discipline Specific Electives (Choose any four from the group)

S. No.	Paper	L	T/P	Credits	Distribution of Course
1	Advanced Machine Learning	4	-	4	Elective
2	Marketing Analytics	4	-	4	Elective
3	Pricing Analytics	4	-	4	Elective
4	Financial Analytics	4	-	4	Elective
5	Retail Analytics	4	-	4	Elective
6	HR Analytics	4	-	4	Elective
7	Time Series Analysis	4	-	4	Elective
8	Social Media and Web Analytics	4	-	4	Elective
9	Healthcare Analytics	4	-	4	Elective
10	Operations and Supply Chain Analytics	4	-	4	Elective
11	Data Management and Ethics	4	-	4	Elective
12	Digital Marketing Analytics	4	-	4	Elective
13	Weather Analytics	4	-	4	Elective
14	Security Analytics	4	-	4	Elective

Generic Electives (Choose any three from the group)

S. No.	Paper	L	T/P	Credits	Distribution of Course
1	Compensation Management	4	-	4	Elective
2	Industrial Relations and Labour Legislation	4	-	4	Elective
3	Training and Development	4	-	4	Elective
4	Internet of things	4	-	4	Elective
5	Natural Language Processing	4	-	4	Elective
6	Semantic Web & Web Mining	4	-	4	Elective
7	International Financial	4	-	4	Elective

-47-

	Management				
8	Managing Financial Institutions and Markets	4	-	4	Elective
9	Security Analysis and Portfolio Management	4	-	4	Elective
10	Knowledge and Innovation Management	4	-	4	Elective
11	Financing the Entrepreneurial Business	4	-	4	Elective
12	Corporate Governance	4	-	4	Elective
13	Total Quality Management	4	-	4	Elective
14	Logistics Planning and Strategy	4	-	4	Elective
15	Operations Research and Strategy	4	-	4	Elective

-48-



Syllabus and Scheme of Examination

Master of Business Administration
(Family Business and Entrepreneurship)

**DELHI SCHOOL OF
MANAGEMENT**

**DELHI TECHNOLOGICAL
UNIVERSITY (East Delhi Campus)**

Criteria for Assessment

All theory courses shall have internal weightage of 40% (20% + 20%) and 60% weightage for written end semester examination. The internal assessment of the students (out of 40 marks) shall be as per the criteria given below:

1. **Mid semester examination** **-20%**
Written Test Compulsory (to be conducted on the date
Communicated by the Dept)
2. **Individual Presentation/Viva-Voce/Group Discussion/Class Participation**
-20 %
3. **End Semester Written Examination will be conducted by the University**
which shall have weightage of **60%**
4. Each candidate for his/her Summer internship and project report shall be evaluated by presentation and viva voce.

Note: All record shall be maintained by each faculty and made available to the examination branch of the University through department/ centre coordinator.

FIRST SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 101	Management Process & Organizational Behavior	4	-	4	Core
MB 102	Marketing Management	4	-	4	Core
MB 103	Decision Sciences	4	-	4	Core
MB 104	Financial Accounting & Cost Analysis	4	-	4	Core
MB 105	Managerial Economics	4	-	4	Core
MB 106	Business Communication	4	-	4	Core
MB 107	Entrepreneurship Development	4	-	4	Core
MB 108	Changing Paradigm in Leadership	2	-	2	Core
MB 109	Entrepreneurship Development Lab (NUES)*	-	2	2	Skill Based
	Total	28	4	32	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

SECOND SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 201	Human Resource Management	4	-	4	Core
MB 202	Management of Technology, Innovation and Change	4	-	4	Core
MB 203	Financial Management	4	-	4	Core
MB 204	Project Management	4	-	4	Core
MB 205	Business Research Methods	4	-	4	Core
MB 206	Business Environment	4	-	4	Core
MB 207	Operations and Supply Chain Management	4	-	4	Core
	Managerial Skills Development (NUES) * Current and Emerging Success Stories of Global and Indian Entrepreneurs *		2		Skill Based
MB 208		-	2	4	
	Total	28	4	32	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

THIRD SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB301	Summer Internship	-	2	2	Skill Based
MB302	Management of International Business	4	-	4	Core
MB303	Strategic Management	4	-	4	Core
MB304	Organization Development	4	-	4	Core & Inter Disciplinary
MB305	Business Plan Preparation & Seminar on Business Plan (NUES)*	-	2	2	Skill Based
MB 306	Paper – I (Specialization)	4	-	4	Elective
MB 307	Paper– II (Specialization)	4	-	4	Elective
MB 308	Paper – III (Specialization)	4	-	4	Elective
MB 309	Paper – IV (Specialization)	4	-	4	Elective
	Total	28	4	32	

* NUES: NON UNIVERSITY EXAMINATION SYSTEM

COMPULSORY ELECTIVES: Any 4 out of 8 of the following i.e. Paper I to IV
(MB305, MB 306, MB 307, MB 308, MB 309)

FAMILY BUSINESS MANAGEMENT

1. Fundamentals of Family Business
2. Behavioural Dynamics of Family Business
3. Leadership and Succession Management in Family Business
4. Managing Trans generational Organizations
5. Professionalization in Family Business
6. Excellence in Family Business
7. Managing the Growing Business
8. Strategic Management in Family Business

FOURTH SEMESTER

Code No.	Paper	L	T/P	Credits	Distribution of Course
MB 401	Project Dissertation	-	8	8	Skill Based
MB 402	Industrial Relations and Labour Legislation	4	-	4	Core
MB 403	Corporate Governance	4	-	4	Inter Disciplinary
MB 404	Government Policies, Institutions and Economic Zones for Entrepreneurship	4	-	4	Inter Disciplinary
MB 405	Paper – V (Specialization)	4	-	4	Elective
	Paper – VI (Specialization)	4	-	4	Elective
	Paper – VII (Specialization)	4	-	4	Elective
	Total	24	8	32	

- 52 -

Note: Students have to choose 3 courses from any following 4 groups(Group I to Group IV) i.e. maximum one course from each group

Group –I SOCIAL ENTREPRENEURSHIP

1. Social Entrepreneurship
2. Social Entrepreneurship: Policy and Framework
3. Social Intrapreneurship
4. Social Innovation and Design
5. Social Return on Investment: Principles and practices
6. Marketing for social ventures
7. Social Entrepreneurship and Micro financing
8. Social Enterprise Development and Capacity Building

Group –II DIGITAL ENTREPRENEURSHIP

1. Digital Entrepreneurship and Innovation
2. Business Model Validation
3. Social Media Marketing
4. Internet Intermediaries & Online Data Management
5. Online Consumer Behaviour
6. Web Architecture & Application
7. Online Intellectual Property & Data Protection Laws
8. Enterprise Systems

Group –III INTERNATIONAL ENTREPRENEURSHIP

1. International Entrepreneurship
2. International Business Environment
3. International Business Ethics
4. International Logistics Management
5. International Competitiveness and Strategic Alliance
6. International Financial Management
7. International Marketing
8. Export-Import Policies, Procedures and Documentation
9. International Human Resource Management

Group –IV STRATEGIC ENTREPRENEURSHIP

1. Strategic Entrepreneurship
2. Opportunity Creation
3. Managing the Growing Business
4. Entrepreneurial Bootstrapping
5. Venture Capital Investment
6. Strategic Operations Management
7. Business Sustainability, Restructuring and Renewal