Sequence of Minutes of BoS Meetings for metric 1.2.2

1. Civil Engineering Department

2. Computer Science and Engineering Department

3. Electrical Engineering Department

4. Electronics & Communication Engineering Department

5. Information Technology Department

6. Mechanical Engineering Department

7. Production Engineering Department

8. Master of Business Administration Department

Guru Nanak Dev Engineering College, Ludhiana
(An Autonomous College under UGC Act)

Civil Engineering Department

Minutes of Meeting

No __ʻℇ- 19ฯ?

Dated:30/08/2016

The 5th meeting of Board of Studies (Civil Engineering) was held on 06th August, 2016 in the office of Head of Department, Civil department and chaired by Dr. K S Gill (Professor & Head).

Following members were present in the meeting:

Dr. K S Gill– Chairman - Guru Nanak Dev Engineering College, Ludhiana

Dr. Harpal Singh – Member - Guru Nanak Dev Engineering College, Ludhiana,

Dr. H S Rai –Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. B S Walia –Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. Harvinder Singh – Member - Guru Nanak Dev Engineering College, Ludhiana

Er. Puneet Pal Singh Cheema – Member – Guru Nanak Dev Engineering College, Ludhiana

Dr. Sanjeev Aggarwal – Member- GZSPTU Campus, Bathinda - Subject Expert- VC Nominee

Er. T S Chahal – Member- SDE PWD (B&R) - Industry Representative,

Er. J K Sharma – Special Invitee – Former Manager in L & T

Er. Harjinder Singh - Special Invitee- Guru Nanak Dev Engineering College, Ludhiana

Er. Gurdeepak Singh - Special Invitee- Guru Nanak Dev Engineering College, Ludhiana

Er. Prashant Garg - Special Invitee- Guru Nanak Dev Engineering College, Ludhiana

The Following decisions were taken against the Agenda items:

1. The proposal of Open Elective subject in B.Tech (Civil Engg.) in 6th sem of UG course 2014 admission batch onwards was discussed and accepted with following minor changes in study scheme without changing the total credits of any year.

S No	Sem	Subject code	Subject Name	Previous Credits	Approved New Credits
1	5th	CE-14501	Design of Steel Structures – 1	4	5
2	5th	CE-14502	Geotechnical Engineering	4	5
3	5th	CE-14503	Structural Analysis-II	4	5
4	6th	CE-14603	Foundation Engineering	5	4

2. The proposed syllabus of 6th & 7/8th semester for UG course (Batch 2014 & onwards) was approved.

3. The BOS suggests to change the nomenclature of two subjects of B.Tech (Civil Engineering- Batch 2014 onwards) as per their content detail from "Geotechnical Engineering – I" (5th semester) and "Geotechnical Engineering – II" (6th Semester) to "Geotechnical Engineering" (5th semester) and "Foundation Engineering" (6th semester) respectively.

4. The BoS approved the Study scheme and syllabus content of M.Tech Batch 2016 & onwards for all courses as proposed.

5. The BoS approved the list of examiners for UG and PG courses as proposed.

The meeting ended with vote of thanks.

After the BOS meeting held on 05.08.2016, Department received office orders SS/24/776 dated 22.08.2016 and SS/24/782 dated 24.08.2016. After incorporating the amendments suggested in the above stated office orders, the revised scheme is annexed as under and this scheme shall be applicable from Batch 2014 & onwards subject to the approval by 6th BOS meeting.

Under Graduate Program (Batch 2014 & onwards)

1. Department has floated four departmental elective and one open elective in UG programme as departmental elective –I (Practical subject of 01 credit) in fifth semester, departmental elective-II (theory Subject of 04 credits) in sixth semester.

3. Department has floated the Minor project of 01 hour duration (01 credit) sixth semester having total marks as 50 (30 marks as internal and 20 marks as external).

4. Department has merged the two lab subjects (Computer Aided Structural Drawing-I of fifth semester and Computer Aided Structural Drawing-II of sixth semester) depending upon their syllabus content as one subject named as Computer Aided Structural Drawing & Detailing and float in fifth semester.

5. The total credit distribution of the UG (Civil) has been fixed after incorporating the amendments as follows:

Year	Credits
First	54
Second	54
Third	55
Forth	43
Total Credits	**206**

6. Few other amendments regarding credits are as follows:

S No	Sem	Course Code	Course Name	Previous Credits	Approved New Credits
1	3rd	TR-14301	Workshop Training	00	02
2	4th	CE-14401	Geomatics Engineering	04	03
3	4th	CE-14402	Construction Machinery & Works Management	04	03
4	4th	CE-14403	Design of Concrete Structures- I	05	04
5	4th	GF-14401	General Fitness	00	01
6	5th	TR-14501	Industrial Training	04	02

7	5th	DECE-145XX	Departmental Elective-I	00	01
8	6th	CE-14601	Design of Concrete Structures- II	05	04
9	6th	DECE-146XX	Departmental Elective-II	00	04
10	6th	OECE-146XX	Open Elective	04	03
11	6th	GF-14601	General Fitness	00	01
12	7th/8th	TR-14701	Industrial Training-II	20	15
13	7th/8th	CE-14801	Design of Steel Structures-II	5	4
14	7th/8th	DECE-148XX	Departmental Elective-III	03	04
15	7th/8th	DECE-148YY	Departmental Elective-IV	03	04
16	7th/8th	CE-14819	Major Project	04	03
17	7th/8th	GF-14701	General Fitness	00	01

Post Graduate Programme (Batch 2014 and 2016 onwards)

1. The credits of pre-thesis seminar and pre-thesis project have been changed as 02 and 03 from previous credits of 04 & 04 respectively.
2. The total marks of pre-thesis seminar has been fixed as 100 (internal only).
3. By making the stated amendments as per the office order, the total credits of PG course have been fixed as 65.

Dr. K S Gill
(Chairman)

Guru Nanak Dev Engineering College Ludhiana
Civil Engineering Department

Minutes of Meeting

The 10th BOS meeting held in the HoD office (Civil) on 09 February 2019 under the chair of Dr. K S Gill (Professor and BOS Chairman). The committee discussed the course scheme prepared by the department and it was finalised after the deliberations. The feedback and suggestions from the members were taken into the considerations.

The proposed syllabuses of 3rd and 4th semesters were also discussed in detail. The suggestions were taken into account and the syllabus was approved by the committee.

The approved scheme (given below) and a copy of the syllabus are circulated to the members for their record.

S No	Category	Subject Code	Course Title	Hours Per Week			Credits
			First Semester (GNDEC)	L	T	P	
1	Basic Science Course	BSC-18101	Physics	3	1	0	4
2	Basic Science Course	BSC-18102	Physics Lab	0	0	2	1
3	Basic Science Course	BSC-18103	Mathematics-I	3	1	0	4
4	Humanities and Social Sciences including Management	HSMC-18101	Principles of Engineering Economics and Management	3	0	0	3
5	Engineering Science Course	ESC-18101	Basic Electrical Engineering	3	1	0	4
6	Engineering Science Course	ESC-18102	Basic Electrical Engineering Laboratory	0	0	2	1
7	Engineering Science Course	ESC-18103	Engineering Graphics and Design	1	0	4	3
8		MPD-18101	Mentoring and Professional Development	0	0	1	0
		TOTAL	25	13	3	9	20
			Second Semester (GNDEC)				
S No	Category	Subject Code	Course Title	Hours Per Week			Credits
				L	T	P	

S. No.	Category	Subject Code	Course Title	L	T	P	Credits
1	Basic Science Course	BSC-18104	Mathematics-II	3	1	0	4
2	Basic Science Course	BSC-18105	Chemistry	3	1	0	4
3	Basic Science Course	BSC-18106	Chemistry Lab	0	0	2	1
4	Engineering Science Course	ESC-18104	Programming for Problem Solving	3	1	0	4
5	Engineering Science Course	ESC-18105	Programming for Problem Solving Laboratory	0	0	2	1
6	Engineering Science Course	ESC-18106	Manufacturing Practices	0	0	4	2
7	Humanities and Social Sciences including Management	HSMC-18102	English	3	0	0	3
8	Humanities and Social Sciences including Management	HSMC-18103	English Laboratory	0	0	2	1
9		MPD-18101	Mentoring and Professional Development	0	0	1	0
		TOTAL	26	12	3	11	20

Training- I: 4 weeks industrial/institutional training (department specific) for which viva will be conducted along End Semester Exam of Third semester.

Third Semester (GNDEC)

S. No.	Category	Subject Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Core courses	PCCE-101	Surveying & Geomatics	3	1	0	4
2	Professional Core courses	PCCE-102	Solid Mechanics	3	0	0	3
3	Professional Core courses	PCCE-103	Fluid Mechanics	3	0	0	3
4	Professional Core courses	PCCE-104	Disaster Preparedness & Planning	3	0	0	3
5	Engineering Science Course	ESCE-101	Basic Electronics & it's application in Civil Engineering	3	0	0	3

6	Humanities and Social Sciences including Management	HSMCE-101	Civil Engineering Introduction, Societal & Global Impact	3	0	0		3
7	Professional Core courses	LPCCE-101	Surveying & Geomatics Lab	0	0	2		1
8	Professional Core courses	LPCCE-102	Fluid Mechanics Lab	0	0	2		1
9	Professional Core courses	LPCCE-103	Solid Mechanics Lab	0	0	2		1
10	Project/Training	TRCE-101	Training - I	-	-	-		1
11			Mentoring and Professional Development	0	0	1		
		TOTAL		26	18	1	7	23

Fourth Semester (GNDEC)

S No	Category	Subject Code	Course Title	Hours Per Week			Credits
				L	T	P	
1	Professional Core courses	PCCE-105	Concrete Technology	3	0	0	3
2	Professional Core courses	PCCE-106	Materials, Testing & Evaluation	4	0	0	4
3	Professional Core courses	PCCE-107	Hydrology & Water Resources Engineering	3	1	0	4
4	Professional Core courses	PCCE-108	Transportation Engineering	3	1	0	4
5	Basic Science Course	BSCE-101	Mathematics-III (Transform & Discrete Mathematics)	3	0	0	3
6	Professional Core courses	LPCCE-104	Concrete Testing Lab	0	0	2	1
7	Professional Core courses	LPCCE-105	Transportation Lab	0	0	2	1
8	Project	PRCE-101	Term Paper	0	0	2	1
9	Mandatory Courses (Non-credit)	MCI-101	Environmental Science	2	0	0	0
10			Mentoring and Professional Development	0	0	1	0
		TOTAL		27	18	2	7	21

Training-II: 4 weeks industrial/institutional training for which viva will be conducted along End

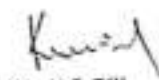semester exam of Fifth semester.

Fifth Semester (GNDEC)

S No	Category	Subject Code	Course Title	Hours Per Week			Credits
				L	T	P	
1	Professional Core courses	PCCE-109	Engineering Geology	3	0	0	3
2	Professional Core courses	PCCE-110	Elements of Earthquake Engineering	3	0	0	3
3	Professional Core courses	PCCE-111	Construction Planning & Management	3	0	0	3
4	Professional Core courses	PCCE-112	Environmental Engineering	4	0	0	4
5	Professional Core courses	PCCE-113	Structural Engineering	3	1	0	4
6	Professional Core courses	PCCE-114	Geotechnical Engineering	3	0	0	3
7	Professional Core courses	LPCCE-106	Geotechnical Lab	0	0	2	1
8	Professional Core courses	LPCCE-107	Environmental Engineering Lab	0	0	2	1
9	Professional Core courses	LPCCE-108	Structural Lab	0	0	2	1
10	Project/Training	TRCE-102	Training - II	-	-	-	1
11			Mentoring and Professional Development	0	0	1	0
		TOTAL	27	19	1	7	24

Sixth Semester (GNDEC)

S No	Category	Subject Code	Course Title	Hours Per Week			Credits
				L	T	P	
1	Professional Core courses	PCCE-115	Estimation, Costing and Tendering	3	1	0	4
2	Professional Core courses	PCCE-116	Construction Techniques & Practices	3	0	0	3
3	Professional Elective courses	PECE-XXX	Elective – I	3	1	0	4
4	Professional Elective courses	PECE-XXX	Elective – II	3	1	0	4
5	Professional Core courses	LPCCE-109	CAD Lab	0	0	2	1

6	Professional Core courses	LPCCE-110	BIM Lab	0	0	2	1
7	Open Elective courses	OEZZ-XXX	Open Elective – I	3	0	0	3
8	Project	PRCE-102	Minor Project	0	0	4	2
9	Mandatory Courses (Non-credit)	MCI-102	Constitution of India	2	0	0	0
10			Mentoring and Professional Development	0	0	1	0
		TOTAL		29 17	3	9	22

Training-III: 6 weeks industrial/institutional training for which viva will be conducted along End semester exam of Seventh semester.
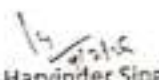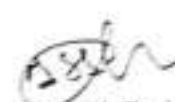
Seventh Semester (GNDEC)

S No	Category	Subject Code	Course Title	Hours Per Week			Credits
1	Professional Elective courses	PECE-XXX	Elective – III	3	1	0	4
2	Professional Elective courses	PECE-XXX	Elective – IV	3	1	0	4
3	Open Elective courses	OEZZ-XXX	Open Elective – II	3	0	0	3
4	Project	PRCE-103	Project -I (Project work / internship in industry or at appropriate work place)	0	0	6	3
5	Project/Training	TRCE-103	Training - III	-	-	-	2
6	Mandatory Courses (Non-credit)	MCI-103	Management- I (Organizational Behaviour)	2	0	0	0
7			Mentoring and Professional Development	0	0	1	0
				20	11	2	7 16

Eighth Semester (GNDEC)

S No	Category	Subject Code	Course Title	L	T	P	Credits
1	Professional Elective courses	PECE-XXX	Elective – V	3	1	0	4

2	Professional Elective courses	PECE-XXX	Elective – VI	3	1	0	4
3	Open Elective courses	OEZZ-XXX	Open Elective – III	3	0	0	3
4	Project	PRCE-104	Project -II (Project work / internship in industry or at appropriate work place)	0	0	6	3
5			Mentoring and Professional Development	0	0	1	0
		TOTAL	18	9	2	7	14
			Total Credits (Four Years)				160

Dr. K S Gill (Professor & Chairman)	Dr. Harvinder Singh (Member)	Dr. Jasbir Singh (Member)
Dr. Gurdeepak Singh (Member)	Dr. Prashant Garg (Member)	Dr. Naveen Kwatra (Member- University Nominee)
Dr. Rajiv Chauhan (Special Invitee & Chairman BOS (CE)IKG PTU)	Er. Jatindera Sharma (Member)	
Prof. Amritpal Kaur (Special Invitee)	Prof. Charnjeet Singh (Special Invitee)	Prof. Gurpuneet Singh (Special Invitee)

Minutes of Meeting

The 11ᵗʰ BOS meeting was held in the HoD office (Civil) on 11 July, 2019 under the chair of Dr. H. S. Rai (Professor and BOS Chairman), whereby following members were present:

Dr. H. S. Rai – Chairman – GNDEC, Ludhiana

Dr. K. S. Gill – Member – GNDEC, Ludhiana

Dr. Harpal Singh – Member– GNDEC, Ludhiana

Dr. Harvinder Singh – Member – GNDEC, Ludhiana

Dr. Jagbir Singh – Member– GNDEC, Ludhiana

Dr. Gurdeepak Singh – Member– GNDEC, Ludhiana

Dr. Prashant Garg – Member– GNDEC, Ludhiana

Dr. Puneet Pal Singh Cheema – Member– GNDEC, Ludhiana

Dr. Inderpreet Kaur – Special Invitee – GNDEC, Ludhiana

Dr. Laspal Singh – Special Invitee – Professor, PAU, Ludhiana

Er. Rakesh Garg – Special Invitee – Xen, PWD (B&R) – Industry Expert

Dr. Akshay Girdhar – Nominated Member (COE) – GNDEC, Ludhiana

Dr. N. S. Bhangu – Nominated Member (Academic Branch) – GNDEC, Ludhiana

Er. Charnjeet Singh – Special Invitee – GNDEC, Ludhiana

Dr. K. S. Gill relinquished the charge of BOS chairman after providing his services for three years. The department extended gratitude to him for his valuable contribution as BOS chairman.

Following decisions were taken against the agenda items:

1. Department proposed new study schemes for different M.Tech. Programs (Structural Engineering-Full Time, Geotechnical Engineering-Full Time, Environmental Science and Engineering-Full Time, Soil Mechanics & Foundation Engineering-Part Time) starting year 2019 (for Batch 2019 & onward) which were discussed & approved.

2. The syllabus for first semester pertaining to the above mentioned schemes was also discussed and approved.

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The [...] of [...] named "Building [...] [...] proposed and approved for batch B.Tech 2017 and onward[...]

4. A list of 06 theory subjects (03 credits each) and 01 laboratory (01 credit) was finalized for B.Tech (Batch 2018 & onward) students to select from, for class room study to qualify for "Civil Engineering" as Minor Engineering Branch.

5. A list of MOOC courses for the session July - November 2019 was finalized for B.Tech. (Batch 2018 & onward) students to qualify for "Civil Engineering" as Minor Engineering Branch.

6. A list of MOOC courses for the session July - November 2019 was finalized for B.Tech. (Batch 2018 & onward) students to qualify for B.Tech. Civil Engineering (Honor) degree.

7. Considering the importance and need of short term certificate course for professionals and graduate students, department proposed a certificate course on 'Analysis & Design of RC Buildings' of 60 hours (04 credits) course spread over a period of 3 months and the same was approved by the BOS.

8. Department proposed mutual swapping of "Geotechnical Engineering Lab" (Sem 5th) subject with "Transportation Engineering Lab" (Sem 6th) subject without changing the credits & total marks for B.Tech. Civil Engineering 2017 scheme. It was approved by the BOS.

9. Department proposed change in the credits of course "Environmental Systems Engineering" (MTEV – 16601) from 03 to 04 for M.Tech. (Environmental Science and Engineering) Scheme 2016 and the same was approved by BOS.

The meeting ended with vote of thanks to all present.

Dr. H. S. Rai

Encl: Copy of Study Schemes, syllabus & other items

Guru Nanak Dev Engineering College, Ludhiana
Department of Computer Science & Engineering

Ref. No.:...CSE/531.   Dated:........9-6-15

The following persons were present:

1. Dr. Parminder Singh, Associate Professor& Head, Department of Computer Science and Engineering, GNDEC, Ludhiana (Chairman)
2. Er. Amanpreet Singh Brar, Associate Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
3. Er. Sumeet Kaur Sehra, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
4. Er. Vivek Thapar, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
5. Dr. Gurpreet Singh Lehal, Professor, Department of Computer Science, Punjabi University, Patiala (Member)
6. Dr. Sukhwinder Singh, Professor, UIET, Panjab University Chandigarh (Member)
7. Dr. Paramjit Singh, Associate Professor, Giani Zail Singh Punjab Technical University Campus, Bathinda (Member)
8. Er. Nitish Mahajan, MD, Conjoinix Technology Private Limited, Sector 34-A, Chandigarh (Member)

The meeting started with welcome address by chairman BOS, and the already circulated agenda was put up for discussion. Following decisions were taken unanimously:

Proceedings:

Agenda Item 1

1.1 Finalizing the new scheme for B.Tech. Computer Science and Engineering

Approved

After discussion and deliberation, necessary modifications have been incorporated in the proposed scheme of B.Tech. Computer Science and Engineering.

Committee approved the scheme and authorized Chairman BOS for further changes if required.

Dr. Parminder Singh   Er. VivekThapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal Er. Nitish Mahajan

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

THIRD SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTAM-301	Mathematics-III	3	1	-	40	60	100	4
BTCSE-301	Computer Architecture and Organisation	3	1	-	40	60	100	4
BTCSE-302	Digital Circuits and Logic Design	3	1	-	40	60	100	4
BTCSE-303	Data Structures and Algorithms	4	1	-	40	60	100	5
BTCSE-304	Object Oriented Programming using C++	4	1	-	40	60	100	5
BTCSE-305	Digital Circuits and Logic Design Lab	-	-	2	30	20	50	1
BTCSE-306	Data Structures and Algorithms Lab	-	-	4	30	20	50	2
BTCSE-307	Object Oriented Programming using C++ Lab	-	-	4	30	20	50	2
BTCSE-308	Institutional Practical Training*				60	40	100	1
Total		17	5	10	350	400	750	28
		Contact Hours= 32						

*Institutional training will be imparted at the end of 2nd semester in the institute for four weeks

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

FOURTH SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTCSE-401	Discrete Structures	3	1	-	40	60	100	4
BTCSE-402	Operating System	3	1	-	40	60	100	4
BTCSE-403	Computer Networks	3	1	-	40	60	100	4
BTCSE-404	Microprocessor Architecture and Programming	3	1	-	40	60	100	4
BTCSE-405	Java Programming	4	1	-	40	60	100	5
TCSE-406	Operating Systems Lab	-	-	2	30	20	50	1
BTCSE-407	Computer Networks Lab	-	-	4	30	20	50	2
BTCSE-408	Microprocessor Architecture and Programming Lab	-	-	2	30	20	50	1
BTCSE-409	Java Programming Lab	-	-	4	30	20	50	2
General Fitness					100	-	100	-
Total		16	5	12	420	380	800	27
		Contact Hours= 33						

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

FIFTH SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTCSE-501	Relational Database Management System	3	1	-	40	60	100	4
BTCSE-502	Computer Graphics	3	1	-	40	60	100	4
BTCSE-503	Design and Analysis of Algorithms	3	1	-	40	60	100	4
BTCSE-504	Web Technologies	3	1	-	40	60	100	4
BTCSE-505	Cyber Laws and IPR	3	1	-	40	60	100	4
BTCSE-506	Relational Database Management System Lab	-	-	4	30	20	50	2
BTCSE-507	Computer Graphics Lab	-	-	2	30	20	50	1
BTCSE-508	Design and Analysis of Algorithms Lab	-	-	2	30	20	50	1
BTCSE-509	Web Technologies Lab	-	-	4	30	20	50	2
BTCSE-510	Industrial Training				60	40	100	2
Total		15	5	12	380	420	800	28
		Contact Hours= 32						

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

SIXTH SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTCSE-601	Theory of Computation	3	1	-	40	60	100	4
BTCSE-602	Advanced Database Systems	4	1	-	40	60	100	5
BTCSE-603	Software Engineering	3	1	-	40	60	100	4
BTCSE-xxx	Elective-I	3	1	-	40	60	100	4
BTCSE-xxx	Elective-II	3	1	-	40	60	100	4
BTCSE-604	Advanced Database Systems Lab	-	-	4	30	20	50	2
BTCSE-605	Software Engineering Lab	-	-	4	30	20	50	2
BTCSE-xxx	Elective-I Lab	-	-	4	30	20	50	2
General Fitness					100	-	100	
Total		16	5	12	390	360	750	27
	Contact Hours= 33							

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

SEVENTH/EIGHTH SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTCSE-701	Advanced Computer Networks	3	1	-	40	60	100	4
BTCSE-702	Compiler Design	3	1	-	40	60	100	4
BTCSE-xxx	Elective-III	3	1	-	40	60	100	4
BTCSE-xxx	Elective-IV	3	1	-	40	60	100	4
BTCSE-xxx	Open Elective	3	-	-	40	60	100	3
BTCSE-703	Advanced Computer Networks Lab	-	-	2	30	20	50	1
BTCSE-704	Project	-	-	10	100	100	200	5
General Fitness					100	-	100	
Total		15	4	12	430	420	850	25
		Contact Hours= 31						

SEVENTH/EIGHTH SEMESTER

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BTCSE-801	Industrial Training	-	-	-	450	300	750	20

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

1.2 Finalizing the elective subjects for new scheme for B.Tech. Computer Science and Engineering

Approved

Elective-I:

BTCSE-606 Simulation and Modeling

BTCSE-607 Digital Image Processing

BTCSE-608 Artificial Intelligence

BTCSE-609 Advanced Java

BTCSE-610 .NET Technologies

BTCSE-611 Linux Administration

BTCSE-612 Simulation and Modeling Lab

BTCSE-613 Digital Image Processing Lab

BTCSE-614 Artificial Intelligence Lab

BTCSE-615 Advanced Java Lab

BTCSE-616 .NET Technologies Lab

BTCSE-617 Linux Administration Lab

Elective-II:

BTCSE-618 Advanced Computer Architecture

BTCSE-619 Cryptography and Network Security

BTCSE-620 Wireless Networks

BTCSE-621 Ethical Hacking

BTCSE-622 Network Protocols

BTCSE-623 Embedded Systems

Elective-III:

BTCSE-705 Parallel Computing

BTCSE-706 Mobile Computing

BTCSE-707 Cloud Computing

BTCSE-709 Big Data and Business Analytics

BTCSE-710 Data Warehouse and Data Mining

Dr. Parminder Singh   Er. VivekThapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal   Er. Nitish Mahajan

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

Elective-IV:

BTCSE-711 Natural Language Processing

BTCSE-712 Machine Learning

BTCSE-713 Software Testing and Quality Assurance

BTCSE-714 Information Security

BTCSE-715 Soft Computing

BTCSE-716 Agile Software Development

Open Electives:

BTCSE-717 Operation Research

BTCSE-718 Engineering Economics and Management

BTCSE-719 Organizational Structures

BTCSE-720 Project management

BTCSE-721 Optimization Techniques

BTCSE-722 Human Resource Management

BTCSE-723 Industrial Pshycology

Dr. Parminder Singh   Er. VivekThapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal   Er. Nitish Mahajan

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

1.3 Finalizing the syllabus of subjects of 3rd and 4th semester of B.Tech. Computer Science and Engineering new scheme.

Approved

After discussion and deliberation, certain modifications have been done and others recommendations will be incorporated in the proposed Syllabi of subjects of B.Tech. Computer Science and Engineering.

Committee approved the syllabus and authorized Chairman BOS for further changes if required.

THIRD SEMESTER		
Course Code	**Course Name**	**Suggestions**
BTAM-301	Mathematics-III	• No. of hours to be revised.
BTCSE-301	Computer Architecture and Organisation	• No. of hours for control unit to be revised. • Data representation chapter should be revised.
BTCSE-302	Digital Circuits and Logic Design	• Book of Anant Kumar has to be added • Family class topic
BTCSE-303	Data Structures and Algorithms	• No. of Lectures per unit to be revised.
BTCSE-304	Object Oriented Programming using C++	• No. of Lectures per unit to be revised.
BTCSE-305	Digital Circuits and Logic Design Lab	------
BTCSE-306	Data Structures and Algorithms Lab	• Data structure lab programs should be application oriented • Sorting and searching programs should be included in as single program and compare these algorithms on different types of inputs.
BTCSE-307	Object Oriented Programming using C++ Lab	--------
BTCSE-308	Institutional Practical Training*	Institutional practical training should be diversify by including some vocational courses.

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

FOURTH SEMESTER

Course Code	Course Name	Suggestions
BTCSE-401	Discrete Structures	• Book of C.L. Liu to be included • Kruskal's algorithm (minimum spanning tree)
BTCSE-402	Operating System	• Book of Godbole to be included
BTCSE-403	Computer Networks	• Lecture distribution should be included
BTCSE-404	Microprocessor Architecture and Programming	• Chapter of microcontroller to be removed. • Chapter on interfacing applications should be included • Book of A.P. Mathur and Sridhar and B. Ram to be included.
BTCSE-405	Java Programming	-------
BTCSE-406	Operating Systems Lab	• Syllabus should be revised according to 2 Hr lab and focus should be on shell programming.
BTCSE-407	Computer Networks Lab	• Configuration of DHCP • Proxy settings
BTCSE-408	Microprocessor Architecture and Programming Lab	• Syllabus should be revised by removing microcontroller practicals and including interfacing applications.
BTCSE-409	Java Programming Lab	------

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Paramjit Singh

Er. Nitish Mahajan

Agenda Item 2

Approval of syllabus of subjects for new scheme of M.Tech. Computer Science and Engineering, after incorporation of suggestions given in 3rd BOS meeting held on 6th Feb., 2015.

Approved

Agenda Item 3

Approval of external question paper setters for end semester examinations of B.Tech. and M.Tech.

Approved

General Suggestions:

- Internal evaluation of project work will include a seminar that is to be presented by each student.
- Project evaluation should be carried out by the industry expert and preferably one expert for about 10 students.
- To enhance industry institute interaction, regular expert talks should be carried by the experts from industry.
- Some provision should be made at institute level to include non credit course for teaching certain foreign languages.

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal   Er. Nitish Mahajan

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

Guru Nanak Dev Engineering College, Ludhiana
Department of Computer Science & Engineering

Ref. No.: CSE/ 86.94

Dated: 13/7/2017

Minutes of 6th meeting of Board of Studies of Computer Science and Engineering Department held on 12.07.2017 at 11:00 am in the Committee Room, GNDEC, Ludhiana.

The following persons were present:

1. Dr. Parminder Singh, Professor& Head, Department of Computer Science and Engineering, GNDEC, Ludhiana (Chairman)
2. Er. Amanpreet Singh Brar, Associate Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
3. Er. Sumeet Kaur Sehra, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
4. Er. Vivek Thapar, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
5. Dr. Gurpreet Singh Lehal, Professor, Department of Computer Science, Punjabi University, Patiala (Member)
6. Dr. Paramjit Singh, Professor, Giani Zail Singh Campus, College of Engineering and Technology, Bathinda (Member)
7. Dr. Shaveta Rani, Professor, Giani Zail Singh Campus, College of Engineering and Technology, Bathinda (External Expert)

The meeting started with welcome address by chairman BOS, and the already circulated agenda was put up for discussion. Following decisions were taken unanimously:

Dr. Parminder Singh
Er. Amanpreet Singh Brar
Er. Sumeet Kaur Sehra

Er. VivekThapar
Dr. Gurpreet Singh Lehal
Dr. Paramjit Singh

Dr. Shaveta Rani

Proceedings:

Agenda Item 1

Approval of change of conduct hours and credits of following courses of 1st year B.Tech. program:

a. Fundamentals of Computer Programming and Information Technology
   Lecture: 03 hours, Credit: 03
   Tutorial: 01 hour, Credit: 0.5

b. Fundamentals of Computer Programming and Information Technology Lab.
   Practical: 02 hour, Credit: 01

Approved

Committee approved the syllabi and authorized Chairman BOS for further changes if required.

The followings suggestions are given

Course Code	Course Name	Suggestions
BTCS-101	FCPIT	• Section wise no. of hours to be mentioned • Revision of syllabus is required
BTCS-102	FCPIT Laboratory	• Revision of contents is required

Agenda Item 2

Approval of changed subject codes of already finalized course scheme of B.Tech. Computer Science and Engineering (Batch 2014 onwards).

Approved

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

Dr. Shaveta Rani

B.Tech. Computer Science and Engineering Course Scheme

Course Code	Course Name	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
Third Semester								
CS-14301	Mathematics-III	3	1	-	40	60	100	4
CS-14302	Computer Architecture and Organization	3	1	-	40	60	100	4
CS-14303	Digital Circuits and Logic Design	3	1	-	40	60	100	4
CS-14304	Data Structures and Algorithms	3	1	-	40	60	100	4
CS-14305	Object Oriented Programming using C++	3	1	-	40	60	100	4
CS-14306	Digital Circuits and Logic Design Lab	-	-	4	30	20	50	2
CS-14307	Data Structures and Algorithms Lab	-	-	4	30	20	50	2
CS-14308	Object Oriented Programming using C++ Lab	-	-	4	30	20	50	2
TR-14301	Workshop Training*				60	40	100	2
Total		15	5	12	350	400	750	28
		Contact Hours= 32						
Fourth Semester								
CS-14401	Discrete Structures	3	1	-	40	60	100	4
CS-14402	Operating System	3	1	-	40	60	100	4
CS-14403	Computer Networks	3	1	-	40	60	100	4
CS-14404	Microprocessor Architecture and Programming	3	1	-	40	60	100	4
CS-14405	Java Programming	3	1	-	40	60	100	4
CS-14406	Operating Systems Lab	-	-	4	30	20	50	2
CS-14407	Computer Networks Lab	-	-	4	30	20	50	2

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

Dr. Shaveta Rani

Code	Subject	L	T	P	Int.	Ext.	Total	Credits
CS-14408	Microprocessor Architecture and Programming Lab	-	-	2	30	20	50	1
CS-14409	Java Programming Lab	-	-	4	30	20	50	2
GF-14401	General Fitness				100	-	100	1
	Total	15	5	14	420	380	800	28
	Contact Hours= 34							

Fifth Semester

Code	Subject	L	T	P	Int.	Ext.	Total	Credits
CS-14501	Relational Database Management System	3	1	-	40	60	100	4
CS-14502	Computer Graphics	3	1	-	40	60	100	4
CS-14503	Design and Analysis of Algorithms	3	1	-	40	60	100	4
CS-14504	Web Technologies	3	1	-	40	60	100	4
DECS-145xx	Elective-I	3	1	-	40	60	100	4
CS-14511	Relational Database Management System Lab	-	-	4	30	20	50	2
CS-14512	Computer Graphics Lab	-	-	2	30	20	50	1
CS-14513	Design and Analysis of Algorithms Lab	-	-	2	30	20	50	1
CS-14514	Web Technologies Lab	-	-	4	30	20	50	2
TR-14501	Industrial Training-I				60	40	100	2
Total		15	5	12	380	420	800	28
	Contact Hours= 32							

Sixth Semester

Code	Subject	L	T	P	Int.	Ext.	Total	Credits
CS-14601	Theory of Computation	3	1	-	40	60	100	4
CS-14602	Advanced Database Systems	3	1	-	40	60	100	4
CS-14603	Software Engineering	3	1	-	40	60	100	4
DECS-146xx	Elective-II	3	1	-	40	60	100	4
OECS-146xx	Open Elective	3	-	-	40	60	100	3

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. Vivek Thapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

Dr. Shaveta Rani

Code	Subject	L	T	P	Internal	External	Total	Credits
CS-14610	Advanced Database Systems Lab	-	-	4	30	20	50	2
CS-14611	Software Engineering Lab	-	-	4	30	20	50	2
DECS-146xx	Elective-II Lab	-	-	2	30	20	50	1
PRCS-14601	Minor Project	-	-	1	40	60	100	1
GF-14601	General Fitness				100	-	100	1
Total		15	4	11	390	360	750	26

Contact Hours= 30

Seventh/Eighth Semester

Code	Subject	L	T	P	Internal	External	Total	Credits
CS-14701	Advanced Computer Networks	3	1	-	40	60	100	4
CS-14702	Compiler Design	3	1	-	40	60	100	4
CS-14703	Cyber Laws and IPR	3	1	-	40	60	100	4
DECS-147xx	Elective-III	3	1	-	40	60	100	4
DECS-147xx	Elective-IV	3	1	-	40	60	100	4
CS-14715	Advanced Computer Networks Lab	-	-	4	30	20	50	2
PRCS-14701	Major Project	-	-	3	120	80	200	3
DECS-147xx	Elective-III Lab	-	-	2	30	20	50	1
GF-14701	General Fitness				100	-	100	1
Total		15	5	09	460	440	900	27

Contact Hours= 29

Seventh/Eighth Semester

Code	Subject		Internal	External	Total	Credits
TRCS-14701	Industrial Training-II[*]	-	450	350	800	13
TRCS-14702	Industry Oriented Training[$]	-	-	200	200	02
Total			450	550	1000	15

*Institutional training will be imparted at the end of 2nd semester in the institute for four weeks
* This component will be based on Industrial Training/Institute Department Training/Project Work/Skill Development (Grade-6) Entrepreneurship Training facility created by IKG-PTU, Mohali.
$This component will be based on Two Weeks Workshop/Software/Latest Development through Global Initiative of Academic Networks (GIAN).

Dr. Parminder Singh   Er. VivekThapar   Dr. Shaveta Rani

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Suneet Kaur Sehra   Dr. Paramjit Singh

List of Electives

Elective-I

DECS-14505 Advanced Computer Architecture

DECS-14506 Cryptography and Network Security

DECS-14507 Wireless Networks

DECS-14508 Ethical Hacking

DECS-14509 Network Protocols

DECS-14510 Embedded Systems

Elective-II

DECS-14604 Simulation and Modelling

DECS-14605 Digital Image Processing

DECS-14606 Artificial Intelligence

DECS-14607 Advanced Java

DECS-14608 .NET Technologies

DECS-14609 Linux Administration

DECS-14613 Simulation and Modelling Lab

DECS-14614 Digital Image Processing Lab

DECS-14615 Artificial Intelligence Lab

DECS-14616 Advanced Java Lab

DECS-14617 .NET Technologies Lab

DECS-14618 Linux Administration Lab

Elective-III

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. Vivek Thapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

DECS-14704 Parallel Computing

DECS-14705 Mobile Computing

DECS-14706 Cloud Computing

DECS-14707 Big Data and Business Analytics

DECS-14708 Data Warehouse and Data Mining

DECS-14717 Parallel Computing Lab

DECS-14718 Mobile Computing Lab

DECS-14719 Cloud Computing Lab

DECS-14720 Big Data and Business Analytics Lab

DECS-14721 Data Warehouse and Data Mining Lab

Elective-IV

DECS-14709 Natural Language Processing

DECS-14710 Machine Learning

DECS-14711 Software Testing and Quality Assurance

DECS-14712 Information Security

DECS-14713 Soft Computing

DECS-14714 Agile Software Development

Open Electives

OECS-14601 Software Project Management

OECE-14602 Object Oriented Programming using JAVA

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

Dr. Shaveta Rani

Agenda Item 3

Finalizing the syllabus of subjects of 7th/8th semester of B.Tech. Computer Science and Engineering (Batch 2014 Onwards)

After discussion and deliberation, certain modifications have been done and others recommendations will be incorporated in the proposed Syllabi of subjects of B.Tech. Computer Science and Engineering.

Committee approved the syllabi and authorized Chairman BOS for further changes if required.

The followings suggestions are given:

SEVENTH SEMESTER

Course Code	Course Name	Suggestions
CS-14702	Complier Design	• To check the syllabus of Theory of Computation offered in 6th semester for repetition
CS-14703	Cyber Laws and IPR	• To include the latest amendment of IT Act 2000. • Case studies related to breach of cyber laws in different categories. • Books related with case studies to be explored.
DECS-14704	Parallel Computing	• Parallel programming support environments used in laboratory work to be explored in detail in theory e.g. OpenMP, and MPI.
DECS-14707	Big Data and Business Analytics	• Business Analytics portion should be included and machine learning portion can be reduced.
DECS-14708	Data Warehouse and Data Mining	• Sequencing of topics of first section to be checked. • Terms used in second section to be checked. • In last section specify data warehousing applications and data mining trends
DECS-14709	Natural Language Processing	• In recommended book section, book of author Rajeev Sangal, PHI publication to be included. • Section corresponding to Application of Natural Language Processing to be incorporated.
DECS-14710	Machine Learning	• Section corresponding to Application of Machine Learning to be incorporated. • Hidden Markov model to be included. • Introduction to Deep Learning concept to be included in Artificial Neural Networks Section
DECS-14711	Software Testing and Quality Assurance	• In introduction section software testing and quality assurance topics to be incorporated

Dr. Parminder Singh   Er. VivekThapar   Dr. Shaveta Rani

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Sehra   Dr. Paramjit Singh   12/7/17

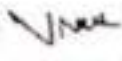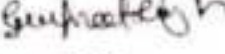|		
		• Sequencing of second, third and fifth section to be checked. • Debugging and defect management should be included in one section. • Testing automation may be included.
DECS-14712	Information Security	• Sniffing network traffic topic to be incorporated in information security hurdles section • In cryptography section reorganization of topics should be done. • Book of author Frozen to be incorporated in recommended books section. • Repetition of topics to be checked.
DECS-14713	Soft Computing	• Section other computing techniques should be renamed as optimization techniques.
DECS-14714	Agile Software Development	• Section Agile Design should be renamed as Design principles • Section Agile Testing should be renamed as Testing • Reorganization of topics should be done and section heading should be renamed.
DECS-14719	Cloud Computing Lab	• Practical V iCanCloud can be skipped.
DECS-14721	Data Warehouse and Data Mining Lab	• Simple calculator program can be skipped
OECS-14601	Software Project Management	• Staffing pattern should be included along with recruitment process • No. of lectures should be mentioned
OECS-14602	Object Oriented Programming using Java	• Inheritance section should be splitted into two sections and polymorphism topic should be included in the second section.

Agenda Item 4

Approval of panel of external question paper setters for end semester examinations of B.Tech.and M.Tech.

Approved

Committee approved the Panel and authorized Chairman BOS for further changes if required.

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet Kaur Sehra

Er. VivekThapar

Dr. Gurpreet Singh Lehal

Dr. Paramjit Singh

Dr. Shaveta Rani

13|7|17

No- CSE/257   Dated 3-9-14

MINUTES OF MEETING

Minutes of 12th meeting of Board of Studies of Computer Science and Engineering department held on 03.09.2014 at 11.00 am in the college committee room.

The following persons were present:

1. Dr. Parminder Singh, Associate Professor & Head, Department of Computer Science and Engineering, GNDEC, Ludhiana (Chairman)
2. Er. Amanpreet Singh Brar, Associate Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
3. Er. Sumeet Kaur Sehra, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
4. Er. Vivek Thapar, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
5. Dr. Gurpreet Singh Lehal, Professor, Department of Computer Science, Punjabi University, Patiala (Member)
6. Dr. Sukhwinder Singh, Professor, UIET, Punjab University Chandigarh (Member)
7. Dr. Paramjit Singh, Assistant Professor, Giani Zail Singh Punjab Technical University Campus, Bathinda (Member)

The meeting started with welcome address by chairman BOS, and the already circulated agenda was put up for discussion. Following decisions were taken unanimously:

Proceedings:

Agenda Item 1

Apprising the Board of Studies about adopted Outcome Based Education (OBE) Model and discussion on attainment of Program Educational Objectives (PEO's) through Program Outcomes and in turn through courses.

The Following items are approved:

Vision of Department:

To generate competent professionals to become part of the industry and research organizations at the national and international levels

Mission of Department:

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Paramjit Singh
Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal
Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

*) Providing a strong theoretical and practical background across the computer science discipline

with an emphasis on software development.

b) Imparting the skills necessary to continue education to grow professional.

c) Empowering the youth in rural communities with computer education.

d) Inculcating professional behavior, strong ethical values, innovative research capabilities and leadership abilities.

Program Education Objectives (PEO's) of M.Tech. (Computer Science and Engineering):

1. Practice with an expertise in academics, entrepreneurship, design and development in computing technology, or research in a specialized area of computer science and Engineering to pursue higher studies.

2. Exhibit analytical, decision-making and problem solving skills by applying research principles for handling real-life problems with realistic constraints.

3. Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, social and ethical responsibilities.

Program Outcomes (PO's) of M.Tech. (Computer Science and Engineering):

a) Apply knowledge of recent computing technologies, skills and current tools of computer science and engineering.

b) Ability to design and conduct experiments, as well as to analyze and interpret data.

c) Knowledge of contemporary research issues in the different areas of computer science & engineering.

d) Ability to explore research gaps, analyze and carry out research in the specialized/emerging areas.

e) Design software systems, components, or processes to meet identified needs within economic, environmental and social constraints.

f) Ability to express/present ideas in an impressive and professional manner.

g) Recognize the need to engage in lifelong learning through continuing education and research.

h) Ability to work in multi-disciplinary and multi-cultural environment.

i) Ability to become entrepreneur based upon societal needs.

j) An understanding of professional, social and ethical responsibilities.

Agenda Item 2

To discuss and finalize the Curriculum Design Process

Approved

Dr. Parminder Singh	Er. Vivek Thapar	Dr. Paramjit Singh
Er. Amanpreet Singh Brar	Dr. Gurpreet Singh Lehal	
Er. Sumeet Kaur Sehra	Dr. Sukhwinder Singh	

Agenda Item 3

3.1 Finalizing the new scheme for M.Tech. Computer Science and Engineering

The Following Scheme for M.Tech Computer Science and Engineering is approved

Sr. No.	Subject Code	Course Title	Type	L-T-P	Credits
M.Tech. (Full-Time) Computer Science & Engineering Course Scheme					
Semester 1ˢᵗ					
1	MTCS501	Software Engineering Methodologies	Core	4-0-0	4
2	MTCS502	Databases and Data Mining	Core	4-0-0	4
3	MTCS503	Advanced Data Structures	Core	4-0-0	4
4	MTCS6xx	Programme Elective – I	Programme Elective	3-0-0	3
5	MTCS6xx	Programme Elective – II	Programme Elective	3-0-0	3
6	MTCS507	Lab – I (Software Engineering Methodologies + Advanced Data Structures)	Lab-I	0-0-4	2
Semester 2ⁿᵈ					
1	MTCS504	Distributed Computing Architecture	Core	4-0-0	4
2	MTCS505	Digital Image Processing	Core	4-0-0	4
3	MTCS506	Information Retrieval	Core	4-0-0	4
4	MTCS6xx	Programme Elective – III	Programme Elective	3-0-0	3
5	MTCS6xx	Open Elective – I	Open Elective	3-0-0	3
6	MTCS508	Lab – II (Digital Image Processing + Information Retrieval)	Lab-II	0-0-4	2
Semester 3ʳᵈ					
1	MTCS6xx	Programme Elective – IV	Programme Elective	3-0-0	3
2	MTCS6xx	Open Elective – II	Open Elective	3-0-0	3
3	MTCS509	Pre-Thesis Seminar	Pre Thesis Seminar	0-0-4	4
4	MTCS510	Pre-Thesis Project	Pre Thesis Project	0-0-4	4
Semester 4ᵗʰ					
1	MTCS511	Thesis	Thesis	0-0-14	14

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Paramjit Singh

Er. Amandeet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

Finalizing the List of Core and Elective subjects of new scheme for M.Tech. Computer Science and Engineering

M. Tech. (Full-Time) Computer Science & Engineering Course Scheme.

Sr. No.	Subject Code	Course Title	Type	L-T-P	Credits
1	MTCS501	Software Engineering Methodologies	Core	4-0-0	4
2	MTCS502	Databases and Data Mining	Core	4-0-0	4
3	MTCS503	Advanced Data Structures	Core	4-0-0	4
4	MTCS504	Distributed Computing Architecture	Core	4-0-0	4
5	MTCS505	Digital Image Processing	Core	4-0-0	4
6	MTCS506	Information Retrieval	Core	4-0-0	4
7	MTCS507	Lab.-I (includes MTCS501 and MTCS 503)	Core	4-0-0	2
8	MTCS508	Lab.-II (includes MTCS505 and MTCS 506)	Core	4-0-0	2
9	MTCS509	Pre-Thesis Seminar	Core	0-0-4	4
10	MTCS510	Pre-Thesis Project	Core	0-0-4	4
11	MTCS511	Thesis	Core	0-0-14	14
12	MTCS601	Network Security	Programme Elective	3-0-0	3
13	MTCS602	Ad-hoc Networks	Programme Elective	3-0-0	3
14	MTCS603	Wireless Networks	Programme Elective	3-0-0	3
15	MTCS604	Parallel Computing	Programme Elective	3-0-0	3
16	MTCS605	Cloud Computing	Programme Elective	3-0-0	3
17	MTCS606	Big Data Analytics	Programme Elective	3-0-0	3
18	MTCS607	Advanced Operating System	Programme Elective	3-0-0	3
19	MTCS608	Object Oriented Analysis and Design Using UML	Programme Elective	3-0-0	3
20	MTCS609	Software Testing and Quality Assurance	Programme Elective	3-0-0	3
21	MTCS610	Compiler Design	Programme Elective	3-0-0	3
22	MTCS611	Pattern Recognition	Programme Elective	3-0-0	3
23	MTCS612	Machine Learning	Programme Elective	3-0-0	3
24	MTCS613	Bioinformatics	Programme Elective	3-0-0	3
25	MTCS614	Soft Computing	Programme Elective	3-0-0	3
26	MTCS615	Natural Language Processing	Programme Elective	3-0-0	3
27	MTCS616	Speech Processing	Programme Elective	3-0-0	3
28	MTCS617	Research Methodology	Programme	3-0-0	3

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Sohal   Dr. Sukhwinder Singh

			Elective			
9	MTCS618	Optimization Techniques	Programme Elective	3-0-0	3	
10	MTCS619	Modeling and Simulation	Programme Elective	3-0-0	3	
31	MTCS620	Neural Networks and Fuzzy Logic	Programme Elective	3-0-0	3	
32	MTCS621	Project Management	Programme Elective	3-0-0	3	
33	MTCS622	Human Resources Development and Training Methods	Programme Elective	3-0-0	3	

3.3 Finalizing the syllabus of subjects of 1st semester of M.Tech. Computer Science and Engineering New Scheme

Committee approved the proposed syllabus of subjects of 1st semester of M.Tech. Computer Science and Engineering new Scheme and authorized Chairman BOS for further changes, if required.

Agenda Item 4

Question paper setting for end semester examinations of B.Tech. and M.Tech.

The BOS approved the paper setting mechanism by the Controller of examination from the panel of examiners recommended by the Head of department. Regarding the quality checking of the question paper the committee gave the following recommendation:

"The BOS members are of the view that the quality (coverage of syllabus, distribution, format as per specified instructions) of the question paper of end semester examinations should be checked only after the conduct of examination and necessary steps should be taken in case of any discrepancy found."

Agenda Item 5

5.1 Finalizing the books of B.Tech. 1st year Subject FCP&IT

The Following list of books for the subject FCP&IT are approved:

1. Fundamentals of Computers , V. Rajaraman, Prentice Hall of India
2. C: The Complete Reference: Herbert Schildt, McGraw Hill
3. E Balagurusamy, Programming in ANSI C, 3ed., Tata McGraw Hill, 2003
4. Let us C: Y.P. Kanetkar, B.P.B. Publications
5. Computer Concepts and Programming in C, R.S. Salaria, Salaria Publications House
6. Programming in C, Ajay Mittal, Pearson Education
7. Fundamental of Computer Programming and IT, Sumita Arora, Dhanpat Rai & Company.

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Param Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

Finalizing the syllabus of 1st year B.Tech. Subject FCP&IT Lab

The following syllabus of 1st year B.Tech. Subject FCP&IT Lab is approve

Fundamentals of Computer Programming and IT Lab

1. Familiarization with the Computer System

2. Navigating with Explorer, Working with Control Panel, work at the command prompt, understanding of virus guards and antivirus software, Exploring the Internet.

3. Word processing, spread sheets, presentation software

4. Write a program to find the nature of the roots as well as value of the roots. However, in case of imaginary roots, find the real part and imaginary part separately.

5. Write a program, which takes two integer operands and one operator form user, performs the operation and then prints the result. (Consider the operators +, -, *, /, % and use switch statement) For example, the input should be in the form: 5 + 3 the output should comes Result = 8

6. Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a program to generate the first n terms of the sequence. For example, for n = 8, the output should be 0 1 1 2 3 5 8 13

7. Write a program to print all the prime numbers between m and n, where the value of m and n is supplied by the user.

8. The number such as 1991, is a palindrome because it is same number when read forward or backward. Write a program to check whether the given number is palindrome or not.

9. A positive integer number IJK is said to be well-ordered if I<J<K. For example, number 138 is called well-ordered because the digits in the number (1, 3, 8) increase from left to right, i.e., 1 < 3 < 8. Number 365 is not well-ordered because 6 is larger than 5. Write a program that will find and display all possible three digit well-ordered numbers. The program should also display the total number of three digit well-ordered numbers found.

10. Write a function to computer the highest common factor of integer numbers m and n. Use this function to find the highest common factor of integer numbers a and b.

11. Given the marks (out of 100) obtained by each student in a test of a class with n students. Write a program to obtain the following information:

(a) minimum and maximum marks score

(b) average score of the class, and

(c) number of students whose score is greater than class's average score

12. Write a program to multiply matrix Am×n by Bp×q, given that n = p.

13. Write a program to sort a list of n integer numbers in descending order using bubble sort method.

Dr. Parminder Singh

Er. Amanpreet Singh Brar

Er. Sumeet K and Behra

Er. Vivek Thapar

Dr. Gurpreet Singh Lehal

Dr. Sukhwinder Singh

Dr. Param...

14. Write a program to perform the addition and multiplication of two complex numbers using structures.

15. Write a program using pointers to compute the sum of all elements stored in an array.

Dr. Parminder Singh
Er. Amanpreet Singh Brar
Er. Simran Kaur Sohal

Er. Vivek Thapar
Dr. Gurpreet Singh Lehal
Dr. Sukhwinder Singh

Dr. Paramjit Singh

BOS Minutes of Meetings FOR ELECTIVES (EE)

Minutes of Meeting, Board of Studies, 30.6.15

Minutes of the Board of Studies Meeting
Of
Electrical Engineering Department
Held on 30th June, 2015
Venue: Committee Room

The following were present:
1. Dr. J.S.Dhillon
2. Dr. PiushVerma
3. Dr. Sanjay Marwaha
4. Dr. Lakhwinder Singh
5. Er. Pritam Singh
6. Pf. Jaswinder Singh
7. Dr. Y.S.Brar
8. Pf. Preetinder Singh
9. Dr. Kanwardeep Singh
10. Pf. Gagandeep Singh Sodhi
11. Pf. Arvind Dhingra
12. Pf. Navneet Singh Bhangu
13. Pf. Harmeet Singh Gill

Pf. Jaswinder Singh, Chairman, BOS welcomed the participants to the meeting. The agenda which had already been circulated was placed before the board.

1. The new study scheme was put up for discussion and approval. The chairman apprised the board that as per the college norms credit based scheme was being introduced and the same was put for approval of the board. The board after certain amendments unanimously approved the same.

   APPROVED

2. The syllabus for 3rd and 4th semester was also presented. The syllabus for all the subjects included their Course Objectives and Course Outcomes. The syllabus was discussed at length and certain amendments were suggested which were duly incorporated. This was approved by the board.

   APPROVED

3. The board members were of the view that syllabi for 5th, 6th & 7th/8th semester must be ready before December, 2015.

   AGREED

There being no other matter, the meeting ended with a vote of thanks.

Chairman, BOS (EE)

Ce: Director for kind information
Dean (Academic)
All members of BOS (EE)

GURU NANAK DEV ENGINEERING COLLGE, LUDHIANA
ELECTRICAL ENGINEERING DEPARTMENT
Minutes of Meeting (Board of Studies)
Held on 9th December, 2016
Venue: Committee Room

The following members were present:

1. Dr.J.S.Dhillon
2. Dr.Y.S.Brar
3. Dr. Lakhwinder Singh
4. Er.Pritam Singh
5. Pf.Jaswinder Singh
6. Pf.Preetinder Singh
7. Dr.Kanwardeep Singh
8. Pf.Gagandeep Singh Sodhi
9. Pf.Arvind Dhingra
10. Dr. Navneet Singh Bhangu
11. Pf.Harmeet Singh Gill

Pf.Jaswinder Singh, Chairman, BoS welcomed the participants to the meeting. The agenda which had already been circulated was placed before the board.

1. The codes for all subjects of B.Tech (Electrical Engineering) were placed before the board. The Chairman informed the members that code change was necessary as the Dean(Academics), Guru Nanak Dev Engineering College, Ludhiana has directed all departments to follow uniform structure for subject codes. This is also necessary as per directions received from affiliating university: IKG Punjab Technical University, Kapurthala.

The board members agreed for the change and the changed codes are appended alongwith.

2. The Program Educational Objectives and Program out comes for B.Tech (Electrical Engineering) and M.Tech (Power engineering) alongwith mission and vision statement of department were placed for review before the board.

The board members gave their valuable inputs which were recorded. The Chairman assured the board members that their suggestions shall be incorporated in the revised documentation.

3. The Chairman informed the board regarding upcoming accreditation visit for PG and compliance report for UG courses. In view of this board was of the view that Ph.D qualification faculty may be recruited to maintain cadre ratio.

Guru Nanak Dev Engineering College, Ludhiana

Electrical Engineering Department

Minutes of BoS Meeting

Date: 14.7.2017

Ref.No.

A meeting of Board of Studies of Electrical Engineering Department was held in the college committee room on 14.7.2017 at 10.00AM. The following were present:

1. Dr. J.S. Dhillon
2. Dr. Piush Verma
3. Dr. Sanjay Marwaha
4. Dr. Lakhwinder Singh
5. Dr. Yadwinder Singh Brar
6. Pf. Jaswinder Singh
7. Pf. Khushdeep Singh
8. Pf. Preetinder Singh
9. Pf. Rupinderjit Singh
10. Dr. Kanwardeep Singh
11. Pf. Gagandeep Singh Sodhi
12. Dr. Navneet Singh Bhangu
13. Pf. Harmeet Singh Gill
14. Pf. Arvind Dhingra

Chairman, BoS welcomed all to the 6th Board of Studies meeting.

The following points were discussed:

1. The revised vision and mission of Electrical Engineering Department were discussed and approved.
2. The syllabus for 7th/8th semester 2014 scheme B.Tech (Electrical) was put up for discussion. The members gave their valuable suggestions which were duly incorporated. The board members approved the syllabus.
3. The PEOs and POs of B.Tech (Electrical Engineering) & M.Tech (Power Engineering) were presented for validation of the board. These were duly validated by the board.
4. The syllabus for Basic Electrical Engineering 2017 batch was discussed and approved.

There being no other matter for discussion, the meeting ended with a vote of thanks.

HOD (EED) &

Chairman, BoS

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

ELECTRICAL ENGINEERING DEPARTMENT

Minutes of Meeting Board of Studies (Internal)

Held on: 27th February, 2018

Venue: Committee Room

Dt. 27/2/18

Ref. No. EE/ 200/A

The following member were present:

1. Pf. Jaswinder Singh, Chairman
2. Pf. Khushdeep Singh (On Leave)
3. Pf. Preetinder Singh
4. Pf. Rupinderjit Singh
5. Dr. Kanwardeep Singh
6. Pf. Gagandeep Sjingh Sodhi
7. Dr. Navneet Singh Bhangu
8. Pf. Harmeet Singh Gill
9. Dr. Arvind Dhingra

Special Invitee
Er. Satish Saini
Chairman, Smart Grid Technical Activities,
(SG TAC)- IEEE
Senior Projects & Program Manager, Hydro One Networks Inc.
Mississauga, Ontario, Canada.

Pf. Jaswinder Singh, Chairman, BoS welcomed the participants to the meeting and the following agenda points were discussed:-

1. The syllabus of the subject Smart Grids: Fundamentals & Technologies was placed before the board as it has to be added as an elective subject in 7th / 8th Semester of B.Tech (Electrical Engg) in 2017 Syllabus Scheme. The same was approved. (SUBJECT CODE : DEEE-11810)

2. The Environment Engg. Subject for 2017 Syllabus Scheme has to be taught to the students of 2017 batch B.Tech. (Electrical Engg) immediately after the completion of 2nd Semester. The syllabus for Environment Engg. is common to all branches and will be supplied by Civil Engineering department. The item was approved.

3. New codes and hours allotted for the subjects of 2017 Syllabus Scheme was discussed and placed before the board. The board approved the same.

4. Course outcomes of B.Tech (Electrical Engg) and M.Tech (Power Engg.) were reformulated and deliberated upon in the meeting. The board approved the same.

27/02/2018

HOD(Electrical) &
Chairman, BoS

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

DEPARTMENT OF ELECTRICAL ENGINEERING

February 25,2019

Ref.No. EE/ 498/A

Minutes of Meeting

A board of studies meeting of department of Electrical Engineering was held in college committee room on 23.2.2019. The following members were present:

1. Dr. J.S.Dhillon
2. Dr. Y.P.Verma
3. Er. Dheeraj Kumar
4. Pf. Preetinder Singh
5. Pf. Rupinderjit Singh
6. Dr. Kanwardeep Singh
7. Pf. Gagandeep Singh Sodhi
8. Dr. Navneet Singh Bhangu
9. Pf. Harmeet Singh Gill
10. Dr. Arvind Dhingra
11. Dr. Amit Kamra
12. Pf. Jaswinder Singh Sra

Study scheme as per AICTE revised 2018 model curriculum was discussed for 2018 batch onwards. Syllabus for 3rd and 4th semester was discussed. The suggestions of the experts were incorporated. The scheme and syllabus after incorporating the comments are enclosed.

Chairman, BoS

Guru Nanak Dev Engineering College, Ludhiana

Electrical Engineering Department

Minutes of BoS Meeting

A meeting of Board of Studies of Electrical Engineering Department was held in the college committee room on 22.7.2019 at 11.00AM. The following were present:

1. Dr. Kanwardeep Singh
2. Dr. Yadwinder Singh Brar
3. Dr. Ashwani Kumar Sharma
4. Er. Saravdeep Singh Bhasur
5. Er. Pritam Singh
6. Pf. Khushdeep Sinh
7. Pf. Preetinder Singh
8. Pf. Rupinderjit Singh
9. Pf. Gagandeep Singh Sodhi
10. Dr. Navneet Singh Bhangu
11. Pf. Harmeet Singh Gill
12. Dr. Arvind Dhingra
13. Pf. Ravinder Kaur
14. Pf. Sonia
15. CoE : Dr. Akshay Girdhar
16. T&P Nominee
17. Dean Academics

Chairman, BoS welcomed all to the meeting.

A two minute silence was observed to mourn the death of Pf. Jaswinder Singh, Ex-Chairman, BoS & HOD(EED).

The following points were discussed:

1. The study scheme of M.Tech (Power Engg.) & M.Tech (Electrical Engg.) as per revised AICTE guidelines were discussed and approved.
2. The syllabus for 1st Semester M.Tech (Power Engg.) & M.Tech (Electrical Engg.) as per revised AICTE guidelines were discussed and approved.
3. The syllabus for 3rd and 4th Semester B.Tech (Electrical Engg.) for 2018 batch onwards was discussed and passed.
4. Study scheme for 5th to 8th semester for B.tech 2018 batch onwards were discussed and passed.
5. Minor degree courses were discussed. It was decided to float core electrical subjects. The Chairman, BoS was authorized to select and float the subjects in consultation with internal BoS.
6. Panel of examiners for all programs of Electrical Engineering department was approved.

The meeting ended with a vote of thanks.

HOD(EED) &

Chairman, BoS

Guru Nanak Dev Engineering College, Ludhiana

Electrical Engineering Department

Minutes of BoS Meeting

A meeting of Board of Studies of Electrical Engineering Department was held in the college committee room on 22.7.2019 at 11.00AM. The following were present:

1. Dr. Kanwardeep Singh
2. Dr. Yadwinder Singh Brar
3. Dr. Ashwani Kumar Sharma
4. Er. Saravdeep Singh Bhasur
5. Er. Pritam Singh
6. Pf. Khushdeep Sinh
7. Pf. Preetinder Singh
8. Pf. Rupinderjit Singh
9. Pf. Gagandeep Singh Sodhi
10. Dr. Navneet Singh Bhangu
11. Pf. Harmeet Singh Gill
12. Dr. Arvind Dhingra
13. Pf. Ravinder Kaur
14. Pf. Sonia
15. CoE :Dr. Akshay Girdhar
16. T&P Nominee
17. Dean Academics

Chairman, BoS welcomed all to the meeting.

A two minute silence was observed to mourn the death of Pf. Jaswinder Singh, Ex-Chairman, BoS & HOD(EED).

The following points were discussed:

1. The study scheme of M.Tech (Power Engg.) & M.Tech (Electrical Engg.) as per revised AICTE guidelines were discussed and approved.
2. The syllabus for 1st Semester M.Tech (Power Engg.) & M.Tech (Electrical Engg.) as per revised AICTE guidelines were discussed and approved.
3. The syllabus for 3rd and 4th Semester B.Tech (Electrical Engg.) for 2018 batch onwards was discussed and passed.
4. Study scheme for 5th to 8th semester for B.tech 2018 batch onwards were discussed and passed.
5. Minor degree courses were discussed. It was decided to float core electrical subjects. The Chairman, BoS was authorized to select and float the subjects in consultation with internal BoS.
6. Panel of examiners for all programs of Electrical Engineering department was approved.

The meeting ended with a vote of thanks.

HOD(EED) &

Chairman, BoS

MINUTES OF MEETING

Minutes of 15th meeting of Board of Studies of Department of Electronics and Communication Engineering held on 27th Feb 2020 at 10.30 AM in the Committee Room of the Institute.

Following were the agenda points:

- To discuss and finalize the study scheme for 5th – 8th semester for ECE 2018 batch onwards.
- To discuss and finalize the syllabus of 5th semester for 2018 batch onwards.
- Ratification of minutes of internal BOS meeting held on 30.09.2019 and 12.12.2019.
- Any other item.

The following members were present in the meeting:

Sr. No.	Name of member and address	Designation
1.	Er. Ameeta Seehra Associate Professor, ECE Dept., GNDEC, Ludhiana	Chairperson
2.	Dr. Narwant Singh Grewal Assistant Professor, ECE Dept., GNDEC, Ludhiana	Member
3.	Dr. Munish Rattan Assistant Professor, ECE Dept., GNDEC, Ludhiana	Member
4.	Dr. Baljeet Kaur Assistant Professor, ECE Dept., GNDEC, Ludhiana	Member
5.	Dr. Amit Kumar Kohli Associate Professor, Electronics Department, Thapar University, Patiala	Member
6.	Dr. Narwant Singh Grewal Dean (Academic) Nominee	Member
7.	Dr. Harmeet Singh Gill COE Nominee	Member
8.	Er. Gagandeep Singh Sodhi Dean (T&P)	Member

17/3/v

②

The following decisions were taken:

- The study scheme for 5th - 8th semester and the syllabus of 5th semester for ECE 2018 batch onwards was discussed. The suggestions by the members were incorporated and the final draft is attached in Annexure-I for approval by the Academic Council.
- As per the suggestion given by academic nominee the subject code of Mandatory non credit course (Environmental Science) of 3rd semester is changed from MCEC-101 to MCI-101(attached in Annexure-II).
- The Marks of the Mandatory course (Environmental Science- MCI-101) in 3rd semester scheme are excluded from the total marks of all subjects in that semester and minimum 40% score is required to achieve satisfactory level for that course (attached in Annexure-II).
- The Mandatory course of "Mentoring and professional development" is added in the tabular form of the scheme for 3rd and 4th semesters (attached in Annexure-II)
- Coverage hours of each theory course in 3rd and 4th semester are revised for ECE 2018 batch onwards (attached in Annexure-III)
- Ratification of minutes of internal BOS meeting held on 30.09.2019 and 12.12.2019 (attached in Annexure-IV).

Er. Ameeta Seehra
Chairperson
Board of Studies
Department of ECE

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering

S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
1	Basic Science Course	BSEC-101	Engineering Mathematics - III	Theory	3	0	0	40	60	100	3
2	Professional Core Course	PCEC-101	Electronic Devices	Theory	3	0	0	40	60	100	3
3	Professional Core Course	PCEC-102	Network Analysis and Synthesis	Theory	3	1	0	40	60	100	4
4	Professional Core Course	PCEC-103	Signals and Systems	Theory	3	1	0	40	60	100	4
5	Professional Core Course	PCEC-104	Digital Electronics	Theory	3	1	0	40	60	100	4
6	Professional Core Course	PCEC-105	Computer Architecture	Theory	3	0	0	40	60	100	3
7	Mandatory Course$ (Non-Credit)	MCI-101	Environmental Science	Theory	2	0	0	50	0	50	S/US
8	Professional Core Course	LPCEC-101	Electronic Devices Laboratory	Practical	0	0	2	30	20	50	1
9	Professional Core Course	LPCEC-102	Digital Electronics Laboratory	Practical	0	0	2	30	20	50	1
10	Training	TR-101	Training - I	Practical	-	-	-	60	40	100	1
11	Mandatory Course	-	Mentoring and Professional Development	Practical	0	0	1	-	-	-	-
	TOTAL				20	3	5	360	440	800	24

Contact Hours   28

* Industrial/ Institutional Training of 4-weeks shall be held in summer vacation after 2nd semester and marks/credit shall be awarded in 3rd semester itself.

$ Marks of non credit courses are excluded from total and minimum 40% score is required to achieve satisfactory level.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

						Semester-4th						
S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
1	Professional Core Course	PCEC-106	Analog Circuits	Theory	3	1	0	40	60	100	4
2	Professional Core Course	PCEC-107	Object Oriented Programming using C++ and Data Structures	Theory	3	0	0	40	60	100	3
3	Professional Core Course	PCEC-108	Electromagnetic Field Theory	Theory	3	0	0	40	60	100	3
4	Professional Core Course	PCEC-109	Linear Control Systems	Theory	3	1	0	40	60	100	4
5	Humanities and Social Sciences including Management Course	HSMEC-101	Information Management and Data Analytics	Theory	3	0	0	40	60	100	3
6	Professional Core Course	LPCEC-103	Analog Circuits Laboratory	Practical	0	0	2	30	20	50	1
7	Professional Core Course	LPCEC-104	Measurement and Control Laboratory	Practical	0	0	2	30	20	50	1
8	Professional Core Course	LPCEC-105	Object Oriented Programming using C++ and Data Structures Laboratory	Practical	0	0	2	30	20	50	1
9	Professional Core Course	LPCEC-106	Intelligent Signal Processing Laboratory	Practical	0	0	2	30	20	50	1
10	Seminar	PREC-101	Seminar and Technical Report Writing for Engineers	Practical	0	0	2	50	0	50	1
11	Mandatory Course	MPD-102	Mentoring and Professional Development	Practical	0	0	1	100	-	100	1
	TOTAL				15	2	11	470	380	850	23

Contact Hours 28

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
1	Professional Core Course	PCEC-110	Analog Communication Systems	Theory	3	0	0	40	60	100	3
2	Professional Core Course	PCEC-111	Digital Signal Processing	Theory	3	1	0	40	60	100	4
3	Professional Core Course	PCEC-112	Microprocessors and Microcontrollers	Theory	3	1	0	40	60	100	4
4	Professional Core Course	PCEC-113	Antenna and Wave Propagation	Theory	3	0	0	40	60	100	3
5	Professional Core Course	PCEC-114	Computer Networks	Theory	3	0	0	40	60	100	3
6	Mandatory Course$ (Non-credit)	MCI-102	Constitution of India	Theory	2	0	0	50	0	50	S/US
7	Professional Core Course	LPCEC-107	Analog Communication Systems Laboratory	Practical	0	0	2	30	20	50	1
8	Professional Core Course	LPCEC-108	Digital Signal Processing Laboratory	Practical	0	0	2	30	20	50	1
9	Professional Core Course	LPCEC-109	Microprocessors and Microcontrollers Laboratory	Practical	0	0	2	30	20	50	1
10	Professional Core Course	LPCEC-110	Computer Networks Laboratory	Practical	0	0	2	30	20	50	1
11	Training	TR-102	Training-II	Practical	-	-	-	60	40	100	1
12	Mandatory Course	-	Mentoring and Professional Development	Practical	0	0	1	-	-	-	0
	TOTAL				17	2	9	380	420	800	22

Contact Hours 28

* Industrial/ Institutional Training of 4-weeks shall be held in summer vacation after 4th semester and marks/credit shall be awarded in 5th semester itself.

$ Marks of non-credit courses are excluded from total and minimum 40% score is required to achieve satisfactory level.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
1	Professional Core Course	PCEC-115	Digital Communication Systems	Theory	3	0	0	40	60	100	3
2	Professional Core Course	PCEC-116	Microwave and Radar	Theory	3	0	0	40	60	100	3
3	Professional Core Course	LPCEC-111	Digital Communication Systems Laboratory	Practical	0	0	2	30	20	50	1
4	Professional Core Course	LPCEC-112	Microwave and Radar Laboratory	Practical	0	0	2	30	20	50	1
5	Professional Elective Course	PEEC-XXX	Elective - I	Theory	3	1	0	40	60	100	4
6	Professional Elective Course	PEEC-XXX	Elective - II	Theory	3	1	0	40	60	100	4
7	Open Subject	OEZZ-XXX	Open Elective - I	Theory	3	0	0	40	60	100	3
8	Professional Elective Course #	LPEEC-XXX	Elective-ILaboratory	Practical	0	0	2	30	20	50	1
9	Project	PREC-102	Minor Project	Practical	0	0	2	30	20	50	1
10	Mandatory Course	MPD-103	Mentoring and Professional Development	Practical	0	0	1	100	-	100	1
	TOTAL				15	2	9	420	380	800	22

Contact Hours 26

Students will be offered the corresponding Labs from Elective - I laboratory as per their allotted subject in Elective – I.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
			Semester-7th								
1	Professional Elective Course	PEEC-XXX	Elective - III	Theory	3	1	0	40	60	100	4
2	Professional Elective Course	PEEC-XXX	Elective - IV	Theory	3	1	0	40	60	100	4
3	Open Subject	OEZZ-XXX	Open Elective - II	Theory	3	0	0	40	60	100	3
4	Training	TR-103	Training-III	Practical	-	-	-	90	60	150	2
5	Project	PREC-103	Project - I	Practical	0	0	6	40	60	100	3
6	Mandatory Course$ (Non-credit)	MCI-103	Organizational Behaviour	Theory	2	0	0	50	0	50	S/US
7	Mandatory Course	MPD-103	Mentoring and Professional Development	Practical	0	0	1	-	-	-	0
	TOTAL				9	2	7	250	300	550	16

Contact Hours 18

* Industrial/ Institutional Training of 4-weeks shall be held in summer vacation after 6th semester and marks/credit shall be awarded in7th semester itself.

$ Marks of non-credit courses are excluded from total and minimum 40% score is required to achieve satisfactory level.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

S. No.	Course Type	Course Code	Course Title	Subject Type	Hours per week			Marks Distribution		Total Marks	Credits
					L	T	P	Internal	External		
1	Professional Elective Course	PEEC-XXX	Elective - V	Theory	3	1	0	40	60	100	4
2	Professional Elective Course	PEEC-XXX	Elective - VI	Theory	3	1	0	40	60	100	4
3	Open Subject	OEZZ-XXX	Open Elective - III	Theory	3	0	0	40	60	100	3
4	Professional Elective Course	LPEEC-XXX	Elective – VLaboratory	Practical	0	0	2	30	20	50	1
5	Project	PREC-103	Project - II	Practical	0	0	6	40	60	100	3
6	Mandatory Course	MPD-104	Mentoring and Professional Development	Practical	0	0	1	100	-	100	1
	TOTAL				9	2	9	290	260	550	16

Contact Hours   20

\# Students will be offered the corresponding Labs from Elective – V Laboratory as per their allotted subject in Elective – V.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Electronics and Communication Engineering
Syllabus Scheme for B. Tech. Batch 2018 onwards (Electronics and Communication Engineering)

List of Program Electives

Course Type	Course Code	Course Title
Elective - I	PEEC-101	Optical Communication
	PEEC-102	ARM based Embedded System
Elective - II	PEEC-103	Mobile Communication and Networks
	PEEC-104	Multimedia Signal Processing
Elective - III	PEEC-105	Information Theory and Coding
	PEEC-106	Arduino and raspberry pi based Embedded System
Elective - IV	PEEC-107	Artificial Intelligent
	PEEC-108	Introduction to MEMS and Nanotechnology
Elective - V	PEEC-109	VLSI Design
	PEEC-110	Soft Computing
Elective - VI	PEEC-111	CMOS Design
	PEEC-112	Biomedical Signal Processing

List of Program Elective Laboratory

Course Type	Course Code	Course Title
Elective - I Laboratory	LPEEC-101	Optical Communication Laboratory
	LPEEC-102	ARM based Embedded SystemLaboratory
Elective - V Laboratory	LPEEC-103	VLSI Design Laboratory
	LPEEC-104	Soft Computing Laboratory

List of Open Elective Subjects offered to all other departments

Course Type	Course Code	Course Title
Open Elective - I	OEEC-101	Signals and Systems
	OEEC-102	Basics of Electronics and Communication
Open Elective - II	OEEC-103	Embedded Systems
	OEEC-104	Wireless Communication
Open Elective - III	OEEC-105	Network Security
	OEEC-106	Fundamentals of Mechatronics

GURU NANAK DEV ENGINEERING COLLEGE LUDHIANA
(Department of Electronics & Communication Engineering)

No. ECE/ 1178

MINUTES OF MEETING

Date: 08.08.19

Minutes of 12th meeting Board of Studies of Department of Electronics and Communication Engineering held on 02.08.2019 at 11.00 AM in college committee room.

The following members were present in the meeting.

1. Er. Ameeta Seehra, Chairperson
2. Dr. Balwinder Singh Dhaliwal, Member
3. Dr. Munish Rattan, Member
4. Dr. Baljeet Kaur, Member
5. Dr. Amit Kumar Kohli, Associate Professor, ECE Department, Thapar University, Patiala, Member
6. Er. H.S. Jatana, Group and Process Ground, SCL, Mohali, Member
7. Dr. J.S. Sahambi, Professor, Department of EE, IIT Ropar, Member
8. Sh. Ajeet Thakur, Assistant Professor, ECE, ABVGIET, Shimla, HP, Member
9. Dr. Amit Kamra, COE Nominee
10. Er. Gagandeep Singh Sodhi, TPO (GNDEC)

The following decisions were taken: -

1. The new scheme for M.Tech (ECE) for 2019 batch for all the four semesters (according to latest AICTE guidelines) was discussed and finalized by BOS.

2. The syllabus of M.Tech (ECE) for 1st and 2nd semester for 2019 batch was discussed and finalized by BOS.

3. The panel of external paper setters for B.Tech (ECE) and M.Tech (ECE) was finalized by BOS members.

4. The list of courses offered for Minor Degree and Honours Degree in Electronics and Communication Engineering was finalized by BOS members.

(Er. Ameeta Seehra)
Chairperson
Board of Studies,
Department of ECE,
GNDEC, Ludhiana.

M. Tech. (Electronics and Communication Engineering)

Curriculum Structure - 2019 Batch onwards

Semester-1st

S. No.	Course Type	Course Code	Course Title	Hours per week			Marks			Credits
				L	T	P	Int. Marks	Ext. Marks	Total Marks	
1	Core-1	MEC-101	Modern Communication Systems	3	0	0	50	100	150	3
2	Core-2	MEC-102	VLSI Physical Design and Automation	3	0	0	50	100	150	3
3	Program Elective		Elective-1 (Any one)	3	0	0	50	100	150	3
		MEC-103	[1] Modelling and Simulation of Communication Systems							
		MEC-104	[2] Semiconductor Devices Theory and Modelling							
		MEC-105	[3] Soft Computing							
4	Program Elective		Elective-2 (Any one)	3	0	0	50	100	150	3
		MEC-106	[1] Antennas and Radiating Systems							
		MEC-107	[2] Computer Communication and Network Security							
		MEC-108	[3] Advanced Embedded System Design							
5	Lab-1	LMEC-101	Modern Communication Systems – Lab	0	0	4	50	50	100	2
6	Lab-2	LMEC-102	VLSI Physical Design and Automation - Lab	0	0	4	50	50	100	2
7	MLC	MRM-101	Research Methodology and IPR	3	0	0	50	100	150	3
8	Aud-1	MAC-XXX	Audit Course-1	2	0	0	50	0	50	S/US
Total				17	0	8	400	600	1000	19

Semester-2nd

S. No.	Course Type	Course Code	Course Title	L	T	P	Int. Marks	Ext. Marks	Total Marks	Credits
1	Core-3	MEC-109	Advanced Digital Signal Processing	3	0	0	50	100	150	3
2	Core-4	MEC-110	Advanced Optical Communication Systems	3	0	0	50	100	150	3
3	Program Elective		Elective-3 (Any one)	3	0	0	50	100	150	3
		MEC-111	[1] Advanced Digital System Design							
		MEC-112	[2] Advanced Wireless and Mobile Communication							
		MEC-113	[3] Engineering Design and Project Management							
4	Program Elective		Elective-4 (Any one)	3	0	0	50	100	150	3
		MEC-114	[1] Advanced Microwave Engineering							
		MEC-115	[2] Internet of Things							
		MEC-116	[3] Biomedical Electronics							
5	Lab-3	LMEC-103	Advanced Digital Signal Processing - Lab	0	0	4	50	50	100	2
6	Lab-4	LMEC-104	Advanced Optical Communication Systems - Lab	0	0	4	50	50	100	2
7	Core	LMPEC-101	Project	0	0	4	50	50	100	2
8	Aud-2	MAC-XXX	Audit Course-2	2	0	0	50	0	50	S/US
			Total	**14**	**0**	**12**	**400**	**550**	**950**	**18**

Semester-3rd

S. No.	Course Type	Course Code	Course Title	Hours per week			Marks			Credits
				L	T	P	Int. Marks	Ext. Marks	Total Marks	
1	Program Elective		Elective-5 (Any one)	3	0	0	50	100	150	3
		MEC-117	[1] Machine Learning							
		MEC-118	[2] Advanced Wireless Sensor Networks							
		MEC-119	[3] Multimedia Communication							
		MEC-120	[4] Low Power VLSI Design							
2	Open Elective	MOZZ-XXX	^Open Elective	3	0	0	50	100	150	3
3	Dissertation	MPTEC-101	Pre-Thesis	0	0	#2+*18	100	100	200	10
			Total	6	0	20	200	300	500	16

^ - Open Elective for ECE students will be offered by other departments; # - Maximum hours for teacher; * - Independent study hours

Semester-4th

S. No.	Course Type	Course Code	Course Title	Hours per week			Marks			Credits
				L	T	P	Int. Marks	Ext. Marks	Total Marks	
1	Dissertation	MTEC-101	Thesis	0	0	#4+*28	100	200	300	16
			Total	0	0	32	100	200	300	16

- Maximum hours for teacher; * - Independent study hours

List of Audit Courses

Sr. No.	Course Code	Course Title
1	MAC-101	English for Research Paper Writing
2	MAC-102	Disaster Management
3	MAC-103	Sanskrit for Technical Knowledge
4	MAC-104	Value Education
5	MAC-105	Constitution of India
6	MAC-106	Pedagogy Studies
7	MAC-107	Stress Management by Yoga
8	MAC-108	Personality Development through Life Enlightenment Skills

List of Open Elective Subjects offered to Other Departments

Sr. No.	Course Code	Course Title
1	MOEC-101	Probability and Stochastic Processes
2	MOEC-102	Microelectromechanical Systems
3	MOEC-103	Bio Signal Processing
4	MOEC-104	Engineering Design and Project Management
5	MOEC-105	E-Waste Management

Guru Nanak Dev Engineering College, Ludhiana
Department of Information Technology

Ref. No.: I.T/02/1574

Dated: 31/8/18

Minutes of 6th meeting of Board of Studies of Information Technology department held on August 31, 2018 at 11:00 am in the office of HOD (IT) .

Following members were present:

1. Dr. Kiran Jyoti, Assistant Professor and Head, Department of Information Technology, GNDEC, Ludhiana (Chairman)

2. Dr. Akshay Girdhar, Professor , Department of Information Technology, GNDEC, Ludhiana (Member) and COE

3. Dr. Kulvinder Singh Mann, Professor, Department of Information Technology, GNDEC, Ludhiana (Member)

4. Dr. Amit Kamra, Assistant Professor, Department of Information Technology, GNDEC, Ludhiana (Member)

External Members

5. Dr. Savita Gupta, Professor, UIET, Panjab University Chandigarh (Member) (Could not Attend)

6. Dr. Amardeep Singh, Professor, UCOE, Punjabi University, Patiala (Member)

7. Dr. Sarbajit Singh Professor, UIET, Panjab University Chandigarh (Member)

8. Er. Harpreet Singh, MD, Harksh Technologies Private Limited, Ludhiana (Member)

9. Er. Kshitz Adhlakha, Founder, Secugenius Pvt. Ltd., Noida (Could not Attend)

10. Dean Academics

11. Er. Sandeep Singla, Nominee of TPO

Dr. Kiran Jyoti

Dr. Kulwinder Singh Mann

Dr. Akshay Girdhar

Dr. Amit Kamra

Dr. Sarabjit Singh

Er. Harpreet Khattar

Dr. Amardeep Singh

Er. Sandeep Singla

Dean Academics

Agenda Item-1

1.1 Proposal of new course under Autonomous Status

After discussion and deliberation, the title of course was approved as below. The Committee approved the course and authorized Chairman BOS for further changes if required.

Title: **Bachelor of Vocation (B.Voc) with specialization in Software Development as per UGC Guidelines**

Intake: 15

Approved

Agenda Item-2

2.1 Proposal to apply new course under National Vocational Education Qualification Framework (NVEQF) through AICTE

After discussion and deliberation, the committee suggested to apply for the course mentioned below.

Title: **Bachelor of Vocation (B.Voc) with specialization in Software Development as per AICTE Guidelines**

Approved

Agenda Item-3

3.1 Discussion on study scheme of 3rd and 4th semester of B.Tech IT-2018 onwards.

The discussion for B.Tech (IT) from 2018 batches and onwards was discussed at large keeping in mind the model curriculum of AICTE, B.Tech (IT) Scheme of IKGPTU Jalandhar and Information Technology Curricula 2017 developed by ACM and IEEE-CS. The scheme of 3rd and 4th semester for B.Tech (IT)-2018 batches and onwards was discussed in detail. The subjects will be finalized by next BOS meeting.
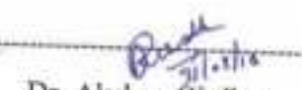
Dr. Kiran Jyoti

Dr. Amit Kamra

Dr. Amardeep Singh

Dr. Kulwinder Singh Mann

Dr. Sarabjit Singh

Er. Sandeep Singla

Dr. Akshay Girdhar

Er. Harpreet Khattar

Dean Academics

Agenda Item -4

4.1 Proposal to add non-credit course on Environment Science during workshop training.

The course content related to Environment Science shall be covered during workshop training for batch 2017.

Approved

Agenda Item -5

5.1 Approval for panel of externals for B.Tech (IT) and M.Tech (IT) Part-time.

Approved

Agenda Item -6

6.1 Proposal to start M.Tech (IT) AICTE Approved

There is a proposal to start a 2 years M.Tech degree in Information Technology, AICTE approved as the department has very good infrastructure, 6 PhD faculty members and 12 M.Tech faculty members. Committee authorized Chairman BOS for further changes if required.

Approved

Any Other Agenda Item

COE suggested that review of end semester question papers should be done through BOS.

Dr. Kiran Jyoti

Dr. Amit Kamra

Dr. Amardeep Singh

Dr. Kulwinder Singh Mann

Dr. Sarabjit Singh

Er. Sandeep Singla

Dr. Akshay Girdhar

Er. Harpreet Khattar

Dean Academics

Nominee of TPO suggested that duration of training after 4th semester to be of 4-6 weeks for ongoing Study Scheme

Meeting ended with the vote of thanks

HOD (IT) cum Chairman

Board of Studies

Distributions:

1. Principal for Information, Please
2. All Members of BOS(IT) .
3. Dean Academics
4. COE
5. TPO
6. BOS File
7. All Faculty members (IT)

Dr. Kiran Jyoti

Dr. Amit Kamra

Dr. Amardeep Singh

Dr. Kulwinder Singh Mann

Dr. Sarabjit Singh

Er. Sandeep Singla

Dr. Akshay Girdhar

Er. Harpreet Khattar

Dean Academics

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
(An Autonomous College u/s 2 (f) and 12 (B) of UGC Act 1956)
DEPARTMENT OF MECHANICAL ENGINEERING

Dated: 28-2-2019

No.ME/ 36/3763

MINUTES OF MEETING

A meeting of Board of Studies (Mechanical Engineering) of Guru Nanak Dev Engineering, Ludhiana constituted by Principal vide Office Order No. RK38/2042 dated 16.11.17 was held on 20.02.2019 (Wednesday) at 11.00 am in the Committee Room of the Institute.

Following were the agenda Points:-

1. To discuss and approve the curriculum (study scheme) of B.Tech (Mechanical Engineering) of 2018 admission batch onwards.
2. To discuss and approve the detailed contents of the course of following elective subjects of 2014-2018 study scheme:-
   i. DEME 14101 IC Engine.
   ii. DEME 14612 Heat Treatment Processes.
3. Discussion and approval of detailed contents of the courses of 3rd and 4th semester B.Tech. (Mechanical Engineering) curriculum of 2018 admission batch onwards.
4. Any other issue with the permission of the Chairman BOS.

Following members of the BOS were present and actively participated:-

1.	Dr. Paramjit Singh	Chairman
2.	Dr. H.S. Shan	Member
3.	Dr. Pardeep Rajan	Member
4.	Dr. S.P Singh	Member
5.	Dr. Harmesh K Kansal	Member
6.	Dr. Harmeet Singh	Member
7.	Dr. Harwinder Singh	Member
8.	Dr. Jatinder Kapoor	Member
9.	Er. Deepinder Singh	Member
10.	Dean (Academics)/Nominee	Member
11.	COE/Nominee	Member
12.	Dean (T&P)/Nominee	Member

Following members of the BOS couldn't attend the meeting:-

1.	Er. D.S Dogra	Member
2.	Dr. Jatinder Madan	Member

Following Special Invitees were also present in the meeting:

1.	Dr. Sehijpal Singh	Principal (GNDEC)
2.	Er. Davinder Singh Bhogal	Asstt. Prof. (ME)
3.	Er. Prem Singh	Asstt. Prof. (ME)
4.	Er. Ardamanbir Singh	Asstt. Prof. (ME)
5.	Er. Aprinder Singh Sandhu	Asstt. Prof. (ME)

Following Special Invitees could not attend the meeting:

1.	Er. Gurmeet Kaur	Asstt. Prof. (ME)

29/02/2019

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GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
(An Autonomous College u/s 2 (f) and 12 (B) of UGC Act 1956)
DEPARTMENT OF MECHANICAL ENGINEERING

No.ME/ 3C/3763   Dated: 28-2-2019

The following decisions were taken unanimously based upon the discussions and suggestions of various members of BOS and Special Invitees:-

1) In regard to the Study Scheme of B.Tech (Mechanical Engineering) of 2018 admission batch onwards following modifications had been suggested:-

   a) The Engineering Mechanics subject shall be under Engineering Science courses and being very fundamental course for Mechanical Engineers its credits shall be increased from 2 credits to 3 credits.

   b) The subjects of Manufacturing Science – I and Manufacturing Science – II shall be renamed as Manufacturing Processes and Modern Manufacturing Processes respectively and the contents of manufacturing technology shall also be included alongwith contents related to manufacturing sciences.

   c) GNDEC being mainly catering to rural area students, some subjects/courses or contents related to Rural Technologies or Sustainable Technologies shall be made part of the curriculum.

   d) The credits for elective subjects shall be made flexible between 2-4 credits in order to increase the number of elective subjects in the form of theory as well as practical/practice and to cover Special topic/s of Mechanical Engineering.

   e) There is no need of separate lab of Computer Aided Manufacturing (CAM) course and the requisite contents needed shall be included in some other relevant subject/lab.

2) The detailed contents of following elective subjects of 2014-2018 study scheme had been approved with minor modifications (Copies attached):-

   i) DEME 14101 IC Engine.

   ii) DEME 14612 Heat Treatment Processes.

3) A detailed discussion on the contents of the courses of 3rd and 4th semester B.Tech (Mechanical Engineering) curriculum of 2018 admission batch onwards had been held and following modifications and suggestions had been proposed:-

   a) The topics/ contents related to piping and instrumentation diagram (P&ID), Building Information and Management System (BIMS), Computational Fluid Dynamics (CFD) and digital manufacturing shall be included in appropriate subjects.

   b) The course of Industrial Automation and Robotics must include some contents related to mechatronics and DH (Denavit–Hartenberg) parameters.

   c) The contents of Thermodynamics shall be reduced and some important/requisite contents could be made a part of Topics for Self Learning (TSL).

   d) Topics of Probability and Statistics must be included in course of Mathematics-III.

   e) Concept of Similitude and Hydro Power Plant shall be included in course of Fluid Mechanics and Machinery.

   f) Basics of Industrial Engineering must be incorporated in the course of Operations Research.

   g) Include some contents of Machine Tools and various finishing processes in course of Manufacturing Processes.

   h) The contents of Engineering Mechanics must include topics of Trusses and frames.

   i) The contents related to kinematics, flywheel and governors must be included in Theory of Machines subject.

4) The proposed study scheme for 3rd to 8th Semester B.Tech. (Mechanical Engineering) curriculum of 2018 admission batch onwards has been modified in light of the above and a new study scheme for 3rd to 8th semester B.Tech. (Mechanical Engineering) curriculum of 2018 admission batch onwards had been

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finalized and approved (Copy attached). The detailed contents of various courses of 3rd and 4th semester B.Tech. (Mechanical Engineering) curriculum of 2018 admission batch onwards will be finalized in the next meeting alongwith the remaining courses of subsequent semesters.

Chairman 28/2/2019
BOS (ME)

Encl.:

1. Approved copy of syllabus of subject DEME 14101 IC Engine.
2. Approved copy of syllabus of subject DEME 14612 Heat Treatment Processes.
3. Approved copy of Study Scheme for 3rd to 8th semester B.Tech. (Mechanical Engineering) curriculum of 2018 admission batch onwards.

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A meeting of BOS (Production Engg.) was held on 03-06-2016 at 12.15PM in Production Engineering Dept.. The following members were present.

- Dr. J.S.Grewal. Prof. & Head P.E (Co-ordinator)
- Dr. Rupinder Singh, Prof. P.E (Internal member)
- Dr. Harpuneet Singh Asst. Prof. P.E (Internal member)
- Dr. Jagdeep Singh, Asst. Prof. P.E (Internal member)
- Dr. Harwinder Singh Prof. M.E (Internal member)
- Dr. O.P.Singh, Prof. M.E BCET Gurdaspur (External member academic)
- Dr. Dixit Garg, Prof. M.E NIT KKR (External member academic)
- Sh. Jagjeet Singh, Alumni cum Parents representative
- Dr. Sanjeev Kumar, Prof. M.E PEC Chandigarh (External member academic) via Skype
- Dr. Sandeep Grover Prof. M.E YMCA Univ. of Sc. & Tech. Fbd. (PTU nominee) via Skype
- Mr. Aman Bhartee (Final Yr. B.Tech. student)
- Mr. Gurchetan Singh (Final Yr. M.Tech student)

1. Apprising the Board of Studies about 3ʳᵈ and 4ᵗʰ semester syllabus and complete scheme of U.G. and P.G Production Engineering programme.

Approved

2. Finalising the content and scheme of summer training.

Approved

03|6|19

Chairman (BOS), P.E

S.No.	Name	Designation	Signature
1.	Dr. J.S.Grewal, Prof. & Head P.E	Chairman	J.S Grewal 3/6/19
2.	Dr. Rupinder Singh, Prof. P.E	Member	
3.	Dr. Harpuneet Singh, Asst. Prof. P.E	Member	3/6/19
4.	Dr. Jagdeep Singh, Asst. Prof.P.E	Member	
5.	Dr. Harwinder Singh Prof. M.E	Member	
6.	Dr. Jatinder Kapoor Prof. M.E	Member	
7.	Dr. O.P.Singh, Prof. M.E	External Member (Academician)	03/06/19
8.	Dr. Sanjeev Kumar, Prof. M.E	External Member (Academician) (via Skype)	
9.	Dr. Dixit Garg Prof. M.E	External Member (Academician)	3/6/19
10.	Sh. Jagjeet Singh	Industrialist, Alumni cum Parents representative (Special invitee)	
11.	Dr. Sandeep Grover	IKGPTU Nominee (via Skype)	
12.	COE/ Nominee Dr. Akshay Girdhar	Member	
13.	Dean Academics Nominee Dr. K. S. Gill	Member	
14.	TPO/ Nominee Prof. G.S. Sodhi	Member.	
15.	Mr. Aman Bhartee	Final Yr. B.Tech P.E student	Aman Kumar Bhartee
16.	Mr. Gurchetan Singh	Final Yr. M.Tech P.E student	Gurchetan

Department of Production Engineering
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
BACHELOR OF TECHNOLOGY

(PRODUCTION ENGINEERING) 2018

3RD SEMESTER

Sr. No	Code	Type of Course	Subject	Contact Hours L	P	Total	Credit	Type of Subject	Marks Int.	Ext.	Total
1	PCPE-101	Professional Core Course	Strength of Materials	3	0	3	3	Theory	40	60	100
2	PCPE-102	Professional Core Course	Machine Drawing	2	4	6	4	Theory	40	60	100
3	PCPE-103	Professional Core Course	Thermal Engineering	3	0	3	3	Theory	40	60	100
4	HSMPE-101	Humanities Course	Operations Management	3	0	3	3	Theory	40	60	100
5	BSPE-101	Basic Science Course	Material Science	3	0	3	3	Theory	40	60	100
6	ESPE-101	Engineering Science Course	Industrial Engineering	3	0	3	3	Theory	40	60	100
7	LPCPE-101	Professional Core Course	Strength of Material Laboratory	0	2	2	1	Practical	30	20	50
8	LPCPE-102	Professional Core Course	Thermal Engineering Laboratory	0	2	2	1	Practical	30	20	50
9	TR-101	Training	Training 1*	-	--	-	1	Practical	60	40	100
10	PRPE-101	Project/Seminar	Seminar and Technical Report Writing	0	2	2	1	Practical	50	-	50
11	MPD-102	Mandatory Course	Mentoring and Professional Development	0	1	1	-	Practical	-	-	-
				17	11	28	23		410	440	850

*Institutional/Industrial Training after 2nd semester of 4 weeks duration will be conducted during summer vacations and marks will be added in 3rd Semester

4TH SEMESTER

Sr. No	Code	Type of Course	Subject	Contact Hours L	P	Total	Credit	Type of Subject	Marks Int.	Ext.	Total
1	PCPE-104	Professional Core Course	Design of Machine Elements	4	0	4	4	Theory	40	60	100
2	PCPE-105	Professional Core Course	Fluid Mechanics and Machinery	4	0	4	4	Theory	40	60	100
3	PCPE-106	Professional Core Course	Manufacturing Processes	3	0	3	3	Theory	40	60	100
4	PCPE-107	Professional Core Course	Kinematics and Dynamics of Machines	3	0	3	3	Theory	40	60	100
5	PCPE-108	Professional Core Course	Physical Metallurgy and Heat Treatment	3	0	3	3	Theory	40	60	100
6	LPCPE-103	Professional Core Course	Fluid Mechanics and Machinery Laboratory	0	2	2	1	Practical	20	30	50
7	LPCPE-104	Professional Core Course	Kinematics and Dynamics of Machines Laboratory	0	2	2	1	Practical	20	30	50
8	LPCPE-105	Professional Core Course	Manufacturing Processes and Physical Metallurgy & Heat Treatment Laboratory	0	4	4	2	Practical	20	30	50
9	MCPE-101	Mandatory Non Credit Course	Environmental Science	2	0	2	-	Theory	50	S/NS	50
10	MPD-102	Mandatory Course	Mentoring and Professional Development	0	1	1	1	Practical	100	-	100
		Total		19	9	28	21		410	440	850

5th SEMESTER

Sr No	Code	Type of Course	Subject	Contact Hours L	P	Total	Credit	Type of Subject	Marks Int	Ext	Total
1	PCPE-109	Professional Core Course	Industrial Automation and Robotics	3	0	3	3	Theory	40	60	100
2	PCPE-110	Professional Core Course	Inspection and Quality Control	3	0	3	3	Theory	40	60	100
3	PCPE-111	Professional Core Course	Metal Forming	3	0	3	3	Theory	40	60	100
4	PCPE-112	Professional Core Course	Engineering Metrology	3	0	3	3	Theory	40	60	100
5	PCPE-113	Professional Core Course	Machining Science	3	0	3	3	Theory	40	60	100
6	PEPE-XXX	Professional Elective Course	Elective 1	4	0	4	4	Theory	40	60	100
7	LPCPE-106	Professional Core Course	Industrial Automation and Robotics Laboratory	0	2	2	1	Practical	30	20	50
8	LPCPE-107	Professional Core Course	Metal Forming and Machining Science Laboratory	0	2	2	1	Practical	30	20	50
9	LPCPE-108	Professional Core Course	Engineering Metrology Laboratory	0	2	2	1	Practical	30	20	50
10	TR-102	Training	Training 2*	-	--	-	1	Practical	60	40	100
11	MPD-103	Mandatory Course	Mentoring and Professional Development	0	1	1	-	Practical	-	-	--
				19	7	26	23		390	460	850

*Industry / Institutional Training after 4TH semester of 4 weeks duration will be conducted during summer vacations and marks will be added in 5th Semester

6TH SEMESTER

Sr. No	Code	Type of Course	Subject	Contact Hours L	P	Total	Credit	Type of Subject	Marks Int	Ext.	Total
1	PCPE-114	Professional Core Course	Industrial Tribology	3	0	3	3	Theory	40	60	100
2	PCPE-115	Professional Core Course	Machine Tool Design	3	0	3	3	Theory	40	60	100
3	PCPE-116	Professional Core Course	Operation Research	3	0	3	3	Theory	40	60	100
4	PCPE-117	Professional Core Course	Non-Traditional Machining	3	0	3	3	Theory	40	60	100
5	PEPE-XXX	Professional Elective Course	Dept. Elective-II	4	0	4	4	Theory	40	60	100
6	OEZZ-XXX	Professional Open Course	Open Elective-1	3	0	3	3	Theory	40	60	100
7	LPCPE-109	Professional Core Course	Industrial Tribology and Machine Tool Design Laboratory	0	2	2	1	Practical	20	30	50
8	LPCPE-110	Professional Core Course	Non-Traditional Machining Laboratory	0	2	2	1	Practical	20	30	50
9	PRPE-102	Project	Minor Project	0	4	4	2	Practical	60	40	100
10	MPD-103	Mandatory Course	Mentoring and Professional Development	0	1	1	1	Practical	100	-	100
		Total		19	9	28	23		440	460	900

7th SEMESTER

Sr. No	Code	Type of Course	Subject	Contact Hours			Credit	Type of Subject	Marks		
				L	P	Total			Int.	Ext.	Total
1	PEPE-XXX	Professional Elective Course	Dept. Elective-III	4	0	4	4	Theory	40	60	100
2	PEPE-XXX	Professional Elective Course	Dept. Elective-IV	4	0	4	4	Theory	40	60	100
3	OEZZ-XXX	Professional Open Course	Open Elective- II	3	0	3	3	Theory	40	60	100
4	MCI-102	Mandatory Non Credit Course	Indian Constitution	2	0	2	-	Theory	50	S/NS	50
5	PRPE-102	Project	Project 1	0	6	6	3	Practical	120	80	200
6	TR-102	Training	Training 3*	-	--	-	2	Practical	100	50	150
7	MPD-104	Mandatory Course	Mentoring and Professional Development	0	1	1	-	Practical	-	-	
				13	7	20	16		390	310	700

*Industry/Institutional Training after 6TH semester of 6 weeks duration will be conducted during summer vacations and marks will be added in 7th Semester

8TH SEMESTER

Sr. No	Code	Type of Course	Subject	Contact Hours			Credit	Type of Subject	Marks		
				L	P	Total			Int.	Ext.	Total
1	PEPE-XXX	Professional Elective Course	Dept. Elective-V	4	0	4	4	Theory	40	60	100
2	PEPE-XXX	Professional Elective Course	Dept. Elective-VI	4	0	4	4	Theory	40	60	100
3	OEZZ-XXX	Professional Open Course	Open Elective- III	3	0	3	3	Theory	40	60	100
4	MCI-103	Mandatory Non Credit Course	Organizational Behaviour	2	0	2	-	Theory	50	S/NS	50
5	PRPE-103	Project	Project2	0	6	6	3	Practical	120	80	200
6	MPD-104	Mandatory Course	Mentoring and Professional Development	0	1	1	1	Practical	100	-	100
		Total		13	7	20	14		390	260	450

List of Departmental Elective Subjects

Once an elective group is selected in the **5th** semester then same group will be used in **6th** semester. In **7th** and **8th** semester any elective group can be selected irrespective of group selected in **5th** & **6th** semester. Minimum strength requirement for running an elective subject is 10 students

Elective I (5TH Semester)			Elective II (6TH Semester)		
Design & Manufacturing Engineering Group			**Design & Manufacturing Engineering Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-101	Jig Fixture and Die Design	1	PEPE-105	Advance Casting and Welding Technology
2	PEPE-102	Tool and Cutter Design	2	PEPE-106	Maintenance and Reliability Engineering
3	PEPE-103	Introduction to Robotics	3	PEPE-107	Statistic and Numerical Analysis
4	PEPE-104	Micro Manufacturing	4	PEPE-108	Cryogenic Manufacturing
Industrial Engineering Group			**Industrial Engineering Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-125	Human Engineering	1	PEPE-129	Plant Layout and Material Handling
2	PEPE-126	Agile Manufacturing	2	PEPE-130	Productivity Management
3	PEPE-127	Technology Management	3	PEPE-131	Project Management
4	PEPE-128	Marketing Management	4	PEPE-132	Estimating and Costing
Materials Group			**Materials Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-149	Composite Materials	1	PEPE-153	Advance Engineering Material
2	PEPE-150	Materials Testing and Characterization	2	PEPE-154	Advance Ceramics
3	PEPE-151	Science and Engineering of Metals	3	PEPE-155	Material Processing
4	PEPE-152	Deformations and Defects of Materials	4	PEPE-156	Aero Space Materials
Elective III (7TH Semester)			**Elective IV (7TH Semester)**		
Design & Manufacturing Engineering Group			**Design & Manufacturing Engineering Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-109	Non Destructive Testing	1	PEPE-113	Plastic and Ceramics Technology
2	PEPE-110	Computer Aided Design & Manufacturing	2	PEPE-114	Finite Element Method
3	PEPE-111	Precision Engineering	3	PEPE-115	Automobile Engineering
4	PEPE-112	Theory of Plasticity	4	PEPE-116	Industrial Finishing
Industrial Engineering Group			**Industrial Engineering Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-133	Supply Chain Management	1	PEPE-137	Industrial Safety and Environment
2	PEPE-134	Quality and Reliability Engineering	2	PEPE-138	Value Engineering
3	PEPE-135	Green Manufacturing	3	PEPE-139	Intellectual Property Rights
4	PEPE-136	Investment Planning	4	PEPE-140	Total Productive Maintenance
Materials Group			**Materials Group**		
S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-157	Texture in Materials	1	PEPE-161	Nano Materials
2	PEPE-158	Environmental Degradation of Materials	2	PEPE-162	Explosive Materials used in Industries

3	PEPE-159	Fundamentals of Semi-Conductor Fabrication	3	PEPE-163	Wear Technology
4	PEPE-160	Nuclear Materials	4	PEPE-164	Thermodynamics of Materials

Elective V (8TH Semester)
Design & Manufacturing Engineering Group

Elective VI (8TH Semester)
Design & Manufacturing Engineering Group

S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-117	Computer Integrated Manufacturing	1	PEPE-121	Rapid Prototyping
2	PEPE-118	Design of Experiments	2	PEPE-122	Mechatronics
3	PEPE-119	Bio Mechanics	3	PEPE-123	Product Design and Development
4	PEPE-120	Reverse Engineering	4	PEPE-124	Surface Engineering

Industrial Engineering Group
Industrial Engineering Group

S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-141	Research Methodology	1	PEPE-145	Production Planning and Control
2	PEPE-142	Materials Management	2	PEPE-146	Entrepreneurship
3	PEPE-143	Probability and Statistics	3	PEPE-147	Quality Assurance
4	PEPE-144	Total Quality Management	4	PEPE-148	Enterprise Resource Planning

Materials Group
Materials Group

S. N	Code	Name of Elective Subject	S.N	Code	Name of Elective Subject
1	PEPE-165	Extreme Environmental Materials	1	PEPE-169	Medical Materials
2	PEPE-166	Cryogenic Materials	2	PEPE-170	Hazardous Materials
3	PEPE-167	Bio Materials	3	PEPE-171	Smart Materials
4	PEPE-168	Waste Material and Management	4	PEPE-172	Lather Technology

List of Open Elective Subjects Offered by the Department

Sr. No.	Semester	Open Elective No.	Code of Subject	Elective Subject Name
1	6th Semester	Open Elective No 1	OEPE-101	Industrial Engineering
			OEPE-102	Human Engineering
2	7th Semester	Open Elective No 2	OEPE-103	Advanced Engineering Materials
			OEPE-104	Materials Management
3	8th Semester	Open Elective No 3	OEPE-105	Industrial Safety and Environment
			OEPE-106	Supply Chain Management

Department of Production Engineering
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
MASTER OF TECHNOLOGY

(PRODUCTION ENGINEERING) 2019

Syllabus Scheme for Master of Technology Production Engineering 2019 onwards
Total Credits: 19+18+16+16=69

1st Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MPE-101	Core Course	Advanced Metal Forming	3	0	0	3	Theory	50	100	150
2	MPE-102	Core Course	Advanced Metal Casting	3	0	0	3	Theory	50	100	150
3	MPE-XXX	Program Elective	Program Elective I (Any one)	3	0	0	3	Theory	50	100	150
	MPE-105		Entrepreneurship								
	MPE-106		Jig Fixture and Press Design								
	MPE-107		Advanced Plant Layout Design								
4	MPE-XXX	Program Elective	Program Elective II (Any one)	3	0	0	3	Theory	50	100	150
	MPE-108		Product Design and Development								
	MPE-109		Additive Manufacturing Process and Applications								
	MPE-110		Flexible Manufacturing Systems								
5	LMPE-101	Core Course	Advanced Manufacturing processes Laboratory	0	0	4	2	Practical	50	50	100
6	LMPE-102	Core Course	Advanced Machining and Casting processes Laboratory	0	0	4	2	Practical	50	50	100
7	MRM-101	Core Course	Research Methodology and IPR	3	0	0	3	Theory	50	100	150
8	MAC-105	Audit Course 1	Constitution of India	2	0	0	0	Theory	50	-	50
			Total	17	0	12	19		400	600	1000

2nd Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MPE-103	Core Course	Advanced Welding Processes	3	0		3	Theory	50	100	150
2	MPE-104	Core Course	Advanced Metal Cutting	3	0		3	Theory	50	100	150
3	MPE-XXX	Program Elective	Program Elective III (Any one)	3	0		3	Theory	50	100	150
	MPE-111		Production and Inventory Control								
	MPE-112		Quality Assurance								
	MPE-113		Advanced Industrial Tribology								
4	MPE-XXX	Program Elective	Program Elective IV (Any one)	3	0		3	Theory	50	100	150
	MPE-114		Industrial Robotic Design								
	MPE-115		Non-Conventional Machining Process								
	MPE-116		Computer Aided Design								
5	LMPE-103	Core Course	Advanced Welding Process Laboratory	0	0	4	2	Practical	50	50	100
6	LMPE-104	Core Course	Mechanical and Morphological characterization Laboratory	0	0	4	2	Practical	50	50	100
7	LMPPE-101	Core Course	Project	0	0	4	2	Practical	50	50	100
8	MAC-106	Audit Course 2	Pedagogy Studies	2	0	0	0	Theory	50	-	50
			Total	14	0	12	18		400	550	950

3rd Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme L	Teaching Scheme T	Teaching Scheme P	Credits	Type of Subject	Marks Int.	Marks Ext.	Marks Total
1	MPE-XXX MPE-117 MEP-118 MPE-119	Program Elective	**Program Elective V (Any one)** Operations Management Materials Management Advance Operations Research	3	0	0	3	Theory	50	100	150
2	MOZZ-XXX	Open Elective	Open Elective 1	3	0	0	3	Theory	50	100	150
3	MPTPE-101	Pre-thesis	Formulation of research problem	0	0	20	10	Practical	100	100	200
			Total	6	0	20	16		200	300	500

4th Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme L	Teaching Scheme T	Teaching Scheme P	Credits	Type of Subject	Marks Int.	Marks Ext.	Marks Total
1	MTPE-101	Thesis	Thesis work	0	0	32	16	Practical	100	200	300
			Total	0	0	32	16		100	200	300

List of Electives

Audit course 1 & 2	List of Open Elective	Open Elective offered by Production Engineering
MAC-101 English for Research Paper Writing MAC-102 Disaster Management MAC-103 Sanskrit for Technical Knowledge MAC-104 Value Education MAC-105 Constitution of India MAC-106 Pedagogy Studies MAC-107 Stress Management by Yoga MAC-108 Personality Development through Life Enlightenment Skills.	1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Waste to Energy	MPE-120 Industrial Safety MPE-121 Operations Research MPE-122 Composite Materials

Note: Eight questions out of entire syllabus and well-distributed are to be set; students are required to attempt 5 questions.

DEPARTMENT OF BUSINESS ADMINSTRATION
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA.

BOARD OF STUDIES

AGENDA

&

MINUTES OF MEETING

2015 ONWARDS

Contents

S. No	Description
I	**List of BOS Members**
II	**Agenda Items** 1. To finalize the syllabus of MBA second Semester as per the AICTE model curriculum (New scheme 2019). **(Annexure-I)** 2. To amend and finalize the course codes of new study scheme 2019. **(Annexure-II).** 3. To review and finalize the courses to be offered as open electives for B.Tech and M.Tech . **(Annexure-III)** 4. To finalize the syllabus of the subject (Human Resource Management) offered as Open Elective to students of M.Tech. **(Annexure-IV)**

ANNEXURE-I

CORPORATE FINANCE AND FINANCIAL MARKETS
COURSE CODE: MBA-109

Max. Marks: 100
External Assessment: 60
Internal Assessment: 40

Objectives: To provide an understanding of the function, the roles, the goals and the processes of corporate financial management covering the sources of finances, investment of the resources and operations of ,financial system. Problem-solving methodology and case study will be used to illustrate the theories and tools in financial decision making.

Unit –I

Introduction to Financial Management: Objectives - Functions and Scope – Evolution Interface of Financial Management with Other Functional Areas - Environment of Corporate Finance. Sources of Long-Term Finance (Both domestic and Global): Equity Capital and Preference Capital – ADRs- GDRs – Foreign Bonds-Debenture Capital - Term Loans and Deferred Credit,. Valuation of Securities: Concept of Valuation - Bond Valuation - Equity Valuation: Dividend Capitalization Approach and Ratio Approach -Valuation of Warrants and Convertibles, Time Value of Money.

Unit –II

Financing & Investment Decisions: Basics of Capital Expenditure Decisions: The Process of Capital Budgeting - Analysis of Project Cash Flows: Cash Flow Estimation -Identifying the Relevant Cash Flows - Cash Flow Analysis Basic Principles in Estimating Cost and Benefits of Investments -Appraisal Criteria: Discounted and Non Discounted Methods (Pay-Back Period - Average rate of return - Net Present Value -Benefit Cost Ratio -Internal Rate of Return) - Replacement, Cash Flow-Estimation Bias - Evaluating Projects with Unequal Life - Adjusting Cash Flow for Inflation, Capital Rationing, Capital Structure Decisions-Leverages, Point of Indifference, Theories of Capital Structure, Cost of Capital- Cost of Debt, Cost of Preference Shares, Cost of Retained Earnings, Cost of Equity & Weighted average Cost of Capital, Working Capital Management-Estimation, Operating Cycle & Net Operating Cycle.

Unit –III

Indian Financial System: Introduction, Salient Features, Functions and Structure/ Organization, Financial System and the Indian Economy, Reforms in the Indian Financial System, Development Financial Institutions, Banking (with special reference to risk management in Banks) & Banking Financial Institutions, Insurance.

Unit –IV

Financial Markets: Functions and Organization, Organizations Resource Mobilization, Capital Market Instruments-Equity, Preference Shares, Debentures, Innovative Debt Instruments, Forward Contracts, Future Contracts, Option Contracts, Channelization of Funds, Equity, Debt and Currency Markets, Regulatory Framework of Primary Market, Regulatory Framework of Secondary Market, Primary Market Organization- Intermediaries,, Activities/ Procedures, Secondary Market Organization, Money Markets. Contemporary issues in Financial Markets.

Tutorials:

i) Relevant Case Studies should be discussed in class.

ii) Each student of the class shall carry a mini project on the financial practices or on financial market on the different topic of the syllabus.

The project may be carried on the basis of the primary/secondary data collected from the MNCs/ BSE 500 companies or related to financial markets.

Suggested Readings/ Books:

- I.M. Pandey, Financial Management, Vikas publishers
- Khan & Jain, Financial Management, Tata McGraw Hill
- Prasanna Chandra, Financial Management (Theory& Practice), Tata McGraw Hill
- Brigham, Financial Management: Text & Cases, Cengage Learning
- Brealy & Myres, Principles of Corporate Finance, Tata McGraw Hill
- John J., Financial Decision Making: Concept, Problem & Cases, Prentice Hall
- Khan & Jain, Indian Financial System, McGraw Hill Education (India) Private Limited
- Pathak Bharati V, The Indian Financial System- Markets, Institutions and Services, Pearson
- Madura Jeff, " Financial Institutions and Markets", Cenage Learning
- Fabozzi Frank J. & Modigliani Franco, "Capital Markets- Institutions and Instruments", PHI Learning Private Limited.

HUMAN RESOURCE MANAGEMENT
COURSE CODE: MBA-110

Max Marks: 100
External Assessment: 60
Internal Assessment: 40

Objectives: The objective of the paper is to make student aware of the various functions and importance of the HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization, which is the most challenging and daunting look for any organization today.

Unit-I

Human Resources Management: Nature, scope, objectives & functions of HRM, HR as a competitive advantage, line & staff responsibility of HR manager. Competencies of HR Manager, Human Resource Planning, Job Analysis.

Unit – II

Recruitment & Selection: Meaning, Process & methods for recruitment. **Selection:** Need, Importance and the methods of selection. **Induction & Placement:** Need, Induction process, methods and evaluation of different methods. **Training & Development:** Training need Analysis, Methods of training.

Unit – III

Performance Appraisal: Meaning, Methods & Process, Issues in Performance Appraisal, Potential Appraisal. **Compensation Management:** Concept, elements, Job evaluation, wage & Salary fixation, Incentives, bonus, ESOPS, Fringe Benefits compensation, career planning & development, HRIS, **Industrial Relation & Labour laws:** basic concepts.

Unit – IV

Managerial Skills for effectiveness: Building organizational culture, networking skills, interaction across business functions, collaboration and presentation skills, development of a project that addresses an organizational challenge, Negotiation & Assertiveness skills, Mapping personal leadership and learning journey, Expanding professional and personal networks.

Tutorial: Relevant case study on the application of various
- Job Analysis
- Human Resource Planning
- Performance Appraisal

Group Discussion on emerging issues and Presentation on topics related to managerial skills would be conducted to enhance the student's personality and leadership skills.

MARKETING MANAGEMENT
COURSE CODE: MBA-111

Max. Marks: 100
External Assessment: 60
Internal Assessment: 40

Objectives: The course aims at making students understand concepts, philosophies, processes and techniques of managing the marketing operations of a firm in changing business environment. It would provide the students with the opportunity to apply the key concepts to practical business situations.

Unit –I

Understanding Marketing and Consumers: Introduction to Marketing Management, Definition, Importance, Scope, Basic Marketing Concepts, Marketing Mix, Marketing vs selling.
Marketing Environment and Competition Analyzing Marketing Environment- Micro, Macro, Impact of environment on marketing. **Marketing Information System:** Concept and Components. **Consumer Behaviour:** Consumer buying process, Factors Influencing Consumer Buying Behaviour,

Unit –II

Market Segmentation & Targeting. Concepts and types of Market segmentation, **Targeting:** need and methods. **Positioning:** concepts and position for competitive advantage. **Product Decisions:** Product Mix, Packaging and Labelling, Branding, Brand value & Brand Equity. **New Product Development:** Need, Process and Product Life Cycle and marketing mix strategies. **Pricing Decisions:** Objectives, Factors Affecting Pricing Decisions and Pricing Methods.

Unit –III

Delivering and Promoting Product: Supply Chain Decisions Nature, Types, Channel Design and Channel Management Decisions, Retailing, Wholesaling, **Personal Selling:** Personal Selling Process, Managing the Sales Force. **Promotion Mix:** Advertising, Sales Promotion, Public Relations. **Emerging Trends in Marketing:** Green Marketing, Event Marketing, Network Marketing, Social Marketing, Viral Marketing, Customer Relationship Management (CRM), Rural Marketing and Marketing in the Digital Age.

Unit -IV

Bottom of Pyramid Marketing: Understanding poverty and the Base of the Pyramid, understanding their basic needs wants and demands. **Design-Develop-Distribute** approach towards Bottom of Pyramid. Consumption and marketing practices, challenges. **The institutional context of Bottom of Pyramid markets,** Conducting Marketing Research in Bottom of Pyramid. Alternative Market initiatives at Bottom of Pyramid. **Ethical issues associated with** Bottom of Pyramid.

LEGAL AND BUSINESS ENVIRONMENT
COURSE CODE: MBA-112

Max. Marks: 100
External Assessment: 60
Internal Assessment: 40

Objectives: The course aims to provide an understanding of corporate legal framework prevalent in the country. This course seeks to sensitize the students to the broader business environment at micro and macro level and economic environment within which they will operate as managers. The course seeks to examine the interaction between the economy, policy and society at different perspective and enable the students to be more effective managers in today's global economy.

Unit-I

Legal aspect of Business: Introduction to business laws; Structure of the Indian legal systems, sources of law; Fundamentals of contract laws- formation of contracts; **Principles of contract laws-** legality of object consideration, performance of contract- discharge of contract- breach of contract, **Quasi contracts-**contract management, special contracts.- laws of agency; principal-agent- problem-bailment, pledge, guarantee and indemnity.

Unit II

Sales of Goods- principles of sales of goods-transfer of ownership & property- performance of contract-**Consumer Protection Laws-** Law relating to business organizations –Partnership Trusts- company form of organization; Protecting the property of Business-Copyright, Trademark, secret, Geographical Indications- Alternate dispute resolutions.

Unit-III
Macro & Micro indicators in business environment, assessing risk in business environment; Emerging sectors of Indian economy, relative size and growth of public and private sectors- design and strategy of economic reforms; current rate of growth and investment, interest rate structure & Monetary policy, fiscal environment, current inflationary position and its impact on business sector. Public and private partnership; intellectual property regime and environment for the SME sector; Trends in service sector growth; banking reforms and challenges; business opportunities in the rural sector.

Unit-IV
Globalization trends and challenges: balance of payment trends, environment for foreign trade and investment; exchange rate movements and their impact, India's competitiveness in the world economy; external influences on India's business environment.

Operations Management
Course code: MBA-113

Max. Marks: 100
External Assessment: 60
Internal Assessment: 40

Objectives: Develop knowledge of concepts and skills required to equip the learner in practising global standards for managing the operations of a manufacturing/service organization.

Unit - I

Operations management-Concept; functions; transformation process model - inputs, process and outputs difference between manufacturing and service operations; Recent trends in operations management; operations management in corporate profitability and competitiveness.

Designing products, services and processes- New product design; Product development process; product-process mix; design of services and service processes; service process matrix.

Process decisions- process choice; Relationship of process choice with volume in both manufacturing and services. **Facility Location** – importance, factors in location analysis, location decision issues for multinational firms.

Unit - II

Facility Layout – Objectives, Advantages, Basic Types of Layouts, Problems in facility layout. **Capacity Planning** – Concepts, Factors affecting Capacity Planning, Capacity Planning Decisions. **Forecasting** -Importance of Forecasting in managerial decision making, Demand characteristics and its patterns, designing the forecasting system, type of forecasting techniques, role of computers in forecasting, forecast error, selection of the forecasting model.

Unit - III

Inventory Management - Concept, Objectives, Inventory costs, Inventory classification, Factors Affecting Inventory Control Policy, Basic stock control methods, Continuous and Periodic review Inventory models ,**Deterministic Economic Order Quantity (EOQ) Models**- Basic EOQ Model, EOQ and Quantity Discount, EOQ Model with Non-instantaneous Receipt (Production-run formula), EOQ Model with Planned Shortages or where stockout is permitted, Stochastic inventory models, single period model for perishable products and services.

Supply Chain Management (SCM) meaning; nature of SCM for both manufacturers and service providers; role of purchasing and distribution in designing effective supply chains; measures of supply chain performance and their linkage to key financial measures; Lean and Agile supply chains and their design.

Unit - IV

Total Quality Management (TQM) – customer driven concept of quality; total quality management concept; **Principles of Total Quality management :-** Customer satisfaction, Employee involvement and Continuous improvement; major costs of poor quality; Improving quality through TQM;

JIT and Lean Production System- Concept; characteristics; Kanban System; JIT system in services; strategic implications of JIT systems; Problems in implementing JIT systems; Total quality control (TQC) concept; Deming's contribution to TQC; Contribution of Crossby to Quality management.

Sustainable Operations management- concept; need; Triple bottom line (TBL) concept; Sustainable operations strategies and their linkage with TBL

Tutorials:

1. A total of four case Studies on the various concepts of Operations management will be discussed.

2. Additionally Monte Carlo Simulation model for capacity planning and inventory analysis; Break even method and transportation method for location analysis and financial analyses techniques for assessing the relative attractiveness of projects with respect to other investment opportunities shall be discussed.

Suggested Readings/Books:

- Operations Management Strategy and Analysis by Lee J. Krajewski, Manoj K. Malhotra, Larry P. Ritzman.; Publisher: Pearson Education
- Production and Operations Management by Everette E. Adam, Jr. Ronald J. Ebert; Publisher: Prentice Hall of India
- Production and Operations Management by N.G. Nair; Publisher: Tata Mc. Graw Hill
- Production and Operations Management by Panneerselvam R; Publisher: Prentice Hall of India.
- Operations Management Theory & Practice, B. Mahadevan; Publisher: Pearson Education.

SEMINAR ON SOCIAL RESPONSIVENESS
COURSE CODE: MBA-114

Max Marks: 50
External Assessment: 0
Internal Assessment: 50

Objectives: The main objectives of the course include developing an attitude of responsiveness to contextual social issues / problems and exploring solutions, understanding business ethics and corporate social responsibility in the students pursuing the course. Students are expected to identify the contemporary social problems, exploring the opportunities for social entrepreneurship, designing business solutions and demonstrating ethical standards in organizational decision making.

Unit-I

Corporate Social Responsibility: Concept, Definition, Need, Arguments in favour of and against CSR. Historical Phases of Corporate Social Responsibility, Perspectives of CSR. Models of CSR, Drivers of CSR, Business Ethics and CSR, CSR Practices in India, Case Studies of Major CSR Initiatives.

Unit-II

Corporate Sustainability: Meaning, Need and importance of Sustainability, Sustainability Case Studies-Triple Bottom Line (TBL). Corporate Sustainability Reporting Frameworks- Global Reporting Initiative Guidelines, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business.

Unit-III

Eco-Efficiency & Pollution: Advantages of saving energy and reducing waste to business, Global warming, Green House effect, Carbon neutrality, Benefits to businesses in reducing carbon footprints, carbon credits.

Unit-IV

Drug De-addiction and Traffic Rules: Causes, remedies, and societal impact of drug abuse, Traffic Rules and regulations, road signs, punishment for violations (Eminent experts of the subject will be called for the Seminar at least once during the semester. It will be binding for all the students to attend the seminar.

RESEARCH METHODOLOGY
COURSE CODE: MBA-115

Max.Marks-100
External Assessment-60
Internal Assessment-40

Objectives: To Equip the students with the basic understanding of the research methodology in changing business scenario. To provide an insight into the application of dynamic analytical techniques to face the stormy challenges, aimed at fulfilling the objectives of business decision making.

Unit-I

Introduction to Research- Meaning of research; Types of research and research process; Features of good research study. Research problem- Defining research problem; Problem identification process; Components of research problem. Formulating the research hypothesis- Meaning of hypothesis; Types of research hypothesis. Scaling techniques- Meaning, types of scales, scale construction techniques.

Unit-II

Data Collection- Types of data; Sources of data collection; Tools of data collection; Methods of data collection. Questinnaire Design- Questionnaire method; Types of questionnaire; Process of questionnaire designing. Sampling- Concepts; sampling vs census; sampling vs non sampling error; Sampling Design- Probability and Non Probability sampling.

Unit-III

Test of Significance- Assumption about Parametric and Non Parametric tests; Chi-square test for the goodness of fit; T-test; F-test; Z-test; ANNOVA; **Non Parametric test-** Sign test; Run test; Krushall-Wallis test, Maan Whitney U test.

Unit-IV

Research Report writing- Types of research reports: Brief reports and Detailed reports. Report writing: structure of research report- Preliminary section, main report; formulation rules for writing the report; Appendix- norms of using Index and Bibliography.

Tutorial: Problems related to practical topics will be discussed and sorted out.
Questionnaire will be prepared by using different techniques.
Students will be prepared to construct different scales.

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ANNEXURE-II

Guru Nanak Dev Engineering College, Ludhiana.
Department of Business Administration
Study Scheme 2019.

SEMESTER -I

Course Code	Course Title	Course Type	Load Allocation			Marks Distribution		Total Marks	Total Credits
			L	T*	P	Internal	External		
MBA-101	Fundamentals of Management	Core	3	1		40	60	100	4
MBA-102	Managerial Economics	Core	3	1		40	60	100	4
MBA-103	Financial Reporting & Analysis	Core	3	1		40	60	100	4
MBA-104	Organisational Behaviour & Design	Core	3	1		40	60	100	4
MBA-105	Business Analytics	Core	3	1		40	60	100	4
MBA-106	Business communication**	Core	2	2		50	50	100	4
MBA-107	Computer Applications for Business	Core			2	40	60	100	1
MBA-108	Seminar on Indian Ethos and Ethics	Core		4		50		50	4
	TOTAL		17	11	2	340	410	750	29

* Separate syllabi shall be designed for Lecture and Tutorial classes. The syllabus for tutorial classes would be Practical / Task oriented.

** The students shall compulsorily submit a report on the topics covered in the course which shall be the eligibility criteria for passing in this course.

Guru Nanak Dev Engineering College, Ludhiana.
Department of Business Administration
Study Scheme 2019.

SEMESTER-II

Course Code	Course Title	Course Type	Load Allocation			Marks Distribution		Total Marks	Total Credits
			L	T*	P	Internal	External		
MBA-109	Corporate Finance and Financial Markets.	Core	3	1		40	60	100	4
MBA-110	Human Resource Management	Core	3	1		40	60	100	4
MBA-111	Marketing Management	Core	3	1		40	60	100	4
MBA-112	Legal and Business Environment	Core	3	1		40	60	100	4
MBA-113	Operations Management	Core	3	1		40	60	100	4
MBA-114	Seminar on Social Responsiveness	Core		4		50		50	4
MBA-115	Research Methodology***	Core	3	1		40	60	50	4
##	Open Elective/ MOOCS****	OE	3			40	60	100	3
			21	10		330	420	750	31

1. *** The students shall compulsorily submit a mini project report as an eligibility criteria for passing in this course.

2. **** Student opting for MOOCS course shall have to undergo 12 weeks course which shall be considered equivalent to open elective.

3. ## The students shall opt from the open elective courses being offered by other departments (M.TECH / M.C.A) and accordingly the same course code shall be applicable. For these open elective courses the students shall be attending the classes in the department offering the selected course.

4. Evaluation of the papers MBA-108 (Seminar on Indian Ethos and Ethics) and MBA-114 (Seminar on Social Responsiveness) will be Internal and the bifurcation of the marks would be:

- **MST** - 24 Marks
- **Attendance and Class behavior** - 6 Marks
- **Assignments and class tasks** - 5 Marks
- **Field Work/Practical** - 15 Marks

Guru Nanak Dev Engineering College, Ludhiana.
Department of Business Administration
Study Scheme 2019.

SEMESTER-III

Course Code	Course Title	Course Type	Load Allocation			Marks Distribution		Total Marks	Total Credits
			L	T*	P	Internal	External		
MBA-116	Entrepreneurship and Project Management	Core	3	1		40	60	100	4
MBA-XXX	Program Elective-I*	Electives	3	1		40	60	100	4
MBA-XXX	Program Elective-II*	Electives	3	1		40	60	100	4
MBA-XXX	Program Elective-III*	Electives	3	1		40	60	100	4
MBA-XXX	Program Elective-IV*	Electives	3	1		40	60	100	4
MBA-117	Industrial/ Institutional Training	Internship			2	50	-	50	1
MBAD-130	Dissertation Phase-I	Field work			4	50		50	2
			15	5	6	300	300	600	23

Guru Nanak Dev Engineering College, Ludhiana.
Department of Business Administration
Study Scheme 2019.

SEMESTER- IV

Course Code	Course Title	Course Type	Load Allocation			Marks Distribution		Total Marks	Total Credits
			L	T	P	Internal	External		
MBA-132	Corporate Strategy	Core	3	1		40	60	100	4
MBA -XXX	Elective-V**	Elective	3	1		40	60	100	4
MBA-XXX	Elective-VI**	Elective	3	1		40	60	100	4
MBA-XXX	Elective-VII**	Elective	3	1		40	60	100	4
MBA-XXX	Elective-VIII**	Elective	3	1		40	60	100	4
MBAD-131	Dissertation Phase -2		---	---	6		50	50	3
##	Open Elective/MOOCS	OE	3			40	60	100	3
			18	5	6	240	410	650	26

The students shall opt from the open elective courses being offered by other departments (M.Tech /M.C.A) and accordingly the same course code shall be applicable. For these open elective courses the students shall be attending the classes in the department offering the selected course.

Note on Elective Subjects

*The programme shall be dual specialization offering a total of 6 departmental electives in third and fourth semester each (2 from each specialization). The students shall opt for two subjects each in the selected specialization I (Elective –I & Elective-II) & specialization II (Elective –III & Elective-IV) of choice from the list of offered electives in each specialization in third semester
**Similarly the students shall opt for two subjects each in the specialization I (Elective –V & Elective-VI) & specialization II (Elective –VII & Elective-VIII) of choice from the list of offered electives in each specialization in fourth semester.
Further the minimum number of students required to offer an elective course shall be ten.

TOTAL CREDITS FOR MBA PROGRAM: 109

DEPARTMENTAL ELECTIVE COURSES

Specialization Finance 3rd Semester
- MBA-118 Investment Analysis and Portfolio Management
- MBA-119 Project Appraisal and Finance
- MBA-120 Financial Markets and Services
- MBA-121 Mergers, Acquisitions and Corporate Restructuring

Specialization Human Resource Management 3rd Semester
- MBA-126 Manpower Planning, Recruitment, and Selection
- MBA-127 Employee Relations
- MBA-128 Compensation and Benefits Management
  MBA-129 Understanding self-Indian Perspective

Specialization Finance 4th Semester
- MBA-133 International Finance
- MBA-134 Managing Banks and Financial Institutions
- MBA-135 Valuation
- MBA-136 Behavioral Finance

Specialization Human Resource Management 4th Semester

- MBA-141 Cross Cultural Management
- MBA-142 Team Dynamics at Work
- MBA-143 International HRM
- MBA-144 Strategic HRM

Specialization Marketing 3rd Semester
MBA-122 Consumer Behaviour
MBA-123 Integrated Marketing Communication
MBA-124 Digital and Social Media Marketi
MBA-125 Product and Brand Management

Specialization Marketing 4th Semester
MBA-136 Services Marketing
MBA-138 Retail Management
MBA-139 International Marketing
MBA-140 Sales and Distribution Management

Teachers need to submit the detailed course plan for both theory and tutorial subjects to the HOD before the commencement of each semester. Committee shall be formed by HOD for the approval of the submitted course plan.

OPEN ELECTIVES BEING OFFERED FOR UG STUDENTS

Subjects to be offered as Open Electives by the Department of Business Administration for B.Tech (U.G) courses

- OEMBA-201   Corporate Finance and Financial Markets
- OEMBA-202   Human Resource Management
- OEMBA-203   Marketing Management
- OEMBA-204   Operation Management
- OEMBA-205   Services Marketing
- OEMBA-206   International HRM

OPEN ELECTIVES BEING OFFERED FOR PG (M.TECH/M.C.A) STUDENTS

- MOBA- 301   Fundamentals of Management
- MOBA- 302   Organisational Behaviour & Design
- MOBA- 303   Financial Markets and Services
- MOBA –304   Consumer Behaviour
- MOBA –305   Manpower Planning, Recruitment, and Selection
- MOBA-306   International HRM.
- MOBA-307   Human Resource Management

The classes for the open elective courses for students of other departments shall preferably be held along with the students of M.B.A. program.

ANNEXURE-III

OPEN ELECTIVES BEING OFFERED FOR UG STUDENTS

Subjects to be offered as Open Electives by the Department of Business Administration for B.Tech (U.G) courses

- OEMBA-201   Corporate Finance and Financial Markets
- OEMBA-202   Human Resource Management
- OEMBA-203   Marketing Management
- OEMBA-204   Operation Management
- OEMBA-205   Services Marketing
- OEMBA-206   International HRM

OPEN ELECTIVES BEING OFFERED FOR PG (M.TECH/M.C.A) STUDENTS

- MOBA- 301   Fundamentals of Management
- MOBA- 302   Organisational Behaviour & Design
- MOBA- 303   Financial Markets and Services
- MOBA –304   Consumer Behaviour
- MOBA –305   Manpower Planning, Recruitment, and Selection
- MOBA-306   International HRM
- MOBA-307   Human Resource Management

The classes for the open elective courses for students of other departments shall preferably be held along with the students of M.B.A. program.

ANNEXURE-IV

Human Resource Management
MOBA-307

(Credits: 3)

Teaching Scheme
Lectures: 3 hrs/ week

Human Resources Management: Meaning, Scope, Objective, Functions, Roles and Importance. interaction with other functional areas. HRM &HRD a comparative analysis. Human Resource Management practices in India. Human Resource Planning: Meaning & Concept, Process and importance, Methods of Human Resources Planning, Importance of HRIS. Job Analysis, Job Description, Job Specification & Job Evaluation – Meaning, Concepts and Methods.

Recruitment & Selection: Meaning & Concept, Process & Methods Recruitment & Selections. Induction & Placement Process. Trnining & Development: Meaning & Concept of Training & Development, Methods of Training & Development, Difference Between Training & Development, Aligning Training to Business Needs, Future of Training & development. Career Planning & Coaching & Mentoring.

Performance Appraisal: Meaning & Concept of Performance Appraisal, Methods & Process Of Performance Appraisal, Issues in Performance Appraisal and Potential Appraisal. Compensation Management- Wage & Salary Administration: Meaning & Concept of Wage & Salary Administration, Elements & Methods of Wage & Salary, Incentive Plans & Fringe Benefits. Internal Mobility: Promotion, Transfer, Demotion, Separation. Quality of work life (QWL): Meaning, Concept, Development and Various Approaches of QWL, Techniques for improving QWL. Health, Safety & Employee Welfare, Social Security, Job Stress, Counseling and Monitoring, Job Satisfaction and Morale. Competency Mapping Unit

Industrial Relations: Meaning & Concept of Industrial Relations. Collective Bargaining - Meaning, Scope and Objectives; Collective Bargaining – Issues and Strategies; Negotiations Skills and Strategies; Participative Management; Employee Grievances and their Resolution – Model for Grievance Resolution Procedure. Quality Circles: Concept, Structure. Role of Management, Quality Circle in India, HR Audit, Contemporary Issues in HRM.

Suggested Readings/ Books:
- V.S.P.Rao, Human Resource Management, Excel Books
- C.B. Memoria, Personal Management, Himalaya Publications
- Edwin B.Flippo, Personal Management,Tata Mc Graw Hill
- K. Aswathappa, Human Resource Management, Tata McGrawHill
- Bohlander, Snell &Vohra, Human Resource Management, Cengage Learning
- Dale Yoder, Personal Management & Industrial Relations, Tata McGraw Hill C.B. Gupta, Human Resource Management, Sultan Chand and Sons
- R.S. Dwivivedi, HRD in India Companies, Himalaya publications
- Gary Dessler, Human Resource Management, McMillan
- Gomez-Mejia, Managing Human Resources,Pearson Education

Item No: 1	**Agenda Items:-**
	To Finalize the syllabus of MBA second Semester as per the AICTE model curriculum (New scheme 2019). **(Annexure-I)**
	Corporate Finance and Financial Markets(MBA-109) –approved
	Human Resource Management (MBA-110) In 3rd Unit Strategic HR Practices to be added. In Unit-I HR Audit needs to be incorporated.
	Marketing Management (MBA-111) In Unit II concepts of service marketing to be added. Emerging Trends to be shifted to Unit –IV.
	Legal and Business Environment(MBA-112) Introduction of Company Law, Liabilities of company formation, Qualifications, Rights and duties of Board of directors / to be added in IInd Unit. Partnership, trust to be deleted and add the trade secret.In Unit IV, concept of BOP to be added.
	Operation Management (MBA-113) Unit-II capacity Planning to be removed. Unit –III- Introduction of MRP, MRP2&ERP to be added and supply chain management to be removed. In Unit-IV concept of SQC, Quality Circles to be added. JIT to be added in Unit –III. Sustainable operations management to be removed.
	Seminar on Social Responsiveness (MBA-114) The syllabus not to be divided unit wise. Concept like Eco-efficiency, eco service system evaluation, renewable energy form (EVs &BS6 norms), Carbon credits to

1

	be added **Research Methodology (MBA -115)** In Unit –III Under non parametric tests sign and run test to be removed and introduction to multi-variate/factor /discriminant /conjoint/cluster/ multiple regression to be added. Relevant software's to be introduced to the students.
Item No: 2	To amend and finalize the course codes of new study scheme 2019. **(Annexure-II).** **Approved** The students can opt 8 weeks /12 weeks MOOC subjects for desired credits as per SWAYAM Guidelines.
Item No: 3	To review and finalize the courses to be offered as open electives for B.Tech and M.Tech.**(Annexure-III)** **Approved** **M.TECH –** Subjects titled Operation Management (MOBA-308) and Marketing Management (MOBA-309) to be offered as open electives.
Item No: 4	To finalize the syllabus of the course HRM to be offered as open electives for B.Tech and M.Tech courses. **(Annexure-IV)** **Approved**

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List of BOS Members

1	Dr. Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana **(Chairman)**.
2	Dr. Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana **(Member)**.
3	Dr. Amanjot Kaur Gill, Assistant Professor Department of Business Administration, GNDEC, Ludhiana **(Member)**.
4	Dr. Harmohan Singh Dhall, Assistant Professor Department of Business Administration, GNDEC, Ludhiana **(Member)**.
5	Dr. Navdeep Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana **(Member)**.
6	Ms. Amarpreet Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana **(Member)**.
	EXTERNAL MEMBERS
7	Dr. Ravi Inder Singh, Director, PU Regional Centre, Fountain Chowk, Ludhiana **(Member)**.
8	Dr. Rajat Aggarwal, Associate Professor, Department of Management Studies, IIT Roorkee**(Member)**.
9	Dr. AjeshKaura, Vice –President, Nahar Group, Ludhiana,**(Member)**.
10	Dr. HarmeenSoch, Associate Professor. PIT (PTU main campus), Kapurthala**(Member nominated by IKGPTU)**.
11	Mr. Inderjit Singh, Deputy Director, Department of Expenditure Ministry of Finance GOI, New Delhi.**(Member)**

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	Nominated Members	
1	Dean (Academics)/Nominee	11.10.19
2	COE/ Nominee	
3	Dean(T&P)/ Nominee	
	Speical Invitee: Ms.Mandeep Kaur Khosa Assistant Professor, Deptt. of Business Administration, Guru Nanak Dev Engineering College Ludhiana	Khosa

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BOS Members

The following members were present during the meeting of BOS on 11th October, 2019.

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1	Dr. Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana (**Chairman**).	11/10/19
2	Dr. Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana (**Member**).	11/10/19
3	Dr. Amanjot Kaur Gill, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	11/10/19
4	Dr. Harmohan Singh Dhall, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	11/10/19
5	Dr. Navdeep Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	11/10/19
6	Ms. Amarpreet Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	11/10/19
	EXTERNAL MEMBERS	
7	Dr. Ravi Inder Singh, Director, PU Regional Centre, Fountain Chowk, Ludhiana (**Member**).	11/10/19

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8	Dr. Rajat Aggarwal, Associate Professor, Department of Management Studies, IIT Roorkee (Member).	
9	Dr. Ajesh Kaura, Vice –President, Nahar Group, Ludhiana,(Member).	
10	Dr. HarmeenSoch, Associate Professor. PIT (PTU main campus), Kapurthala (Member nominated by IKGPTU).	
11$	Mr. Inderjit Singh, Assistant Director (Cost) Tariff commission, Ministry of Commerce and Industry, GOI, New Delhi.(Member)	
	Nominated Members	
1	Dean (Academics)/Nominee.	
2	COE/ Nominee	
3	Dean(T&P)/ Nominee	

* Designation - Mr. Inderjit Singh Deputy Director., Department of Expenditure, Ministry of finance, New Delhi.

⇒ Special Invitee :- Ms. Mandeep kaur khosa
Assistant Professor,
Deptt of Business Administration
GNDEC, Ludhiana.

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GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Business Administration

No.MBA-CC2-|1011   Dated 28-8-19

Dean Academics

Sub: Minor Alternation in the proposed scheme of MBA Programme 2019.

Sir,

In the above proposed scheme, the department of Business Administration has offered open electives for the students of B.Tech. & M.Tech. As per proposed scheme, these elective are offered in 2nd & 4th semester. As the teaching classes in M. Tech. are not held in 4th semester so this proposed scheme of open elective for M. Tech. may be introduced in M. Tech.(3rd semester) subject to approval of competent authority.

Thanking you,

Head
Department of Business Administration

Encl:-
Relevant page of the proposed scheme.

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Professor & Head,
Department of Management,
Guru Nanak Dev Engg. College,
Ludhiana (Punjab) - 141006.

o\c.

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OPEN ELECTIVE FOR OTHER DEPARTMENTS

Subjects to be offered as Open Electives by the Department of Business Administration for B.Tech and M.Tech courses

2nd Semester of MBA program

- MBA-19201   Corporate Finance and Financial Markets
- MBA-19203   Marketing Management

The classes for the open elective courses for students of other departments shall be held alongwith the students of M.B.A. program.

4th Semester of MBA program#

- MBA-19925   International Finance
- MBA-19926   Managing Banks and Financial Institutions
- MBA-19927   Valuation
- MBA-19928   Behavioral Finance
- MBA-19905   Services Marketing
- MBA-19906   Retail Management
- MBA-19907   International Marketing
- MBA-19908   Sales and Distribution Management
- MBA-19970   Cross Cultural Management
- MBA-19971   Team Dynamics at Work
- MBA-19972   International HRM
- MBA-19973   Strategic HRM

Subjects offered as electives in MBA 4th semester from the above list would be available as Open Electives for B.Tech and M.Tech branches. The classes for the open elective courses for students of other departments shall be held alongwith the students of M.B.A. program.

Professor & Head,
Department of Management,
Guru Nanak Dev Engg. College,
Ludhiana (Punjab) - 141006.

Minutes of the meeting

The internal members of the BOS (Department of Business Administration) in the meeting held on 14/11/19 hereby approve the Question paper pattern of the Subject: **Business Communication (MBA-106) (Marks: 50)** of Ist semester (**Annexure-I**) from Nov-Dec 2019 examinations onwards.

	BOS Members	Signatures
1	Dr. Parampal Singh, Head & Associate Professor, Department of Business Administration, GNDEC, Ludhiana (**Chairman**).	14/11/19
2	Dr. Amanjot Kaur Gill, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	14/11/19
3	Dr. Harmohan Singh Dhall, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	14/11/19
4	Dr. Navdeep Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	14/11/19
5	Ms. Amarpreet Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (**Member**).	14/11/19
6	Ms Mandeep kaur Khosa, Assistant Professor Department of Business Administration, GNDEC, Ludhiana.	14/11/19

Professor & Head,
Department of Management,
Guru Nanak Dev Engg. College
Ludhiana (Punjab) - 141006.

ANNEXURE- I

Program/Course: MBA(Sem 1st)
Name of the Subject: Business Communication
Subject Code: MBA-106
Paper ID:

Time Allowed: 03 Hours

Max. Marks: 50

NOTE:
1) Part C is Compulsory
2) Attempt any Five questions from Part-A, and any one questions from each of the Sections B1, B2, B3 and B4 of Part-B.
3) Any missing data may be assumed appropriately.

Part –A

[Marks: 04 each]

Q1.

Part- B

Section-B1

[Marks: 06 each]

Q2

Q3

Section-B2

[Marks: 06 each]

Q4

Q5

Section-B3

[Marks: 06 each]

Q6

Q7

Section-B4

[Marks: 06 each]

Q8

Q9

Part –C

[Marks: 06]

Q10 Case Study:

****

Professor & Head,
Department of Management,
Guru Nanak Dev Engg. College,
Ludhiana (Punjab) - 141006.

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Business Administration

No.MBA-39/34

Dated-19-01-18

Principal,

Through: Dean Academics

Sir,

In reference to letter No. RK-38/2042 dated 16.11.17 regarding constitution of the BOS, it is submitted that to the best of my knowledge, Dr. Prem Kumar , Vice Chancellor, GNA University Phagwara was nominated as member of BOS of the Department of Business Administration (please refer Serial No. 8) and now he has quit the university and went abroad. Dr. Prem Kumar was in the category of subject experts. So, you are requested to proceed to replace this expert and seek necessary approval. Sir, another member of BOS as PTU nominee is Dr. Harveen Soch (please refer serial no. 11). The spellings of her name may be corrected as she is mentioned as Harmeeh Soch.

The proposed replacements are:-

1. Dr. G.S. Batra, Prof. School of Management Studies and
    Dean Research, Punjabi University, Patiala.

2. Dr. B.S. Bhatia, Pro. Vice Chancellor
    RIMT University, Mandi Gobindgarh

3. Dr. Rajat Aggarwal, Associate Professor,
    Department of Management Studies, IIT Roorkee

Head
Department of Business Administration

Contents

AGENDA - 4th Meeting BOS, 2018.

S. No	Description
1	**List of BOS Members**
2	**Agenda Items** • Proposed scheme for MBA programme as per AICTE norms 2018. **(Annexure-I)** • Offering open electives to the MBA students. • The department shall offer open electives to the students of other departments. • To introduce Ph.D in Management under self financed scheme with effect from session 2019-20. • Basis for Rationalization of awards in the Internal Assessment. • To Introduce one year Part Time Post Graduate Diploma in Management for Working Executives. • To introduce full time regular three year Graduate Programs in 1. Business Administration (BBA) & 2. Commerce (B.Com).

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List of BOS Members

1	Dr. Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana (Chairman).
2	Dr. Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana (Member).
3	Ms. Amanjot Kaur Gill, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (Member).
4	Dr. Harmohan Singh Dhall, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (Member).
5	Dr. Navdeep Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (Member).
6	Ms. Amarpreet Kaur, Assistant Professor Department of Business Administration, GNDEC, Ludhiana (Member).
EXTERNAL MEMBERS	
7	Dr. Ravi Inder Singh, Director, PU Regional Centre, Fountain Chowk, Ludhiana (Member).
8	Dr. Rajat Aggarwal, Associate Professor, Department of Management Studies, IIT Roorkee.(Member)
9	Dr. Ajesh Kaura, Vice –President, Nahar Group, Ludhiana,(Member).
10	Dr. Harmeen Soch, Associate Professor. PIT (PTU main campus), Kapurthala (Member nominated by IKGPTU).

11	Mr. Inderjit Singh, Assistant Director (Cost) Tariff commission, Ministry of Commerce and Industry, GOI, New Delhi.
	Nominated Members
1	Dean (Academics)/Nominee
2	COE/ Nominee
3	Dean(T&P)/ Nominee

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Guru Nanak Dev Engineering College, Ludhiana.
Department of Business Administration
Minutes of Meeting of 4th BOS Meeting
(September 20th 2018)

item No.1	Proposed scheme for MBA programme as per AICTE norms 2018.(Annexure-I) **Approved with changes**
Item No.2	Offering open electives to MBA students. **Approved**
Item No.3	The department shall offer open electives to the students of other departments. **Approved**
Item No.4	To introduce Ph.D in Management under self-financed scheme with effect from session 2019-20. **Approved but Dissented by Dr.Harmeen Soch as it is not prevalent in other universities and the college needs to meet with many requisite resources before such a strategic decision can be taken at University level.**
Item No.5	Basis for Rationalization of awards in the Internal Assessment. **Approved. (It should be followed with bell shaped probability distribution)**
Item No.6	To Introduce one year Part Time Post Graduate Diploma in Management

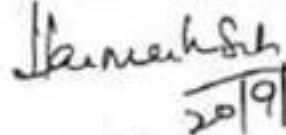|		for Working Executives.
		Approved (To introduce three(3)years part-time MBA program. It is resolved that if a candidate passes one year course he/she shall be given Diploma in Management).
Item No.7		1. To introduce full time regular three year Graduate Programs in 1. Business Administration (BBA) & 2. Commerce (B.Com). **Approved**

Following members were present during the 4th Board of Studies meeting held on 20 September, 2018 in the seminar room of Department of Business Administration.
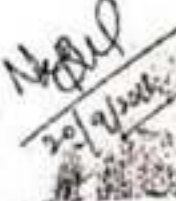
List of BOS Members who were present during meeting.

	Internal members	Signature
1	Dr. Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana (**Chairman**).	
2	Dr. Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana (**Member**).	
3	Dr. Harmohan Singh Dhall, Assistant Professor, Department of Business Administration, GNDEC, Ludhiana (**Member**).	
4	Dr. Navdeep Kaur, Assistant Professor, Department of Business Administration, GNDEC, Ludhiana (**Member**).	
5	Ms. Amarpreet Kaur, Assistant Professor, Department of Business Administration, GNDEC, Ludhiana (**Member**).	

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		External members	
6		Dr. Ravi Inder Singh, Director, PU Regional Centre, Fountain Chowk, Ludhiana (**Member**).	
7		Dr. Rajat Aggarwal, Associate Professor, Department of Management Studies, IIT Roorkee (**Member**).	
8		Dr. Harmeen Soch, Associate Professor. PIT (PTU main campus), Kapurthala (**Member nominated by IKGPTU**).	
9		Mr. Inderjit Singh, Assistant Director (Cost) Tariff commission, Ministry of Commerce and Industry, GOI, New Delhi.(**Member**)	

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
Department of Business Administration

No.MBA-39/2225

Dated-8-8-17

To

Dean Academics,

In reference to your letter no. RK38/597 dated 02.08.2017, the proposed members of BOS for the subsequent term are as:-

BOS Members

Two Subject Experts from outside Parent University:-

1. Dr. G.S.Batra, Prof. & Head, School of Management Studies, Punjabi University, Patiala.
2. Dr.B.S.Bhatia, Former & Dean Research, Guru Granth Sahib World Sikh University, Fatehgarh – Sahib
3. Dr. Ravi Inder Singh, Professor, University Business School, P.U. Regional Centre Fountain Chouk, Ludhiana.
4. Dr. Prem Kumar, V.C. Chancellor GNA University, Phagwara.

One industry representative to be nominated by the Director:-

1. Sh. V.K. Goyal, Executive Director and Group CEO, S.E.L. Manufacturing Co. Ltd, 274, Dhandari Khurd, G.T.Road, Ldh.
2. S. Sohinder Singh, President Marketing, OWM, Nahar Spinning Mills, Ldh.
3. Mr. Ajesh Kaura, Vice President, Nahar Group, Ldh.
4. Mr. Anil Kumar, Executive Director & CEO, Syrians Industries, Ldh.

One expert to be nominated by Vice Chancellor from a panel of six recommended by Director:-

1. Dr. Ashwani Bhalla, Professor, SCD Govt. College, Ludhiana.
2. Dr. Harmeen Soch, Associate Professor, PIT (PTU main campus), Kapurthala
3. Dr. Sanjiv Bansal, Assistant Professor, Department of Commerce /Management, PTU Jalandhar.
4. Dr. Mandeep Kaur, Assistant Professor, Department of Commerce /Management, PTU Jalandhar.
5. Dr. Nittya, Assistant Professor, Department of Commerce /Management, PTU Jalandhar.
6. Dr. Kapil Gupta, Deputy Registrar, Department of Commerce /Management, PTU Jalandhar.

One postgraduate meritorious Alumnus to be nominated by the Director:-

1. Mr. Inderjit Singh, Assistant Director (cost) Tariff commission, Ministry of Commerce and Industry, GOI, New Delhi.
2. Mr. Akash Suri, Manager Marketing, Life Styles Inernational Private Ltd., IFFCO Building, Surendra Jhakar Bhawan, Ground Floor Plot No.:-3, Industrial area, Sector32, Gurgaon.

Faculty of MBA Department as Internal Members:-

1. Dr. Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana.(Chairman)
2. Dr. Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana .(Member)
3. Pf. Amanjot Kaur Gill, Assistant Professor, Department of Business Administration, GNDEC, Ludhiana.(Member)
4. Pf. Harmohan Singh Dhall, Assistant Professor, Department of Business Administration, GNDEC, Ludhiana.(Member)
5. Dr. Navdeep Kaur, Department of Business Administration, GNDEC, Ludhiana. (Member)
6. Pf. Amarpreet Kaur, Department of Business Administration, GNDEC, Ludhiana. (Member)

Head,
Department of Business Administration,
Guru Nanak Dev Engg. College,
Ludhiana.

Agenda Items of Third BOS Meeting (August 5th 2017)

1	a) Formal approval of the DRC (Departmental Research Committee) by BOS. **Annexure –I** b) Approval of the Guidelines for Research Project Report (MBA-15407) by BOS as formulated and approved by DRC. **Annexure –II**
2	Evaluation of the Research Project Report would be done by single External examiner.
3	The marks distribution of the paper **"Presentation on Training Report"** (MBA-15307) in third semester would be divided into Internal (40 marks) and External (60 marks). After completion of the training, students would be required to make presentation of training report in the department. DRC would be evaluating the students. The internal marks would have the segregation of **Contents of the Report**: 20 Marks and **Presentation: 20** marks.
4	Proposed format for **"Presentation on Training Report"** would be • Introduction • Review of Literature* • Research Methodology* • Analysis & Discussion • Findings *To discuss whether **Review of Literature** and **Research Methodology** should be a part of Training Report or not.
5	Approval of the list of External paper setters **Annexure-III**.
6	Other relevant issues related to MBA Programme.

Department of Business Administration's Agenda of 3rd Meeting of BOS on 05th August 2017

Professor & Head,
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Ludhiana (Punjab)

DRC (Departmental Research Committee) formed at the departmental level would constitute following members:

1. Dr.Parampal Singh, Convenor (Research Committee)
2. Prof.Amanjot Kaur Gill
3. Prof.H.S.Dhall
4. Dr.Navdeep Kaur
5. Prof.Amarpreet Kaur.

Approval of BOS
1. Sh.V.K. Goyal.
2. Dr. B.S. Bhatia.
3. Dr. Karamjit Singh.
4. Dr. Harmeen Soch.
5. Sh. Sanjiv Khera.
6. Mr. Inderjit Singh.
7. Mr. Akash Suri.

Department of Business Administration's Agenda of 3rd Meeting of BOS on 05th August 2017

Professor & Head,
Department of Management.

n/o

Guidelines for Research Project Report (MBA-15407)

1. Tentative title of the research project to be submitted by the students to respective guides in 3ʳᵈ semester by November before preparatory holidays.

2. Internal evaluation of research project is based on 40 marks. Segregation of the marks:

   Synopsis presentation: 10 marks

   Project progress report: 15 Marks

   Pre-submission presentation of research project report: 1̶0̶ 15 marks

3. Student is free to opt for Co-Guide (in case of multi –disciplinary project).

4. Since, the student has an option to carry out the research project in any of his specialization; the committee decided that student would be required to convey their preference in writing and seek approval from HOD.

5. Synopsis submission to be done by the last week of January.

6. Maximum limit of Synopsis is of 10 pages which include:

- INTRODUCTION
- REVIEW OF LITERATURE (Latest reviews are more relevant)
- OBJECTIVES
- RESEARCH METHODOLOGY (Statistical Tools & concepts of research methodology like sample size, sampling techniques etc).
- BIBLIOGRAPHY.

7. Students are required to submit two hard copies of Synopsis.

8. Synopsis presentation will be held in the first week of February.

9. For Synopsis Presentation (PPT) maximum number of slides has to be 10.

10. Review of Literature should be in tabular form and sources to be given in the Bibliography.

11. If special permission for synopsis presentation is to be taken then prior written permission of the respective guide and HOD would be taken and such cases will be considered as second time evaluation.

12. Second time evaluation would be done from 6 marks instead of 10 marks.

13. Performance will be evaluated by DRC members (Individually) on prescribed format.

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13. Performance will be evaluated by DRC members (Individually) on prescribed format.

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14. Pre-submission presentation will to be held in last week of March and presentations would be taken specialization wise.

15. Format of PPT presentation for pre-submission is-

    i)   Title and objectives,

    ii)   Research Methodology

    iii)   Analysis and Interpretation

    iv)   Major Findings

    v)   Limitations.

16. Plagiarism policy is same as followed at the Institute level i.e maximum of 20% (Similarity Index) is allowed.

17. Plagiarism checking of research projects has be completed by 2nd week of April.

18. Final submission of the Research project report has to be done by 3rd week of April.

19. The format of Research project report submission

    i)   Preliminary pages

        – Title page

        – Acknowledgement

        – Certificate of originality endorsed by the student and guide/co-guide.

        – Abstract

        – Originality report

        – Table of Contents with page number.

        – List of Figures

        – List of Tables

    ii)   Chapter scheme

        • Chapter –I Introduction

        • Chapter –II Review of Literature

        • Chapter –III Research Methodology

        • Chapter – IV Data Analysis and Interpretation

        • Chapter- V Findings, Recommendations and Future scope

        • Bibliography

        • Annexure (Questionnaire)

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Ludhiana (Punjab) - 1

20. Guides would convey to their respective students about the format and ensure that research project report is as per guidelines issued by DRC.

21. It was decided that the Hard Binding of the research project would be of specific colour according to Specialisations.

- Brown hard cover for Marketing
- Black hard cover is for HRM
- White hard cover is for Finance

22. Two copies of the research project need to be submitted in the Department.

23. Guides to submit the details of the internal marks out of 40 for finalization to the DRC.

APPROVAL OF BOS

Signatures: BOS MEMBERS:-
EXTERNAL
1   Dr.B.S.BHATIA
2   Dr.HARMEEN SOCH
3   SHRI. V.K.GOYAL
4   SHRI.SANJEEV KHERA
5   MR.AKASH SURI
6   MR.INDERJEET SINGH
7   Dr. KARAMJIT SINGH

INTERNAL
1   Dr.Parampal Singh
2   Prof.Amanjot Kaur Gill
3   Prof.H.S.Dhall
4   Dr. Navdeep kaur
5   Prof. Amanpreet kaur

Special Invitee

HEAD &CHAIRMAN- BOARD OF STUDIES:-
Dr.SUKHDEV SINGH

ANNEXURE -III

DEPARTMENT OF BUSINESS ADMINSTRATION,GNDEC,LUDHIANA

LIST OF EXTERNAL PAPER SETTERS

	Prefix Name	Name	Designation	Department & Institute
1	Dr.	Pratibha Goyal	Professor	School of Business Studies,PAU,Ludhiana.
2	Dr.	Navjot Kaur	Professor	School of Management Studies,Punjabi University, Pa
3	Dr.	Gagandeep Kaur Banga	Associate Professor.	School of Business Studies,PAU,Ludhiana.
4	Dr.	Mohit Gupta	Assistant Professor	School of Business Studies,PAU,Ludhiana.
5	Dr.	Ravi Inder Singh	Associate Professor	University Business School,PU Regional Centre,P.U ,C
6	Dr.	HarshVineet Kaur	Assistant Professor	Commerce and Management,SGGS World University
7	Dr.	Puran Singh	Associate Professor	P.G Department of Economics, S.C.D. Government C
8	Dr.	Jagwinder Singh,	Associate Professor	Deptt. of Enterprenuership,NIT Jalandhar.
9	Dr.	Jeewan Jyoti Maini	Assistant Professor	School of Management Studies,MIMIT, Malout
10	Prof.	Ajay Samyal	Assistant Professor	School of Management Studies,MIMIT, Malout
11	Dr.	Meenakshi Rana	Assistant Professor	School of Mathematics,Thapar University
12	Dr.	Manish Bansal	Associate Professor	School of Management Studies,MIMIT, Malout
13	Dr.	Bhupinder P S Chahal	Associate Professor	University School of Business,Chandigarh University
14	Dr.	Anil Angrish	Associate Professor	Business Administration,N.I.P.E.R.Mohali
15	Dr.	Sukhmani	Assistant Professor	School of Business Studies,PAU,Ludhiana.
16	Dr.	Navdeep Aggarwal	Assistant Professor	School of Business Studies,PAU,Ludhiana.
17	Dr.	Khushdeep Dharni	Assistant Professor	School of Business Studies,PAU,Ludhiana.
18	Dr.	Ashwani Bhalla	Professor	Deptt. of Commerce,SCD Govt.College Ludhiana
19	Dr.	Rajesh Gupta	Associate Professor	Centre for Mathematics and Statistics, Central Unic
20	Dr.	Aparna Bhatia	Assistant Professor,	Commerce,GNDU Amritsar
21	Dr.	Baljit Kaur	Assistant Professor	Punjab School of Economics,GNDU Amritsar
22	Dr.	Suminder Kaur Bawa	Associate Professor	University Business School,GNDU Amritsar
23	Dr.	Sangeeta Arora	Associate Professor	Commerce,GNDU Amritsar
24	Dr.	Sandeep Virdi	Assistant Professor	School of Management Sudies. Pbi. Univ., Patiala
25	Dr.	Vikas Singla	Assistant Professor	School of Management Studies. Pbi. Univ., Patiala
26	Dr.	Rajwinder Singh	Assistant Professor	School of Management Studies. Pbi. Univ., Patiala
27	Dr.	Niti Chatterji	Assistant Professor	School of Management,Thapar University, Dera B
28	Dr.	Rupali Arora	Associate Professor	University School of Business,Chandigarh Univer
29	Dr.	Rupinderbir Kaur	Assistant Professor	University Business School,Punjab University

|| Item ||Proposed revision for the format of "Presentation on Training

... decided that the current Format

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30	Ms.	Ritu Sharma	Assistant Professor	University School of Business, Chandigarh
31	Dr.	Luxmi	Associate Professor	University Business School, Punjab Univers
33	Dr.	Tejinderpal Singh	Assistant Professor	University Business School, Punjab Univers
34	Dr.	Anil Chadhok	Professor	University School of Business, Chandigarh
35	Dr.	Monika Bedi	Assistant Professor	University Business School, Punjab Univers
36	Dr.	Karminder Singh Ghuman	Associate Professor	School of Management, Thapar University
37	Dr.	Amarjit Singh Sidhu	Professor	University Business School, GNDU Amritsa
39	Dr.	Bikramjit singh Mann	Professor	University Business School, GNDU Amritsa
40	Dr.	Bikram singh Hundal	Professor	University Business School, GNDU Amritsa
41	Dr.	B.B Singla	Associate Professor	University Business School, Punjabi Unive
42	Dr.	Pavleen	Assistant Professor	University Business School, GNDU Amritsa
43	Dr.	Jasleen Kaur	Assistant Professor	Management, BBSBEC, Fatehgarh Sahib.
44	Dr.	Amandeep Kaur	Assistant Professor	Business Management, G.N.D.U. Regiona

Signatures: BOS MEMBERS:-

EXTERNAL

1. Dr.B.S.BHATIA
2. Dr.HARMEEN SOCH
3. SHRI. V.K.GOYAL
4. SHRI.SANJEEV KHERA
5. MR.AKASH SURI
6. MR.INDERJEET SINGH
7. Dr. KARAMJIT SINGH

INTERNAL

1. Dr.Parampal Singh
2. Prof.Amanjot Kaur Gill
3. Prof.H.S.Dhall

Special Invitee: Dr.Navdeep Kaur

Prof.Amarpreet Kaur

HEAD &CHAIRMAN- BOARD OF STUDIES:-

Dr.SUKHDEV SINGH

Guru Nanak Dev Engineering College, Ludhiana,

Department of Business Administration

Minutes of Meeting of 3rd BOS Meeting

(August 5th, 2017)

Item No.1	a) Formal approval of the DRC (Departmental Research Committee) by BOS. **Annexure –I** b) Approval of the Guidelines for Research Project Report (MBA-15407) by BOS as formulated and approved by DRC. **Annexure –II** Approved
Item No.2	Evaluation of the Research Project Report would be done by single External examiner. Approved
Item No.3	The marks distribution of the paper **"Presentation on Training Report"** (MBA-15307) in third semester would be divided into Internal (40 marks) and External (60 marks). After completion of the training, students would be required to make presentation of training report in the department. DRC would be evaluating the students. The internal marks would have the segregation of **Contents of the Report: 20 Marks** and **Presentation: 20 marks.** Approved
Item No.4	Proposed revision for the format of **"Presentation on Training Report"** The members of BOS unanimously decided that the current Format as such would continue without excluding Review of Literature and Research Methodology.

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Item No.5	Approval of the list of External paper setters Annexure-III.
	Approved
Item No.6	Other relevant issues related to MBA Programme. It was mooted to plan an Academic Audit of the department.

The meeting ended with a vote of thanks.

The following members were present in the meeting:-

Signatures: BOS MEMBERS:-
EXTERNAL:
1   Dr.B.S.BHATIA
2   MR.AKASH SURI
3   MR.INDERJEET SINGH

INTERNAL
1   DR.PARAMPAL SINGH
2   PROF.AMANJOT KAUR GILL
3   PROF.H.S.DHALL
Special
Invitee: DR.NAVDEEP KAUR
            PROF.AMARPREET KAUR

HEAD &CHAIRMAN- BOARD OF STUDIES:-

Dr.SUKHDEV SINGH

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Contents

S. No	Description
1	**List of BOS Members**
2	**Agenda Items** • Introduction of CGPA System batch (2015-17) onwards • Approval of changes in the Curriculum of MBA programme. • Setting of the question papers for the end semester examination.

Department of Business Administration's Agenda of 2nd Meeting of BOS on 10th June 2015

Professor & Head,
Department of Management,
Guru Nanak Dev Engg. College,
Ludhiana (Punjab) - 141006.

Agenda Items

1	Introduction of the CGPA system batch 2015-17 onwards.
2	The marks distribution of the paper "Presentation on Training Report' (MBA-307) in third semester would be divided into 50 Internal and 50 External. Students would be required to make training report presentation in the department after its completion.
3	The Title of the Final Research project (MBA-407) will be assigned to the students by the end of 3rd semester and its evaluation will be based on the following criteria: • Total marks for the Final research project will be 100. • Marks distribution will be Internal 40 marks and External 60 marks. • Internal marks (40) will have further bifurcation of Synopsis Presentation : 10 Marks Project Progress Report: 15 Marks Pre submission Presentation: 15 Marks.* *Students will have to make the presentation of the Final research project before the Research Project Evaluation committee who would evaluate the research project. • The student can be supervised by two guides in case the student decides to carry out research in Multi-functional area. • Evaluation of the Final Research Project would be done by the External examiner separately for each area of specializations offered.
4	Amendments in the Curriculum of MBA programme for 2015-17 batch onwards. • Change in the Syllabi of the subjects offered (Details attached in **Annexure-I**). • The subjects to be offered in respective areas of specializations will be decided from the list of 5 subjects for the IIIrd semester and 5 for the IVth semester by the teacher

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	taking into consideration the relevance of that subject according to the changing business/Industry environment. • The marks distribution of the internal assessment (40 marks) of the subjects will have the following bifurcation. **Midterm Tests : 20 Marks** **Assignments/ Case discussions: 10 Marks** **Attendance: 4 Marks** **Lead role/Participation of the students: 6 Marks.**
5	Setting of the question papers for the end semester examination • Question paper of Practical subjects should have at least 50 % Numerical content. • Section C of the question paper would be of the Case study that would be compulsory.

Professor & Head,
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Department of Business Administration's Agenda of 2ⁿᵈ Meeting of BOS on 10ᵗʰ June 2015

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1. Approval for changes in the Curriculum of MBA Programme.

The changes (Highlighted) in curriculum of the MBA programme is mentioned below:

Scheme of Masters in Business Administration (MBA)
Batch 2015 onwards

First Semester   **Contact Hours: 35 Hrs**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MBA-15101	Principles and Practices of Management	4	1	-	40	60	100	5
MBA-15102	Organizational Behaviour	4	1	-	40	60	100	5
MBA-15103	Accounting for Management	4	1	-	40	60	100	5
MBA-15104	Quantitative Techniques	4	1	-	40	60	100	5
MBA-15105	Managerial Economics	4	1	-	40	60	100	5
MBA-15106	Business Communication	4	1	-	40	60	100	5
MBA-15107	Information Technology for Management	3	2		40	60	100	5
MBA-15108	Viva Voce	-	-	-	-	50	50	2
	Total	27	8		280	470	750	37

Department of Business Administration's Agenda of 2nd Meeting of BOS on 10th June 2015

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Second Semester   **Contact Hours: 33 Hrs**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MBA 201	Business Environment	4	1	-	40	60	100	5
MBA 202	Production and Operation Management	4	1	-	40	60	100	5
MBA 203	Human Resource Management	4	1	-	40	60	100	5
MBA 204	Marketing Management	4	1	-	40	60	100	5
MBA 205	Financial Management	4	1	-	40	60	100	5
MBA 206	Research Methodology	4	1	-	40	60	100	5
BTHU 101*	Human Values and Professional Ethics	3	-	-	40	60	100	3
MBA 207	Viva Voce	-	-	-	-	50	50	2
Total		27	6	-	280	470	750	35

Third Semester   **Contact Hours: 33 Hrs**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MBA 301	Applied Operations Research	4	1	-	40	60	100	5
MBA 302	Corporate Legal Environment	4	1	-	40	60	100	5
MBA XXX***	Specialization I	4	1	-	40	60	100	5
MBA XXX***	Specialization II	4	1	-	40	60	100	5
MBA XXX***	Specialization -III	4	1	-	40	60	100	5
MBA XXX***	Specialization -IV	4	1	-	40	60	100	5
MBA 307**	Presentation on Training Reports	3	-	-	50	50	100	2
MBA 308	Viva Voce	-	-	-	-	50	50	2
Total		27	6	-	290	460	750	34

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Fourth Semester

Contact Hrs: 30

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MBA 401	Strategic Management	4	1	-	40	60	100	5
MBA 402	Entrepreneurship and Managing Small Medium Business	4	1	-	40	60	100	5
MBA XXX***	Specialization I	4	1	-	40	60	100	5
MBA XXX***	Specialization II	4	1	-	40	60	100	5
MBA XXX***	Specialization -III	4	1	-	40	60	100	5
MBA XXX***	Specialization -IV	4	1	-	40	60	100	5
MBA 407	**Research Project Report**	-	-	-	40	60	100	2
MBA 408	Viva Voce	-	-	-	-	50	50	2
	Total	24	6	-	280	470	750	34

*** represents the subject code as per specialization

* The internal assessment of this course is based on the report to be prepared individually by the students. Such reports may be checked and signed by external examiner / University official at the time of subject viva voce examination.

** The experts from industry/ academia may be invited for evaluation.

Note: The viva voce examination of MBA 308 will be held on the basis of Sumer Training report and other subjects of 3rd semester. Such reports may be checked and signed by external examiner at the time of subject viva voce examination.

The student can opt for either Super specialization or Dual combination.

• In Super specialization the student will study the following subjects

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Semester III; 04 subjects and Semester IV 04 subjects

- **In Dual specialization the student will study the following subjects**

Semester III (2+2) and Semester IV (2+2)

The student may opt for either super specialization or dual specialization. The students opting for super specialization must study 04 subjects of the chosen specialization in Semester III and Semester IV. Thus student must opt for 08 subjects in all specialization either as super specialization or as a dual must study these subjects in the respective semester. The student opting for dual specialization must study 02 subjects of each of these specializations in Semester III and Semester IV. Thus the student must study a total of 04 subjects of each specialization. In Semester III two subjects each from 02 specializations. In semester IV two subjects each from 02 specializations.

- **Presently the students are being offered Dual Specialization**

*** Semester III (Specialization)

MARKETING
- MBA 901 Consumer Behaviour
- MBA 902 Advertising Management
- MBA 903 Product and Brand Management
- MBA 904 Retail and Franchising
- MBA 905 Rural and Industrial Marketing

FINANCE
- MBA 921 Security Analysis and Portfolio Management
- MBA 922 Management of Financial Services
- MBA 923 Direct Tax Planning
- MBA 924 Strategic Financial Management
- MBA 925 Treasury and Credit risk Management

HUMAN RESOURCE MANAGEMENT
- MBA 961 Social Security & Labour Welfare
- MBA962 Training & Development
- MBA963 Industrial Psychology
- MBA 964 Manpower planning
- MBA 965 Conflict and Negotiations

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*** Semester IV (Specialization)

MARKETING
- MBA 906 Service Marketing
- MBA 907 International Marketing
- MBA 908 Sales and Distribution Management
- MBA 909 Logistics Management
- MBA 910 Customer Relationship Management

FINANCE
- MBA 926 International Finance
- MBA 927 Banking and Insurance Operations
- MBA 928 Global Capital Market
- MBA 929 Management Control System
- MBA 930 Financial Engineering

HUMAN RESOURCE MANAGEMENT
- MBA 966 Organization Development
- MBA967 International Human Resource Management
- MBA968 Industrial Relations and Labour Laws
- MBA 969 People Management and Leadership
- MBA 970 Stress Management

Submitted for Consideration and Approval

2. Setting of the Question Papers for the End semester Examinations.

- Question paper of Practical subjects should have at least 50 % Numerical content.
- Section C of the question paper will be of the Case study that would be compulsory.

Submitted for Consideration and Approval

Department of Business Administration

Guru Nanak Dev Engineering College, Ludhiana

Dated : 10/06/2015

Hereunder follow the Minutes of Second Meeting of Board of Studies held on 10/06/2015 at 10:00 am in committee room.

The following persons were present:

1. Dr. B.S. Bhatia
2. Sh. Sanjiv Khera
3. Mr. Akash Suri
4. Dr. Sukhdev Singh

5. Dr. Parampal Singh
6. Prof. Amanjot Kaur Gill
7. Prof. Harmohan Singh Dhall

The meeting was initiated with a welcome note by the chairman & thereafter the pre-circulated agenda was set in motin.

Proceedings:

1. A detailed discussion was made on the introduction of CGPA system from batch 2015-17 onwards. The house raised the point that the introduction of CGPA is subject to the broader policy as adopted by the administration of the institute specifically with respect to the proportion of core /allied/free choice courses to be offered. Special reference was made to free choice courses as it was suggested that this aspect had direct implications for number of faculty required.

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It was mooted that the agenda item be firstly discussed and decided with the college administration and a policy in principle be devised for the institute. This policy framework shall then act as a reference for introduction of CGPA system in M.B.A programme.

2. The marks distribution for the paper titled "Presentation on Training Report- MBA 307" in third semester was decided as under:

Internal evaluation: 40 marks
External evaluation: 60 marks

Additionally the students shall be required to make a presentation of this report in the department.

3. The discussion related to third agenda item had following outcomes:

-Maximum marks for the paper titled "Research project Report (MBA-407)" shall be 100

- Marks distribution will be as :---
    internal : external :: 40:60

-Internal marks of 40 shall have further bifurcation as :
    Synopsis presentation : 10 marks
    Project progress report: 15 marks

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60

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Pre-submission presentation : 15 marks

The students shall be required to make the pre-submission presentation before the Research project evaluation committee nominated by the Head of the Department.

-The students can opt for a co-guide in case the student decides to carry out research in multi-functional area.

-External evaluation of the project shall be done by separate external examiners for separate specializations offered . In this evaluation the internal examiner (nominated by the H.O.D) shall carry out the role of facilitator.

- The synopsis presentation and pre-submission presentation shall both be time bound and shall be informed to the students suitably.

4. a) Changes proposed in the i) load allocation in the curriculum of M.BA programme and ii)content of some of the courses offered were acceptable to the house.

b) The two subjects to be offered in the respective areas of specializations in the third and fourth semester each shall be decided from the list of five subjects as mentioned in the current syllabus. This decision shall be taken by the teachers concerned taking into consideration its due relevance.

c) The marks distribution for the internal assessment of the subjects shall be as per below pattern:

Mid term tests: - 20 marks

Assignments*/case discussions: - 10 marks

Attendance :- 4 marks

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Lead role/ Participation of the students:- 6marks
*Assignments should preferably be related to some real life industry issue.

5. The end semester examination question papers shall have :
  a) maximum 50% numerical content in case of subjects which are numerical in nature.
  b) one compulsory section comprising of a caselet/small case study carrying eight marks.

In addition to the above outcomes for agenda items, following suggestions were made by the house:

i)   Greater choice be provided as regards to number of elective/free choice subjects as is emphasized by the NBA and NAAC . More faculty be hired in accomplishing this if need be.

ii) A six-point model for policy formulation for CGPA system at institute level :

a. List down courses which may be available for free choice.

b. Divide the courses for odd and even semesters.

c. Decide about the minimum number of students required for offering a specific free choice course.

d. Fix the credits for each free choice course.

e. Fix teaching hours for free choice courses before finalization of the time table at institute level.

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iii) As regards the anti-Plagiarism check policy adopted by the institute for the Research project Report (MBA-407), carried out in the fourth semester , the house suggested to keep a similarirty index tolerance level of zero percentage for the same except for the initial two chapters viz. a) Introduction and b) Literature Review for which the similarity index may be ignored.

Remark: The meeting was joined by Dr. Navdeep Kaur(Asstt. professor, Department of Business Administration, G.N.D.E.C.) and Prof. Gurpreet Kaur Kang (Asstt. professor, Department of Business Administration, G.N.D.E.C.) . The presence of these faculty members was required in order to explain the changes proposed in the syllabus content of the subjects taught by them, to the house against point no. 1 of agenda item 4.

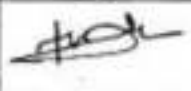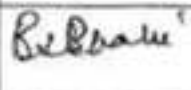The meeting ended with a vote of thanks.

1. Dr. B.S. Bhatia   Bisloni
2. Sh. Sanjiv Khera
3. Mr. Akash Suri
4. Dr. Sukhdev Singh
5. Dr. Parampal Singh
6. Prof. Amanjot Kaur Gill
7. Prof. Harmohan Singh Dhall
8. Dr. Navdeep Kaur. (NBUN).

No.MBA---------   Dated-10.6.15

List of Members of Board of Studies, Department of Business Administration

Attendance

Sr.No.	Name	Designation	Signature
1	Dr.Sukhdev Singh, Professor & Head, Department of Business Administration, GNDEC, Ludhiana.	Chairman	
2	Dr.Parampal Singh, Associate Professor, Department of Business Administration, GNDEC, Ludhiana.	Member	
3	Prof.Amanjot Kaur Gill, Assistant Professor Department of Business Administration, GNDEC, Ludhiana.	Member	
4	Prof.Harmohan Singh Dhall,Assistant Professor, Department of Business Administration, GNDEC, Ludhiana.	Member	
5	Dr.B.S Bhatia,Professor & Head, Guru Granth Sahib World Sikh University, Fatehgarh Sahib	Member (Academics)	
6	Sh.V.K Goyal,Executive Director & Group CEO,S.E.L.Manufacturing Co. Ltd.,274,Dhandari Khurd,G.T.Road,Ludhiana.	Member (Industry)	
7	Sh.Sanjiv Khera,Senior General Manager,Atlas Cycles (Haryana) Ltd. Sahibabad(U.P)	Member (Industry)	
8	Dr.Karamjit Singh,Professor,Punjab University Chandigarh	Member (Academics)	
9	Dr.Harveen Soch,Associate Professor,PIT (PTU Main Campus) Kapurthala.	Member (PTU Nominee)	
10	Mr.Akash Suri,Marketing R5,Life Styles International Private Limited,Viva Palace Mall,G.T Road,Jalandhar	Member (Alumni)	
11	Mr.Inderjit Singh,Assistant Director(Cost),Ministry of Commerce & Industry Govt. of India,New Delhi.	Member (Alumni)	

Guru Nanak dev Engineering College, Ludhiana
(An Autonomous College under UGC Act)
Civil Engineering Department

Minutes of Meeting

The 2nd meeting of Board of Studies (Civil Engineering) was held on 6th September, 2014 in the office of Head of Department, Civil department and chaired by Dr. J N Jha (Professor & Head).

Following members were present in the meeting:

Dr. J.N.Jha – Chairman - Guru Nanak Dev Engineering College, Ludhiana

Dr. Harpal Singh – Member - Guru Nanak Dev Engineering College, Ludhiana,

Dr. H S Rai –Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. B S Walia –Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. K S Gill – Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. Harvinder Singh – Member - Guru Nanak Dev Engineering College, Ludhiana

Er. Inderpreet Kaur – Member- Guru Nanak Dev Engineering College, Ludhiana

Dr. Sanjeev Aggarwal – Member- GZSPTU Campus, Bathinda- Subject Expert- VC Nominee

Dr. S P Singh – Member- NIT Jalandhar- Subject Expert

Dr. Siby John – Member- PEC University of Technology, Chandigarh-Subject Expert- Director's Nominee

Er. Satish Kumar Tanwar –Member- Ultratech- Industry Representative,

Er. T S Chahal –Member- Supt. Engg.-PWD, B&R, Govt. of Punjab – alumina

Er. Gurdeepak Singh - Special Invitee- Guru Nanak Dev Engineering College, Ludhiana

Er. Harjinder Singh - Special Invitee- Guru Nanak Dev Engineering College, Ludhiana

The Following decisions were taken:

1. The proposed credit system for B.Tech (Civil Engg.) -UG course (2014 admission batch onwards and to be implemented from 3rd semester i.e. Aug.2015 session) were discussed and are accepted with minor changes. The credits of two subjects (BTCE-501, BTCE502) of 5th semester were reduced from 5 to 4 and are added to subject 'Survey Camp Training' credits of same semester.

2. It was also suggested that concept of open elective should be started at UG level. This suggestion will be forwarded to Academic Council for further discussion.

3. In light of UGC recommendations the subject 'Research methodology' was made core subject in all PG courses offered in Civil Engineering Department.

4. Subject 'Air Pollution & Control' was included in the list of core subjects for the scheme of M.Tech Environmental Science & Engineering.

5. The subjects 'Water & Waste Water Treatment Technologies-I' and 'Water & Waste Water Treatment Technologies-II' has been renamed as 'Physico-Chemical Treatment Methods' and 'Biological Treatment Methods' respectively in the scheme of M.Tech Environmental Science & Engineering.

6. The subject 'Advanced Solid Mechanics' has been included as a core subject for the scheme of M.Tech. Structural Engineering Scheme. 'Advanced Structural Analysis' and 'Advanced Solid mechanics' subjects were merged together to accommodate 'Research methodology' as a core subject for the scheme of M.Tech. Structural Engineering Scheme.

7. BOS was of unanimous view that the list of 'Program Electives' and 'Open Electives' should be separate and accordingly the list of 'Program Electives' and 'Open Electives' were prepared separetly for all PG courses currently running in the Civil Engineering Department.

8. The proposed syllabus of 1ˢᵗ semester for all PG courses was approved.

The meeting ended with vote of thanks.

Dr. J N Jha
(Chairman)