Minutes

of the

52nd Meeting

of

School Board

of

SOCIS

held on

Feb 18, 2021

SCHOOL OF COMPUTER AND INFORMATION SCIENCES

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

MAIDAN GARHI, NEW DELHI

IGNOU
SOCIS

Minutes of the 52nd Meeting of the School Board of School of Computer & Information Sciences

The 52nd Meeting of the School Board of SOCIS was held on Feb 18, 2021 at 11.00 a.m. through online mode on Google Meet.

The following members were present in the virtual meeting:

1. Prof. V.V. Subrahmanyam, Director, SOCIS	-	Chairperson
2. Prof. T.V. Vijay Kumar, JNU, New Delhi	-	Member
3. Prof. Ela Kumar, IGDTUW, New Delhi	-	Member
4. Prof. Manoj Kumar, NSUT East Campus, New Delhi	-	Member
5. Mr. Milind Mahajani, Impressico Business Solutions	-	Member
6. Prof. Nawal Kishore, SOMS, IGNOU	-	Member
7. Prof. Parmod Kumar, SOH, IGNOU	-	Member
8. Dr. Mita Sinhamahapatra, SOA, IGNOU	-	Member
9. Prof. P. V. Suresh, SOCIS	-	Member
10. Dr. Shashi Bhushan Sharma, Associate Professor, SOCIS	-	Member
11. Sh. Akshay Kumar, Associate Professor, SOCIS	-	Member
12. Dr. Sudhansh Sharma, Assistant Professor, SOCIS	-	Member
13. Mr. M.P. Mishra, Associate Professor, SOCIS	-	Special Invitee

Prof. S.K.Gupta and Prof. S.R. Jha could not attend the meeting.

At the outset, Chairperson welcomed and thanked all the members of the Board for sparing their valuable time for making it convenient to attend the meeting. Following this, he briefed about various developments that took place since last meeting of the School Board. He mentioned that in the first week of January-2021 IGNOU is accredited with A++ grade by NAAC and IGNOU has received 5 – star rating from MoE's Innovation Cell. Also apprised that CIT (online) programme and CMAD programme were launched from July-2020 admission cycle and also appreciate the efforts made by all the Faculty, SOCIS and the external experts who had participated in the recording of 120 videos for three theory courses of CIT. Later, he briefed about online support provided by the faculty of SOCIS

during the pandemic using social media tools, Gyandarshan, Gyanvani etc.. Further, he informed the members that on account of 35th Foundation Day of IGNOU, SOCIS has received Best Certificate Programme award for CIT programme and Sh. M. P. Mishra, Associate Professor has received Best Research Paper award in the Science and Technology category. After the due approvals from the statutory bodies SOCIS has launched 2 years MCA (New) with revised eligibility criteria and PGDCA(New) programmes from the Jan-2021 admission cycle onwards. Prof. V.V. Subrahmanyam was nominated as the Channel Coordinator of Channel-19 (Professional and Vocational Education) of SWAYAMPRABHA-DTH. Following this, the agenda was taken up.

Item No. 52.1 **To confirm the minutes of the 51st Meeting of the School Board of School of Computer & Information Sciences held on July 13, 2020.**

Discussion The minutes of the 51st Meeting of the School Board of SOCIS held on July 13, 2020 were circulated among members/participants for their comments/suggestions. No comment/suggestion was received. The minutes were placed before the Board for confirmation.

Decision The School Board confirmed the Minutes (Annexure - 52.1.1) of the 51st Meeting of the School Board of School of Computer & Information Sciences held on July 13, 2020.

Item No. 52.2 **Action Taken Report on the Minutes of the 51st Meeting of the School Board of SOCIS.**

Discussion Action Taken Report was submitted for consideration of the Board.

Item No.	Details	Action Taken
Item No. 51.6	To consider and recommend change in duration of MCA Programme from 3 years to 2 years w.e.f 2020-21 as per AICTE Notification dated: 3rd July, 2020 for the MCA programme to be offered from July-2020 session onwards.	Approved in 52nd Academic Council Standing Committee and also in 74th Academic Council. It is also reflected in the MCA(New) Programme Notification
Item No. 51.7 51.7.1 51.7.2	To consider and approve the matters relating to MCA revision: To consider and recommend the Programme Revision Form (PRF) of Master of Computer Applications (MCA).. To consider and recommend the eligibility criteria and modalities of MCA Programme.	Approved in 52nd Academic Council Standing Committee and also in 74th Academic Council. MCA(New) Programme Notification received and the admissions are in progress for Jan-2021 session
Item No. 51.8	To consider and approve the matters relating to Post Graduate Diploma in Computer	Approved in 74th Academic Council

51.8.1 51.8.2	Applications (PGDCA) revision To consider and recommend the Programme Revision Form (PRF) of Post Graduate Diploma in Computer Applications (PGDCA) To consider and recommend the eligibility criteria and modalities of PGDCA Programme / Additional Bridge courses.	Standing Committee and also in Academic Council. MCA(New) Programme Notification received and the admissions are in progress for Jan-2021 session
Item No. 51.11	To re-consider and recommend the Programme Development Form (PDF) and the Programme Project Report (PPR) of Diploma in Mobile Application Development (DMAD).	PDF and PPR of Modular DMAD were approved by Academic Council in its 74th meeting. Programme Launch Form of CMAD was approved by the Competent Authority and the decision is ratified by APC in its 60th meeting.

Decision The School Board noted the action taken report.

Item No. 52.3 **To report the Minutes of the Meeting conducted via email on Sep 02, 2020 relating to the Feedback Analysis Reports for NAAC Accreditation.**

Discussion The Chairperson reminded the members that a Meeting was conducted with them on Sep 02, 2020 via email relating to the Feedback Analysis Reports for NAAC Accreditation whose Minutes are placed before the School Board for information purpose only.

Decision The School Board noted down the Minutes of the Meeting conducted via email on Sep 02, 2020 relating to the Feedback Analysis Reports for NAAC Accreditation.

Item No. 52.4 **To report the Minutes of the School Board of SOCIS approved by the members by circulation through email on Dec 18, 2020.**

Discussion The Chairperson reminded the members that the Minutes of the School Board of SOCIS were approved by them by circulation through email on Dec 18, 2020. The same Minutes are placed before the School Board for information purpose only.

Decision The School Board noted down the Minutes approved by the School Board of SOCIS through email on Dec 18, 2020 by circulation.

Item No.52.5 **To consider and approve the Minutes of 36th Meeting of Doctoral Research Committee of School of Computer & Information Sciences held on September 29, 2020**

Discussion The Minutes of the 36th Meeting of the Doctoral Research Committee of School of Computer and Information Sciences held on September 29, 2020 among members/participants for their comments/suggestions. No comment/suggestion was received. The minutes were placed before the School Board for consideration and approval.

Decision School Board considered and approved the Minutes (Annexure-52.5.1) of 36th Meeting of the Doctoral Research Committee of School of Computer & Information Sciences held on September 29, 2020.

Item No.52.6 **To consider and approve the Minutes of 37th Meeting of Doctoral Research Committee of School of Computer & Information Sciences held on Dec.15, 2020.**

Discussion The Minutes of the 37th Meeting of the Doctoral Research Committee of School of Computer and Information Sciences held on Dec 15, 2020 among members/participants for their comments/suggestions. No comment/suggestion was received. The minutes were placed before the School Board for consideration and approval.

Decision The School Board considered and approved the Minutes (Annexure-52.6.1) of 37th Meeting of the Doctoral Research Committee of School of Computer & Information Sciences held on Dec 15, 2020.

Item No. 52.7 **To consider and approve the Credit Transfer Policy of Master of Computer Applications (MCA) Programme to MCA (New) Programme.**

Discussion **The following credit transfer policy for MCA (offered from 2005 to 2020) to MCA (New) Programme is proposed for consideration and approval of the School Board:**

Credit Transfer from MCA (3yrs) to MCA New (2yrs)						
Course Code	**Title of the Oourse**	**Credit**	**Credit Transfer (CT)**	**Course Code**	**Title of the Course**	**Credit**
MCS-031	Design and Analysis of Algorithms	4	CT	MCS-211	Design and Analysis of Algorithms	4
MCS-013 & MCS-033	Discrete Mathematics & Advanced Discrete Mathematics	2+2=4	CT	MCS-212	Discrete mathematics	4

MCS-034	Software Engineering	3	CT	MCS-213	Software Engineering	4
MCS-042	Data Communication and Computer Networks	4	CT	MCS-218	Data Communication and Computer Networks	4
MCS-032	Object Oriented Analysis and Design	3	CT	MCS-219	Object Oriented Analysis and Design	4
MCS-051	Advanced Internet Technologies	3	CT	MCS-220	Web Technologies	4
MCS-035	Accountancy and Financial Management	3	CT	MCS-225	Accountancy and Financial Management	4
MCSP-060	Project	16	CT	MCSP-232	Project	12

Decision The School Board discussed thoroughly and approved the **credit transfer policy for present MCA(offered from 2005 to 2020) to MCA (New) Programme.**

Item No. 52.8 To consider and approve the Credit Transfer policy of Post Graduate Diploma in Computer Applications (PGDCA) Programme to PGDCA (New) Programme.

Discussion The following **credit transfer /exemption policy from PGDCA to PGDCA (New)** was placed before the School Board for consideration and approval.

Credit Transfer/Exemptionfrom PGDCA to PGDCA (New)						
Course Code	**Title of the Oourse**	**Credit**	**Credit Exemption (CE)/ Credit Transfer (CT)**	**Course Code**	**Title of the Course**	**Credit**
MCS-011 and MCSL-017	Problem Solving and Programming C and Assembly Language Programming Lab	3 + 2	Credit Exemption(CE)	MCS-201	Programming in C and Python	4
MCS-012	Computer Organization and Assembly language Programming	4	CT	MCS-202	Computer Organisation	4
MCS-022	Operating System Concepts and	4	CT	MCS-203	Operating Systems	4

	Networking Management					
MCS-024 and MCSL-025	Object Oriented Technologies and Java Programming Lab (based on MCS-021, 022, 023 & 024)	3 + 4	CT	MCS-206	Object Oriented Programming Using Java	4
MCS-23 and MCSL-025	Introduction to Database Management Systems Lab (based on MCS-021, 022, 023 & 024)	3 + 4	CT	MCS-207	Database Management Systems	4
MCS-021	Data and File Structures	4	CT	MCS-208	Data Structures and Algorithms	4

Decision The School Board considered and approved the Credit Transfer policy of Post Graduate Diploma in Computer Applications (PGDCA) Programme to PGDCA (New) Programme.

Item No. 52.9 **To consider and approve the MCA (New) Programme Delivery and Evaluation related matters**

Discussion The Course Coordinator informed the Board that admission for MCA (New) programme for January 2021 admission cycle has started from February 2021. The curriculum of MCA (New) is being well appreciated by the academica & industry. One of the main query on MCA admission relates to the eligibility criteria - "obtained at least 50% marks in the qualifying examination (45% in case of consolidated belonging to reserved category)". In addition, keeping in view of change of eligibility criteria, in case of non-computer science graduates who are required to do PGDCA of IGNOU prior to joining MCA, it was stated that the admissions for the January 2021 and July 2021 cycle of MCA may decrease, however, the admission in the subsequent admission cycles are expected to rise again.

The MCA Programme Coordinator then briefed about the MCA (New) programme delivery and evaluation related matters as given below to the School Board Members and placed before the School Board for consideration and approval.

52.9.1 Software Requirements
52.9.2 Theory and Practical Sessions

52.9.3 Compulsory practical attendance
52.9.4 Evaluation Scheme
52.9.5 Academic Counsellors' Mapping

52.9.1 Software Requirements:

The following are the software requirements for the MCA(New) Programme:

SOFTWARE REQUIREMENTS FOR MCA (NEW) PROGRAMME

Course Code		Proposed Software
	Semester I	
MCSL-216	DAA and Web Design Lab	**For DAA** (1) Compilers of C/C++ for Windows or Linux. **For Web Design** (2) HTML (latest verison), CSS (latest version), Java Script, Notepad++
MCSL-217	Software Engineering Lab	(1) Software Cost Estimation : EZEstimate (2) Project Planning : StarTeam (Borland or Micro Focus) / Microsoft Project (3) Analysis: Gatherspace / IBM Rational Requisite Pro / Caliber RM (4) Design: IBM Rational Software Modeler / Together (Borland or Micro Focus) (5) Testing: IBM Rational Functional Tester / Silk Test (Borland or Micro Focus) (6) Web Software Engineering : Microsoft Office Project Web access or IBM Rational Software Architect Designer (extensible UML, BPMN, sketching tools, and other graphical tools and notations for visualization, comprehension, modeling, design, development, and deployment of complex software solutions) Note: Any other software whose functionality is equal or more than the above prescribed software can also be used. Please ensure that terms and conditions governing the software license are strictly adhered to
	Semester II	
MCSL-222	OOAD and Web Technologies Lab	**For Web Technologies(J2EE Programming) :** NetBeans IDE for Java

		EE Developers/ Eclipse IDE for Java EE Developers **For OOAD(UML Diagrams) :** AgroUML/StarUML/BOUML/Dia/Visual Paradigm/Edraw-Max/Smart Draw/MS-Visio/Rational UML/ IBM Rational Software Architect Designer
MCSL-223	Computer Networks and Data Mining Lab	**For Computer Networks :** Compilers of C/C++ for Windows or Linux; NS2 or any other open source network simulator. **For Data Mining :** RapidMiner/R/Python/IBM SPSS Models/WEKA/ Apache Mahout/Knime/ or any other popular open source tool for R programming/ Excel Miner
Semester III		
MCSL-228	AI and Machine Learning Lab	Anaconda (open source software for Python)/ R Studio/ Jupyter Notebooks/ Google Colabs
MCSL-229	Cloud and Data Science Lab	**Cloud Computing :** KVM in Linux based systems, Oracle VirtualBox in windows based systems, CloudSigma, Open stack, Cloudsim **For Data Science :** R-Studio or any other open source tool for R Programming

Note : Any other software whose functionality is equal or more than the above prescribed software can also be used. Please ensure that terms and conditions governing the software license are strictly adhered to.
The LSC should use latest versions of the software as far as possible.

All Study Centres / Programme Study Centres should possess the **licensed software**. ***Beta*** versions of the software should not be entertained. Enough licenses as per number of machines for a 1:1 ratio. The Regional Directors / Asst Regional Directors should visit and cross-check all the study centres whether they possess the licensed software before they give permission as study centres / PSC's for MCA (New) programme. Most of the recommended software is open source software

52.9.2 Theory and Practical Sessions

(i) For a 2-credit theory course there will be 3 counselling sessions of 2 hours duration each.
(ii) For a 4-credit theory course there will be 6 counselling sessions of 2 hours duration each.
(iii) There will be 20 practical sessions for every 2 credit lab course, each session being of 3 hours duration.

COUNSELLING SESSIONS FOR MCA (NEW) PROGRAMME

MCA 1st Semester Schedule

Course	Theory/Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-211	Theory Sessions	4	6	12	-	-
MCS-212	Theory Sessions	4	6	12	-	-
MCS-213	Theory Sessions	4	6	12	-	-
MCS-214	Theory Sessions	2	3	6	-	-
MCS-215	Theory Sessions	2	3	6	-	-
MCSL-216	Practical Sessions	2	-	-	20	60
MCSL-217	Practical Sessions	2	-	-	20	60

MCA 2nd Semester Schedule

Course	Theory/Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-218	Theory Sessions	4	6	12	-	-
MCS-219	Theory Sessions	4	6	12	-	-
MCS-220	Theory Sessions	4	6	12	-	-
MCS-221	Theory Sessions	4	6	12	-	-
MCSL-222	Practical Sessions	2	-	-	20	60
MCSL-223	Practical Sessions	2	-	-	20	60

MCA 3rd Semester Schedule

Course	Theory/Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-224	Theory Sessions	4	6	12	-	-
MCS-225	Theory Sessions	4	6	12	-	-
MCS-226	Theory Sessions	4	6	12	-	-
MCS-227	Theory Sessions	4	6	12	-	-

MCSL-228	Practical Sessions	2	-	-	20	60
MCSL-229	Practical Sessions	2	-	-	20	60

MCA 4th Semester Schedule

Course	Theory/Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-230	Theory Sessions	4	6	12	-	-
MCS-231	Theory Sessions	4	6	12	-	-
MCSP-232	Project	12	4	8	-	-

* **Theory counselling sessions is of 2 Hr duration.**
* **Practical counsessling sessions is of 3 Hr duration.**

Semester	No. of Sessions		No. of Hours	
	Theory	Practical	Theory	Practical
I	24	40	48	120
II	24	40	48	120
III	24	40	48	120
IV	12 + 4 sessions for discussions on Project	-	24 + 8	-
TOTAL	**84**	**120**	**176**	**360**

Total Computer time = Practical time = 120 Sessions = 360 Hours
Note: 75% attendance is compulsory in Practical Lab Sessions.

(iv) **Counsellor-student ratio**: Theory counseling – 60 students to one counsellor
Practical counseling – 30 students to one counselor

(v) Student to machine ratio should be 2:1

52.9.3 Compulsory Practical Attendance

The following issues regarding the attendance for the practical sessions are to be considered:

(i) 75% attendance is compulsory in the practical sessions for each lab course. This is a pre-requisite for taking the term-end practical examination in that course.

(ii) A student who fails to fulfill the 75% attendance requirements for a lab course should be allowed to re-register for the same **course**. The pro-rata fee for a lab course will be changed as per the University norms.

(iii) Students are required to prepare a separate lab record for each lab course. This lab record will be duly signed by the counselor of practical session after each session.

(iv) Student's attendance should be recorded coursewise at the Learner Support Center (LSCs)

52.9.4 Evaluation Scheme

The evaluation for each course covers two aspects:

(a) Continuous evaluation (b) Term-end examination

The following evaluation scheme for MCA (New) programme is proposed:

Type of Course	Continuous Evaluation (only one assignment)	Term End Examination
Theory	30%	70%
Practical / Lab	30%*	70%**

Each assignment will be worth 100 marks and weightage will be 30%. Theory assignment will consists of 80% marks for assignment questions and 20% marks for viva-voce. A student must appear for viva-voce in order to pass the assignment. The lab course assignment will consist of 40% marks for lab records, 40% marks for assignment questions and 20% marks for viva-voce.

* A student cannot appear for the term-end practical examination of a lab course unless s/he has 75% attendance in the lab / practical course.

Criteria for successfully completing a course

For the MCA (New) programme, it is proposed that the students should achieve **a minimum of 40% in each component** (both in the assignment as well as in the TEE) and overall 40% in each course to successfully complete the course. This criteria is same as that of present MCA. For project course a student must obtain 40% marks in Viva and 40% marks in project report evaluation to pass the project course.

Duration of TEE

The School proposes the term-end examination duration as follows:

Term-end theory examination for 4-credit courses: 3 hrs, 100 marks.
Term-end theory examination for 2-credit courses: 2 hrs, 50 marks.
Term-end practical examination for 2-credit courses: 2 hrs, 50 marks.

The Evaluation scheme is given below:

EVALUATION SCHEME FOR MCA (NEW) PROGRAMME

Semester	Course Code	Course Title	Credits	Continuous Evaluation Assignment (Weightage – 30%)		Term End Examination Theory OR Practicals* (for Lab courses only) (Weightage – 70%)		
				Max Marks	Min. Marks	Duration	Max. Marks	Min. Marks
I	MCS-211	Design and Analysis of Algorithms	4	100	40	3	100	40
	MCS-212	Discrete Mathematics	4	100	40	3	100	40
	MCS-213	Softwrae Engineering	4	100	40	3	100	40
	MCS-214	Professional Skills and Ethics	2	100	40	2	50	20
	MCS-215	Sycurity and Cyber Laws	2	100	40	2	50	20
	MCSL-216	DAA and Web Design Lab	2	100	40	2	50	20
	MCSL-217	Software Engineering Lab	2	100	40	2	50	20
II	MCS-218	Data Communication and Computer Networks	4	100	40	3	100	40

	MCS-219	Object Oriented Analysis and Design	4	100	40	3	100	40
	MCS-220	Web Technologies	4	100	40	3	100	40
	MCS-221	Data Warehousing and Data Mining	4	100	40	3	100	40
	MCSL-222	OOAD and Web Technologies Lab	2	100	40	2	50	20
	MCSL-223	Computer Networks and Data Mining Lab	2	100	40	3	50	20
III	MCS-224	Design and Analysis of Algorithms	4	100	40	3	100	40
	MCS-225	Accountancy and Financial Management	4	100	40	3	100	40
	MCS-226	Data Science and Big Data	4	100	40	3	100	40
	MCS-227	Cloud Computing and IoT	4	100	40	3	100	40
	MCSL-228	AI and Machine Learning Lab	2	100	40	2	50	20
	MCSL-229	Cloud and Data Science Lab	2	100	40	2	50	20
IV	MCS-230	Digital Image Processing and Computer Vision	4	100	40	3	100	40
	MCS-231	Mobile Computing	4	100	40	3	100	40
	MCSP-232	Project **	12	Report – 150 (Min. 60) and Viva 50 (Min. 20) (Total = 200 marks)				

* **Practical examination will be conducted for the lab courses only. The letter 'L' in the course code represents the lab course. Pass in each and every part in the practical course of Term End Practical Examination is compulsory in order to get it declared successful in the respective course.**

** **The Project consist of 2 components namely project report evaluation and viva. Viva-voce is compulsory and forms part of evaluation. A student in order to be declared successful in the project must secure 40% marks in each component of project evaluation i.e. (i) Project Evaluation and (ii) Viva-voce.**

Details of term-end practical examination for lab courses are given below:

Evaluation of Term-end Practical exam for Lab Courses

(Practical questions –80 % and Viva-voce – 20 %)

Course Code	Duration of term-end practical examination (Each section gets equal time)	Term-end practical examination and viva-voce	
		Marks of Section-1	Marks of Section-2
MCSL-216 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-217 (2 credits)	2 hours	40(P) + 10 (V) = 50 marks	#
MCSL-222 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-223 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-228 (2 credits)	2 hours	40(P) + 10 (V) = 50 marks	#
MCSL-229 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks

P- Problems given in the exam paper, V –viva-voce for that section.

52.9.5 Academic Counselors' Mapping

The counsellor should have relevant teaching experience in the related course. The mapping of some of the present courses to new courses is shown in the following table. For all other course new counsellorsmay be appointed through the due process of appointment of counsellors.

Academic Counsellor's Mapping				
Counsellor of MCA		Approved For	MCA(New)	
Course Code	Title of the Oourse		Course Code	Title of the Course
MCS-031	Design and Analysis of Algorithms		MCS-211	Design and Analysis of Algorithms
MCS-013 or MCS-033	Discrete Mathematics or Advanced Discrete Mathematics		MCS-212	Discrete mathematics
MCS-034	Software Engineering		MCS-213	Software Engineering
MCS-042	Data Communication and Computer Networks		MCS-218	Data Communication and Computer Networks
MCS-032	Object Oriented Analysis and Design		MCS-219	Object Oriented Analysis and Design
MCS-051	Advanced Internet Technologies		MCS-220	Web Technologies
MCS-035 & MCSL-036	Accountancy and Financial Management & Lab course (Part 3)		MCS-225	Accountancy and Financial Management

* Subject to fulfilment of the minimum eligibility criteria as per the IGNOU Academic Counsellor Norms / UGC ODL regulations 2020. For all the remaning courses of MCA-New , new counsellor's having qualifications as per the UGC regualtions 2020 with relavant experience of teaching the related courses , may be appointed through the due process of appointment of counsellors.

Decision

The members of School Board reiterated that the 50% marks (45% in case of reserved category) in qualifying examination (graduation marks in case of IGNOU as there is no entrance test for MCA) for admission to MCA are essential.

The School Board considered and approved **the Software Requirements, Theory and Practical Sessions, Compulsory practical attendance** and the **Evaluation Scheme** presented (**52.9.1 to 52.9.5**) as the part of **MCA (New) Programme Delivery and Evaluation related matters**.

Item No. 52.10 **To consider and approve the PGDCA (New) Programme Delivery and Evaluation related matters.**

Discussion The PGDCA Programme Coordinator briefed about the PGDCA (New) Programme Delivery and Evaluation related matters as mentioned below and the same were placed before the School Board for consideration and approval.

52.10.1 Software Requirements
52.10.2 Theory and Practical Sessions
52.10.3 Compulsory practical attendance
52.10.4 Evaluation Scheme
52.10.5 Academic Counsellors' Mapping

52.10.1 Software Requirements:

The software requirements are the software requirements for PGDCA:

Course Code		Proposed Software
	Semester - I	
MCSL-204	WINDOWS and LINUX Lab	Windows Operating System Linux Operating System
MCSL-205	C and Python Lab	For C: Compilers of C/C++ for Windows or Unix. For PYTHON Anaconda (open source software for Python), Google Colabs
	Semester-II	
MCSL-209	Data Structures and Algorithms Lab	Compilers of C/C++ for Windows or Linux
MCSL-210	DBMS and Java Lab	**DBMS Lab:** MySQL, PostgreSQL **JAVA Lab:** NetBeans IDE for Java EE Developers/ Eclipse IDE for Java EE Developers

All Study Centres / Programme Study Centres should possess the **licensed software**. ***Beta*** versions of the software should not be entertained. Enough licenses as per number of machines for a 1:1 ratio. The Regional Directors / Asst Regional Directors should visit and cross-check all the study centres whether they possess the licensed software before they give permission as study centres / PSC's for PGDCA (New) programme. Most of the recommended software is open source software.

52.10.2 Theory and Practical Sessions

(i) For a 4-credit theory course there will be 6 counselling sessions of 2 hours duration each.

(ii) There will be 20 practical sessions for every 2 credit lab course, each session being of 3 hours duration.

(iii) Student-Counsellor ratio: Theory counseling – 60 students to one counsellor
Practical counseling – 30 students to one counselor

(iii) Student to machine ratio should be 2:1

PGDCA 1stSemester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-201	Programming in C and Python	Theory Sessions	4	6	12	-	-
MCS-202	Computer Organisation	Theory Sessions	4	6	12	-	-
MCS-203	Operating Systems	Theory Sessions	4	6	12	-	-
MCSL-204	WINDOWS and LINUX Lab	Practical Sessions	2	-	-	20	60
MCSL-205	C and Python Lab	Practical Sessions	2	-	-	20	60

PGDCA 2ndSemester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-206	Object Oriented Programming Using Java	Theory Sessions	4	6	12	-	-
MCS-207	Database Management Systems	Theory Sessions	4	6	12	-	-
MCS-208	Data Structures and Algorithms	Theory Sessions	4	6	12	-	-
MCSL-209	Data Structures and Algorithms Lab	Practical Sessions	2	-	-	20	60
MCSL-210	DBMS and Java Lab	Practical Sessions	2	-	-	20	60

* **Theory counselling sessions is of 2 Hr duration.**
* **Practical counsessling sessions is of 3 Hr duration.**

Semester	No. of Sessions		No. of Hours	
	Theory	Practical	Theory	Practical
I	18	40	36	120
II	18	40	36	120
TOTAL	**36**	**80**	**72**	**240**

Total Computer time = Practical time
= 40 Sessions =120 Hours

Note: 75% attendance is compulsory in Practical Lab Sessions.

52.10.3 Compulsory Practical Attendance

The following issues regarding the attendance for the practical sessions are to be considered:

(v) 75% attendance is compulsory in the practical sessions for each lab course. This is a pre-requisite for taking the term-end practical examination in that course.

(vi) A student who fails to fulfill the 75% attendance requirements for a lab course should be allowed to re-register for the same **course**. The pro-rata fee for a lab course will be changed as per the University norms.

(vii) Students are required to prepare a separate lab record for each lab course. This lab record will be duly signed by the counselor of practical session after each session.

(viii) Student's attendance should be recorded coursewise at the Learner Support Center (LSCs)

52.10.4 Evaluation Scheme

The evaluation for each course covers two aspects:

(b) Continuous evaluation (b) Term-End examination

(c)

The following evaluation scheme for MCA (New) programme is proposed:

Type of Course	Continuous Evaluation (only one assignment)	Term End Examination
Theory	30%	70%
Practical / Lab	30%*	70%

Each assignment will be worth 100 marks and weightage will be 30%. Theory assignment will consists of 80% marks for assignment questions and 20% marks for viva-voce. A student must appear for viva-voce in order to pass the assignment. The lab course assignment will consist of 40% marks for lab records, 40% marks for assignment questions and 20% marks for viva-voce.

* A student cannot appear for the term-end practical examination of a lab course unless s/he has 75% attendance in the lab / practical course.

52.10.4 Evaluation Scheme

Completion of the programme requires successful completion of both assignment component and the Term-end Examination component for each course in the programme. The total numbers of courses in this PGDCA programme are 10 and the total number of credits is 32.

Evaluation for each course covers two aspects:

(d) Continuous evaluation through Assignment with a weightage of 30% (please refer to the table below). *Viva- voce is compulsory for all the Assignments for which 20 marks are allocated.*

(e) Term-end examination with a weightage of 70% (please refer to the table below).

Note: A learner should not apply for appearing at the term-end examination of any course without getting registered for the same and that if s/he does so, her/his result would not be declared and the onus shall be on him.

Assignments and Term - End Examination

The main purpose of assignments is to test student's comprehension of learning the materials they receive from the University and also to help them get through the courses by providing feedback to them. The information given in the printed course materials should be sufficient for answering the assignments. However, as Computer Science is an ever enhancing area, the students should make an attempt and work with extra reading material easily available at the Study Centre / Regional Centre libraries or through websites for working on the assignments. This will enhance his/her learning capabilities. Mostly the assignments are designed in such a way as to help her/him concentrate mainly on the printed course material, exploit their personal experiences and apply the knowledge gained from various sources.

Assignments

There will be **only one assignment for each course worth 100 marks (weightage of 30%)**. The set of all the assignments for each semester are given in one booklet that you will get along with your course material as well as the same will be uploaded on the IGNOU's website also.

The table shown below provides the detailed marking scheme for the PGDCA courses.

Semester	Course Code	Course Title	Credits	Continuous Evaluation Assignment (Weightage – 30%)		Term End Examination Theory OR Practicals* (for Lab courses only) (Weightage – 70%)		
				Max Marks	Min. Marks	Duration	Max. Marks	Min. Marks
I	MCS-201	Programming in C and Python	4	100	40	3	100	40
	MCS-202	Computer Organisation	4	100	40	3	100	40
	MCS-203	Operating Systems	4	100	40	3	100	40
	MCSL-204	WINDOWS and LINUX Lab	2	100	40	2	50	20
	MCSL-205	C and Python Lab	2	100	40	2	50	20
II	MCS-206	Object Oriented Programming Using Java	4	100	40	3	100	40
	MCS-207	Database Management Systems	4	100	40	3	100	40
	MCS-208	Data Structures and Algorithms	4	100	40	3	100	40
	MCSL-209	Data Structures and Algorithms Lab	2	100	40	2	50	20
	MCSL-210	DBMS and Java Lab	2	100	40	2	50	20

* **No practical examinations for the non-lab courses. Practical examination will be conducted for the lab courses only.**

The letter 'L' in the course code represents the lab course. Pass in each and every section in the practical course of
Term End Practical Examination is compulsory in order to get it declared successful in the respective course.
All the assignments and term-end exams will be scored on a numerical marking scheme. Any component that has not been attempted would be treated as having a score of zero marks. The requirement for passing would be at least 40% in continuous evaluation and 40% in the term-end examinations, with an overall average of 40% for a pass in the course.
The viva voce is compulsory for the assignment evaluation. For any course, in case, if a student submitted the assignment and not attended the viva-voce, then the assignment is treated as not successfully completed and would be marked as ZERO.
In order to be able to appear for the Term-end examination, it is a requirement that the student submit all the assignments according to the prescribed schedule. All students will be required to give an undertaking to this effect, and should it be later found that they had in fact not submitted the assignments as prescribed; the results for the Term-end examination will be treated as cancelled. Viva voce is compulsory for all the assignments for which 20 percentage marks are allocated.

Unfair means in attempting the assignments
If the learners copy the assignments, which is an important component of the ODL system, such assignments will be awarded "zero" and such students will be directed to re-attempt the fresh assignments pertaining to the next year which will indirectly delay the award of degree by a semester/ year.

Additional guidelines for Lab Course Assignments and Term End Practical Examination

The following are the evaluation guidelines for the lab courses.

(i) Evaluation of Assignments for Lab Courses
The assignments of lab courses consist of three parts:

- Continuous assessment of practical sessions (lab records) (total 40 marks),
- Assignment questions (total 40 marks)
- A combined comprehensive **viva-voce** (total 20 marks)

The marks allotment details for various lab courses are shown in the following table:

Course Code	Continuous Assessment of Practical Sessions Lab Records (40)	Assignment Problems (40)	Combined Viva (20)	Total Marks (100)
MCSL-204	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-205	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-209	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100

MCSL-210	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100

It is to be noted that minimum passing marks are overall (lab records + problems + viva) **40% in each assignment**.

(ii) Term End Practical Examination

The term-end examination of the practical courses consists of several sections. Each section will be evaluated separately. The viva-voce for each section will also be separate. The following table shows the details:

(Practical questions –80 % and Viva-voce – 20 %)

Course Code	Duration of term-end practical exam. (Each section gets Equal time)	Term-end practical examination and viva-voce	
		Marks Section-1	Marks Section-2
MCSL-204 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-205 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-209 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-210(2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks

P- problems given in the exam paper, V –viva-voce for that section

A student needs to obtain a minimum of 40% in **each section** of the term-end practical examination for successful completion of that particular section. In case a student does not secure the minimum passing marks in a section, s/he needs to appear for the term-end practical examination again for that section only.

52.9.5 Academic Counselor's M apping

The counsellor should have relevant teaching experience in the related course. The mapping of some of the present courses to new courses is shown in the following table. For all other course new counsellorsmay be appointed through the due process of appointment of counsellors.

Academic Counsellor's Mapping (Subject to fulfilling the minimum eligibility criteria as per UGC norm)				
Existing Academic Counsellor for the course		**Approved For**	**PGDCA(New) Courses ***	
Course Code	**Title of the Existing Course**		**Course Code**	**Title of the Course**

MCS-011	Problem Solving and Programming		MCS-201	Programming in C and Python
MCS-012	Computer Organization and Assembly language Programming		MCS-202	Computer Organization
MCS-041	Operating Systems		MCS-203	Operating Systems
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-204	WINDOWS and LINUX Lab
MCSL-017	C and Assembly Language Programming Lab		MCSL-205	C and Python Lab
MCS-024	Object Oriented Technologies and Java Programming		MCS-206	Object Oriented Programming Using Java
MCS-23	Introduction to Database Management Systems		MCS-207	Database Management Systems
MCS-021	Data and File Structures		MCS-208	Data Structures and Algorithms
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-209	Data Structures and Algorithms Lab
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-210	DBMS and Java Lab

⋆ Subject to fulfilment of the minimum eligibility criteria as per the IGNOU Academic Counsellor Norms / UGC ODL regulations 2020.

Decision

The School Board considered and approved **the Software Requirements, Theory and Practical Sessions, Compulsory practical attendance, Evaluation Scheme** and academic counsellors' mapping presented (52.9.1 to 52.9.5) as the part of **PGDCA (New) Programme Delivery and Evaluation related matters.**

Item No. 52.11 To report the status of PhD admissions under July, 2020 cycle.

Discussion

Prof. P.V. Suresh, the Ph.d Programme Coordinator told the members that SOCIS received copies of communications sent by Research Unit to 5 shortlisted candidates informing them about their selection and advising them of next steps to be taken. SOCIS also received copies of communications sent by Research Unit to 2 of 5 shortlisted candidates informing them about their provisional registration to PHDCS

programme which commences from February 4th, 2021. SOCIS is in the process of taking next steps such as scheduling course work etc. as per PhD Guidelines, 2020

Decision: School Board noted the status of PhD admissions under July, 2020 cycle.

Item No. 52.12 To report the approval of Programme Launch Approval Form of CMAD.

Discussion Prof. P.V. Suresh (Certificate in Mobile Application Development), CMAD Programme Coordinator informed the School Board that CMAD programme is being offered from July, 2020 cycle onwards after the Programme Launch Form (PLF) of CMAD was approved. Phase-1 form of Modular DMAD (Diploma in Mobile Application Development) was approved by APC in its 54th meeting. PDF and PPR of Modular DMAD were approved by Academic Council in its 74th meeting. Some members asked for the enrollment information of January, 2021 cycle. It was informed that the admissions were announced for January, 2021 recently and hence the information related to enrollment was not sought from SRD. Programme Coordinator also informed that CMAD is activated only in 40 LSCs across the Country and these 40 LSCs are across 12 states and UTs. It was also informed that CIT, BCA and MCA were activated in 500+ , 300+ and 200+ LSCs respectively. Keeping in view of the very few LSCs activated for CMAD, it was informed that low enrollment may be recorded. It was felt that there is need to communicate the matter to RSD.

Decision: The School Board noted the approval of Programme Launch Approval Form of CMAD. It was decided to communicate the matter to RSD.

Item No. 52.13 To consider and recommend the Course Writers, Content Editors and Language Editors for MCA (New) programme.

Decision: The School Board considered and recommended the names proposed as the Course Writers, Content Editors and Language Editors for MCA (New) programme (Annexure 52.13.1).

Item No. 52.14 To consider and recommend the Course Writers, Content Editors and Language Editors for the PGDCA (New) Programme.

Decision: The School Board considered and recommended the names proposed as the Course Writers, Content Editors and Language Editors for PGDCA (New) programme (Annexure 52.14.1).

Item No. 52.15 To consider and recommend the names of Project Evaluators for MCA and BCA Programmes.

Decision: The School Board considered and recommended the names proposed as Project Evaluators for MCA and BCA Programmes (Annexure 52.15.1).

Item No. 52.16 To consider and recommend the names of TEE Answer Script Evaluators for MCA, BCA & CIT Programmes.

Decision: The School Board considered and recommended the names proposed as TEE Answer Script Evaluators for MCA, BCA & CIT Programmes. (Annexure 52.16.1).

Item No. 52.17 To consider and recommend the names of Paper Setters for MCA, BCA and CIT

Decision: The School Board considered and recommended the names proposed as TEE Answer Script Evaluators for MCA, BCA & CIT Programmes (Annexure 52.17.1).

It was placed on record about the contributions made by the external experts of the members from other disciplines of IGNOU, since their term is about to complete in the month of March-2021. Also, the language editing work contributed by the Faculty of English, SOH, IGNOU are very much appreciated.

The meeting ended with a vote of thanks to all.

24/2/2021

(Prof. V.V. Subrahmanyam)
Chairperson

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निदेशक / Director
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