HoD Physics <hod.physics@smvdu.ac.in>

{Directors} Agenda for 37th meeting of Academic Council

Academic Affairs Section <academicaffairs@smvdu.ac.in> Tue, Feb 25, 2025 at 1:29 PM
Reply-To: academicaffairs@smvdu.ac.in
To: HoDs <hods@smvdu.ac.in>
Cc: Dean Academic Affairs <adean.academics@smvdu.ac.in>, Dean FoS <dean.fos@smvdu.ac.in>, Dean FOE <dean.foe@smvdu.ac.in>, Dean FOHSS <dean.fohss@smvdu.ac.in>, Dean FOM <dean.fom@smvdu.ac.in>, "Associate Dean (Academic Affairs) Non Engg" <assocdean.academics.nonengg@smvdu.ac.in>, "Associate Dean (Academic Affairs) Engg" <assocdean.academics@smvdu.ac.in>, Assistant Registrar Academics <ar.academics@smvdu.ac.in>, Antima Kohli <antima.kohli@smvdu.ac.in>, Rohit Govil <rohit.govil@smvdu.ac.in>

Sir/ Ma'am,

It is kindly requested to submit the recommendations of BoS alongwith minutes of the committee chaired by the Dean of concerned Faculty with the Heads of the various schools of the Faculty as members for further needful action by AA Section

—
Thanks & Regards
Academic Affairs Wing, SMVD University
Kakryal, Katra

Amendments in constitution of BoS.pdf
284K

विज्ञानं बल

श्री माता वैष्णो देवी विश्वविद्यालय
SHRI MATA VAISHNO DEVI UNIVERSITY
Kakryal, Katra-182320, Jammu & Kashmir
Recognized under Section 2(f) & 12(B) of the UGC Act, 1956
registrar@smvdu.ac.in

Ref. No: SMVDU/AA /20/ 1056 Date: 3rd Feb.2020

Notification

Subject: Amendments in Constitution of Board of Studies (BoS)

As approved by Executive Council in its 31st meeting held on 18th Oct., 2019, the Constitution of BoS of various schools at SMVDU shall be as under:-

1. Head of School - Chairman (Ex-Officio)
2. All faculty members of the School - Members

   One of the faculty member shall be nominated as Member secretary by Head of the school
3. Two External Experts - External Member Expert

Further, Presence of the chairman along with 50% of the members of the committee shall form quorum.

The recommendations of BoS shall be reviewed by a committee chaired by the Dean of concerned Faculty with the Heads of the various schools of the Faculty as members.

Registrar

Copy to:
1. All Dean, for information.
2. All Head, for information and for circulation to all concerned.
3. PS to VC for the information of the Hon'ble Vice Chancellor.
4. I/c Website, for uploading of same on SMVDU Website.
5. Concerned file.

Shri Mata Vaishno Devi University
श्री माता वैष्णो देवी विश्वविद्यालय
Kakryal, Katra-182320 (J&K), India
School of Physics

Minutes of the 12th Meeting of Board of Studies of SoP

Shri Mata Vaishno Devi University

श्री माता वैष्णो देवी विश्वविद्यालय

Kakryal, Katra-182320 (J&K), India

School of Physics

Detailed Agenda

Agenda Item No. 12.1:

To confirm the minutes of the 11th Meeting of BoS, SoP held on 7th March, 2024.

Resolution: The BoS confirmed the minutes of the 11th Meeting of BoS of SoP held in 7th March, 2024 circulated vide Ref. No. SMVDU/SoP/24/138 dated: 07-03-2024 attached as **Annexure-I.**

Agenda Item No. 12.2:

To consider and ratify the course codes of the courses for the semester I to VIII Semesters applicable for the Four Year Undergraduate Programme (FYUP) in Physics for batch admitted in AY 2024-25 and onwards as per NEP 2020.

Resolution: The course codes of the courses for the semester I to VIII Semesters applicable for the Four Year Undergraduate Programme (FYUP) in Physics for batch admitted in AY 2024-25 & onwards were presented before the members and the BoS approved the course codes for the courses as per the new coding scheme laid down by the university annexed as **Annexure-II.**

Agenda Item No. 12.3:

To consider and ratify the course structure and detailed contents of a skill enhancement course (SEC) introduced in semester-III of 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme for the batch admitted in 2023-24 & onwards.

Resolution: The course structure and detailed contents of a skill enhancement course (SEC) "*Physics Skills in Experimentation*", course code PHM SE201 (L-T-P: 1-0-2) introduced in 3rd semester of 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme for the batch admitted in 2023-24 & onwards was placed before the board and after discussions the same was approved and is annexed as **Annexure-III.**

Agenda Item No. 12.4:

To consider and ratify one AEC course and one SEC course and their course contents as per NEP-2020 for Four Year Undergraduate Programme (FYUP) in Physics for 2nd Semester applicable for batch admitted in AY 2024-2025 & onwards.

Resolution: The course structures and contents of the AEC course on "Fundamentals of Energy Physics" (PHL AE102; L-T-P: 2-0-0) and the SEC course on "Software Skills in Physics" (PHM SE102; L-T-P: 1-0-2), 2 credits each for Four Year Undergraduate Programme (FYUP) in Physics for 2nd Semester applicable for batch admitted in AY 2024-2025 & onwards, was presented before the board and after due deliberations and suggestions from the experts the same were approved and is annexed as **Annexure-IV.**

Agenda Item No. 12.5:

To consider and ratify the total credits for the courses in Sem.-IX and Sem.-X each for the 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programmes for the batch admitted in 2020-21 & 2021-22.

Resolution: The board considered and approved the correction in the total credits of 24 for each semester in 5th year of Integrated B.Sc. (Hons.) Physics – M.Sc. Physics and 2nd year of M.Sc. Physics (lateral entry) programmes for the students of 2023-24 & 2024-25 batches. The same is appended as **Annexure-V**.

Agenda Item No. 12.6:

To consider and ratify the course structure, contents and code for minor course on "*Basic Circuit Theory*" for VI semester students of 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme applicable to the batches admitted in 2022-23 & 2023-24.

Resolution: The board approved the modified course names, course codes and course contents for the "***Basic Circuit Theory***", **Course Code: PHL 3052 (LTP: 3-0-0)** for Theory and "***Basic Circuit Theory Lab***" **PHP 3052 (LTP: 0-0-2)** for laboratory applicable to the students of 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme admitted in 2022-23 & 2023-24. This is attached as **Annexure-VI**.

Agenda Item No. 12.7:

To consider and ratify the slight modification in the course structure of 5th semester students of 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme as applicable to students of 2022-23 & 2023-24 batches.

Resolution: The board approved the modified course structure (attached as **Annexure-VII**), in line with that had been provided by academic affairs section of the university (attached as **Annexure-VIII**), of five year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme and supported the introduction of one ***skill enhancement course (SEC-IV)*** and the other ***Summer Internship course*** in the same as applicable to 5th semester students of 2022-23 & 2023-24 batches.

Agenda Item No. 12.8:

To report course coding scheme followed by the university for 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme as applicable to students of 2022-23 & 2023-24 batches.

Resolution: The Board noted the reported (old) course coding scheme as applicable to students of 2022-23 and that (new) course coding scheme as applicable to students of 2022-23 & onwards for five year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme. This is attached as **Annexure-IX** for kind information of the board members.

Agenda Item No. 12.9:

To consider and ratify the introduction of a few Discipline Specific Elective courses from the basket of DSE-I & -II to become the part of basket of DSE-III & -IV courses for 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme as applicable to students of 2022-23 & 2023-24 batches.

Resolution: The board approved the modified pool of DSE-III & -IV courses and the same is attached as **Annexure-X**.

Agenda Item No. 12.10:

To consider and ratify the course codes of a few courses for 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme & (Lateral entry) M.Sc. Physics program.

Resolution: The board approved the new course codes of the following courses for five year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme & (Lateral entry) M.Sc. Physics programme applicable to the batches as mentioned in the table:

S. No.	Name of Course	Previous Course Code	New Course Code	Applicable to
1.	Atomic and Molecular Physics	PHL 7071	PHL 3071	Int. B.Sc.-MSc. Physics (2022-23 batch)
2.	Introduction to Photonics and Plasmonics	PHL 7191	PHL 7192	Int. B.Sc.-MSc. Physics (2020-21 & 2021-22 batches) Lateral Entry M.Sc. Physics (2023-24 & 2024-25 batches)

Agenda Item No. 12.11:

To consider and ratify the modified course code and credit structure of a multidisciplinary course in 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme applicable to the students of 2023-24 batch.

Resolution: The board approved the modified course code, L-T-P and credits of the multidisciplinary course on "***Elements of Themodynamics***" for 5 year Integrated B.Sc. (Hons.) Physics – M.Sc. Physics programme applicable to the students of 2023-24 batche as per the following table:

S. No.	Name of Course	Previous Course Code & L-T-P	New Course Code & L-T-P	Applicable to
1.	Elements of Themodynamics	PHE 2024 (3-0-0) 3 credits	PHL MU201 (3-0-1) 4 credits	Int B.Sc.- M.Sc. Physics (2023-24)

Agenda Item No. 12.12:

To consider and ratify the offering of a discipline specific core course in semester-VI of Four Year Undergraduate Programme (FYUP) in Physics as per NEP 2020 applicable to batch admitted in AY 2024-25 and onwards.

Resolution: The board approved the offering of the course on "***Essentials of Nano-Physics***" **(PHL MD308; LTP: 3-1-0)** in semester-VI of (FYUP) in Physics as per NEP 2020 applicable to batch admitted in AY 2024-25 and onwards.

Agenda Item No. 12.13:

To report the Feedback on Curriculum of School of Physics from Students and Alumni of the school.

Resolution: The Board noted the reported analysis report on the basis of feedback on Curriculum of School of Physics from Students and Alumni of the school and the same is attached as **Annexure-XI** for reference of the board members.

Agenda Item No. 12.14:

To report the various other items happened in the School since 11th BoS meeting.

Resolution: The following matters happened in the School since the conduct of 11th BoS meeting:

1. Two new Faculty members namely, Dr. Vineet V. Tyagi, from School of Energy Management, SMVDU and Dr. Anupam K. Sharma, from Manipal University Jaipur joined the School of Physics as Associate Professors during Jan, 2025.
2. Two new Faculty members namely, Dr. Ridham Bakshi, from Department of Physics, University of Jammu and Dr. Varun Pandey joined the School of Physics as Assistant Professors during Dec. 2024. However, Dr. Ridham Bakshi could not continue due to her selection, through PSC, as Assistant Professor in Higher Education Department and she left the School in Feb. 2025.
3. One faculty member Dr. Kamni Pathania, Associate Professor, School of Physics, SMVDU joined Department of Physics and Astronomical Sciences, Central University of Jammu as Professor on Extra Ordinary Leave w.e.f. 22-01-2025.

4. Three faculty members namely, Dr. Ashok K. Sharma, Dr. Deepa Singh and Dr. Mudasir A. Mir completed their tenure as contractual faculty at School of Physics during Dec.2024 - Jan. 2025. The board resolved to appreciate the services rendered by these faculty members.
5. BoS, SoP expressed satisfaction and noted that two students, namely, Dr. Vishav Deep Sharma (19DPH001) under the supervision of Dr. Ram Prakash and Varun Bali (19DPH002) under the supervision of Dr. Vivek K. Singh and co-supervision of Dr. Yugal Khajuria, have qualified for award of Ph.D. Degree during Jan.-Feb., 2025.
6. Ms. Neha Lalotra, who has recently submitted her Ph.D. thesis under the supervision of Dr. Kamni Pathania, secured prestigious ANRF Grant to attend and present paper at AsCA 2024 conference in Kuala Lumpur, Malaysia during Dec. 2024.
7. The board appreciated the talk presented by Prof. Zoltán Dudás from Budapest Neutron Center (BNC), Hungary at School of Physics, SMVDU in hybrid mode.

Dr. Yugal Khajuria
Professor
Member

Dr. S. K. Wanchoo
Associate Professor
Member

Dr. Vineet V. Tyagi
Associate Professor
Member

Dr. Anupam K. Sharma
Associate Professor
Member

Dr. Jitendra Sharma
Assistant Professor
Member

Dr. Pankaj Biswas
Assistant Professor
Member

Dr. Varun Pandey
Assistant Professor
Member

Dr. Ram Prakash
Associate Professor & Head, SoP
Chairman

Copy of endorsement e-mail is attached herewith

Prof. Geeta Bhatt
Director, NCWEB
University of Delhi
Member Expert (External)

Prof. D. K. Pandya
Former Professor of Physics, IIT Delhi
Member Expert (External)

Submitted for your kind consideration and necessary action for approval of the same in the forthcoming Academic Council Meeting of the University.

Office SoP (Physics) <office.sop@smvdu.ac.in>

Draft Minutes of 12th meeting of BoS of SoP by Circulation

3 messages

pankaj biswas <pankaj.biswas@smvdu.ac.in> Sat, Feb 22, 2025 at 10:15 PM
To: Dinesh Pandya <dinesh.pandya@iitjammu.ac.in>, geeta.bhatt@bcas.du.ac.in, director@ncweb.du.ac.in, Department of Physics <dop@smvdu.ac.in>
Cc: HoD Physics <hod.physics@smvdu.ac.in>, "Office SoP (Physics)" <office.sop@smvdu.ac.in>

Dear All,

With reference to the 12th meeting of BoS of SoP which was held by circulation (through e-mail of Agenda items sent on 18th Feb., 2025), PFA the draft minutes (in docx format) along with annexures (in pdf) of the meeting.

The minutes have been prepared in accordance with the proposed ensuing Academic Council Meeting of SMVDU in near future. The worthy members of the Board are requested to give away their suggestions and/ or comments (if any) to the undersigned **on or before 24.02.2024 (Monday) by 12:00 p.m.**

Minutes are being submitted to Board Members to accord their approval to notify the same.

Dr. Pankaj Biswas
Asst. Prof. SoP, SMVDU
(M): 9419113597

3 attachments

- **Minutes of the 12th Meeting of BOS of SoP_23_02_2025.docx** 63K
- **Annexure-I.PDF** 1551K
- **Annexures II to XI.pdf** 664K

Dinesh Pandya <dinesh.pandya@iitjammu.ac.in> Sat, Feb 22, 2025 at 11:45 PM
To: pankaj biswas <pankaj.biswas@smvdu.ac.in>
Cc: geeta.bhatt@bcas.du.ac.in, director@ncweb.du.ac.in, Department of Physics <dop@smvdu.ac.in>, HoD Physics <hod.physics@smvdu.ac.in>, "Office SoP (Physics)" <office.sop@smvdu.ac.in>

Minutes of 12th meeting signed and attached.

प्रोफेसर दिनेश पंड्या
आगंतुक प्रोफेसर भौतिकी
आई. आई. टी. जम्मू
जगती, एन एच 44, जम्मू 181221, भारत
दूरभाष: +91 9891165601

Professor Dinesh Pandya
Adjunct Professor Physics
I. I. T. Jammu
Jagti, NH 44, Jammu 181221, India
Phone: +91 9891165601

[Quoted text hidden]

SMVDU_Minutes of the 12th Meeting of BOS of SoP_23_02_2025.pdf
199K

Dr.Geeta Bhatt <geeta.bhatt@bcas.du.ac.in> Sun, Feb 23, 2025 at 11:02 PM
To: Dinesh Pandya <dinesh.pandya@iitjammu.ac.in>
Cc: pankaj biswas <pankaj.biswas@smvdu.ac.in>, Director NCWEB <director@ncweb.du.ac.in>, Department of Physics <dop@smvdu.ac.in>, HoD Physics <hod.physics@smvdu.ac.in>, "Office SoP (Physics)" <office.sop@smvdu.ac.in>

Kindly consider my endorsement for the minutes.
Regards
Prof. Geeta Bhatt
[Quoted text hidden]

Annexure-I

Shri Mata Vaishno Devi University

श्री माता वैष्णो देवी विश्वविद्यालय

Kakryal, Katra-182320 (J&K), India

School of Physics

27/02/25

Dr. Pankaj Biswas
Member Secretary BoS, SoP

27/2/25

Head, SoP:

To

All members for the information.

Copy to:

1. Dean (AA) for information.
2. Registrar, SMVDU for information & placing of the same before Academic Council.
3. AR, VC office for kind information of the Hon'ble Vice Chancellor.
4. Concerned file.

ANNEXURE-I

Shri Mata Vaishno Devi University
श्री माता वैष्णो देवी विश्वविद्यालय
Kakryal, Katra-182320 (J&K), India
School of Physics

Minutes of the 11th Meeting of Board of Studies of SoP

Date: 07/03/2024
Time: 11:30 a.m. onwards
Venue: Conference Hall, SoP

Minutes
~~Agenda~~ for 11th meeting of BoS of SoP

ShriMataVaishnoDeviUniversity

श्री माता वैष्णो देवी विश्वविद्यालय

Kakryal, Katra-182320 (J&K),India

School of Physics

Detailed Agenda

The chair welcome all the members of BoS and thanked them, particularly Prof. D. K. Pandya for his continued guidance and involvement in shaping the various programmes being offered by the school. He further informed that due to some prior commitments Prof. Geeta Bhatt, University of Delhi could not attend the meeting. The chair also expressed great sense of appreciation on behalf of school of Physics to all the external participants in the two days Curriculum Development Workshop for their valuable contributions in evolving the FYUG programme in Physics. He also thanked Head, Department of Physics IIT Jammu for agreeing to host students for internship and project work after working out the modalities at institutional level on both sides.

Agenda Item No. 11.1:

To confirm the minutes of the 10th Meeting of BoS, SoP held on 31st July, 2023.

Resolution:

BoS confirmed the minutes of the 10th Meeting of BoS of SoP held in 31st July, 2023 were circulated vide Ref. No. SMVDU/SoP/23/309 dated: 02-08-2023 as appended as **Annexure-I.**

Agenda Item No. 11.2:

To consider and approve the detailed course contents of the courses for the semesters IX & X applicable for the Integrated B.Sc. (Hons.) – M.Sc. Physics and M.Sc. Physics (Lateral Entry) batches admitted in 2020-21 & 2021-22.

Resolution:

The course structure for the final four semesters for the 2020-21 and 2021-22 batches was presented before the members and after discussion on the same BoS approved the detailed course contents for the courses being offered in IX and X semesters for the Postgraduate level (Second year) of the Integrated B.Sc.(Hons.) - M.Sc. Physics programme for batches admitted in AY 2020-21 & AY 2021-22 annexed as **Annexure-II.**

Agenda Item No. 11.3:

To consider and ratify the Modified Course Structure and course contents as per NEP-2020 & NCrF for Five Year Integrated B.Sc./ M.Sc. Programme in Physics 2022-23 and 2023-24 batch 3rd to 6th Semester applicable for batch admitted in AY 2022-23 and 2023-2024.

Resolution:

Minutes ~~Agenda~~ for 11th meeting of BoS of SoP

ShriMataVaishnoDeviUniversity
श्री माता वैष्णो देवी विश्वविद्यालय
Kakryal, Katra-182320 (J&K),India

School of Physics

The Course Structure and course contents as per NEP-2020 & NCrF for Five Year Integrated B.Sc.-M.Sc. (Physics) programme 2022-23 and B.Sc./ M.Sc. Physics Programme batch 2022-23 and 2023-24 for semesters 3rd to 6th was placed before the board and after deliberations the same was approved and is Annexed as **Annexure-III.**

Agenda Item No. 11.4:

To consider and approve the course structure and detailed course contents of the courses for the semester I to VIII Semesters applicable for the Four Year Undergraduate Programme (FYUP) in Physics for batch to admitted in AY 2024-25 and onwards as per NEP 2020.

Resolution:

The course structure for 4 years and detailed contents upto 6th Semester for Four year Undergraduate Program (FYUP) to be offered from AY 2024-25 as per NEP 2020 guidelines was prepared after thorough deliberations during the two day "Workshop on Curriculum Development for FYUP" which was attended by a galaxy of exerts from IIT Delhi, IIT Jammu, University of Jammu, University of Kashmir, MD of Electricfield Pvt. Ltd. Jammu besides heads of various schools of SMVDU, Associate Dean Academic Affairs (non-engineering programmes) SMVDU and all the faculty members of SoP. After threadbare deliberations the Structure (All semesters) and contents (upto 6th Semester) were approved and same is annexed as **Annexure – IV**. This shall be applicable to the batch of students to be admitted in AY 2024-25 and onwards for Four Year Undergraduate Programme (FYUP) in Physics under NEP 2020. Considering the overall scheme expanding the canvas of courses to various engineering schools besides internship and skill oriented courses, the Board unanimously recommended naming of the degree programme as BS in Applied Physics. The Board also congratulated the school for being able to rope in an industrial partner, "M/s Electricfield Pvt. Ltd. Jammu", for this programme and expected that this will benefit students in terms of internships and skill upgradation opportunities.

Agenda Item No. 11.5:

To report the organization of various activities since the 10th BoS Meeting.

Resolution:

The Board noted the reported position and appreciated the efforts put in by various faculty and staff members in having organized variety of programmes including external funding component and encouraged the faculty members to continue with the same zeal and enthusiasm.

ShriMataVaishnoDeviUniversity

श्री माता वैष्णो देवी विश्वविद्यालय

Kakryal, Katra-182320 (J&K),India

School of Physics

The School of Physics, SMVD University organized the following activities since the 10th BoS meeting:

1. Curriculum Review Workshop was held on 5th and 6th Match, 2024 to finalize the structure and contents of FYUG Programme in Physics. The workshop was attended by experts from IIT Delhi, IIT Jammu, University of Jammu, University of Kashmir, MD of Electricfield Pvt. Ltd. Jammu besides heads of various schools of SMVDU, Associate Dean Academic Affairs (non-engineering programmes) SMVDU and all the faculty members of SoP.

2. Stage Show on "Innovative and Fascinating Experiments in Science" to be conducted by Prof. Bhagwan Dattatraya Chakradeo and his team on 09/09/2023, Matrika Auditorium organized by School of Physics in association with Indian Association of Physics Teachers (IAPT-RC-02).

3. SERB Sponsored 6th expert committee meeting for the evaluation of proposals under NPDF (Physical and Mathematical Sciences) during 22-24, November, 2023.

4. Five days training programme on "Materials Characterization Techniques" during 4-8 December, 2023 through virtual mode jointly with NITTR, Chandigarh.

5. Two days workshop on "Arduino for Physics Experiments" during 18-19 January, 2024 through hybrid mode Jointly with IIT Bombay.

6. The Faculty of Sciences and IIC, SMVD University in collaboration with Jammu And Kashmir Energy Development Agency (JAKEDA) organized the National Science Day on the theme "Solar Energy for Sustainable Future and Viksit Bharat" on 29th February, 2024.

Agenda Item No. 11.6:

Any other agenda item(s) with the permission of the Chair.

No Items were raised.

Dr.Yugal Khajuria
Assoc. Professor
Member

Dr. Jitendra Sharma
Asstt. Professor
Member

Dr. Kanni
Asstt. Professor
Member

Minutes
~~Agenda~~ for 11th meeting of BoS of SoP

ShriMataVaishnoDeviUniversity

श्री माता वैष्णो देवी विश्वविद्यालय

Kakryal, Katra-182320 (J&K),India

School of Physics

7/3/24
Dr. Ram Prakash
Asstt. Professor
Member

Dr. Pankaj Biswas
Asstt. Professor
Member

7/3/24
Dr. Deepa Singh
Asstt. Professor (on contract)
Member

Dr. Mudasir A. Mir
Asst. Professor (on contract)
Member

Prof. Ashok K. Sharma
Professor (on contract)
Member

07/03/2024
Dr. S. K. Wanchoo
Assoc. Professor & Head, SoP
Chairman

7/3/2024
Prof. D.K. Pandya
Former Professor of Physics, IIT Delhi
Member Expert (External)

Submitted for your kind consideration and necessary action for approval of the same in the forthcoming Academic Council meeting.

Dr. Pankaj Biswas
Member Secretary BoS, SoP

Head, SoP:

07/03/2024

Ref.No:SMVDU/SoP/24/138
Dated: 07/03/2024

To

All members for the information.

Copy to:

1. Dean (AA) for information.
2. Registrar, SMVDU for information & placing of the same before Academic Council.
3. AR, VC office for kind information of the Hon'ble Vice Chancellor.
4. Concerned file.

Minutes
~~Agenda~~ for 11th meeting of BoS of SoP

Annexure-II

Course Structure Four Year Undergraduate Program FYUGP B.Sc. (Hons.) Physics as per UGC Guidelines in accordance with NEP 2020 Guidelines

(Entry Batch 2024-2025 Onwards)

SEMESTER I

Course Category	Course Code	Course Title	L-T-P	Credits
Major DSC 1	PHL MD103	Newtonian Mechanics	3-0-0	3
	PHP MD103	Newtonian Mechanics Lab	0-0-2	1
Minor		One to be chosen from the allied schools (Maths, Biotech., Chemistry, Computer Science, Energy Management etc.)	x-x-x	4
Multidisciplinary		To be chosen from other Disciplines /Schools	x-x-x	4
AEC (Ability Enhancement)		Choose one from the pool of courses	x-x-x	2
SEC (Skill Enhancement Course)		One to be chosen from the pool of courses-	------	2
Value Added Course -1		Health and Wellness	2-0-0	2
Value Added Course -2		One to be chosen from the basket of courses	2-0-0	2
				20

SEMESTER II

	Course Code	Course Title	L-T-P	Credits
Major DSC 2	PHL MD104	Applied Optics	3-0-0	3
	PHP MD104	Applied Optics Lab	0-0-2	1
Minor		One to be chosen from the allied schools (Maths, Biotech., Chemistry, etc.)	x-x-x	4
Multidisciplinary		To be chosen from other Disciplines	x-x-x	4
AEC (Ability Enhancement)		Choose one from the pool of courses	x-x-x	2
SEC (Skill Enhancement Course)		One to be chosen from the pool of courses	x-x-x	2
Value Added Course -3		Environmental Science and Education	2-0-0	2
Value Added Course -4		One to be chosen from the basket of courses	2-0-0	2
		Total Credits		**20**

Note: After second semester the student can choose one particular Minor stream (Biotechnology, Chemistry, Mathematics, Computer Science, Energy Management etc.) for earning Degree in Major Discipline with Minor in the chosen stream or can opt for Discipline specific electives from third semester onwards.

SEMESTER III

	Course Code	Course Title	L-T-P	Credits
Major DSC 3	PHL MD201	Analog Electronics	3-0-0	3
	PHP MD201	Analog Electronics Lab	0-0-2	1
Major DSC 4	PHL MD203	Mathematical Methods-I	3-1-0	4
Minor /DSE 1		One to be chosen from the List of Minor/ DSEs	4-0-0	4
Multidisciplinary		One to be chosen from the pool of courses	x-x-x	4
AEC (Ability Enhancement)		One to be chosen from the pool of courses	x-x-x	2
SEC (Skill Enhancement Course)		One to be chosen from the pool of courses	x-x-x	2
		Total Credits		**20**

SEMESTER IV

Course Category	Course Code	Course Title	L-T-P	Credits
Major DSC 5	PHL MD202	Electromagnetic Interactions	3-0-0	3
Major DSC 6	PHL MD204	Digital Fundamentals	3-0-0	3
	PHP MD204	Electromagnetic Interactions and Digital Fundamentals Lab	0-0-4	2
Major DSC 7	PHL MD206	Heat and Thermodynamics	3-0-0	3
Major DSC 8	PHL MD208	Waves and Oscillations	3-0-0	3
	PHP MD208	Heat and Wave Propagation Lab	0-0-4	2
Minor /DSE 2		One to be chosen from the List of Minor/ DSEs	4-0-0	4
		Total Credits		**20**

Student will undergo a summer training of 4 to 5 weeks in the summer vacation after Semester IV.

SEMESTER V

Course Category	Course Code	Course Title	L-T-P	Credits
Major DSC 9	PHL MD301	Elements of Statistical Physics	3-1-0	4
Major DSC 10	PHL MD303	Classical Mechanics	3-1-0	4
Major DSC 11	PHL MD305	Atomic and Molecular Physics	3-0-0	3
	PHP MD305	Atomic and Molecular Physics Lab	0-0-2	1
Minor /DSE 3		One to be chosen from the List of Minor/ DSEs	4-0-0	4
SEC- 4		One to be chosen from the pool of courses	x-x-x	2
IAPC) (Internship/ Apprenticeship)		----------	x-x-x	2
		Total Credits		**20**

SEMESTER VI

Course Category	Course Code	Course Title	L-T-P	Credits
Major DSC 12	PHL MD302	Mathematical Methods-II	3-1-0	4
Major DSC 13	PHL MD304	Quantum Mechanics-I	3-0-0	3
	PHP MD304	Modern Physics Lab	0-0-2	1
Major DSC 14	PHL MD306	Introductory Solid State Physics	3-1-0	4
Major DSC 15	PHL MD308	Essentials of Nano-Physics	3-1-0	4
Minor/ DSE 4		One to be chosen from the List of Minor/ DSEs	4-0-0	4
		Total Credits		**20**

SEMESTER VII

	Course Code	Course Title	L-T-P	Credits
Major DSC 16	PHL MD401	Quantum Mechanics-II	3-1-0	4
Major DSC 17	PHL MD403	Computational Physics	2-0-4	4
Major DSC 18	PHL MD405	Condensed Matter Physics	3-0-0	3
	PHP MD405	Condensed Matter Physics Lab	0-0-2	1
Major DSC 19	PHP MD407	An Introduction to Research Methods	1-0-6	4
Minor DSE 5		One to be chosen from the List of Minor/ DSEs	x-x-x	4
	PHD PR401	Project-I[For Hons. with research*]	0-0-4	2
		Total Credits		**20+2***

SEMESTER VIII (Honors)

	Course Code	Course Title	L-T-P	Credits
Major DSC 20	PHL MD402	Electrodynamics and Plasma	3-1-0	4
Major DSC 21	PHL MD404	DSC (Core)-II to be chosen from Basket-2	4-0-0	4
Major DSC 22	PHL MD406	DSC (Core)-III to be chosen from Basket-3	4-0-0	4
Major DSC 23	PHL MD406	DSC (Core)-IV to be chosen from Basket-4	4-0-0	4
Minor DSE 6		One to be chosen from the List of Minor/ DSEs	x-x-x	4
		Total Credits		**20**

Semester VIII Honours with research (Only students with CGPA of 7.5 can opt for this)

	Course Code	Course Title	L-T-P	Credits
Major DSC 20		Electrodynamics and Plasma	3-1-0	4
Minor DSE 6		One to be chosen from the List of Minor/ DSEs	4-0-0	4
Dissertation		Research Project Dissertation	0-0-24	12
		Total Credits		**20**

List of Minor courses/Discipline specific Electives

Minor/Discipline specific Elective –I (Sem-I)

Course Code	Course Title	L-T-P	Credits
PHLMI103	Newtonian Mechanics	3-0-0	3
PHPMI103	Newtonian Mechanics Lab	0-0-2	1

Minor/ Discipline specific Elective –II (Sem-II)

Course Code	Course Title	L-T-P	Credits
PHLMI104	Applied Optics	3-0-0	3
PHPMI104	Applied Optics Lab	0-0-2	1

Minor/ Discipline specific Elective –III (Sem III)

Course Code	Course Title	L-T-P	Credits
PHL MI201	Analog Electronics	3-0-0	3
PHPMI201	Analog Electronics Lab	0-0-2	1

Minor/ Discipline specific Elective –IV (Sem IV)

Course Code	Course Title	L-T-P	Credits
PHL MI202	Electromagnetic Interactions	3-0-0	3
PHP MI202	Electromagnetic InteractionsLab	0-0-2	1

PHL MI204	Heat and Thermodynamics	3-0-0	3
PHP MI204	Heat and Thermodynamics	0-0-2	1
PHL MI206	Waves and Oscillations	3-0-0	3
PHPMI206	Waves and Oscillations Lab	0-0-2	1

Minor/ Discipline specific Elective –V (Sem-V)

Course Code	Course Title	L-T-P	Credits
PHL MI301	Mathematical Methods-I	3-1-0	4
PHL MI303	Classical Mechanics	3-1-0	4
PHLMI305	Atomic and Molecular Physics	3-0-0	3
PHPMI305	Atomic and Molecular Physics Lab	0-0-2	1

Minor/ Discipline specific Elective –VI (Sem-VI)

Course Code	Course Title	L-T-P	Credits
PHL MI302	Quantum Mechanics-I	3-1-0	4
PHL MI304	Introductory Solid State Physics	3-1-0	4

Minor/ Discipline specific Elective –VII (Sem-VII)

Course Code	Course Title	L-T-P	Credits
PHL MI401	Quantum Mechanics-II	3-1-0	4
PHL MI403	Condensed Matter Physics	3-0-0	3
PHP MI403	Condensed Matter Physics Lab	0-0-2	1
PHL MI405	Elementary Statistical Mechanics	3-1-0	4

Minor/ Discipline specific Elective –VIII (Sem-VIII)

Course Code	Course Title	L-T-P	Credits
PHL MI402	Mathematical Methods-II	3-1-0	4

Multidisciplinary Courses offered by SoP to the other schools

Course Code	Course Title	L-T-P	Credits
PHL MU101	Quantum in Everyday Life	3-1-0	4
PHL MU102	Lasers and Its Applications	3-1-0	4
PHL MU203	Nanotechnology for Beginners	3-1-0	4

Ability Enhancement Course(s) (AEC) offered by SoP

Course Code	Course Title	L-T-P	Credits
PHL AE102	Fundamentals of Energy Physics	2-0-0	2

Skill Enhancement Courses (SEC) offered by SoP

Course Code	Course Title	L-T-P	Credits
PHM SE102	Software Skills in Physics	1-0-2	2
PHM SE201	Physics Skills in Experimentation	1-0-2	2

Annexure-III

PHM SE201				Physics Skills in Experimentation			Course Type		SEC-III	
Batch				2023-25	Session	2024-25	Semester		Odd (3rd Sem)	
L	T	P	C	Theory	Mid-Term Duration	Major Duration	Two Assignments (10 marks each)	Mid-Term Marks	4 Quizzes (5 marks each)	Major Marks	Total Marks
1	0	0	1		1.5 hours	3 hours	20	20	20	40	100
L	T	P	C	Lab Comp.	Major Duration		Lab File (20 marks) + Attendance (10 marks)	Viva		Major Marks	Total Marks
0	0	2	1		2 hours		30	30		40	100

Learning Objectives

This course aims to introduce the students to the skills and work scientifically while performing experimentation in Physics. The students will be able to apply the learnt concepts to many real world problems.

Course Outcomes:

After completing this course, the students will be able to

- *Access the skills for experimental work in Physics and allied subjects*
- *Conduct experiments to test accuracy, uncertainty, reliability and validity of data*
- *Collect, analyse and interpret data from experiments.*
- *Use the spread sheets for graphing and draw conclusions based on data.*

Unit-I **[7]**

Units for measurement, Significant figures, Scientific notation and orders of magnitude, Linear regression, Accuracy and error, Estimating uncertainty in measurements, Propagation of Uncertainties

Unit-II **[8]**

Using uncertainties to assess values, Estimating uncertainty from a graph, Estimating uncertainty in results, Assessing reliability in experiments, Assessing validity in experiments, Introduction to spreadsheets, Using spreadsheets for graphing

Physics Skills in Experimentation (Lab Component)

The students are required to perform a minimum of six experiments from the following:

1. (i) To plot the experimental data on a graph and draw a line of best fit.
   (ii) To calculate the gradient and identify the Y-intercept of the line of best fit.
2. (i) To linearize the non-linear data by processing the data for one of the variables and best fit the processed data to a straight.
   (ii) To estimate the value of unknown quantity from the gradient and Y-intercept so obtained.
3. To access the type (systematic or random) of errors from the situation represented by given data.
4. To determine the average and uncertainty from the given sets of measurements trials.

5. To derive a physical value by estimating uncertainty and gradient from a given graph.
6. To estimate uncertainties in results of experimental data.
7. To evaluate reliability of experimental data from its average and uncertainty.
8. To access validity in an experiment by studying relationship between an independent variable and a dependent variable.
9. To perform simple calculations on data using spread sheets.
10. To use spread sheets for graphing and analysis of experimental data.

Text Book:

1. Data Reduction and Error Analysis for Physical Sciences, Bevington and Robinson, McGraw-Hill, 2003.

Suggested Reading(s):

2. Practical Physics, Squires, Cambridge University Press 4th Ed., 2001.
3. Data Visualization in Excel: A Guide for Beginners, Intermediates, and Wonks, J. Schwabish, CRC Press, 2023.
4. Activity book: Physics Skills in Experimentation, UNSW Sydney, 2020

Annexure-IV

PHL AE102				Fundamentals of Energy Physics			Course Type		AEC	
Session				2024-25			Semester		Even	
L	T	P	C	Mid-Term Duration	Major Duration	Two Assignments (10 marks each)	Mid-Term Marks	4 Quizzes (5 marks each)	Major Marks	Total Marks
2	0	0	2	1.5 hours	3 hours	20	20	20	40	100

Learning objectives

This course aims to provide the fundamental knowledge and skills in the field of energy Physics. The students will be able to learn and enhance their skills in the field of energy science.

Course Outcomes

After completing this course, students shall be able to:

- *Understand the fundamental for Energy Physics*
- *Understand the basic knowledge of thermal science*
- *Learn the fundamentals in the field of renewable energy*
- *Scientific overview of the solar energy, solar PV and and Hybrid systems*

Unit-I **[12]**

Energy Potential in India, Conventional Energy Sources, Non-Conventional Energy Solar Energy, Solar radiation and its spectral characteristics, reflection and absorption of solar radiation, Instruments for measurement of Solar Radiation,Solar Thermal Conversion and hybrid systems, Solar Collectors: Flat Plate Collector, Hybrid Solar Collector, ETC Collector, Solar Energy Polices of India, Wind and Hydrogen Energy

Unit –II **[12]**

Fundamental of Solar Photovoltaic, Types of Materials for Solar Cells, Different PV Technologies, Solar Cells Characteristics and Fill factor calculations, Heating and Cooling through Solar Energy, Solar Tracking of PV systems, Building Integrated Systems

Textbook(s):

1. S. P. Sukhatme, Solar Energy - Principles of thermal collection and storage, second edition, Tata McGraw-Hil, New Delhi, 1996
2. Chetan Singh Solanki ,Solar Photovoltaics: Fundamentals, Technologies and Applications, PHI Publisher, 3rd Edition.

Reference Book(s):

3. Non-Conventional Energy Resources by B. H. Khan, Mc Graw Hill Publication
4. Non-Conventional Energy Sources, G.D.Rai, Khanna Publishers

PHM SE102				Software Skills in Physics (1-0-2)				Course Type		SEC	
Session				2024-25				Semester		Even	
L	T	P	C	Theory	Mid-Term Duration	Major Duration	Two Assignments (10 marks each)	Mid-Term Marks	4 Quizzes (5 marks each)	Major Marks	Total Marks
1	0	0	1		1.5 hours	3 hours	20	20	20	40	100
L	T	P	C	Lab Comp.	Major Duration		Lab File (20 marks) + Attendance (10 marks)	Viva		Major Marks	Total Marks
0	0	2	1		2 hours		30	30		40	100

Learning Objectives

At the end of this course, students will:

1. *Develop proficiency in **Microsoft Excel** for data analysis, visualization, and basic statistical computations.*
2. *Gain hands-on experience with **Origin software** for advanced plotting, fitting, and scientific data interpretation.*
3. *Enhance their ability to manipulate and analyze datasets through structured workflows.*
4. *Learn to use software tools effectively to generate professional reports and presentations.*

Course Outcomes

After completing this course, students will be able to:

1. *Use Excel to perform data entry, cleaning, and visualization efficiently.*
2. *Implement statistical tools in Excel for data analysis and interpretation.*
3. *Create publication-quality plots and perform curve fitting using Origin software.*
4. *Analyze experimental data and present results effectively in scientific contexts.*
5. *Apply these software skills to interdisciplinary projects and research tasks.*

Course Structure:

Unit 1: Excel for Data Analysis **[6]**

Topics Covered:

1. **Basics of Excel**:
   - Data entry, formatting, and basic mathematical operations.
   - Understanding worksheets, cell referencing, and formulae.
2. **Data Visualization**:
   - Creating charts (line, bar, pie, scatter).
   - Using Pivot Tables and Pivot Charts.
3. **Functions and Formulas**:
   - Logical functions (IF, AND, OR).
   - Statistical functions (AVERAGE, MEDIAN, STDEV).
   - Lookup functions (VLOOKUP, HLOOKUP).
4. **Data Analysis Tools**:
   - Data sorting and filtering.
   - Solver and Goal Seek applications.
   - Regression analysis and trendlines.

5. **Macros and Automation**:
    - Basics of recording and running macros.
    - Introduction to VBA (Visual Basic for Applications).

Unit 2: Origin Software for Scientific Data Analysis **[6]**

Topics Covered:

1. **Introduction to Origin Software**:
    - Interface overview and basic navigation.
    - Importing datasets and workspace organization.
2. **Data Visualization**:
    - Creating 2D and 3D plots (scatter, surface, contour).
    - Customizing graphs (legends, annotations, colors).
3. **Data Manipulation**:
    - Data smoothing, filtering, and interpolation.
    - Dataset normalization and baseline correction.
4. **Curve Fitting and Statistical Tools**:
    - Linear and nonlinear curve fitting.
    - Error analysis and parameter estimation.
    - ANOVA and other statistical tests.
5. **Advanced Graphing Techniques**:
    - Creating multi-panel graphs.
    - Exporting high-resolution graphs for publication.
6. **Templates and Batch Processing**:
    - Using templates for repetitive tasks.
    - Automating analysis with batch processing.

The students are required to perform a minimum of six experiments from each of the following units:

Lab Component for Unit 1 (10 Experiments): **[12]**

1. Data entry and formatting of a real-life dataset.
2. Create line and scatter plots for experimental data.
3. Perform statistical analysis (mean, median, standard deviation).
4. Use Pivot Tables to summarize sales data.
5. Solve optimization problems using Solver.
6. Perform a linear regression analysis and interpret the results.
7. Create dynamic dashboards for weather data visualization.
8. Implement conditional formatting for large datasets.
9. Use Lookup functions to search and organize data.
10. Record a simple macro to automate a repetitive task.

Lab Component for Unit 2 (10 Experiments): **[12]**

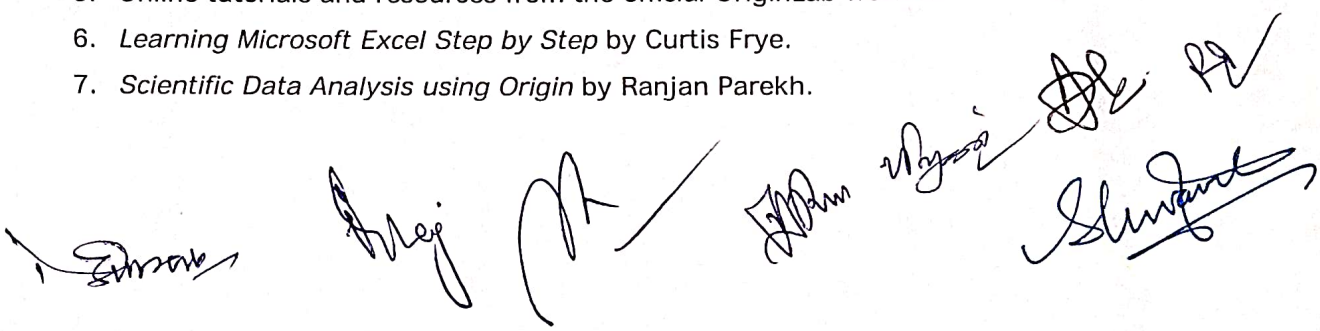
1. Import and clean experimental data from CSV files.
2. Create scatter plots and customize them for scientific reports.
3. Perform baseline correction on spectroscopy data.
4. Apply curve fitting to experimental growth data.
5. Generate and analyze 3D surface plots.
6. Conduct statistical tests (e.g., t-tests, ANOVA) on sample data.
7. Perform Fourier transformation on signal data.
8. Create a multi-panel graph for comparative analysis.
9. Use batch processing to analyze multiple datasets simultaneously.
10. Export high-resolution images for a journal submission.

Textbook(s):

1. Excel 2019 Bible by Michael Alexander, Richard Kusleika, and John Walkenbach.
2. *Getting Started with Origin* by OriginLab Corporation.

Suggested Readings:

3. *Practical Statistics for Data Scientists* by Peter Bruce and Andrew Bruce.
4. *Microsoft Excel Data Analysis and Business Modeling* by Wayne Winston.
5. Online tutorials and resources from the official OriginLab website.
6. *Learning Microsoft Excel Step by Step* by Curtis Frye.
7. *Scientific Data Analysis using Origin* by Ranjan Parekh.



Annexure-V

Course structure for IX & X semesters applicable for the Integrated B.Sc. (Hons.) – M.Sc. Physics admitted in 2020-21& 2021-22 and M.Sc. Physics (Lateral Entry) students admitted in 2023-24 and 2024-25 batches

(Course structure given below is already approved in 7th BoS of SoP held on 05.10.2020)

	(M.Sc.-IInd year)	
Course Code	**Semester – IX**	**L-T-P (Credits)**
PHL 7101	Condensed Matter Physics	4-0-0 (4)
PHL 7071	Atomic and Molecular Physics	4-0-0 (4)
PHL 7XXX	Discipline Specific Elective (DSE-V)	4-0-0 (4)
*XXX XXXX	Open Elective-III (Management/ Humanities/ Engineering/ Philosophy)	X-X-X (4)
PHD 7134	Project – Part I	0-0-16 (8)
	Total credits	**24**
PHL 7091	Nuclear & Particle Physics	4-0-0 (4)
PHL 7022	Thermodynamics and Statistical Physics	4-0-0 (4)
PHL 7XXX	Discipline Specific Elective (DSE-V)	4-0-0 (4)
*XXX XXXX	Open Elective-IV(Management/ Humanities/ Engineering/ Philosophy)	X-X-X (4)
PHD 7135	Project – Part II	0-0-16 (8)
	Total credits	**24**

*** Students can choose any course out of the elective courses floated by the respective schools.**

Annexure-VI

PHL 3052			Basic Circuit Theory				Course Type		Minor (Theory) Part-A	
Batch			2022-23	Session		2024-25	Semester		Even	
L	T	P	C	Mid-Term Duration	Major Duration	Two Assignments (10 marks each)	Mid-Term Marks	4 Quizzes (5 marks each)	Major Marks	Total Marks
3	0	0	3	1.5 hours	3 hours	20	20	20	40	100

UNIT-I
Series-Parallel Networks **[10]**

Kirchhoff's laws, Ladder networks, Current sources, Conversion of current source to voltage source and vice versa, Current sources in series and parallel, Mesh analysis, Nodal analysis, Bridge networks.

UNIT-II
Network Theorems **[12]**

Superposition theorem, Thevenin's theorem, Norton's theorem, Maximum power transfer theorem, Millman's theorem, Substitution theorem, Reciprocity theorem.

UNIT–III
AC Circuits **[10]**

Introduction to a.c. waveforms, Definition of terminology, Average and effective values, Introduction to phasor notation, Response of basic R, L and C elements to a sinusoidal signal, Frequency response, Power factor, Series and parallel a.c. circuits, Impedance and phase diagram, Voltage divider rule for a.c circuits, Current divider rule for a.c. circuits, Power in a.c. circuits, The power triangle.

UNIT–IV
Resonance **[10]**

Introduction to resonance, Series LCR resonant circuit, Q factor, Variation of impedance with frequency, Selectivity of a series resonant circuit, Parallel LCR resonant circuit, Qfactor, Selectivity curves, Application to tuned filters, Bode plots.

Textbook(s):

1. Introductory Circuit Analysis. 11th edition. Robert L. Boylestad (2006). Prentice Hall.
2. Fundamentals of Electric Circuits, 3rd Edition.Charles Alexander and MatthewSadiku (2006).McGraw Hill.

Reference Book(s):

3. Electric Circuit Fundamentals (7th Edition). Thomas L. Floyd (2006).Prentice Hall.
4. Circuit Theory - Analysis and Synthesis, A. Chakrabarti, (2018), DanpatRai& Co.

PHP 3052			Basic Circuit Theory Lab			Course Type	Minor (Lab) Part-B	
Batch			2022-23	Session	2024-25	Semester	Even	
L	T	P	C	Major Duration	Lab File (20 marks) + Attendance (10 marks)	Viva	Major Marks	Total Marks
0	0	2	1	2 hours	30	30	40	100

Choose any 6 experiments from the list given below:

1. To verify Kirchhoff's Laws (KCL/ KVL).
2. To verify Thevenin's theorem
3. To verify Norton's theorem.
4. To verify maximum power transfer theorem.
5. To verify superposition theorem
6. To study of the rise and decay of current in RC circuit.
7. To study of the rise and decay of current RL circuits.
8. To study frequency response of series LCR Circuit and to determine its (a) resonant frequency and (b) the Q-factor.
9. To study frequency response of parallel LCR Circuit and to determine its (a) anti-resonant frequency and (b) the Q-factor.

Textbook(s):

1. Network Analysis, A.Sudhakar and Shyammohan Palli, 4th Ed. McGraw Hill (2018).

Reference Books:

2. An Advanced Course in Practical Physics by D. Chattopadhyay, P.C. Rakshit.
3. A Text Book of Practical Physics, S.K. Ghosh, 2015, New Central Book Agency.

Annexure-VII

pankaj biswas <pankaj.biswas@smvdu.ac.in>

Fwd: Urgent Attention {Course structure of 5th sem of Integrated Programs for Odd semester Registration)

2 messages

HoD Physics <hod.physics@smvdu.ac.in> Mon, Jul 22, 2024 at 2:48 PM
To: pankaj biswas <pankaj.biswas@smvdu.ac.in>
Cc: "Office SoP (Physics)" <office.sop@smvdu.ac.in>

---------- Forwarded message ---------
From: **Associate Dean (Academic Affairs) Non Engg** <assocdean.academics.nonengg@smvdu.ac.in>
Date: Mon, 22 Jul 2024, 14:42
Subject: Urgent Attention {Course structure of 5th sem of Integrated Programs for Odd semester Registration)
To: HoD Physics <hod.physics@smvdu.ac.in>, HoD Business <hod.business@smvdu.ac.in>, HoD Mathematics <hod.math@smvdu.ac.in>, HoD DOPC <hod.dopc@smvdu.ac.in>, HoD Department of Economics <hod.doe@smvdu.ac.in>, HoD Languages <hod.languages@smvdu.ac.in>, Dean Academic Affairs <adean.academics@smvdu.ac.in>

Respected and Dear Colleagues.

W.r.t the captioned subject kindly note down that the course structure of the 5th sem of Integrated Programs (Non-Engineering) of following schools as updated on the Excel sheet shared by the Samarth Team for odd semester registration is slightly deviated as per the approved course structure.
I am sharing the approved course structure of Sem-V for further corrections at your end at the earliest please.
The matter may kindly be taken on priority for the purpose of semester registration.

1. School Of Business
2. School of Physics
3. School of Economics
4. School of Mathematics
5. School of Languages
6. School of Philosophy and Culture

Sem V

S. No.	Course Category	Course Code	Course Title	L-T-P	Credits
1.	Major or Discipline Specific Core (DSC)		DSC-9		4.0
2.	Major or Discipline Specific Core (DSC)		DSC-10		4.0
3.	Major or Discipline Specific Core (DSC)		DSC-11		4.0
4.	Minor or Discipline Specific Elective (DSE)		MI-5		4.0
5	Skill Enhancement Courses (AEC)		SEC-4 To be chosen from the basket of courses		2.0
6	Internship/Apprenticeship		Summer Internship		2.0
Total Credits					**20**

Dr.Shafaq Rasool
Associate Dean Academic Affairs (Non-Eng)

Associate Dean (Academic Affairs) Non Engg Wed, Jul 24, 2024 at 12:16 PM
<assocdean.academics.nonengg@smvdu.ac.in>

Annexure-VIII

School of Physics
Modified Course Structure* per NEP-2020 &NCrF for Five Year Integrated B.Sc.-M.Sc. (Physics) Programme (3rd to 6th Semesters) applicable for batch admitted in AY 2022-23 & 2023-24

	Second Year		Third Year	
Type of Course	**Semester - III**	**Semester - IV**	**Semester – V**	**Semester – VI**
Major Course (Physics) **(4 credits)**	Analog Electronics **3-0-0 (3 credits) [PHL 2051]** Analog Electronics Lab **0-0-2 (1 credit) [PHP 2051]** Mathematical Methods –I **3-1-0 (4 credits)**	Digital Fundamentals **3-0-0 (3 credits) [PHL 2054]** Digital Fundamentals Lab **0-0-2 (1 credit) [PHP 2054]** Mathematical Methods –I **3-1-0 (4 credits) [PHL 2036]** Elementary Nuclear Physics **4-0-0 (4 credits) [PHL 2092]** Foundations of Modern Physics **4-0-0 (4 credits) [PHL 2044]**	Elementary Statistical Mechanics **3-1-0 (4 credits) [PHL 3062]** Atomic and Molecular Physics **3-0-0 (3 credits) [PHL 3071]** Atomic and Molecular Physics Lab **0-0-2 (1 credit) [PHP 3071]** Introduction to Numerical Computation **3-0-2 (4 credits) [PHL 3031]**	Quantum Mechanics **3-1-0 (4 credits) [PHL 3193]** Introductory Solid State Physics **3-1-0 (4 credits) [PHL 3125]** DSE-I **4-0-0 (4credits)** DSE-II **4-0-0 (4credits)**
Minor Course **(4 credits)**	Waves and Oscillations **3-0-0 (3 credits) {PHL 2013]** Waves and Oscillations Lab **0-0-2 (1 credit) [PHP 2013]**	Measurements and Analysis **2-0-0 (2 credits) [PHL 2125]** Measurements and Analysis Lab **0-0-4 (2 credits) [PHP 2125]**	Fundamentals of Materials Science **4-0-0 (4 credits) [PHL 3084]**	Basic Circuit Theory **3-0-0 (3 credits) [PHL 3052]** Basic Circuit Theory Lab **0-0-2 (1 credit) [PHP 3052]**
Multidisciplinary (MD)** **(3 credits)**	Elements of Thermodynamics **3-0-0 (3 credits) [PHE 2024]** is the MD-III offered to other schools. Physics students to choose one course from MD-III offered by other schools			
Ability Enhancement Course (AEC) **(3 credits)**	Choose one course from the pool of courses from AEC-III: English Language (General),			

	Communication Skills, Mathematical Ability [In house/ Swayam platform] **(3 credits)**			
Skill Enhancement Course (SEC) **(2 credits)**	Choose one course from the pool of courses from SEC-III [In house/ Swayam platform/ Industry based] **(2 credits)**		Choose one course from the pool of courses from SEC-IV [In house/ Swayam platform/ Industry based] **(2 credits)**	
Skill Development/ Training/ Laboratory Skills/ Project/ Dissertation			Summer Internship after 4th Semester **0-0-4 (2credits) [PHD 3131]**	
Total credits	**20**	**20**	**20**	**20**
Exit Options				

** The course structure for Semesters I and II for the batch of students admitted in AY 2022-23 & 2023-24. The students shall continue to be governed by the Multiple Entry and Multiple Exit norms as applicable under NEP 2020*

*** This multidisciplinary course becomes 4 credits (L-T-P: 3-1-0) for students of 2024-25 & onwards batch.*

**** The above course codes are applicable to 2022-23 batch students. The 2023-24 & onwards batch students shall follow new course coding scheme as per NEP 2020.*

Annexure-IX

pankaj biswas <pankaj.biswas@smvdu.ac.in>

Fwd: {Directors} Course Coding Methodology to be adopted for Batch 2023-24 and onward

1 message

HoD Physics <hod.physics@smvdu.ac.in> Sat, Oct 28, 2023 at 12:18 PM
To: pankaj biswas <pankaj.biswas@smvdu.ac.in>
Cc: "Dr. Ram Prakash" <ram.parkash@smvdu.ac.in>, "Office SoP (Physics)" <office.sop@smvdu.ac.in>

Urgent and on priority please

---------- Forwarded message ---------
From: **Dean Academic Affairs** <adean.academics@smvdu.ac.in>
Date: Sat, 28 Oct 2023, 12:10
Subject: {Directors} Course Coding Methodology to be adopted for Batch 2023-24 and onward
To: HoDs <hods@smvdu.ac.in>, IC Exams SMVDU <ic.exams@smvdu.ac.in>, Samarth Admission <admissions@samarth.ac.in>
Cc: Deans <deans@smvdu.ac.in>, VC Office <vcoffice@smvdu.ac.in>, Academic Affairs Section <academicaffairs@smvdu.ac.in>, Associate Dean (Academic Affairs) Engg <assocdean.academics.engg@smvdu.ac.in>, Associate Dean (Academic Affairs) Sciences <assocdean.academics.nonengg@smvdu.ac.in>

Dear Sir/Madam,

i. With reference to implementation of NEP 2020 in SMVDU, course coding methodology has been modified keeping in view the features of NEP and prevalent practices in other institutions.

ii. All hods are requested to use the modified course code methodology as attached for coding of all courses taken in the current semester and also for other semesters of the program as per NEP pattern which was sent earlier.

iii. On priority basis, complete the coding of 1st and 2nd semester and join for a meeting at 11.30am in AB Hall on 31 Oct 2023 to discuss any issue coming in this context.
Urgently required to complete registration work on Samarth Portal.

With Best Regards,
Dean, Academic Affairs,

Revised Coding Scheme as model 28 Oct 2023.pdf
828K

Annexure-X

List of Discipline Specific Electives (DSE-V & DSE-VI) to be applicable for batches admitted in AY 2022-23 & 2023-24 of Five Year Integrated B.Sc.-M.Sc. Physics Programme in Physics

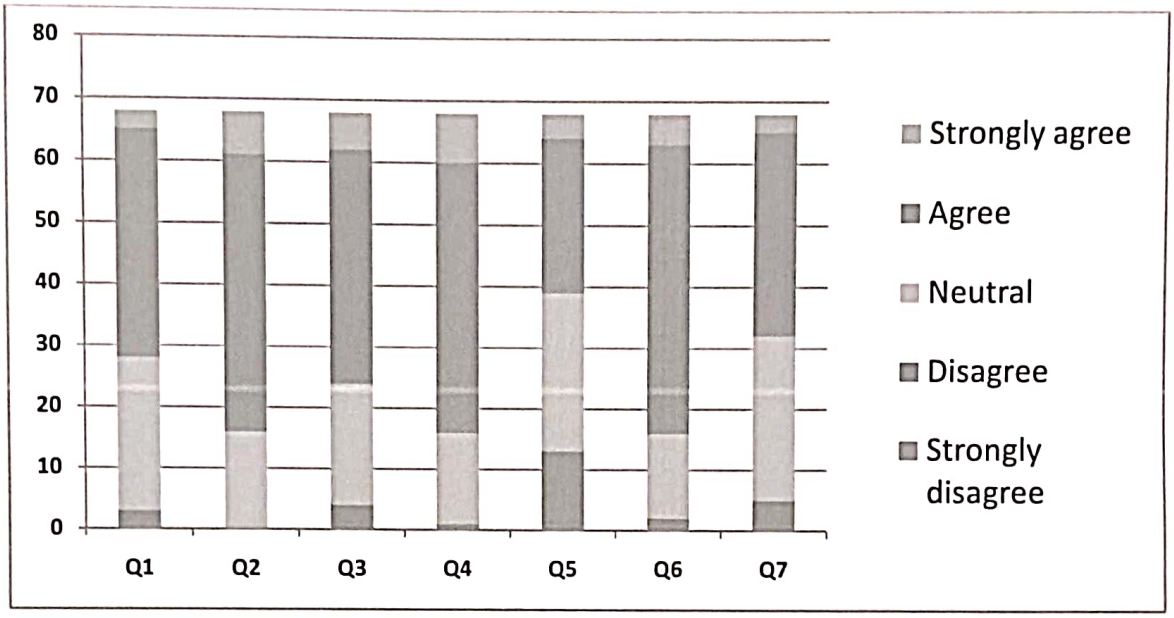
UG/ PG	DSE	Course Code	Course Title	L T-P	Credits
UG	DSE-I & DSE-II	PHL 3153	Applied Optics	4-0-0	4
		PHL 3125	**Basic Experimental Techniques**	**4-0-0**	**4**
		PHL 3114	UNIX, Fortran-90 and C++	4-0-0	4
		PHL 3171	**Atmospheric and Space Physics**	**4-0-0**	**4**
		PHL 3056	**Fundamentals of Microprocessor**	**4-0-0**	**4**
	DSE-III & DSE-IV	PHL 3173	Astronomy and Astrophysics	4-0-0	4
		PHL 3093	Nuclear Radiation: Medicine, Agriculture, Energy and Safety	4-0-0	4
		PHL 3181	Biophysics	4-0-0	4
		PHL 3154	Optoelectronics	4-0-0	4
		PHL 3087	Physics of Crystalline Materials	4-0-0	4
		PHL 3192	Introduction to Nanomaterials	4-0-0	4
		PHL 3125	**Basic Experimental Techniques**	**4-0-0**	**4**
		PHL 3171	**Atmospheric and Space Physics**	**4-0-0**	**4**
		PHL 3056	**Fundamentals of Microprocessor**	**4-0-0**	**4**

Annexure-XI

Student Feedback on Curriculum of School of Physics

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Strongly disagree	1	0	1	1	1	1	1
Disagree	2	0	3	0	12	1	4
Neutral	25	16	20	15	26	14	27
Agree	37	45	38	44	25	47	33
Strongly agree	3	7	6	8	4	5	3

Total Responses: 68



Q1	The Syllabus of the courses that you have studied synchronizes with the competencies expected out of the course.
Q2	The units/sections in the syllabus are properly sequenced.
Q3	The curriculum has good balance between theory and practical.
Q4	Course content is covered by corresponding reference books/materials.
Q5	The syllabus is sufficient for the preparation of other National level competitive Examinations.
Q6	The course content of the subjects increased your knowledge and perspective.
Q7	Curriculum equipped you with the necessary technical skills and hands-on experience required by the industry and academia.

Result(s):

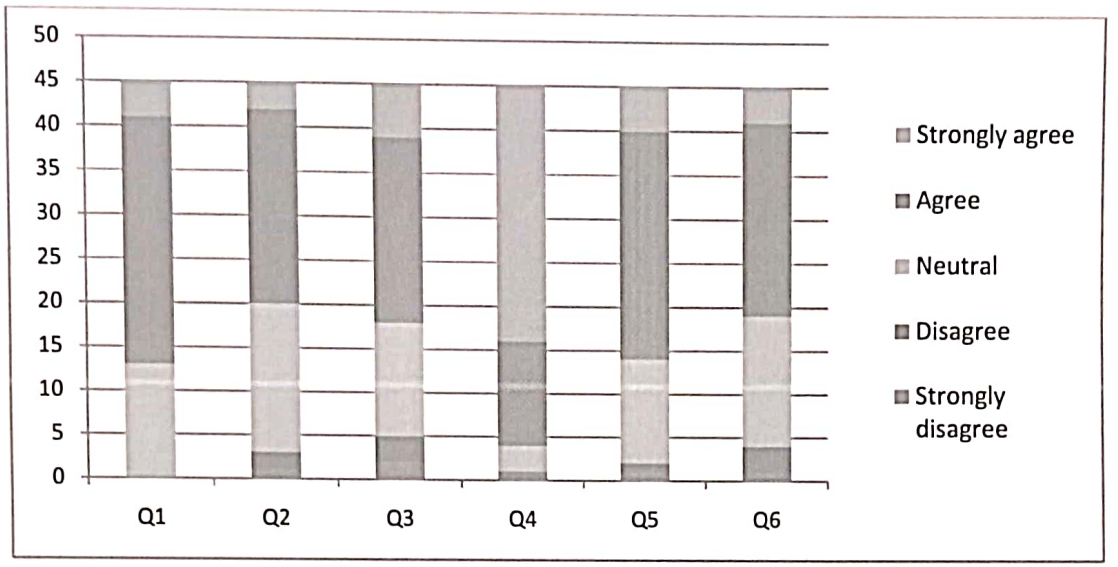
1. The students were found "agreeing" and "neutral" over almost all the points (Q1 – Q7).
2. Some proportion (~ 18%) of students was found "disagreeing" over the insufficiency of syllabi of curriculum to meet their preparation for other National level competitive Examinations.

Annexure-XI

Alumni Feedback on Curriculum of School of Physics

	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Strongly disagree	0	1	2	1	1	1	0
Disagree	0	2	3	0	1	3	0
Neutral	13	17	13	3	12	15	13
Agree	28	22	21	12	26	22	28
Strongly agree	4	3	6	29	5	4	4

Total Responses: 45



Q1	The current syllabus is adequately updated from the one followed during your course of study.
Q2	The curriculum has the ability to find solutions to real-life/practical problems in industry and academia.
Q3	The curriculum has reasonable practical and laboratory skills.
Q4	The curriculum has relevance to societal needs and has components with respect to professional ethics and Human values.
Q5	The curriculum is updated according to recent trends and developments.
Q6	The course curriculum fulfilled your expectations.

Result(s):

1. The students were found "agreeing" and "neutral" over almost all the points (Q1 – Q6).
2. The students were found "Strongly agreeing" over the point Q4 viz. the curriculum has relevance to societal needs and has components with respect to professional ethics and Human values.

Shri Mata Vaishno Devi University
श्री माता वैष्णो देवी विश्वविद्यालय
Kakryal, Katra-182320 (J&K), India
Faculty of Sciences
School of Physics

SMVDU/SoP/25/622

Date: 13/02/2025

Subject: Approval of conducting 12th BoS meeting by circulation at the earliest

This is with reference to the IOC received by Office, SoP No. SMVDU/AA/24/958 dated: 23.12.2024 regarding re-constitution of Board of Studies (BoS) and conduct of meeting of BoS thereof, it is apprised that the School of Physics has to conduct its 12th Board of Studies (BoS) meeting by circulation with the already existing constituted committee (document attached) at the earliest. The tentative agenda items are attached herewith for your kind reference.

Submitting for your kind approval please.

13/02/25
Dr. Pankaj Biswas
Member Secretary, BoS of SoP

Head, SoP: Forwarded
13-2-25

Dean, FoS