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SFS, GURUKUL MARG, MANSAROVAR, JAIPUR



**Integration of Spoken Tutorial,
IIT Bombay with
IISU courses: A Report**

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About Spoken Tutorial

The Spoken Tutorial (ST) project is being developed at IIT Bombay. It is the initiative of the "Talk to a Teacher" project of the National Mission on Education through Information and Communication Technology, launched by MHRD, Govt of India. It promotes IT literacy for education and improves the employment potential of learners in India, using FOSS (free and open source software). This project is about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, PHP & MySQL, Java, C/C++, LibreOffice etc. via an easy Video tool, through Distance Learning Mode. The spoken part of ST is dubbed into all Indian languages and one can use ST to learn a topic, called a tutorial.

Benefits for the students/faculty

- E-Tutor can be used to assist in practical labs
- Online tests and certificates by IIT Bombay without any extra fees. These certificates give an edge to IISU students during placements by increasing their employability potential
- Teachers can also be trained on various open source software.

What ST Courses provides to the learners?

Spoken tutorial offers a number of courses. Each course contains the following:

- a number of **audio-videos** of approx. 10-minute duration each.
- **assignment**
- programming **code files** (if any)
- slides of audio-video in **pdf format**
- detailed **instruction sheet** for each course that contains:
 - instructions for accessing the tutorial both in online and offline mode
 - procedure and instructions to practice
 - instructions for accessing code files and assignments
- **installation sheet** that explains the procedure of the installation of the required software on both Windows and Linux Operating System
- **Forum help** is also available. Here, learners can post questions on a particular portion of a specific tutorial, at: <https://forums.spoken-tutorial.org/>

Assessment Strategy of Spoken Tutorial

- MCQ-based test and duration of the exam: 45 min.
- Passing percentage: above 40%
- Remedial test in case student does not clear the exam after 15 days.
- Certificate on clearing the exam from Spoken Tutorial, IIT Bombay.

Proposed Spoken Tutorial Courses for integration with IISU syllabus (Odd Semester, 2020)

Proposed ST course	Total Duration (hrs)	Title of the IISU paper that can be mapped with the Course	Paper Type	Mapping Percentage	Assessment Type
Department of CS & IT					
Introduction to Computers	1.10 hrs	CBCA102: ICT Lab	Practical	30%	CA
HTML	2.45 hrs	CBCA303: Web Application Development-I	Theory	40%	CA
		CAI301: Internet and Web Design principles	Theory	50%	CA
		WDT132: Web designing Lab	Practical	40%	CA
Java Business Application	1.30 hrs	DBCA503B : Advanced JAVA PROGRAMMING LAB	Practical	80%	SEE
PHP and MySQL	7 hrs	WDT332B: Scripting Languages Lab II	Theory	80%	SEE
Drupal	5.30 hrs	WDT333: Project/Internship	Project	80%	SEE

Proposed ST course	Total Duration (hrs)	Title of the IISU paper that can be mapped with the Course	Paper Type	Mapping Percentage	Assessment Type
Department of Chemistry					
Avogadro	1.35hrs	CHY326: Research projects	Practical	100%	CA
Department of Mathematics					
Scilab*	2.38 hrs	MAT 103 (odd), MAT203(even)	Practical	*	Value Addition Course
	2.38 hrs	MAT 303 (odd), MAT403(even)	Practical		
	2.38 hrs	MAT 503(odd), MAT603(even)	Practical		
Department of Statistics					
LibreOffice Suite Calc	2.07 hrs	STT-103: Practical	Practical	50%	CA
Department of Physics					
C++	3.48 hrs	PHY 114: Computer Programming	Theory	30%	CA

Note*Scilab is new paper and will replace the practical papers of all the six semesters for the current year.

IISU Syllabi and Mapping of Spoken Tutorial

Department of CS & IT

Introduction to Computers/CBCA102: ICT Lab (Mapping 30%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination			
Week	Duration of Video (s) (min)	Mentoring class (hrs)/week	Home Assignment (hrs)	Total Hrs/Week	Additional classes allotted for practice and rest of the syllabi	ST-25 marks	IISU-5 marks	IISU-70 marks (from rest of the course)			
							Attendance	Practical	File	Viva	
Week 1	12	1	1.5	3 hrs	3 hrs/week	<ul style="list-style-type: none"> MCQ on the date given by the IISU and duration of the exam: 45 min; Remedial in case student does not clear the exam after 15 days; Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	5 marks	50 marks	10 marks	10 marks	
Week 2	8	1	1.5	2.45 hrs							
Week 3	13	1	1.5	3 hrs							
Week 4	16	1	1.5	3 hrs							
Week 5	17	1	1.5	3 hrs							
Total Duration Hrs. (Video)	1.10		Total Hrs for the Completion of Course	15 hrs (approx.)							

HTML/CBCA304: Web Application Development-I (Mapping 40%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignmen t (hrs/week)	Total Hrs/Week	Additional classes allotted for rest of the syllabi	ST-25 marks	IISU -5 marks	IISU-70 marks
							Attendance	70 marks
Week 1	5+7+12=24	1	1.5	3 hrs	1 hr/week	• MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay	5 marks	
Week 2	14+11+8=33	1	1.5	3 hrs				
Week 3	10+11= 21	1	1.5	3 hrs				
Week 4	10+14= 24	1	1.5	3 hrs				
Week 5	13+9= 22	1	1.5	3 hrs				
Week 6	12+11= 23	1	1.5	3 hrs				
Total Duratio n Hrs. (Video)	2.45		Total Hrs for the Completio n of Course	18 hrs (approx.)				

During Week 1 to 6: Unit I and II will be covered through ST and additional classes allotted for Unit V completion

HTML/CAI301: Internet and Web Design Principles (Mapping 50%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	Additional classes allotted for rest of the syllabi	ST-25 marks	IISU -5 marks	IISU-70 marks
							Attendance	
Week 1	5+7+12=24	1	1.5	3	1 hr/week	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	5 marks	70 marks
Week 2	14+11+8=33	1	1.5	3				
Week 3	10+11= 21	1	1.5	3				
Week 4	10+14= 24	1	1.5	3				
Week 5	13+9= 22	1	1.5	3				
Week 6	12+11= 23	1	1.5	3				
Total Duration Hrs. (Video)	2.45		Total Hrs for the Completion of Course	18 hrs (approx.)				

During Week 1 to 6: Unit II and III will be covered through ST and additional classes allotted for Unit I completion

HTML/WDT132: Web Designing Lab (Mapping 40%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination		
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	Additional classes allotted for rest of the syllabi	ST-25 marks	IISU -5 marks	IISU-70 marks		
							Attendance	Practical	File	Viva
Week 1	5+7=12	1	1.5	3 hrs	2 classes/week will be allotted in even semester for rest of the syllabi	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	5 marks	50 marks	10 marks	10 marks
Week 2	12+14= 26	1	1.5	3 hrs						
Week 3	11+8= 19	1	1.5	3 hrs						
Week 4	10+11 = 21	1	1.5	3 hrs						
Week 5	10	1	1.5	3 hrs						
Week 6	14	1	1.5	3 hrs						
Week 7	13	1	1.5	3 hrs						
Week 8	9	1	1.5	3 hrs						
Week 9	12	1	1.5	3 hrs						
Week 10	11	1	1.5	3 hrs						
Total Duration Hrs. (Video)	2.45		Total Hrs for the Completion of Course	30 hrs (approx.)						

Java Business Application / DBCA503B: Advanced JAVA PROGRAMMING LAB (Mapping 80%)

		Additional hours allotted				Continuous Assessment				Semester-end Examination	
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	Additional classes allotted for rest of the syllabi and lab practice	IISU-30 marks				ST-50 marks	IISU-20 marks
		(hrs/2 weeks)	(hrs/2 weeks)	(hrs/2 weeks)		CA Test	Assignment	Attendance	Viva		File
Week 1-2	6	4	3	7.5	4 classes/ week	15 marks	5 Marks	5 marks	5 marks	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	20 marks
Week 3-4	8	4	3	7.5							
Week 5-6	12	4	3	7.5							
Week 7-8	11	4	3	7.5							
Week 9-10	16	4	3	7.5							
Week 11-12	10	4	3	7.5							
Week 12-13	14	4	3	7.5							
Total Duration Hrs. (Video)	1.28		Total Hrs for the Completion of Course	53 hrs (approx.)							

HTML/ WDT332B: Scripting Languages Lab II (Mapping 80%)

		Additional hours allotted			Continuous Assessment				Semester-end Examination	
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	IISU-30 marks				ST-50 marks	IISU-20 marks
					CA Test	File	Attendance	Viva	Practical	Website Development
Week 1	10+11=21	1	1	2.5	15 marks	5 Marks	5 marks	5 marks	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	15 marks (demo) + 5 marks (Viva)
Week 2	3+5+5=13	1	1	2.25						
Week 3	6+4+4=14	1	1	2.25						
Week 4	7+9+6=22	1	1	2.5						
Week 5	6+6+3=15	1	1	2.5						
Week 6	5+7+8=20	1	1	2.5						
Week 7	6+5+5=16	1	1	2.5						
Week 8	6+7=13	1	1	2.5						
Week 9	9+5=14	1	1	2.5						
Week 10	10+8=18	1	1	2.5						
Week 11	9+8=17	1	1	2.5						
Week 12	8+9=17	1	1	2.5						
Week 13	10	1	1	2.25						
Week 14	7+8=15	1	1	2.5						
Week 15	9	1	1	2.25						
Week 16	9+10=19	1	1	2.5						
Week 17	9+7=16	1	1	2.5						
Week 18	4+7=11	1	1	2.25						
Week 19	10+6=16	1	1	2.5						

Week 20	7+7+8=22	1	1	2.5					
Week 21	10+10=20	1	1	2.5					
Week 22	9+8+9=26	1	1	2.5					
Week 23	5+9=14	1	1	2.5					
Week 24	10+11=21	1	1	2.5					
Week 25	10+6=16	1	1	2.5					
Week 26	8	1	1	2.25					
Total Duration Hrs. (Video)	7.05		Total Hrs for the Completion of Course	60 hrs (approx.)					

Drupal/ WDT333: Project/Internship (Mapping 80%)

		Additional hours allotted			Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	ST-25 marks	IISU -5 marks	IISU-70 marks
					Test	Attendance	70 marks
Week 1	11	1	1	2.25	<ul style="list-style-type: none">• MCQ on the date given by the IISU and duration of the exam: 45 min;• Remedial in case student does not clear the exam after 15 days;• Certificate on clearing the exam from Spoken Tutorial, IIT Bombay	5 marks	
Week 2	11	1	1	2.25			
Week 3	14	1	1	2.25			
Week 4	10	1	1	2.25			
Week 5	11	1	1	2.25			
Week 6	13	1	1	2.25			
Week 7	13	1	1	2.25			
Week 8	12+8=20	1	1	2.3			
Week 9	11+8=19	1	1	2.3			
Week 10	16	1	1	2.25			
Week 11	10	1	1	2.25			
Week 12	14	1	1	2.25			
Week 13	8+13=21	1	1	2.3			
Week 14	9	1	1	2.25			
Week 15	10	1	1	2.25			
Week 16	13	1	1	2.25			
Week 17	12	1	1	2.25			
Week 18	7	1	1	2.25			
Week 19	10	1	1	2.25			
Week 20	18	1	1	2.25			

Week 21	13	1	1	2.25			
Week 22	9	1	1	2.25			
Week 23	14	1	1	2.25			
Week 24	10	1	1	2.25			
Week 25	10	1	1	2.25			
Total Duration <u>Hrs.</u> (Video)	5.30		Total Hrs for the Completion of Course	57 hrs (approx.)			

Department of Chemistry

Avogadro/CHY326 Research Projects (Mapping 100%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination			
Week	Duration of Video (s) (min)	Mentoring class (hrs)/week	Home Assignment (hrs)	Total Hrs/ Week	Additional classes allotted for rest of the syllabi	ST-25 marks	IISU-5 marks	IISU Dissertation Project -70 marks			
						Test	Attendance	Survey of literature	References	Synopsis	Presentation and Viva
Week 1	13.14	1	1.5	3	3 hrs/week	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	5 marks	20 marks	15 marks	15 marks	20 marks
Week 2	11.42	1	1.5	3							
Week 3	10.59	1	1.5	3							
Week 4	8.38	1	1.5	3							
Week 5	11.23	1	1.5	3							
Week 6	13.46	1	1.5	3							
Week 7	12.56	1	1.5	3							
Week 8	10.53	1	1.5	3							
Total Duration Hrs. (Video)	1.35hrs		Total Hrs for the Completion of Course	24 hrs (approx.)							

Department of Statistics

STT-103: Practical (Mapping 50%)

Week	Duration of Video (s) (min)	Additional hours allotted			Continuous Assessment		Semester-end Examination		
		Mentoring class and additional allotted classes (hrs)/week	Practicing working hours (hrs)	Total Hrs/Week	ST-25 marks	IISU-5 marks	IISU-70 marks (from rest of the course)		
					Test	Attendance	Practical	File	Viva
Week 1	19.18	2	3	5.5	<ul style="list-style-type: none"> Exam date: Announced by IISU Exam Taken: ST Exam pattern: MCQ Duration: 45 min Remedial in case student does not clear the exam after 15 days Result: Percentage mapping of ST Marks awarded: Out of 25 based on percentage received from ST exam 	5 marks	40 marks	20 marks	10 marks
Week 2	14.16	2	3	5.5					
Week 3	12.22	2	3	5.5					
Week 4	17.45	2	3	5.5					
Week 5	9.18	2	3	5.5					
Week 6	11.34	2	3	5.5					
Week 7	9.41	2	3	5.5					
Week 8	12.5	2	3	5.5					
Week 9	12.45	2	3	5.5					
Week 10	7.25	2	3	5.5					
Total Duration Hrs. (Video)	2.07		Total Hrs for the Completion of Course	55 hrs (approx.)					

Department of Mathematics

Scilab/ (MAT103, MAT303, MAT503 Practical) Replaced papers with Scilab

		Additional hours allotted			Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class and Additional classes (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	IISU-25 marks	IISU -5 marks Attendance	IISU-70 marks
Week 1	11.59+8.07=20.07	2	3	5.3	<ul style="list-style-type: none"> Exam date: Announced by IISU Exam Taken: IISU Exam pattern: MCQ Duration:45 min Remedial : As per policy of IISU Result: By IISU 	5 marks	70 marks
Week 2	22.37	2	3	5.3			
Week 3	14.22+5.17=19.39	2	3	5.3			
Week 4	16.55+6.47=23.02	2	3	5.3			
Week 5	15.2	2	3	5.3			
Week 6	3.4+6.03=9.43	2	3	5.3			
Week 7	13.13	2	3	5.3			
Week 8	10.34	2	3	5.3			
Week 9	8.2+6.56=14.76	2	3	5.3			
Week 10	10.28	2	3	5.3			
Total Duration Hrs. (Video)	2 hours 38 minutes and 51 seconds		Total Hrs for the Completion of Course	55 hrs (approx.)			

Scilab/ (MAT203, MAT403, MAT603_Practical) Replaced papers with Scilab

		Additional hours allotted			Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class and Additional classes (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	IISU-25 marks	IISU -5 marks	IISU-70 marks
						Attendance	70 marks
Week 1	10.09	2	3	5.3	<div>• Exam date: Announced by IISU</div> <div>• Exam Taken: IISU</div> <div>• Exam pattern: MCQ</div> <div>• Duration:45 min</div> <div>• Remedial : As per policy of IISU</div> <div>• Result: By IISU</div>	5 marks	
Week 2	7.43+11.25=18.67	2	3	5.3			
Week 3	10.54	2	3	5.3			
Week 4	8.45+9.18=17.63	2	3	5.3			
Week 5	8.4+8=16.4	2	3	5.3			
Week 6	7.57+13.1=20.67	2	3	5.3			
Week 7	10.34	2	3	5.3			
Week 8	15.24	2	3	5.3			
Week 9	8.28+12.5=20.78	2	3	5.3			
Week 10	16.13	2	3	5.3			
Total Duration Hrs. (Video)	2 hours 36 minutes and 49 seconds.		Total Hrs for the Completion of Course	55 hrs (approx.)			

Department of Physics

C++ /PHY114: Computer Programming (Mapping 30%)

		Additional hours allotted				Continuous Assessment		Semester-end Examination
Week	Duration of Video(s) (min)	Mentoring class (hrs/week)	Home Assignment (hrs/week)	Total Hrs/Week	Additional classes allotted for rest of the syllabi	ST-25 marks	IISU -5 marks	IISU-70 marks
							Attendance	
Week 1	11+14+10=35	1	1.4	3 hrs	1 hr/week	<ul style="list-style-type: none"> • MCQ on the date given by the IISU and duration of the exam: 45 min; • Remedial in case student does not clear the exam after 15 days; • Certificate on clearing the exam from Spoken Tutorial, IIT Bombay 	5 marks	70 marks
Week 2	9+13+10+11=43	1	1.2	3 hrs				
Week 3	19+10+8=37	1	1.4	3 hrs				
Week 4	11+9+8=28	1	1.5	3 hrs				
Week 5	12+8=20	1	1.6	3 hrs				
Week 6	7+6+8=21	1	1.6	3 hrs				
Total Duration Hrs. (Video)	3.06		Total Hrs for the Completion of Course	18 hrs (approx.)				

Detailed Course duration of the Spoken Tutorial courses

Introduction to Computers/ CBCA102: ICT Lab

Week	Topics Covered	Duration in Minutes
	Basic Level	
1	Getting to know computers	12
2	Printer Connection	8
3	Introduction to Gmail	13
4	Compose Options for Email	16
5	Google Drive Options	17
	Total Duration (Minutes)	66
	Total Duration (Hrs.)	1.10

HTML/ CBCA303: Web Application Development-I

HTML/ CAI301: Internet and Web Design Principles

Week	Topics Covered	Duration in Minutes
	Basic Level	
1	Overview of HTML	5
	My First HTML Program	7
	Elements, Tags and Attributes in HTML	12
2	Formatting Tags in HTML	14
	Styles and CSS in HTML	11
	Lists in HTML	8
3	Tables in HTML	10
	Phrase Tags in HTML	11
	Intermediate Level	
4	Doctype and Head Section	10
	Embedding Images	14
5	Embedding Audio and Video	13
	Block Elements and Layouts	9
6	Forms in HTML	12
	More on Forms	11
	Total Duration (Minutes)	147
	Total Duration (Hrs)	2.45

HTML/ WDT132: Web Designing Lab

Week	Topics Covered	Duration in Minutes
Basic Level		
1	Overview of HTML	5
	My First HTML Program	7
2	Elements, Tags and Attributes in HTML	12
	Formatting Tags in HTML	14
3	Styles and CSS in HTML	11
	Lists in HTML	8
4	Tables in HTML	10
	Phrase Tags in HTML	11
Intermediate Level		
5	Doctype and Head Section	10
6	Embedding Images	14
7	Embedding Audio and Video	13
8	Block Elements and Layouts	9
9	Forms in HTML	12
10	More on Forms	11
	Total Duration (Minutes)	147
	Total Duration (Hrs)	2.45

Java Application Development/ DBCA503B: Advance Java Programming Lab

Week	Topics Covered	Duration in Minutes
Advanced Level		
1-2	Overview of Library Management System	6
3-4	Creating a Java web project	8
5-6	Java servlets and JSPs	12
7-8	Servlet Methods	11
9-10	Database and validation	16
11-12	Creating and viewing inventories	10
12-13	Issuing and Returning a book	14
	Total Duration (Minutes)	77
	Total Duration (Hours)	1.28

PHP & MySQL/ WDT332B: Scripting Languages Lab II

Week	Topics Covered	Duration in Minutes
PHP Basics: Level 1		
1	XAMPP in Windows	10
	XAMPP in Linux	11
2	Echo Function	3
	Variables in PHP	5
3	If Statement	5
	Switch Statement	6
4	Arithmetic Operators	4
	Comparison Operators	4
5	Logical Operators	7
	Arrays	9
6	Multi-Dimensional Arrays	6
	Loops - While Statement	6
7	Loops - Do-While Statement	6
	Loops - For Statement	3
8	Loops - For each Statement	5
	Functions (Basic)	7
9	Functions (Advanced)	8
	GET Variable	6
10	POST Variable	5
	Embedding PHP	5
11	Common Way to Display HTML	6
	Common Errors (Part 1)	7
12	Common Errors (Part 2)	9
	Common Errors (Part 3)	5
MySQL Tutorials: Level 2		
10	MySQL (Part 1)	10
	MySQL (Part 2)	8
11	MySQL (Part 3)	9
	MySQL (Part 4)	8
12	MySQL (Part 5)	8
	MySQL (Part 6)	9
13	MySQL (Part 7)	10
14	MySQL (Part 8)	7
PHP Advanced: Level 3		
14	Simple Visitor Counter	8
15	PHP String Functions (Part 1)	9
16	PHP String Functions (Part 2)	9

	File Upload (Part 1)	10
17	File Upload (Part 2)	9
	Cookies (Part 1)	7
18	Cookies (Part 2)	4
	Sessions	7
19	MD5 Encryption	10
	Sending Email (Part 1)	6
20	Sending Email (Part 2)	7
	Sending Email (Part 3)	7
	Display Images from a Directory	8
21	User Login Part 1	10
	User Login Part 2	10
22	User Login Part 3	9
	User Password Change Part 1	8
	User Password Change Part 2	9
23	User Password Change Part 3	5
	User Registration Part 1	9
24	User Registration Part 2	10
	User Registration Part 3	11
25	User Registration Part 4	10
	User Registration Part 5	6
26	User Registration Part 6	8
	Total Duration (Minutes)	423
	Total Duration (Hours)	7.05

Drupal/ WDT333: (Project/Internship)

Week	Topics Covered	Duration in Minutes
Basic Level		
1	Overview of Drupal	11
2	Installation of Drupal	11
3	Content Management in Admin Interface	14
4	Configuration Management in Admin Interface	10
5	Creating Basic Content	11
6	Editing Existing Content	13
7	Creating New Content Types	13
8	User group and Entity Reference	12
	Taxonomy	8
9	Managing Content	11
	Creating Dummy Content	8
10	Modifying the Display of Content	16
11	Displaying Contents using Views	10
Intermediate Level		
12	Table of Fields with Views	14
	Controlling Display of Images	8
13	Adding Functionalities using Modules	13
14	Finding and Evaluating Modules	9
15	Modifying the Page Layout	10
16	Menu and Endpoints	13
17	Styling a Page using Themes	12
18	Installing an Advanced Theme	7
19	People Management	10
20	Drupal Site Management	18
Advance Level		
21	Hosting a Drupal website	13
22	Creating a simple custom module	9
23	Solr Search and Facets Implementation	14
24	RESTful API Implementation	10
25	RESTful API with a REST Client	10
	Total Duration (Minutes)	318
	Total Duration (Hours)	5.30

Avogadro/ CHY326: Research Projects

Week	Topics Covered	Duration in Minutes
Basic Level		
1	Overview of Avogadro	13.14
2	Build molecules	11.42
3	Edit molecules	10.59
4	Create Surfaces	8.38
5	Hydrogen Bonding	11.23
6	General Features in Avogadro	13.46
7	Stereoisomerism	12.56
8	File Extensions	10.53
	Total Duration (Minutes)	91.31
	Total Duration (Hrs.)	1.35

LibreOffice Suite Calc/ STT103: Practical

Week	Topics Covered	Duration in Minutes
Basic Level		
1	Promo of Libre Suite	4
	Introduction to Libre Office Calc	15
2	Working with Cells	14
3	Working with Sheets	12
4	Formatting Data	10
	Basic Data Manipulation	8
5	Working with Data	9
Intermediate Level		
6	Using Charts and Graphs	12
7	Images and Graphics	10
8	Advanced formatting and Protection	13
9	Formulas and Functions	13
10	Linking Calc Data	8
	Total Duration (Minutes)	128
	Total Duration (Hrs.)	2.08

Scilab/ SCILAB for ODD SEM (MAT 103, 303, 503: Practical)

Week	Topics Covered	Duration in Minutes
1	Introduction to Scilab and its benefits	20
	Self learning of Scilab through Spoken Tutorials	
2	The amazing resource of Scilab Textbook Companion	23
3	Scilab Lab migration, Toolboxes and Forums	20
	Installing	
4	Getting Started	23
	Vector Operations	
5	Matrix Operations	15
6	Conditional Branching	10
	Iteration	
7	Scripts and Functions	13
8	Plotting 2D graphs	11
9	Xcos Introduction	15
	File handling	
10	User Defined Input and Output	10

Scilab/ SCILAB for EVEN SEM (MAT 203, 403, 603: Practical)

Week	Topics Covered	Duration in Minutes
1	Integration	10
2	Solving Nonlinear Equations	19
	Linear equations Gaussian Methods	
3	Linear equations Iterative Methods	11
4	Interpolation	18
	ODE Euler methods	
5	ODE Applications	16
	Optimization Using Karmarkar Function	
6	Digital Signal Processing	21
	Control systems	
7	Discrete systems	11
8	Calling User Defined Functions in XCOS	15
9	Simulating a PID controller using XCOS	21
	Developing Scilab Toolbox for calling external C libraries	
10	Developing Scilab Toolbox for calling Python and its functions	16

C++/PHY114: Computer Programming

Week	Topics Covered	Duration in Minutes
Basic Level		
1	First C++ Program	11
	Tokens in C++	14
	Functions in C++	10
2	Scope of Variables in C++	09
	If And Else If statement in C++	13
	Nested if and switch statement in C++	10
	Increment and Decrement Operators in C++	11
3	Arithmetic Operators in C++	19
	Relational Operators in C++	10
	Logical Operators in C++	08
Intermediate Level		
4	Loops in C++	11
	Arrays in C++	09
	Working with 2-D Arrays in C++	08
5	Strings in C++	12
	String Library Functions in C++	08
Advance Level		
6	Working with Structures in C++	7
	Understanding Pointers in C++	6
	Function call in C++	8
	Total Duration (Minutes)	184
	Total Duration (Hrs)	3.06

Spoken Tutorial Committee

Report of Spoken Tutorial courses for approval (odd semester 2020)

Name	Designation	Signature
Dr. Pragya Sinha Head, Dept. of Chemistry	Member	
Dr. Nidhi Bhargava Head, Dept. of Physics	Member	
Dr. Surendra Kumar Agarwal Head, Dept. of Mathematics	Member	
Ms. Surbhi Gupta Head, Dept. of Statistics	Member	
Dr. Anubha Jain Head, Dept. of CS & IT	Member	
Dr. Ruchi Nanda Associate Prof., Dept. of CS & IT	Faculty Coordinator Spoken Tutorial	