

Guidebook for SWAYAM Course Coordinators



SWAYAM – Teacher Education – NC Office

National Institute of Technical Teachers Training and Research

(An Autonomous Institute under Ministry of Human Resource Development, Government of India)

Taramani, Chennai – 600 113, India

Please note: This booklet (version 2.2) was designed for course coordinators of the SWAYAM MOOC Courses under Teacher Education. The information provided in the text may not be suitable or appropriate for other categories of course coordinators.

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Table of Contents

About NITTR Chennai – National Coordinator.....	4
About SWAYAM - MOOC.....	4
Introduction.....	5
Building the SWAYAM Course	6
Suggested Course-Development Process:.....	6
Preparation of Presentation Slides.....	7
Slide Guidelines	7
Templates for Presentation Slide.....	8
Lecture Videos	12
Pacing and Length.....	12
Media for video lectures.....	13
Tips for good video shoot.....	13
Typology of video production.....	14
Talking Head Reading.....	16
Voice Over Recording	16
Picture in Picture (PIP) Recording.....	16
Screencast Recording	16
Interview Recording.....	16
Conversation Recording.....	16
Demonstration Recording.....	16
Quiz Types (Assessments)	17
Different Quiz Types	17
Model Course Structure	18

Welcome to NITTTR Chennai!

SWAYAM – Teacher Education

About NITTTR Chennai – National Coordinator

The National Institute of Technical Teachers Training and Research (NITTTR) Chennai was established as an autonomous institute by the Ministry of Human Resource Development, Government of India in the year 1964 to improve the quality of Technical and Vocational Education and Training (TVET) system in India and in the southern region in particular. Within this mandate, the institute takes initiatives to offer need based Human Resource Development programmes through appropriate modes and develop curricula and instructional resources for technical teachers of the country. It also fosters research in the inter disciplinary area of Engineering Education and offers consultancy and extension services for the total development of Technical (Engineering & Polytechnic) Colleges, Industry, Service sector and the Community at large.

In carrying out the above mandate, the institute collaborates with national and international Institutes, Universities and other agencies interested in and / or deriving benefits from technical and vocational education and training.

About SWAYAM - MOOC

SWAYAM is the indigenous platform of the MHRD, GOI providing an integrated portal and platform for hosting Massive Open Online Courses (MOOCs) developed under the aegis of NME-ICT. Government of India adopted the MOOCs concept to supplement the formal education system in the country from high school to higher education, named aptly as the “**Study Webs of Active-Learning for Young Aspiring Minds**” (SWAYAM). It hosts various courses based on curriculum, continuing education and skill. MOOCs: Massive Open Online Courses (MOOCs) are such online courses which are developed as per the pedagogy stated herein and following the four-quadrant approach consisting of video, text, self-assessment and learn more. Course: shall be of two types: credit courses and non-credit courses.

- I. Credit Course shall mean a course which is taught for at least one semester as a part of a PG Programme in Indian Universities.

- II. Non-Credit Course shall include courses like awareness programme, continuing education programme or of specific skill set as independent course, which are not part of any set curriculum.

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology. In order to ensure best quality content are produced and delivered, nine National Coordinators have been appointed: They are AICTE for self-paced and international courses, NPTEL for engineering, UGC for non-technical post-graduation education, CEC for under graduate education, NCERT and NIOS for school education, IGNOU for out of the school students, IIMB for management studies and NITTTR for Teacher Training programme.

Introduction

The Course Coordinators Guidebook is a resource that contains basic necessary information to create, manage, and offer SWAYAM MOOC. This guidebook contains information that covers the topics of NITTTRs course material (for example, content outline, scope and sequence, lecture videos, how to prepare presentation slides, and quiz types) and NITTTRs course structure (for example, discussion forums, FAQs, syllabus, and pacing guide). This guidebook facilitates the coordinators in developing SWAYAM at par with the international standard and also to meet the needs of clientele system. While the guide includes some information that appears directly on the SWAYAM Guidelines, it also includes complementary information to support SWAYAM development. This guidebook is not intended to serve as a replacement for training, but it is only supplement resource to equip the course coordinators. There is an exclusively guidebook for how to integrate SWAYAM course into main stream of teaching, kindly refer that manual for further description.

Note: Although a printable version of this guide is available through downloading the document from NITTTRC.AC.IN/SWAYAM, it is recommended that you always refer to the most recent online version of the guide that appears on the NITTTR SWAYAM (Internal Circulation: Contact SWAYAM Office).

Building the SWAYAM Course

The success of online course mainly depends upon the planning and building of the course rather than the delivery phase. Course Coordinator have the greatest influence on learner and their learning through the course structured development. There need to be a synchronization on the three parts of the course viz.,



Source: Fink, A Self-Directed Guide to Designing Courses for Significant Learning

Suggested Course-Development Process:

The course coordinators are requested to make outline of the concepts or ideas that is going to be the base of the framework for each unit/module of the course. It is advisable to have the concept map which distinguish the central concept from sub units/modules.

1. Think about your overall course expectations. What must the participants/learners should do to learn the concepts?
2. Divide the course expectations into units/modules. When creating units/modules, consider logical ordering, how materials are related, how sequential will facilitate the learners, relate the time commitment and content difficulty. In general, one unit / module maps to one week. For each unit, it is also helpful to explicitly state your expectations as individual learning outcomes. Then, consider how you might assess whether learners have accomplished the stated outcomes.
3. Outline each unit on a spreadsheet. (Sample course plan is shown in the Appendix)
 - a) In the sample outline, we have provided complete details about what elements your course will contain.
 - b) Title of the Unit and the week to be offered: For each week it is advisable to provide title / unit name that reflects the content.

- c) List the learning outcome expected from the learners at the end of the weekly module / unit.
- d) List of Materials, number of lecture videos, readings, weblinks, assignment, test and other activities associated with each week could be provided. (Ref: Example) How many videos are needed?
- e) If you wish the learners could copy your presentation slides, then provide access while uploading into the SWAYAM portal. However, we strongly feel there is a difference between student support material and teacher support material. Presentation slides are teacher support material, it need to be converted into appropriate student support materials. (Refer: NITTTR Chennai learning material – TSM to SSM)
- f) Kindly consider the copyright issue before utilizing any material in the SWAYAM portal. The course coordinator is responsible for copyright clearance. Find open materials (<http://search.creativecommons.org/>), or create your own.
- g) The attainment of learning outcomes is measured through assessments (How will learner/participants practice and demonstrate that they've learned?). Assessment could be in the form of assignment, TPS/WTR strategy and test.

Preparation of Presentation Slides

SWAYAM is an online learning portal, it is important to provide slides or handouts of your lectures. As it is mentioned earlier, it is better to convert the TSM into SSM. It will facilitate the learners/ participants to understand the lectures and the terms used, and also follow along as they watch the video lectures. The following section explain how to prepare and use the presentation Slides. It is strongly felt the fundamental principles of instructional design need to be deployed by the instructional designer of the course. This section contains information for using a set of presentation slides (PowerPoint) for creating narrated online lecture courses (e.g., NITTTRs).

Slide Guidelines

The information that follows is instruction on how to design your course lessons for each module/unit. The structure for each or your lessons should have a similar structure across lessons and across modules. The structure for lesson slides is briefly described as:

- (a) Course slide: Begin the lesson with the course slide
- (b) Lesson Title and Aims(s) slide: Show the lesson title and aim(s)
- (c) Previous Class slide: Review the material covered in the previous class
- (d) Lesson Outcome(s) slide: State the current lesson's outcome(s)
- (e) Lesson Content slides: Deliver the content for current lesson
- (f) Summary slide: Summarize the content for the current lesson
- (g) Next Lesson slide: Briefly describe the content to be covered in next lesson
- (h) Credits/References slide: Provide credits/references for resources used to inform the current lesson

The following sections show specific examples of each of the above framing and content slides. The examples are based on the approved NITTTRs Tech PP template design.

Templates for Presentation Slide

If the coordinator wishes to like to use a set of templates to develop lessons, they should contact NITTTR SWAYAM NC office to discuss the PowerPoint template that will be crafted for his or her course. Our NC office will provide the coordinator with an electronic file consisting of two slides: Course Slide and General Slide. Below are examples of the two pre-made slides similar to what you will receive.

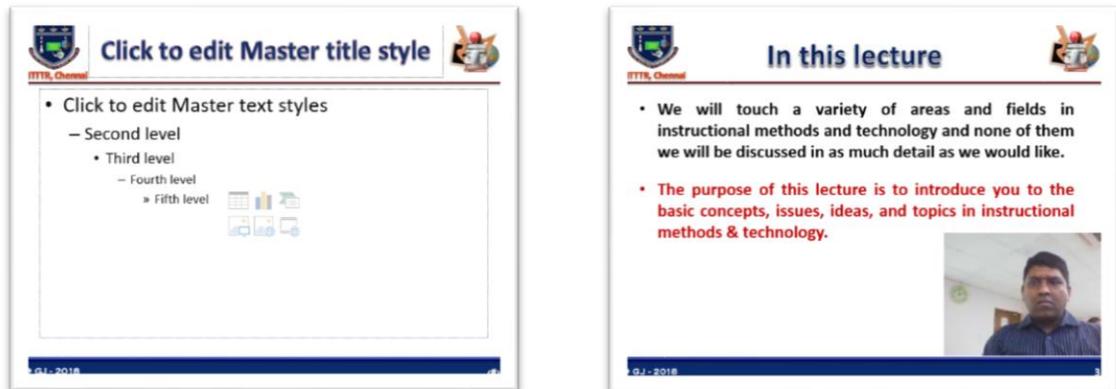
(a) Course Slide

The Course Slide is used for all lessons and is the first slide that learners/participants will see for every lesson. It includes the title of the course, the instructor's photo, name, title and affiliation with NITTTRs Tech, and the course goals. Kindly refer the lecture notes of the training programme for the specific criteria (font: color, size, style) to be used for the Course slide.



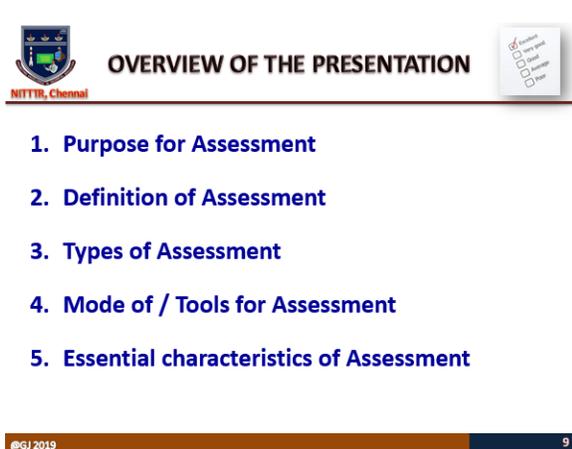
(b) General Slide

A general slide should be used for the content to be delivered in each lesson. Below is an example of the General slide. Note: There is a space reserved on this General slide for your Picture in Picture when delivering the course content.



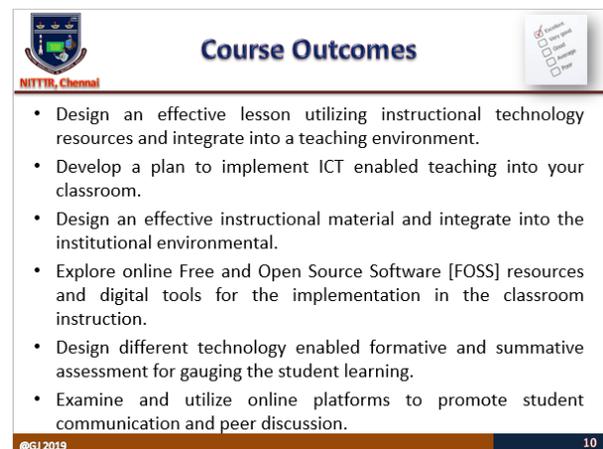
(C) Lesson Title and course outcome Slide

This slide requires that you modify the general slide. In place of the title, type in its place the title of the lesson. In place of the center box, you should type what are the aim(s) for the lesson. Below is an example of an overview lesson title and course outcome Slide completed for our SWAYAM Courses.



OVERVIEW OF THE PRESENTATION

1. Purpose for Assessment
2. Definition of Assessment
3. Types of Assessment
4. Mode of / Tools for Assessment
5. Essential characteristics of Assessment



Course Outcomes

- Design an effective lesson utilizing instructional technology resources and integrate into a teaching environment.
- Develop a plan to implement ICT enabled teaching into your classroom.
- Design an effective instructional material and integrate into the institutional environmental.
- Explore online Free and Open Source Software [FOSS] resources and digital tools for the implementation in the classroom instruction.
- Design different technology enabled formative and summative assessment for gauging the student learning.
- Examine and utilize online platforms to promote student communication and peer discussion.

Intended learning outcomes are the steps in the lesson that will help you achieve your lesson aim(s). The lesson objectives should provide clear picture of the student outcome or

performance as the result of learning experience. The lesson objective statement should be specific, concise, and, most importantly, observable or measurable. Table 1 summarizes four general rules that should be followed when writing lesson objectives. The rule of ABCD need to be followed when we list the objectives. The “A” stands for “Audience”, “B” for “Background”, “C” for “Condition” and “D” for “Degree”. For further explanation refer to IDDS notes compiled by the author for NITTTR Chennai.

Table 1. Four general rules for writing lesson objectives

Rule	Component
1	Describe what you expect the learner to be able to do.
2	Specify this by way of an action verb that states what the student will do(e.g., list, identify, arrange, weigh, describe) (Refer IDDS notes of the author for additional action verbs)
3	Describe the criterion or criteria for evaluating an acceptable performance (e.g., name at least three types of student assessment). Note: Sometimes the degree of accuracy is implied by words such as correctly and successfully.
4	Specify important conditions under which the student will perform the behavior. (e.g., to measure the thickness of copper wire using SCREW GAUGE)

When writing Lesson Objective statements, ask yourself these questions:

- Does the objective focus on student performance?
- Is the task observable or measurable?
- What criteria will I use to establish that the objective has been reached?

Note: Avoid words like “understand,” “learn,” and “know.” These terms are not measurable because there is no product involved.

(d) Previous Class Slide

To create a sense of continuity for the learners/participants, it is recommended that you review for the learners/participants what was taught in the previous lesson. The Previous Class Slide includes salient information from the previous lesson that you will also use in the

current lesson. In the beginning of each week, there will be an exclusive video which focus on the recap of what we have learned in the previous week and how it is getting connected to this week. Connecting the dots is the important aspect when we prepare the online video and presentation slides.

(e) Summary Slide

Listing the summary of the lesson, weekly serves several important functions:

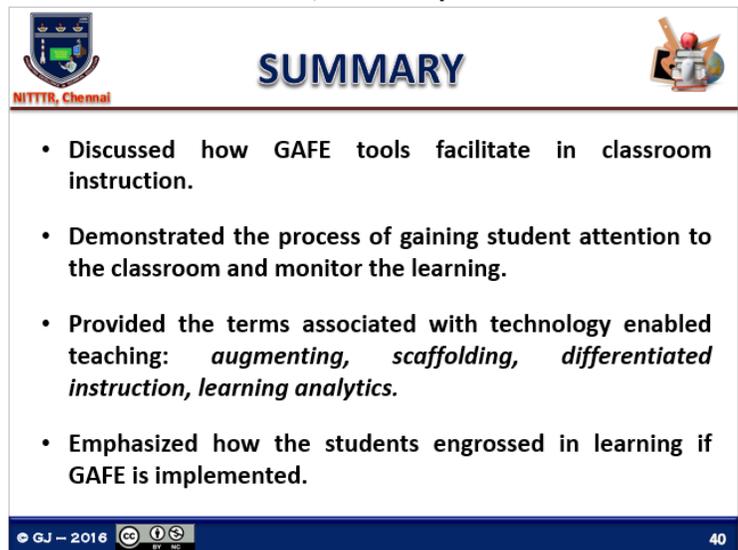
- It provides connection to past learning, to future activity, or possibly to both (i.e., putting the learning into context in a longer sequence of learning activities having a visible goal). It provides a holistic picture of the content.
- It is advised to provide the closure video for each week, since it provides the learners with sense of academic and psychological closure.

Academic closure involves understanding what the information in the lesson encompasses (i.e., the “chunk” of academic work that has been covered). Psychological closure is the sense of completeness: the recognition that an identifiable piece of the learning has been accomplished.

- It also provides connection to some out-of-class task (i.e., in our courses, learners are requested to connect the content to their classroom situation and share their experience in the discussion forum, it will facilitate in understanding overall learning sequence).

(f) Next Class Slide

This slide is meant to prepare the students for the next lesson. Select key descriptors from the next lesson’s content and include them on this slide. In our courses, we included what the learners are going to learn in the next week. It provides/kindle the interest of the learners.



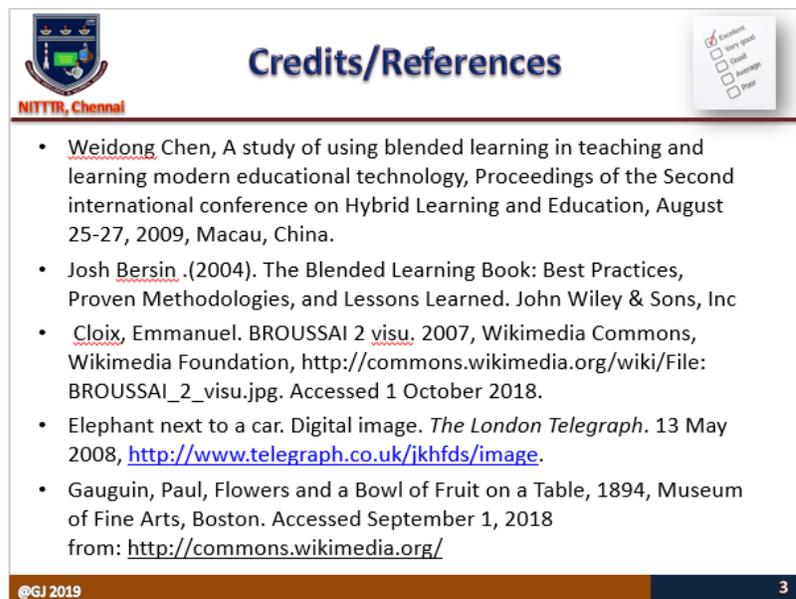
SUMMARY

- Discussed how GAFE tools facilitate in classroom instruction.
- Demonstrated the process of gaining student attention to the classroom and monitor the learning.
- Provided the terms associated with technology enabled teaching: *augmenting, scaffolding, differentiated instruction, learning analytics*.
- Emphasized how the students engrossed in learning if GAFE is implemented.

GJ - 2016 40

(g) Credits/References Slide

To provide acknowledgement for the resources used in the preparation of presentation, video materials is a must. To prepare SWAYAM courses, images, articles, video clippings and audio(music) might have taken from OER, hence instructional designer are advised to evaluate the copyright issues and instructions. Below is an example of a completed Credits/References Slide for the course.



NITTTR, Chennai

Credits/References

- [Weidong Chen](#), A study of using blended learning in teaching and learning modern educational technology, Proceedings of the Second international conference on Hybrid Learning and Education, August 25-27, 2009, Macau, China.
- [Josh Bersin](#) .(2004). The Blended Learning Book: Best Practices, Proven Methodologies, and Lessons Learned. John Wiley & Sons, Inc
- [Cloix, Emmanuel](#). BROUSSAI 2 visu. 2007, Wikimedia Commons, Wikimedia Foundation, http://commons.wikimedia.org/wiki/File:BROUSSAI_2_visu.jpg. Accessed 1 October 2018.
- Elephant next to a car. Digital image. *The London Telegraph*. 13 May 2008, <http://www.telegraph.co.uk/jkhfds/image>.
- Gauguin, Paul, Flowers and a Bowl of Fruit on a Table, 1894, Museum of Fine Arts, Boston. Accessed September 1, 2018 from: <http://commons.wikimedia.org/>

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Lecture Videos

A good video lectures will act as a great motivator for student learning. If we follow the fundamental principles of instructional design, the video lectures make the learners completely engrossed in the learning. A variety of approaches are used when offering an online class. NITTTRs presents tips and techniques for you to consider when designing your lectures. In general, the video lectures should assist in developing cognition, providing realistic experiences, nurturing motivations/feelings and demonstration of skills. What follows are NITTTRs' suggested practices for developing lecture videos in SWAYAM.

Pacing and Length

- In general, the videos are segmented into smaller chunks of not more than 10-13 minutes, it is recommended to make the learner watch effectively without any distraction. For lessons that are over 15 minutes, it is recommended that this one lesson be split into two lessons (e.g., Part 1 and Part 2).
- A common rule of thumb is that for 120- 150 words, it takes one-minute (60 seconds) duration. Based on the script you could calculate the timing of the video.

- It is recommended to have the face of presenter less than 25% of the time duration, else picture in picture technique need to be adopted.
- Include pre-written material, especially complex diagrams or equations in order to keep the pace quick. It is recommended to adopt good animation to make the learning effective.
- It is generally advised to prepare approximately two (2) hours of video lecture per week.
- A set of videos related to a given topic is referred to as a Module. NITTTRs would like instructors to think in terms of modules, which in turn aligned to the week.

Media for video lectures

Think about what you are presenting and how you will present it:

- Solving equations on a tablet
- Software demonstration (screen casting software – Freeware: CAMSTUDIO, CAMTASIA – Microsoft PowerPoint screen recording etc.,)
- Physical demonstration
- PowerPoint Slides
- Animations
- Voiceover tools

Tips for good video shoot

It is good to understand the dress code when the video shooting is in front of a green screen/chroma key.

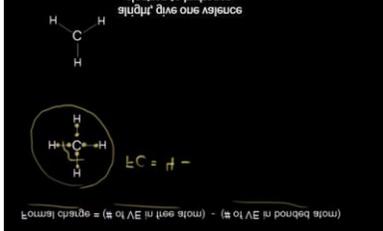
- It is best to avoid very dark or very light colors or multicolored clothing. A red that is too bright may look over saturated and smudged on video. It is must to avoid green color shirting. Complicated patterns are not a good idea for any video, as they can create shimmering or flickering in the video. Neutral shades are good, as are pastel colors (as long as they are not variants of green!).
- Bright white shirts (unless you are wearing it under a jacket). It's too risky. I have personally experienced the negative effects of wearing white shirts. The white might glow, making you look like you descended from heaven.

- Stripes are an absolute no-no, as they introduce a waving pattern/shimmer on the video.
- One other problem is people wearing very powerful spectacles- they refract enough that you see the screen behind as they bow in the perspective of the head. It doesn't present a problem for very high budget green screen processing, but on the lower budget shoots that don't have access to high end keying software it can be difficult.
- For a good video it will be always good to have a make up to provide better view. The key is to de-shine and enhance facial features while minimizing certain distracting ones.
- It is generally wise to have shooting at the early morning hours to avoid the stressful features of face. Sleep is definitely best friend, fresh face in the video provides a face lift for the learner. We need to understand we are the main reason for the video.

Typology of video production

To enhance the effectiveness of watching the video lectures, the production styles could be combination of various forms. In NITTTR Chennai we adopted the following 16 production styles:

(a) Talking Head	(b) Classroom Lecture
(c) Presentation Slides with Voice-Over	(d) Picture-in-Picture
(e) Text-Overlay	(f) Khan-Style Tablet Capture
(g) Actual Paper/Whiteboard	(h) Animation
(i) Screencast	(j) Recorded Seminar
(k) Interview	(l) Webcam Capture
(m) Conversation	(n) Demonstration
(o) Live Video	(p) On Location

<p>Talking Head</p>	<p>Presentation Slides with Voice-Over</p>	<p>Picture-in-Picture</p>
		
<p>Text-Overlay</p>	<p>Khan-Style Tablet Capture</p>	<p>Demonstration</p>
		
<p>Actual Paper / White Board</p>	<p>Screencast</p>	<p>Animation</p>
		
<p>Classroom Lecture</p>	<p>Recorded Seminar</p>	<p>Interview</p>
		
<p>Conversation</p>	<p>Live Video</p>	<p>Webcam Capture</p>
		

Talking Head Reading

- In this form of recording, video need to be captured during the explanation of principles, rules without any interruption. This recording need to be coupled with other forms to made it more vibrant.

Voice Over Recording

- During the explanation of figures, tables or parts of the equipment, voice over will facilitate the learners.

Picture in Picture (PIP) Recording

- Consider that students benefit from seeing both the professor and the material in visual form. Picture in Picture (PIP) allows you to show the presentation and the instructor teaching the lesson.
- During the video, it's nice for students to always have some movement on the screen that they can look at, rather than just listening to someone talking to completely static slides. Students want to feel like they are getting to know the professor.

Screencast Recording

- During the demonstration of software or any screen recording, the software tools such as camstudio, Camtasia, Abode Captivate, Microsoft PPT Screen Recorder could be used. It reinforces the learners by showing the step by step procedure.

Interview Recording

- To add a case study in the lecture, it is advisable to have an expert opinion about the topic discussed.

Conversation Recording

- To discuss and deliberate on the topic, it is advisable to have a conversation mode of lecture. Two faculty members adopt the team-teaching mode and deliver the content.

Demonstration Recording

- The lesson to be taught in the laboratory need to recorded for providing reinforcement in learning.

Quiz Types (Assessments)

The achievement of learning outcome could be assessed by administering proper structured assessments. Test are one of the types of assessments that support in SWAYAM platform (it is valid only for one week). In addition to the quizzes we could also administrate assignment to assess their learning.

Quizzes are auto-graded, multiple choice question. In SWAYAM we could limit the number of attempts made by the learner. In addition to the built in test, we could also adopt three party software for conducting the quizzes (Google Forms, Survey Monkey etc.). Standalone quizzes also contain immediate feedback for students – you provide explanations of correct and incorrect answers when creating the quiz, and students are automatically shown these explanations when they get their scores.

During the quiz/test, we could also adopt randomization – you can create several variations of the same question, and different instances of the quiz will display different variations of the question. For example, two students doing the quiz at the same time might see different variations of the same question, thereby reducing instances of cheating. Another use case is for students retaking the same quiz- they will be able to attempt variations of the original questions. Randomization can also be enabled at the option level by adding additional options (i.e. answer choices) for each quiz question, different options will be displayed on different occasions. Again, the use case is to reduce the possibility for cheating and challenge students who repeat quizzes.

Different Quiz Types

There are five different types of assessments that are subsumed under the category of "quizzes":

- Test/Quizzes refer to small tests that are assigned throughout the course;
- Documentary/Film Appreciation, Homeworks (through assignment);
- Discussion Forum & Activities
- Surveys are usually administered prior to the course (pre-course survey) or after the course (post-course survey).
- Change Project

Technology Enabled Teaching & Learning

-Redefining teaching & learning

Course Designer & Instructor	: Dr. G. Janardhanan,
Co-Instructors	: Dr. V. Shanmuganeethi & Dr. K.S.A. Dinesh Kumar
Course Credits	: Three
Learning Efforts	: Two to Four hours per week
Course Duration	: Four to Six Weeks
Estimated Course Completion Time	: 20 Hour(s)
Language	: English
Transcript	: English
Discipline	: Engg Education (Technical Teacher Training Policy)
Certificate	: After completing all graded assignments & Change Project

Description:

The “*Technology Enabled Teaching & Learning*” is an online SWAYAM course specially designed and developed for the AICTE Technical Teacher Training Module. The course is structured to provide interactive MOOC learning experience to the faculty members and also to develop an understanding of how technology enhances and transforms classroom instruction. Integrating and infusing technologies into classroom teaching is a challenging task and its understanding is important for both teachers and students. Technology enabled teaching learning facilitates in differentiated instruction, since we are aware “one size doesn’t fit all”. Despite of your ICT literacy, this course will help you course will help you in leveraging your teaching strengths and find the approach that is right for you, your students and your educational context. Thus, the course facilitates and guide in the instructional planning through technology. You will have the opportunity to develop your understanding of effective online teaching practices and their relationship to the use of different technologies in connecting **CONTENT** to the **CONTEXT**. You will also be encouraged to progressively design and reflect upon your own online learning

activity, assessment or resource for use in your own class if you choose to undertake the course assignments. The course is structured with experiential sharing, input from the experts and interviewees from the stake holders. Through many examples and case studies, the participants will be exposed how to create technology enhanced instruction for their students and what to address when designing these experiences. More specifically, in this course participants will be exploring to find answers for the following questions:

- *How classroom instruction needs to be structured for the current generation learners?*
- *What does research evidence tell us about integrating ICT tools in classroom instruction?*
- *Identify and understand the range of ICT based model of instruction?*
- *How technology enabled instruction provides shift in process, roles, and technology integration.*
- *Review the availability of technologies to create learning environment, learning materials and framing assessments.*
- *Explore various management techniques to create safe and ethical ICT environments that includes social collaboration.*

What you'll learn

After completing the learning tasks in this course, the participants will be able to:

- Design an effective lesson utilizing instructional technology resources and integrate into a teaching environment.
- Develop a plan to implement ICT enabled teaching into your classroom.
- Design an effective instructional material and integrate into the institutional environmental.
- Explore online Free and Open Source Software [FOSS] resources and digital tools for the implementation in the classroom instruction.
- Design different technology enabled formative and summative assessment for gauging the student learning.
- Examine and utilize online platforms to promote student communication and peer discussion.

Topics in detail:

— **Week 1: Introduction & Teaching with Technology**

This week focuses on a broader scope of what it is like teaching with technology, such as, how the faculty responsibilities are redefined in engaging the millennials, where lies the challenges and opportunities in designing effective classroom engagement. We will explore why ICT enabled

teaching is relevant to your teaching practice, and how it provides an opportunity to reflect upon the opportunities and challenges you face in your own context. We also provide quick overview on the learning theories and it is tuned towards technology enabled teaching. In addition to the above learning context, we will also focus how to plan for the infrastructure requirements and the administration commitment in establishing ICT enabled educational ecosystem. The participants also explore classroom management strategies that support active learning in ICT enabled instruction.

14 Videos, 5 Readings, 3 Activities, 2 Discussion Topics, 2 Assignments

1. Video: Welcome to the course – Introductory Video
2. Reading: How to Get Started – Understanding the directions of learning.
3. Reading: Course Overview
4. Reading: Looking into features of Assignments, Activities and test
5. Video: Overview – Teaching into technology
6. Video: Key Concept - Why is technology infused instruction is Important?
7. Activity 1.1 - Self Evaluation about ICT awareness
8. Video: Learning Space – Teaching Environment
9. Video: Teaching Learning Principles – ICT Perspective Learning Theories
10. Activity 1.2 – Assessing Educational Ecosystem for Technology enabled instruction
11. Discussion Prompt: What are your reasons for changing in teaching learning spectrum?
12. Video: Case Study – Why the Online Teaching is Important?
13. Video: Case Study – Voice of experts about the learning space
14. Video: Case Study – Voice of the students
15. Video: Reviewing Institutional Capacity
16. Video: Developing and Drafting Institutional Policies
17. Reading: Week 1 Useful Links and Resources
18. Reading: Classical paper - Review
19. Assignment #1: Watch – Think – Reflect: About the TED Talks Video of subject interest
20. Discussion Prompt: What technology challenges will you face in your own teaching?
21. Activity 1.3 – Self Evaluation
22. Assignment #2: Think Pair Share: Review of the article
23. Video: Module Conclusion
24. Video: Assignment Tips - How to Get the Most from the Assignment
25. Video: Assignment Tips - Evidence and Referencing
26. Video: Assignment Tips - Giving Constructive Feedback

— Week 2: Tools & Resources for creating Technology based Learning Environment

This module will provide you with hands on practice about the different tools to be deployed for creating learning environment. The focus will be in utilizing Open and Institutionally Supported Technologies' and assisting in understanding the benefits and restrictions of both broad categories of technologies. In this module we will ask you to think about the reasons why you might want to use freely available online tools for your teaching - or your institution's learning management system. Important considerations such as which types of technologies are suitable for a range of different activities will also be explored. Various ICT tools viz., Google Classroom, Edu puzzle, etc., will be explored. This week the participants will also identify important considerations they need to keep in mind when developing online learning activities for their students. We will offer advice about how to create an online learning environment, and help you think about which may be appropriate for your own students. This module, along with a range of case studies, and activities, will explore the relationship between different technologies and specific activities in more depth.

15 Videos, 10 Readings, 4 Activities, 2 Discussion Topics, 2 Assignments, 1 Test

1. Video: Welcome to the second week module overview
2. Reading: Week # 2 Overview, Objectives & Outcomes
3. Reading: Looking into features of technology tools
4. Discussion Prompt: What ideas do you have for conducting technology enabled classroom instruction?
5. Video: Using Online Environments for Teaching
6. Video: Planning Online Class
7. Video: Considerations for Choosing Technology
8. Video: Tool Demonstration: Google Classroom
9. Video: Tool Demonstration: Edpuzzle
10. Video: Tool Demonstration: LMS (Lite Version)
11. Reading: Google Classroom – Procedural Outline
12. Reading: Edpuzzle – Procedural Outline
13. Reading: LMS - MOODLE – Procedural Outline
14. Activity 2.1 – Joining or Creation of Google Classroom
15. Activity 2.2 – Joining or Creation of Edpuzzle
16. Activity 2.3 – Joining or Creation of LMS MOODLE
17. Assignment #2.1: Watch – Think – Reflect: About the TED Talks Video of subject interest
18. Discussion Prompt: What Planning tips you wish to share with fellow learners?
19. Video: Teaching with Web 2.0 Technologies: Twitter, Wikis and Blogs
20. Video: Using Online Lectures to Support Active Learning

21. Reading: *Netiquette of online teaching learning*
22. Video: *Virtual Laboratories - Online Access to Remote Laboratories*
23. Video: *Case Study: Experiential Sharing - Virtual Laboratories*
24. Reading: *Importance of Virtual Laboratories in learning*
25. Reading: *Classical paper # 1 - Review*
26. Activity 2.4 – *Using Virtual Laboratory of NMEICT.*
27. Video: *Teaching Using Scenario Based Simulations*
28. Video: *Using Blogs for Peer Feedback and Discussion*
29. Video: *Using Online communities – Nurturing Collaboration*
30. Reading: *Week 2 Useful Links and Resources*
31. Reading: *Classical paper # 2 - Review*
32. Assignment #2.2: *Think Pair Share: Review of the articles*
33. Video: *Module Conclusion*
34. Test # 1: *Review of the week # 1 Learning (Multiple choice question with simulated scenarios)*
35. Live Session – *Google Hangout*

— Week 3: Tools & Resources for creating Learning Resources

This module will provide you with hands on practice about the different tools to be deployed for creating learning resources esp., student support instructional materials. Various ICT tools viz., Video notes, ed-ted, screen casting, concept map, etc., will be explored in detail and practice session is integrated. Using of Open Educational Resources (OER) and other online resources in the instructional materials is discussed. We will also focus on identifying issues and getting awareness about using resources that you discover (online journal/ paper/ other relevant materials) in terms of licensing and creative commons. We will also provide you the chance to explore several examples of online resources via the activities and associated resources for the module. How to evaluate the effectiveness and appropriateness of resources you find online is also explored.

17 Videos, 11 Readings, 5 Activities, 2 Discussion Topics, 3 Assignments, 2 Test

1. Video: *Welcome to the third week module overview*
2. Reading: *Week # 3 Overview, Objectives & Outcomes*
3. Reading: *Looking into features of technology tools for content creation*
4. Discussion Prompt: *What ideas do you have for conducting technology enabled classroom instruction?*
5. Video: *Using Online tools for content creation*
6. Video: *Promoting active learning strategy*
7. Video: *Considerations for Choosing Technology*

8. Video: Tool Demonstration: Screen casting Technique
9. Video: Tool Demonstration: Ed TED
10. Video: Tool Demonstration: Video notes
11. Video: Tool Demonstration: Creation of Mind map
12. Reading: Screen casting – Procedural Outline
13. Reading: Ed TED – Procedural Outline
14. Reading: video notes – Procedural Outline
15. Reading: Mind Map – Procedural Outline
16. Activity 3.1 – Preparation of screen casting video sample
17. Activity 3.2 – Preparation of Ed TED sample lesson
18. Activity 3.3 – Preparation and experiencing Video notes
19. Activity 3.4 – Preparation and experiencing Mind Map
20. Assignment #3.1: Watch – Think – Reflect: About the TED Talks Video of subject interest
21. Discussion Prompt: How would you use online resources for instructional material preparation?
22. Video: Looking into Insight about OER
23. Video: Understanding Creative Commons
24. Video: Key concept about Online Resources
25. Video: Handling copyright for online resources / courses.
26. Reading: Netiquette and adopting online resources
27. Activity 3.5– collection of materials (Image, Text and Video) from online resources.
28. Video: Case Study: Experiential Sharing
29. Reading: Week 3 Useful Links and Resources
30. Reading: Classical paper - Review
31. Assignment #3.2: Think Pair Share: Review of the articles
32. Video: Looking into concepts of Blended Instruction
33. Video: Understanding Blending Models
34. Video: Learning the implementation strategies of Flipped Classroom
35. Assignment #3.3 Submission of Blended Model Lesson Planning
36. Reading: Blended Instruction – Theory & Overview
37. Reading: Golden Rules to adopted for flipping
38. Video: Module Conclusion
39. Test # 2: Review of the week # 2 Learning (Multiple choice question with simulated scenarios)
40. Test # 3: Review about OER (Multiple choice test items)
41. Live Session – Google Hangout

— Week 4: Tools & Resources for creating Learning Assessment

This module will provide you with some fundamental principles and practical examples for designing formative and summative assessment that is effective and enhances students' learning. It will introduce the purpose of different types of assessment using technology tools will be dealt along with their design principles, and a number of exemplary practices. How to design the assessment plan and incorporate the qualitative assessment using rubrics is also dealt in detail. We will also explore benefits and considerations that need to be considered when we adopt an online assessment strategy in teaching, and how using technology can improve the efficiency and effectiveness of the assessment process.

16 Videos, 10 Readings, 6 Activities, 3 Discussion Topics, 3 Assignments, 2 Test

1. Video: Welcome to the fourth week module overview
2. Reading: Week # 4 Overview, Objectives & Outcomes
3. Reading: Looking into features of technology tools for assessment
4. Discussion Prompt # 1: What ideas do you have for conducting online assessment?
5. Discussion Prompt # 2: Factors to be aware before implement online assessment?
6. Video: Fundamentals of Assessment
7. Video: Looking into characteristics of Assessment
8. Video: Using Online tools for assessment
9. Video: Considerations for Choosing Technology
10. Video: Tool Demonstration: Google Forms
11. Video: Tool Demonstration: Hot Potatoes
12. Video: Tool Demonstration: Plickers
13. Video: Tool Demonstration: Assessment in LMS (MOODLE)
14. Video: Tool Demonstration: Inline Video Quiz
15. Video: Tool Demonstration: Framing of Rubrics
16. Reading: Google Forms – Procedural Outline
17. Reading: Hot Potatoes – Procedural Outline
18. Reading: Plickers – Procedural Outline
19. Reading: LMS – MOODLE Assessment – Procedural Outline
20. Reading: Inline Video Quiz – Procedural Outline
21. Reading: Framing of Rubrics – Procedural Outline
22. Activity 4.1 – Preparation of assessment using Google Forms
23. Activity 4.2 – Preparation of assessment using Hot Potatoes
24. Activity 4.3 – Preparation of assessment using Plickers
25. Activity 4.4 – Preparation of assessment using LMS MOODLE

26. Activity 4.5 – Preparation of assessment – Inline Video Quiz
27. Activity 4.6 – Preparation of assessment – Framing of Rubrics
28. Assignment #4.1: Watch – Think – Reflect: About the TED Talks Video of subject interest
29. Discussion Prompt: How would you use online assessment promotes Motivation?
30. Video: Case Study: Experiential Sharing
31. Video: Using Audio Feedback
32. Video: Using ePortfolios – Reflective Teaching Tool
33. Video: Learning Analytics to inform learning – based on assessment.
34. Reading: Week 4 Useful Links and Resources
35. Reading: Classical paper - Review
36. Assignment #4.2: Think Pair Share: Review of the articles
37. Assignment #4.3 Development of Table of Specifications
38. Video: Module Conclusion
39. Test # 4: Review about Fundamentals of Assessment
40. Test # 5: Review of the week # 4 Learning – Tools for Assessment (Multiple choice question with simulated scenarios)

— Week 5: Integration and Implementation

This module will provide you with the insight about how to discover the role of the faculty member in digital teaching learning process. We also discuss the important roles that curriculum design, activity structure, the relevance of chosen technology and effective classroom management. We will also evaluate the effectiveness of technology implementation in classroom instruction. The module also introduces the concept of learning analytics as an informative tool to enable up to the minute evaluation of your online class.

5 Videos, 1 Readings, 2 Discussion Topics, 1 Change Project

1. Video: Welcome to the fifth week overview
2. Reading: Week # 5 Overview, Objectives & Outcomes
3. Discussion Prompt # 1: Challenges about teaching using tools – your perspective after learning all the aspects?
4. Discussion Prompt # 2: Tips for keeping in pace with technology?
5. Video: Resistance of teachers in adopting technology tools.
6. Video: Risk associated with open access technologies
7. Video: Validity of online assessments.
8. Live Session – Google Hangout
9. Video: All about Change Project.
10. Change Projects – Guidelines and Procedure of Evaluation

Directions to the course participants:

We suggest the participants to kindly go through the course contents, pre-survey form and guidelines for attending the programme. It contains very important overall course information. It also contains the information how you need to contact the course coordinator, viz, through email or twitter. Kindly watch the video fully, and it is kept in small nuggets to engage the audience actively in the course. The structured four quadrant approach will provide complete learning experience to the learners.

Participants are expected to login into the SWAYAM Portal 4-5 times a week to complete assignments and participate in discussions. Discussion postings must be made throughout the week to receive full credit. It is important to remember a discussion is just that, posting all on one day doesn't allow for much response by your classmates or time to think over issues. Our expectations are very high on participation, since this course is focussed to teachers and aspiring teachers. We strongly believe learning take place only through activities.

Course Evaluation for certification:

The evaluation for the participants is through activities /assignment and it is grouped under five major cluster. In each week, assignment / activities will be framed from each cluster and graded either individually or in group. The evaluation methodology will be discussed in detail during the course. The evaluation will be unique of its nature with change project.

Cluster # 1: Documentary/Film appreciation (individual assignment) – *Weightage 20%*

Films/documentaries related to classroom instruction will be shared and it need to be viewed by the participants. The purpose of these films / documentaries is to educate the participant's understanding of various issues and to absorb them in planning practice. At the end of the film, a discussion and poll will be around the film.

After viewing the films, each participant is expected to write about its main focus, its applicability to Indian classroom context by answering the given question. Exploring and connecting the dots.

Cluster # 2: Literature Review (individual assignment) – *Weightage 15%*

Each participant is expected to read the article given from a journal/book and write a summary by highlighting the problem, approach, methodology, analysis, how the author arrived at the conclusion and its relevance to Indian context.

Cluster # 3: Discussion Forum & Activities – *Weightage 15%*

The participants will be focussing towards the discussion on the topic of interest aligning with the objective of the week content. The discussion should be both in width and breadth. Evaluation rubrics is provided for better understanding.

Cluster # 4: Online Quiz – *Weightage 20%*

The participants will be taking online quiz focussing towards the topic & objective of the week content. Automatic graded quiz will provide the learners understanding of the content.

Cluster # 5: Change Project – *Weightage 30%*

The aim of the change project is to exercise the learned content into the real classroom environment. The main purpose is to make the participants appreciate the evolution and transformation made through the new approach.



ABOUT NITTTR CHENNAI

The National Institute of Technical Teachers Training and Research (NITTTR) Chennai was established as an autonomous Institute by the Ministry of Human Resource Development, Government of India in the year 1964 to improve the quality of Technical Education and Training (TET) system in India and in the Southern Region in particular. Within this mandate, the institute takes initiatives to offer need based Human Resource Development programmes through appropriate modes and develop curricula and instructional resources. It also fosters research in the inter disciplinary area of Engineering Education and offers consultancy and extension services for the total development of Engineering Colleges, Polytechnic Colleges, Vocational institutions, Industry, Service sector and the Community at large. In carrying out the above mandate, the institute collaborates with national and international Institutes, Universities and other agencies interested in and / or deriving benefits from technical education and training.

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