



**ANNAMALAI UNIVERSITY**



(Accredited with 'A' Grade by NAAC)

**EDUCATIONAL MULTIMEDIA CENTRE  
(EMMC)**

**HAND BOOK**



**2022**

## **EDUCATIONAL MULTIMEDIA CENTRE**

### **ANNAMALAI UNIVERSITY**

The Educational Multimedia Centre (EMMC), Annamalai University, was established in 2020, at Dr.R.K.Shanmugam Chettiar Building. The main aim of the EMMC is to fulfill the National Mission on Education through ICT by developing e-Content for all courses to reach out to the students with quality learning content for various programs.

The EMMC is equipped with high-end professional cameras, editing software, and other technological gadgets to produce digital Teaching and Learning contents. The centre is equipped with latest Audio - Visual gadgets for recording, editing and live streaming of high-quality multimedia educational programs.

The Centre caters to various Departments of study and wings of Directorate of Distance Education to produce teaching assistive multimedia content. Live interactive programs with eminent experts of National repute also can be conducted by this centre.

#### **Role of EMMC, Annamalai University**

EMMC will extend its support to individual Faculty members or a team of Faculty members of any Department of Annamalai University / Affiliated Colleges to create Multimedia content, to create MOOC contents, and SWAYAM courses. The respective Faculty member will be the Course Developer and Subject expert. The syllabus/title proposed for creation of e-Content shall be as per the Curriculum of the Annamalai University or within the purview of the UGC/AICTE/NCTE /ICAR model Curriculum for various courses. The faculty members can create e-content for full course at a time or can create e-content for specific titles too.

In addition to the assistance for the development of e-content, Departments of Annamalai University can get technological capturing and editing assistance from EMMC for various academic events like, Seminars / Conferences, Expert Lectures,

Workshops, if the content will serve for the student community as a learning resource.

### **Objectives:**

The prime objectives of this centre are:

- to produce multimedia educational content for various programs.
- to produce syllabus based video lectures with multimedia inputs.
- operate virtual classes and academic events through live streaming.
- carry out Research and Development projects to enhance the quality and creativity of multimedia products.
- to organize workshops for teachers, students and Research scholars to access and create online resources.
- to establish availability of the e-Content to teachers and students through various delivery modes.
- to produce interactive multimedia learning material.
- to extend support to the faculties for the development of MOOCs on SWAYAM platform.
- to extend support for production and broadcast of Documentaries and Short films of social concerns.

### **Deliverables**

It has to be ensured that the following products shall be delivered as per technical specifications and production formats specified by the EMMC in line with the guidelines of the UGC/SWAYAM:

1. E-Content Modules suitable for use in PC/Smart phones.
2. Video content suitable for social media / web based broadcasts.
3. Modules for the Learning object Repository (LoR).

### **Incentives for Creation of e-content**

The teachers/subject experts who put their rich experience in the development of e-Content will be given due recognition as per UGC/AICTE norms. Further, if the faculty members get SWAYAM approval for courses, separate academic credits are prescribed by the UGC for the Career Advancements.

### **Guidelines for MOOCS and SWAYAM**

The digital learning has increased the reach of the education far and wide. It has also enabled a platform for the students to undergo classes and training by the best teachers and professionals who are otherwise inaccessible due to distance and time. The Massive Open Online Course (MOOC) is a further extension of the digital learning concept. MOOCs have already become popular in the west. In India, MOOCs are enabled and supported by a government authorized platform-SWAYAM (Study Webs of Active - Learning for Young Aspiring Minds). The MOOC regulation issued by the UGC is meant for the integration of MOOC with the regular course of study.

MOOCs are of two types: credit courses and non-credit courses.

- i. A Credit Course shall mean a course which is taught for at least one semester as a part of a subject/programme.
- ii. A Non-Credit Course shall include courses like awareness programme, continuing education programme or training of specific skill set as independent course, which are not part of any set curriculum. It can be of shorter duration.

### **Four quadrant approach**

The four Quadrant approach means e-learning system that has the following components:

i. *Quadrant-I* is e-Tutorial; which shall contain: Video and Audio Content in an organized form, Animation, Simulations, video demonstrations, Virtual Labs, etc, along with the transcription of the video.

ii. *Quadrant-II* is e-Content; which shall contain; self instructional material, e-Books, illustrations, case studies, presentations etc., and also contain Web Resources such as further references, Related Links, Open source Content on Internet, Video, Case Studies, books including e-books, research papers & journals, Anecdotal information, Historical development of the subject, Articles, etc.

iii. *Quadrant-III* is the Discussion forum for raising of doubts and clarifying them on a near real time basis by the Course Coordinator or his team.

iv. *Quadrant-IV* is Assessment, which shall contain; Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

*Duration of content:* A four-credit course may have overall duration of about 20 hours of video lectures and reading Module (a course may have up to 40 Modules).

### **Presentation Techniques**

The production of Programme may be done in a manner that a substantial part (at least 75%) of the total duration of each production should use innovative learning techniques viz. case-studies, scenarios, animation, analogies, individual or group activities, concept-mapping, in-text learning quizzes, interactive exercises within learning modules, discussion forum, multi-media techniques, innovative graphics, live experiments, demonstrations, role-plays, field documentaries etc.

It shall be the responsibility of the Course Coordinator (CC) to ensure that none of the graphics, animations, images, sound clips, video clips used are plagiarized or cited without formal permissions from owners who must be informed of the distribution policies of SWAYAM.

It shall be the responsibility of the CC to ensure that none of the graphics, animations, images, sound clips, video clips used are plagiarized.

Whereas direct lecture focused on the teacher can be used, it may be kept for less than 15% of the total duration of video. Even in this case, the teacher should speak extempore and should not read from written material or even a Teleprompter. It should be ensured that the teacher before the camera is presentable as per television practices. Transcription of Video shall be prepared along with the programme for sub-titling.

#### **Facilities available at EMMC**

<b>S.No.</b>	<b>Equipment and Software</b>	<b>Specifications</b>
1.	Video Camera with Tripod	✓ 4k Handheld Camcorder with Camera mounted wireless lavalier microphone system
2.	Video camera - PTZ camera	✓ 1/2.5 Inch based 4K CMOS Color video camera
3.	Handycam	✓ 10 MP video Handheld camcorder
4.	Wireless Microphone, Wireless Hand-Held Microphone & Wired Hand-Held Microphone	✓ Camera mounted wired/wireless lavalier microphone system with adjustable in 25 kHz steps 20 frequency banks, each with up to 12 factory-preset channels
5.	i-Mac system with acquisition cards	✓ 27-inch iMac with retina 5k display 3.8ghz 8 core 10 <sup>th</sup> generation intel core i7 processor ✓ Multi I/O Docking Station
6.	Final Cut Pro	✓ Professional post production software
7.	Audio – Video workstation	✓ CPU AMD Ryzon 9 3900X ✓ WINDOWS 10 Professional 64bit ✓ Graphics card NVIDIA GTX 1660 super

		<ul style="list-style-type: none"> <li>✓ Video editing software- Adobe premiere</li> <li>✓ Audio recording and editing software – Adobe audition</li> </ul>
8.	Desktop Computers and Laptop	✓ Intel core i7 (10 <sup>th</sup> generation) 32 Gb/1000 GB HDD/Windows 10 professional
9.	Studio Cool Lights with Stand	✓ 100w LED soft panel light 3200K/5600K colour temperature
10.	Video Mixer	<ul style="list-style-type: none"> <li>✓ 8-channel Digital Video Mixer with 3G-</li> <li>✓ SDI, HDMI, Composite Video plus dedicated DSK</li> <li>✓ Built-in Multi viewer with Touch Control</li> <li>✓ Mix between 8 video sources</li> </ul>
11.	Audio mixer	<ul style="list-style-type: none"> <li>✓ Built-in 24-bit Lexicon digital effects processor.</li> <li>✓ 8+2 channel frame size</li> </ul>
12.	Motorized chroma screen	✓ Wall mount 5x8 sized motorized chroma screen
13.	USB audio recorder	✓ With 8GB Internal Memory
14.	Web Presenter	<ul style="list-style-type: none"> <li>✓ SDI Video Input - Video Output</li> <li>✓ SDI Rates 1.5G, 3G, 6G, 12G</li> <li>✓ HDMI Video Input 1 HDMI Video Output</li> </ul>
15.	Video Recorder	<ul style="list-style-type: none"> <li>✓ HD/SD-SDI Hard Drive Video Recorder</li> <li>✓ HD/SD-SDI, Time code &amp; Audio Interface. SDI/HDMI outputs.</li> <li>✓ Support up to 120Mbps I-frame recording, 4:2:2 sampling, record MOV/MXF.</li> </ul>
16.	Streaming Server	<ul style="list-style-type: none"> <li>✓ H.264 Video Streaming Encoder</li> <li>✓ Streaming videos in RTMPS, RTMP, RTSP formats to Social media</li> </ul>
17.	Titler pro 7 software	✓ Professional Titles maker
18.	Disk Station +5-Bay NAS Server	✓ Access and share data with any Windows, macOS, and Linux computers or mobile device
19.	55 inch LED Monitor	✓ 55 inch 4K Ultra HD TV
20.	32 inch LED TV	✓ 32 inch Full HD TV
21.	22 inch LED Monitor	✓ 22 inch 4K Ultra HD Monitor

22.	HD Visual Communications System – Full HD video conferencing end point	<ul style="list-style-type: none"> <li>✓ Multipoint (1+3) - Video Conferencing System</li> <li>✓ Full HD 1080p image quality</li> <li>✓ Multi-Device &amp; Camera Control</li> <li>✓ USB Memory Recording &amp; Dual Monitor</li> <li>✓ PTZ CAMERA and Microphone</li> </ul>
23.	Interactive touch screen panel with Computer Pen	<ul style="list-style-type: none"> <li>✓ Wacom Screen size 80 cm</li> <li>✓ 4K ultra-HD</li> </ul>

### **Expression of Interest for the E-content Development**

The Teaching faculties are encouraged to submit a proposal (in the prescribed proforma), at any time to the EMMC.

A Teaching Faculty should submit application through the HOD and Dean of the Faculty, in which he/she is working. The Faculty Members of Affiliated colleges of Annamalai University can apply through the Head of the Department and their Principals.

### **Constitution of Academic Standing Committee (ASC)**

As the entire process of e-content development requires support of academicians and technologists, the Director, EMMC shall constitute in consultation with the Faculty member/Course Developer who intends to prepare the e-content, an Academic Standing Committee (ASC). ASC will comprise of the following members:

1. The Director of EMMC,
2. The Deputy Director of EMMC
3. The Head of the Department of the Faculty Member/Course Developer,
4. The Faculty Member(s)/Course Developer(s),
5. A Subject expert (Faculty Member) of the Department of the Course Developer.



The committee will be responsible to screen the proposals received from the particular Faculty member/Course Developer and recommend the number of modules to be assigned. The committee shall be an apex body responsible for taking decisions concerning issues regarding that particular task. The Academic Standing Committee shall meet whenever necessity arise to facilitate the production process via online or off line.

### **Basic requirements to prepare proposals for e-Content Development**

The Faculty Member should have the requisite content in text form, which is of plagiarism free and proper copy right access. In addition to this basic awareness about Audio, Video, Graphic, Animation, Multimedia etc. The Faculty members may apply to the EMMC for production of e-Content Modules by giving complete details on equipment and software needed.

For each proposal after scrutinizing for the basic eligibility will be evaluated by the constituted ASC. The ASC shall meet once in a week till the process of that particular assignment is over or more often if needed, to screen and give guidelines time to time.

### **Required Components /Features of e-Content**

The faculty member shall produce full text of the academic content for each of the module comprising the following aspects and shall submit text to the EMMC in print form and as soft copy: each e-content module should have the following components (some may be optional based on the subject requirement, e.g. case study is not applicable in a subject like Maths).

- a) Introduction
- b) Objectives
- c) Summary
- d) Text
- e) Case studies

- f) FAQ's
- g) Video and audio
- h) Assignments
- i) Quiz
- j) Tutorial
- k) References
- l) Glossary
- m) Links
- n) Download
- o) Contact

The Faculty Member shall also identify points and the Graphics, Animations & other information that are required to be included in the module. He/she/they will continue to provide academic support till the module(s) is / are produced and approved.

The Faculty Member(s) may be offered to produce academic content of a number of modules of e-Content.

The Course developer can decide in consultation with the Academic Standing Committee regarding the presenter. If subject expert is not acting as the presenter, the services of a presenter(s) may be availed of by the Course developer.

Besides this the Subject Expert shall have to create a bank of Questions and write its Answers in the form of LoR's.

### **Guidelines for the Lesson Planning for the e-Content Development**

Faculty will need to work out lesson plan with the following components:

- a) Introduction including learning outcomes.
- b) Direct instruction delivered primarily through transcribed video content with learning objectives and faculty-provided notes. Uniquely-created handouts may

also be used for direct instruction, supporting e-Content with graphics and animations, case-studies wherever essential

c) Provide list of core and supplementary reading list. Other course resources may be provided via Web links

d) Auto-graded quizzes, Self-assessment questions where students compare their answer against an instructor-written response and grade themselves

e) Discussion threads can be used to effectively engage students, who may communicate in discussion board threads on key course concepts. These discussion forums are best focused on a case study, problem, or question(s) pertinent to the lesson and should allow participants to share ideas and debate topics

f) For lessons in which students can appropriately practice skills or concepts, short interactive tools/ social media can effectively supplement other course material

g) Aligned formative assessment questions for each week's lesson comprising both objective questions (such as multiple choice, multiple mark, numerical input etc.) as well as subjective questions. Formative assessments may include ungraded reflection papers, quizzes that can be re-taken, discussion forum responses, concept-maps, as well as self- and peer evaluations that are meant to help student improve or identify gaps and weaknesses.

h) Conclusion with Feedback mechanism for faculty and/or TA to respond to the questions from students.

### **Time frame for production of e-Content**

A pilot module shall be produced by the Faculty Member in the beginning. On approval of the pilot module by the Academic Standing Committee, the assigned set of modules will have to be completed within one month. However, the duration will be decided by the Academic Standing Committee in consultation with the Director of EMMC regarding availability of staff and equipment in the EMMC.

## **Quality Control**

The content authenticity shall be the responsibility of the Faculty Member. However, the technical quality checking shall be the responsibility of the Academic Standing Committee.

The individual Faculty Member who is the Course developer should refer ample number of references of text as well as multimedia e-contents before entering into the production. Should keep those references for future cross verifications and should give due citations in the transcripts as well as in the Multimedia content for each of the sources referred.

Further, issues concerning copyright aspects / Intellectual Property Rights are to be taken care of by the Faculty Member(s).

The final products in the form of e-Content modules shall finally be previewed and approved before making it available to the public. The general quality check which includes technical quality shall be done at the EMMC by the Academic Standing Committee.

The proposals shall be prepared by the Faculty Member by, keeping in mind the following criteria:

- a. Technologically Friendly: so as to be downloaded and used on any Computer/Mobile independently.
- b. Learner Friendly: for easy navigation.
- c. Learner Centric: to be useful in self-instructional mode.
- d. Teacher Friendly: so as to be used in various teaching-learning methods such as classroom lectures, tutoring to a group, lab session, etc..
- e. Employing Learner Centric Pedagogy: specifically, the designer of the e-Content should pay attention to the teaching model used - such as simple information communication, exploratory approach, discovery approach, mastery learning etc. variety of interactive methods should be included to make the learning process

- effective and efficient.
- f. Self-evaluative: so as to have plenty of evaluation material to give feedback to the learner as to his/her achievements in a given topic of the course and including formative as well as summative evaluation.
- g. Object Based Learning/Teaching: so as to state specifically the objects of learning/teaching and employ different strategies for skill, competency and functionality developments.

### **ICR & Copyrights**

The Intellectual Copy Rights (ICR) and Production Copy Rights of the e-Content and other products developed shall rest with the EMMC, Annamalai University. By the time of completion of the production works, the Faculty Member should submit Copy right and declaration documents as per the University Guidelines.

### **For more Clarifications contact:**

**The Director**  
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**Mobile:**9443270714 / 7010471928  
**Youtube Channel Link:** <https://tinyurl.com/yf7j54nc>

**For Office Use Only**

Prop No.& Date:

Pre-Discussion:

Decision:

Page No.:



**ANNAMALAI UNIVERSITY**

**EDUCATIONAL MULTIMEDIA CENTRE (EMMC)**

**Expression of Interest for E-content Development**

(For Intra University Faculty Members)

Name of the Teaching Faculty (E-Content Developer) :

Designation :

Staff ID:

Department :

Faculty :

Contact details: Mobile:

: E.Mail:

Details of other Teaching Faculty Members involved (If any)

Name and Designation of the Teaching Faculties involved:

- 1.
- 2.
- 3.
- 4.

Program for which interested to develop E-content:

Content-Specific Details

Course : Year : I / II / III / IV

Semester : I / II / III / IV / V / VI / VII / VIII

Title(s) :

Expected duration of Video content:

Whether you have developed any e-content earlier? :Yes / No

If Yes provide details of Month and Year, Program, Course, Title (s)

Duration / Number of Modules and web links of the developed content

Date:

Signature of the Teaching Faculty  
(Content Developer)

Professor and Head

Dean of the Faculty

  
**ANNAMALAI UNIVERSITY**  
**EDUCATIONAL MULTIMEDIA CENTRE (EMMC)**  
**Expression of Interest for E-content Development**  
(For Affiliated College Faculty Members)

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Prop No.& Date:

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Name of the Teaching Faculty (E-Content Developer) :

Designation :

Staff ID:

College :

Department :

Contact details: Mobile: , E.Mail:

Details of other Teaching Faculty Members involved (If any)  
Name and Designation of the Teaching Faculties involved:

- 1.
- 2.
- 3.
- 4.

Program for which interested to develop E-content:

Content-Specific Details

Course : Year : I / II / III / IV  
Semester : I / II / III / IV / V / VI / VII / VIII

Title(s) :

Expected duration of Video content:

Whether you have developed any e-content earlier? :Yes / No

If Yes provide details of Month and Year, Program, Course, Title (s)  
Duration / Number of Modules and web links of the developed content

Date:

Signature of the Teaching Faculty  
(Content Developer)

Head of the Department

Principal

E-Content

E-Learning



MOOC SWAYAM  
Multimedia

சோதனை கடந்து சுதந்திரம் அடைந்தோம்  
சாதனை புரிந்து சரித்திரம் படைப்போம்



**CONTACT**

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