



**CALICUT UNIVERSITY – FOUR-YEAR UNDERGRADUATE  
PROGRAMME (CU-FYUGP)  
GENERAL FOUNDATION COURSE  
ABILITY ENHANCEMENT COURSE (AEC)**

Programme	<b>GENERAL FOUNDATION COURSE</b>				
Course Code	<b>ENG2FA103(2)</b>				
Course Title	<b>ADVANCED ENGLISH LANGUAGE SKILLS FOR SCIENCES</b>				
Type of Course	<b>ABILITY ENHANCEMENT COURSE (AEC)-SCIENCE</b>				
Semester	2				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial Per week	Practical per week	Total Hours
	3	2	-	2	60
Pre-requisites	Basic understanding in Science and Communication				
Course Summary	The course is designed to enable learners of the Science stream to imbibe scientific temper on par with social and cultural ethos, enhance communication skills and maximize the capacity to comprehend, to critically think and to interact effectively in an English-speaking academic environment.				

**Course Outcomes (CO):**

CO	CO Statement	Cognitive Level	Knowledge Category	Evaluation Tools used
CO 1	Inculcate Scientific Temper and Experiential Learning	U, An	C	Comprehension/General Discussion/Presentation/Audio& Video
CO 2	Amalgamate Science& humanities together on par with creativity	U	E	Assignment/Presentation/Debate/Roleplay/Mime/Street Play
CO 3	Critical thinking& Problem-solving	U,E	Ap	Group Discussion/Role Play/Assignments/Presentation
CO 4	Insight into global crisis, Inculcate moral and ethical values	U,C	Ap	Assignments/ Digital Content Creation/Reporting
CO 5	Multidisciplinary Approach	C	Ap	Blogging/Presentation/Assignment
<p>*-Remember(R), Understand(U),Apply(Ap),Analyse(An),Evaluate(E),Create(C)                      #FactualKnowledge(F)ConceptualKnowledge(C)ProceduralKnowledge(P)MetacognitiveKnowledge(M)</p>				

### Detailed Syllabus:

Module	Unit	Content	Hrs	
<b>I</b>	<b>Sound Cloud</b>		<b>7</b>	<b>15</b>
	1	The Fourth State of Matter-Jo Ann Beard	2	
	2	Relativity- Sarah Howe	1	
	3	The Cure-Robert Smith	2	
	4	Only an Axe Away- P Baburaj and C Sarat Chandran	2	
<b>II</b>	<b>Book Share</b>		<b>7</b>	<b>10</b>
	5	Wonders of Science: Printed version of Albert Einstein's 1930 Berlin Speech <a href="https://emersonkent.com/speeches/wonders_of_science.htm">https://emersonkent.com/speeches/wonders_of_science.htm</a>	2	
	6	All Palaces are Temporary Palaces- Rosebud Ben-Oni <a href="https://poetry.lib.uidaho.edu/index.php/poets/#Rosebud-Ben-Oni">https://poetry.lib.uidaho.edu/index.php/poets/#Rosebud-Ben-Oni</a>	2	
	7	The Star- Arthur C. Clarke	2	
	8	We live in the age of Cancer- Dr. Siddhartha Mukherjee meets Adam Rutherford. <a href="https://youtu.be/LHz9hXZiT3s?si=rvlpjh-0aO-XF">https://youtu.be/LHz9hXZiT3s?si=rvlpjh-0aO-XF</a>	1	
<b>III</b>	<b>Expressions</b>		<b>8</b>	<b>15</b>
	9	On Earth AS in the Heavens- Neil deGrasse Tyson	2	
	10	Pi - Wislawa Szymborska <a href="http://www.famouspoetsandpoems.com/poets/wislawa_szymborska/poems/11682">http://www.famouspoetsandpoems.com/poets/wislawa_szymborska/poems/11682</a>	2	
	11	A Study in Emerald-Neil Gaiman	2	
	12	A Love Poem for Lonely Prime Numbers-Harry Baker <a href="https://youtu.be/O6jrLgvCUNs?si=Ki3BCryIfWwa6Pxe">https://youtu.be/O6jrLgvCUNs?si=Ki3BCryIfWwa6Pxe</a>	2	
<b>IV</b>	<b>Word</b>		<b>8</b>	<b>10</b>
	13	Nonclay : The Liquid Turning Desert to Farmland- Rachel Lovell <a href="https://www.bbc.com/future/bespoke/follow-the-food/the-spray-that-turns-deserts-into-farmland.html">https://www.bbc.com/future/bespoke/follow-the-food/the-spray-that-turns-deserts-into-farmland.html</a>	2	
	14	Preface to the Reader- <i>Meditations On First Philosophy</i> -René Descartes	2	
	15	A Trip to Infinity (2022)- Science Documentary	2	
	16	Scientific Temper by Indian Scientists- <a href="https://youtu.be/xnCTGXksomg?si=-3Ngwi0kWJMmVJJ6">https://youtu.be/xnCTGXksomg?si=-3Ngwi0kWJMmVJJ6</a> .	2	

V	Practicum	30
1	<p><b>Module I:</b></p> <ol style="list-style-type: none"> <li>1. Prepare a short note on the features of science fiction and how it is different from other short stories.</li> <li>2. Compare and contrast 'The Fourth State ' with any of the films you have watched and prepare a write up.</li> <li>3. After reading the poem, try to find out other literary works using this concept or any other as part of their creative expression and share it in the classroom.</li> <li>4. Write a poem or any other genre of literature as a creative exercise foregrounding scientific concepts, terms or even the biography of scientists you studied.</li> <li>5. Listen to the song and organise a discussion on possible disasters, which may happen due to astronomical phenomena and how human intervention may affect the course.</li> <li>6. Identify popular songs celebrating Science and invention and read it in the class then critically evaluate themes of the same.</li>   <li>7. Prepare a short travelogue of your visit to any forest / streams</li>   <li>8. Do you think that conserving nature can be done only at the cost of resisting physical development? Conduct a debate on the topic in your class and prepare a note on it.</li> </ol>	8
2	<p><b>Module II:</b></p> <ol style="list-style-type: none"> <li>1. Write a short note on any discovery of science that has changed the life of humans in the 21st century.</li> <li>2. Discuss on any five interesting inventions that have made life easy and comfortable and make group presentations.</li> <li>3. Conduct a GD on Einstein and his contributions to the world of science.</li> <li>4. Prepare a picture Quiz on Scientific inventions and discoveries.</li> <li>5. Write an essay on how the material interests may shape colonial exploration by drawing instances from the history of science.</li> <li>6. Discuss the fusion of facts and fantasy in science fiction.</li> <li>7. Find out the distinction between scientific reality and common notion of the universe in the light of reading 'The Star'.</li> <li>8. Prepare a brief note on Cancer after watching the interview with Dr. Siddhartha Mukherjee.</li> </ol>	8

3	<p><b>Module III:</b></p> <ol style="list-style-type: none"> <li>1. After reading ‘On Earth as in the Heavens’, discuss about the intersection of science, religion, and philosophy.</li> <li>2. Prepare a short note on the potential conflicts between scientific discoveries and religious teachings in ‘On Earth as in the Heavens’.</li> <li>3. Write creative responses inspired by Szymborska's poem. This could include poems, short stories, or visual artworks that explore themes of mathematics, curiosity, or the mysteries of the universe.</li> <li>4. Discuss how Szymborska uses poetry to engage with complex philosophical and scientific concepts.</li> <li>5. Discuss about various elements that create a good thriller in the light of your reading ‘A Study in Emerald’.</li> <li>6. Compare ‘A Study in Emerald’ with any crime thriller in print or on screen.</li> <li>7. Create visual or multimedia interpretations of the poem through art, photography, or digital media. These interpretations can be shared and evaluated among the peers.</li> <li>8. Partner with educational organizations to develop educational resources or lesson plans that use the similar poems to inspire curiosity about Maths, literature, and the beauty of interdisciplinary learning.</li> </ol>	7
4	<p><b>Module IV:</b></p> <ol style="list-style-type: none"> <li>1. Explore the theme of desert reclamation and agricultural innovation inspired by nano clay technology through their respective mediums and prepare a report on it.</li> <li>2. Facilitate discussions or workshops focussed on analysing the policy implications of widespread adoption of nano clay technology for desert reclamation and agricultural development. Encourage participants to consider regulatory frameworks, governance structures, and potential socioeconomic impacts.</li> <li>3. Trace the history of empiricism applied in Academics and pin point the contribution of René Descartes then identify and note down the elements used in your lab activities.</li> <li>4. Submit an assignment on scientific revolution and social transformation of Europe and read it in the class.</li> <li>5. Visual media presentations can help foster scientific temper very significantly. Examine the statement referring to ‘A Trip to Infinity’.</li> <li>6. The universe will impress the youth with its immensity and mystery. Conduct a GD and prepare a report.</li> <li>7. Draft a detailed write-up on the concept of scientific temper after watching ‘Scientific Temper by Indian Scientists’.</li> <li>8. It is generally accepted that Nehru paved a clear path to steer the country along scientific temper. Do we still move along the same path? Discuss</li> </ol>	7

Note: The course is divided into five modules, with four having total 16 fixed units and one open-ended module with a variable number of units. There are total 30 transaction hours for the fixed modules and 30 hours for the open-ended one. Internal assessments (25 marks) are split between the open-ended module (15 marks) and the fixed modules (10 marks). The final exam, however, covers only the 16 units from the fixed modules.

### Suggested Reading:

1. Creative Language Games by Dominique Collet
2. [https://www.linkedin.com/pulse/6-activities-practice-reading-comprehension-skills-elizabeth-zandstra?utm\\_source=share&utm\\_medium=member-android&utm\\_campaign=share](https://www.linkedin.com/pulse/6-activities-practice-reading-comprehension-skills-elizabeth-zandstra?utm_source=share&utm_medium=member-android&utm_campaign=share) via
3. [www.splashlearn.com/ela-games](http://www.splashlearn.com/ela-games)
4. [www.Cambridgeenglish.org](http://www.Cambridgeenglish.org)
5. [www.Journalbuddies.com](http://www.Journalbuddies.com)
6. [www.splashlearn.com/ela-game](http://www.splashlearn.com/ela-game)

Mapping of COs with PSOs and POs:

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3	2	3	3	3	3	2	2	1	2	1	2	2
CO 2	3	3	3	3	2	3	3	2	2	1	2	1	3
CO 3	3	3	3	3	3	3	3	3	2	1	2	2	1
CO 4	3	3	3	3	3	3	2	2	1	3	1	2	2
CO5	3	2	3	3	3	3	2	2	2	2	3	2	1

### Correlation Levels:

Level	Correlation
-	Nil
1	Slightly/Low
2	Moderate/Medium
3	Substantial/High

**Assessment Rubrics:**

- Quiz/Assignment/Quiz/Discussion/Seminar
- Midterm Exam
- Viva
- Assignments (20%)
- Final Exam (70%)

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO1	√	√		√
CO2	√	√		√
CO3	√	√		√
CO4	√	√		√
CO5	√	√		√