

**VASAVI COLLEGE OF ENGINEERING(AUTONOMOUS),
Ibrahimbagh: Hyderabad-500 031**

CIRCULAR

No: VCE/AEB/2023/B.E –III SEM-OE Courses /314

Date:16/09/2023

The students of B.E. –III Semester of the academic year 2023-24 are informed that there are a total of four Open-Elective (OE) courses to be studied by them one each during their B.E III, IV, V & VI semesters. During each of the above semesters, a student needs to select and pursue one course of his/her choice from the pool of the courses offered as OEs for that semester.

The Open Elective courses are designed and grouped as specialized streams based on emerging technologies. There are a total of 08 OE streams and the details are given in the Annexure. Students are advised to read the following instructions before exercising the options.

- 1) Each of the OE stream shall have four courses, which are offered during B.E III, IV, V & VI semester respectively as shown below.

Name of the OE Sub Track	III semester	IV semester	V semester	VI semester
	Level 1 Course	Level 2 Course	Level 3 Course	Level 4 Course

In order to pursue a level 2 course, student is expected to complete level 1 course as the pre-requisite.

- 2) In addition to the mentioned OE streams (Annexure-1), there is a 'General Pool (Annexure -2)' of open-elective courses consisting of mixed and independent courses without any pre-requisites.
- 3) Courses to be offered from 'General Pool' in each semester shall be decided by the Institute well before the selection of Open elective courses by the students.
- 4) Students can register through online and pursue an OE course from either OE Streams OR General pool.
- 5) A student completing all the 4 open-elective courses (Level 1 to Level 4) from the chosen stream successfully will be awarded by the Institute in the cumulative Grade Report with a specific mention that the student has acquired specialized OE stream.
- 6) By default, an open-elective course from a particular OE Stream selected by the student in B.E III semester shall be his / her preferred OE Stream for the remaining 3 semesters. It shall be deemed that the student is willing to continue to study the remaining 3 OE courses (level 2, 3 & 4) from the same stream in the subsequent semesters unless, the student wishes to exit from the stream and opt for another OE from General pool. Those students who would like to go for change of OE stream need to submit a request in writing to Principal through HoD well in advance.
- 7) In the event of a STUDENT COMING OUT OF THE ALREADY CHOSEN OE stream in any semester, due to any reason whatsoever, he/she will not be eligible for **any** of the Specialized OE stream.



PRINCIPAL

To
All Heads of Departments
for necessary action.
P.A. to Principal.

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LIST OF STREAM BASED OPEN ELECTIVES

Name of the Branch	Stream and Eligible Branches	III Semester (2 Credits)	IV Semester (3 Credits)	V Semester (3 Credits)	VI Semester (3 Credits)
CSE	Artificial Intelligence & Machine Learning (All Branches except CSE & I.T)	Programming essentials in Python	Mathematical computing for AI & ML with Python	Fundamentals of Artificial Intelligence	Fundamentals of Machine Learning
ECE	Communication Engineering Stream (CSE, EEE & I.T)	Introduction to Signals and Systems	Principles of Communication Engineering	Introduction to Communication Systems	Introduction to Mobile and Cellular Communication
MECH	Robotics (All Branches except Mech.)	Introduction to Industrial Robotics	Kinematics and Dynamics of Robotics	Drives and Control Systems for Robotics	Industry 4.0
I.T	AI&ML (All Branches except CSE & I.T)	Computing using Python	Essentials of Mathematics for Machine learning using Python	Introduction to Artificial Intelligence	Introduction to Machine Learning
PHYSICS	Semiconductor Physics and Device Applications(SPDA) (Civil & Mech)	Essentials of Semiconductor Physics	Basic Semiconductor Devices	Advanced Semiconductor Devices	Optoelectronic Devices
Chemistry	Materials for Engineers	Polymeric Materials	Properties and Characterization Methods for Polymers	Composite Materials	Advanced Engineering Materials

Contd..2.

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General Pool		
Name of the Branch Offering	Semester	Name of the course offered
CIVIL	B.E. III-Semester	Green Buildings
	B.E. IV-Semester	Solid Waste Management
	B.E. V-Semester	Spatial Information Technologies
	B.E. VI-Semester	Project Management
CSE	B.E. III-Semester	Introduction to Python Programming
	B.E. IV-Semester	Basics of JAVA Programming
	B.E. V-Semester	Introduction to Operating Systems
	B.E. VI-Semester	Introduction to Database Management System Prompt Engineering
MECH	B.E. III-Semester	Fundamentals of Unmanned Aerial Vehicles
	B.E. IV-Semester	Operation Research
	B.E. V-Semester	Introduction to Robotics
	B.E. VI-Semester	Additive Manufacturing and its Applications
I.T	B.E. III-Semester	Fundamentals of Python Programming
	B.E. IV-Semester	Introduction to Database Management Systems
	B.E. V-Semester	Object Oriented Programming using Java
	B.E. VI-Semester	Web App Development & Security
EEE	B.E. III-Semester	Non-Conventional Energy Sources
	B.E. IV-Semester	Solar Power and Applications
	B.E. V-Semester	Modelling and Simulation of Basic Photovoltaic Systems
	B.E. VI-Semester	Introduction to Electric vehicles
ECE	B.E. III-Semester	Mathematical Programming for Engineers
	B.E. IV-Semester	Sensors for Engineering Applications
	B.E. V-Semester	Introduction to Biomedical Electronics Signal Engineering
	B.E. VI-Semester	Internet of Things and Applications Introduction to Wireless Communications Automatic Train protection System-Kavach

General Pool Continued		
Name of the Branch Offering	Semester	Name of the course offered
MATHS	B.E. III-Semester	Linear Algebra & Its Applications (CE, EEE, ECE &ME) Complex Variables (CSE, CSE (AIML) & IT)
	B.E. IV-Semester	Numerical Methods (CSE, CSE (AIML) & IT)
	B.E. V-Semester	Integral Transforms (CSE, CSE (AIML) & IT)
		Computational Methods (All Branches)
B.E. VI-Semester	Critical Reasoning	
	Optimization techniques	
PHYSICS	B.E. V-Semester	Smart Materials and Applications
	B.E. VI-Semester	Introduction to Nano technology
H&SS (All Branches)	B.E. III-Semester	Learning to Learn (02 Sections)
		Constitution Of India Mastering Leadership
	B.E. IV-Semester	TWPP and Critical Thinking
	B.E. V-Semester	Design Thinking (02 Sections)
Basics of Entrepreneurship		
B.E. VI-Semester	Advances in Entrepreneurship	