



R.M.K. ENGINEERING COLLEGE

(An Autonomous Institution)



R.S.M Nagar, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur Dt- 601206.
Affiliated to Anna University, Chennai/Approved by AICTE, New Delhi / ISO 21001:2018 Certified Institution/
Accredited by NAAC with A+ Grade/ All the eligible UG Programs are accredited by NBA, New Delhi

Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Civil Engineering – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA204	Numerical Methods (Lab Integrated)
2	2	24CH202	Chemistry for Civil Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24CE201	Construction Materials (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / CE

24MA204 - Numerical Methods (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	compute the solutions of algebraic, transcendental and the system of equations.
CO2	implement the numerical techniques of interpolation in equal and unequal intervals.
CO3	execute the numerical techniques of differentiation and integration for engineering problems.
CO4	solve ordinary differential equations with initial conditions using appropriate techniques.
CO5	solve partial differential equations with boundary conditions using appropriate techniques
CO6	utilize computational tools to perform numerical analysis.

24CH202- Chemistry for Civil Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To estimate the hardness present in the given water sample and suggest suitable water treatment methods.
CO2	To compare different types of polymeric materials and their applications in construction industry.
CO3	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO4	To analyze the chemical constituents of cements for their specific applications.
CO5	To interpret the applications of engineering materials and their appropriateness in the construction fields.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24CE201 - Construction Materials (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Apply the knowledge for the selection of different materials for masonry.
CO2	Compare the properties of various binding materials.
CO3	Analyze the physical properties of aggregates.
CO4	Examine the various applications of timber and steel.
CO5	Identify various building finishes and applications of modern building materials.
CO6	Perform experiments to verify the properties of bricks, cement and aggregates as per Indian Standards.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Computer Science and Engineering – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA201	Linear Algebra and Applications (Lab Integrated)
2	2	24PH201	Physics for Information Science (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24CS201	Data Structures (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24CH102	Environmental Science & Sustainability (Non Credit)
8	2	24GE201	Tamils and Technology
9	2	24MC201	Yoga for Stress Management (Non Credit)
10	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / CSE

24MA201 - Linear Algebra and Applications (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	solve the system of linear equations using Gauss elimination and Gauss Jordan method.
CO2	analyze vector spaces to determine their bases and dimensions.
CO3	apply Gram-Schmidt process to ortho normalize sets of vectors.
CO4	apply rank nullity theorem to analyse linear transformations.
CO5	compute the eigenvalues and eigenvectors using singular value decomposition.
CO6	understand the ideas of least squares approximations and its applications.

24PH201- Physics for Information Science (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	derive electrical and thermal conductivities using classical free electron theory.
CO2	calculate the electrical conductivity and bandgap in Intrinsic semiconductors.
CO3	associate the basic principles of working of laser and their applications in fiber optics.
CO4	calculate the energy eigen value and eigen function for a particle in a one- dimensional and three dimensional box using Schrodinger wave equations.
CO5	use quantum operators to frame equations for logic gates in Quantum computing.
CO6	relate the quantum properties of nanoscale materials with their applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24CS201 - Data Structures (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze algorithms and abstract data types (ADTs).
CO2	Evaluate fundamental data structures.
CO3	Implement linked data structures and its application.
CO4	Apply advanced tree data structures.
CO5	Understand basic graph theory concepts.
CO6	Evaluate various searching and sorting algorithms.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24CH102 – Environmental Science & Sustainability (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To investigate and use conservational practices to protect natural resources.
CO2	To identify the causes of pollutants and illustrate suitable methods for pollution abatement.
CO3	To analyze the values of biodiversity and its conservational methods.
CO4	To classify suitable sustainable development practices and apply it in day-to-day life.
CO5	To assess the impacts of human population and suggest suitable solutions.
CO6	To develop innovative solutions and strategies to address sustainability challenges.

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Electrical and Electronics Engineering – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA205	Transforms and Numerical Methods (Lab Integrated)
2	2	24CH201	Chemistry for Electrical and Electronics Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24IT201	Data Structures and Algorithms (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / EEE

24MA205 - Transforms and Numerical Methods (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	determine Laplace transform and inverse Laplace transform of simple functions.
CO2	determine Z- transform and inverse Z- transform of simple functions.
CO3	solve ordinary differential equations using Laplace transform and difference equations using Z-Transform.
CO4	compute the solutions of algebraic, transcendental and the system of equations.
CO5	execute the numerical techniques of differentiation and integration for engineering problems.
CO6	implement the numerical techniques of interpolation in various intervals.

24CH201- Chemistry for Electrical and Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To identify the suitability of batteries for various fields.
CO2	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO3	To apply the fundamental principles of chemical sensors, cheminformatics and their applications across various industries.
CO4	To analyze the types of smart materials used in various engineering fields.
CO5	To explore the applications of nanomaterials in various fields, considering their advantages and limitations.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24IT201 - Data Structures and Algorithms (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze and compare functions using asymptotic analysis and Understand the concepts of basic data structures such as array and linked list.
CO2	Applying a suitable algorithm for searching and sorting.
CO3	Analyze the various tree algorithms for solving real time computing problems.
CO4	Understanding graph algorithms, operations, and applications
CO5	Understanding the importance of hashing.
CO6	Apply the appropriate data structure to solve real world problems

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Electronics and Communication Engineering – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA202	Transforms and Complex Analysis (Lab Integrated)
2	2	24CH201	Chemistry for Electrical and Electronics Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24IT201	Data Structures and Algorithms (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / ECE

24MA205 - Transforms and Complex Analysis (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	determine Laplace transform and inverse Laplace transform of simple functions.
CO2	determine Z- transform and inverse Z- transform of simple functions.
CO3	solve ordinary differential equations using Laplace transform and difference equations using Z-Transform.
CO4	construct an analytic function and analyze conformal mapping.
CO5	evaluate the real integrals using complex integration.
CO6	identify singularities using Taylor's and Laurent's series.

24CH201- Chemistry for Electrical and Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To identify the suitability of batteries for various fields.
CO2	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO3	To apply the fundamental principles of chemical sensors, cheminformatics and their applications across various industries.
CO4	To analyze the types of smart materials used in various engineering fields.
CO5	To explore the applications of nanomaterials in various fields, considering their advantages and limitations.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24IT201 - Data Structures and Algorithms (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze and compare functions using asymptotic analysis and Understand the concepts of basic data structures such as array and linked list.
CO2	Applying a suitable algorithm for searching and sorting.
CO3	Analyze the various tree algorithms for solving real time computing problems.
CO4	Understanding graph algorithms, operations, and applications
CO5	Understanding the importance of hashing.
CO6	Apply the appropriate data structure to solve real world problems

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Mechanical Engineering – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA204	Numerical Methods (Lab Integrated)
2	2	24CH203	Chemistry for Mechanical Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24EE201	Basic Electrical and Electronics Engineering (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / ME

24MA204 - Numerical Methods (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	compute the solutions of algebraic, transcendental and the system of equations.
CO2	implement the numerical techniques of interpolation in equal and unequal intervals.
CO3	execute the numerical techniques of differentiation and integration for engineering problems.
CO4	solve ordinary differential equations with initial conditions using appropriate techniques.
CO5	solve partial differential equations with boundary conditions using appropriate techniques
CO6	utilize computational tools to perform numerical analysis.

24CH202- Chemistry for Mechanical Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To estimate the hardness present in the given water sample and suggest suitable water treatment methods.
CO2	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO3	To identify the suitability of batteries for various fields.
CO4	To investigate the types of fuel and combustion process.
CO5	To classify the types of engineering materials and their appropriateness in the engineering fields.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24EE201 - Basic Electrical and Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Understand concept of DC and AC electric circuits.
CO2	Identify appropriate machine for a given application.
CO3	Understand the working of electron devices.
CO4	Demonstrate the concept of digital logic circuits.
CO5	Choose appropriate transducers for specific application.
CO6	Choose appropriate instruments for given application.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Computer Science and Design – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA201	Linear Algebra and Applications (Lab Integrated)
2	2	24PH201	Physics for Information Science (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24CS201	Data Structures (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24CH102	Environmental Science & Sustainability (Non Credit)
8	2	24GE201	Tamils and Technology
9	2	24MC201	Yoga for Stress Management (Non Credit)
10	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / CSD

24MA201 - Linear Algebra and Applications (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	solve the system of linear equations using Gauss elimination and Gauss Jordan method.
CO2	analyze vector spaces to determine their bases and dimensions.
CO3	apply Gram-Schmidt process to ortho normalize sets of vectors.
CO4	apply rank nullity theorem to analyse linear transformations.
CO5	compute the eigenvalues and eigenvectors using singular value decomposition.
CO6	understand the ideas of least squares approximations and its applications.

24PH201- Physics for Information Science (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	derive electrical and thermal conductivities using classical free electron theory.
CO2	calculate the electrical conductivity and bandgap in Intrinsic semiconductors.
CO3	associate the basic principles of working of laser and their applications in fiber optics.
CO4	calculate the energy eigen value and eigen function for a particle in a one- dimensional and three dimensional box using Schrodinger wave equations.
CO5	use quantum operators to frame equations for logic gates in Quantum computing.
CO6	relate the quantum properties of nanoscale materials with their applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24CS201 - Data Structures (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze algorithms and abstract data types (ADTs).
CO2	Evaluate fundamental data structures.
CO3	Implement linked data structures and its application.
CO4	Apply advanced tree data structures.
CO5	Understand basic graph theory concepts.
CO6	Evaluate various searching and sorting algorithms.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24CH102 – Environmental Science & Sustainability (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To investigate and use conservational practices to protect natural resources.
CO2	To identify the causes of pollutants and illustrate suitable methods for pollution abatement.
CO3	To analyze the values of biodiversity and its conservational methods.
CO4	To classify suitable sustainable development practices and apply it in day-to-day life.
CO5	To assess the impacts of human population and suggest suitable solutions.
CO6	To develop innovative solutions and strategies to address sustainability challenges.

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Electronics and Communication (Advanced Communication Technology) – Even Semester

THEORY COURSES			
S.No	Semester	Course code	Course Name
1	2	24MA202	Transforms and Complex Analysis (Lab Integrated)
2	2	24CH201	Chemistry for Electrical and Electronics Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24IT201	Data Structures and Algorithms (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / EC-ACT

24MA205 - Transforms and Complex Analysis (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	determine Laplace transform and inverse Laplace transform of simple functions.
CO2	determine Z- transform and inverse Z- transform of simple functions.
CO3	solve ordinary differential equations using Laplace transform and difference equations using Z-Transform.
CO4	construct an analytic function and analyze conformal mapping.
CO5	evaluate the real integrals using complex integration.
CO6	identify singularities using Taylor's and Laurent's series.

24CH201- Chemistry for Electrical and Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To identify the suitability of batteries for various fields.
CO2	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO3	To apply the fundamental principles of chemical sensors, cheminformatics and their applications across various industries.
CO4	To analyze the types of smart materials used in various engineering fields.
CO5	To explore the applications of nanomaterials in various fields, considering their advantages and limitations.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24IT201 - Data Structures and Algorithms (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze and compare functions using asymptotic analysis and Understand the concepts of basic data structures such as array and linked list.
CO2	Applying a suitable algorithm for searching and sorting.
CO3	Analyze the various tree algorithms for solving real time computing problems.
CO4	Understanding graph algorithms, operations, and applications
CO5	Understanding the importance of hashing.
CO6	Apply the appropriate data structure to solve real world problems

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.E., - Electronics Engineering (VLSI Design and Technology) – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA202	Transforms and Complex Analysis (Lab Integrated)
2	2	24CH201	Chemistry for Electrical and Electronics Engineering (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24IT201	Data Structures and Algorithms (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.E., / EE-VLSI

24MA205 - Transforms and Complex Analysis (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	determine Laplace transform and inverse Laplace transform of simple functions.
CO2	determine Z- transform and inverse Z- transform of simple functions.
CO3	solve ordinary differential equations using Laplace transform and difference equations using Z-Transform.
CO4	construct an analytic function and analyze conformal mapping.
CO5	evaluate the real integrals using complex integration.
CO6	identify singularities using Taylor's and Laurent's series.

24CH201- Chemistry for Electrical and Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To identify the suitability of batteries for various fields.
CO2	To analyze the different types and impacts of corrosion, and evaluate methods for corrosion control and prevention.
CO3	To apply the fundamental principles of chemical sensors, cheminformatics and their applications across various industries.
CO4	To analyze the types of smart materials used in various engineering fields.
CO5	To explore the applications of nanomaterials in various fields, considering their advantages and limitations.
CO6	To integrate the concepts of chemistry for various engineering applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24IT201 - Data Structures and Algorithms (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze and compare functions using asymptotic analysis and Understand the concepts of basic data structures such as array and linked list.
CO2	Applying a suitable algorithm for searching and sorting.
CO3	Analyze the various tree algorithms for solving real time computing problems.
CO4	Understanding graph algorithms, operations, and applications
CO5	Understanding the importance of hashing.
CO6	Apply the appropriate data structure to solve real world problems

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.Tech. – Artificial Intelligence & Data Science – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA201	Linear Algebra and Applications (Lab Integrated)
2	2	24PH201	Physics for Information Science (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24CS201	Data Structures (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24CH102	Environmental Science & Sustainability (Non Credit)
8	2	24GE201	Tamils and Technology
9	2	24MC201	Yoga for Stress Management (Non Credit)
10	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.Tech. / ADS

24MA201 - Linear Algebra and Applications (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	solve the system of linear equations using Gauss elimination and Gauss Jordan method.
CO2	analyze vector spaces to determine their bases and dimensions.
CO3	apply Gram-Schmidt process to ortho normalize sets of vectors.
CO4	apply rank nullity theorem to analyse linear transformations.
CO5	compute the eigenvalues and eigenvectors using singular value decomposition.
CO6	understand the ideas of least squares approximations and its applications.

24PH201- Physics for Information Science (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	derive electrical and thermal conductivities using classical free electron theory.
CO2	calculate the electrical conductivity and bandgap in Intrinsic semiconductors.
CO3	associate the basic principles of working of laser and their applications in fiber optics.
CO4	calculate the energy eigen value and eigen function for a particle in a one- dimensional and three dimensional box using Schrodinger wave equations.
CO5	use quantum operators to frame equations for logic gates in Quantum computing.
CO6	relate the quantum properties of nanoscale materials with their applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24CS201 - Data Structures (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze algorithms and abstract data types (ADTs).
CO2	Evaluate fundamental data structures.
CO3	Implement linked data structures and its application.
CO4	Apply advanced tree data structures.
CO5	Understand basic graph theory concepts.
CO6	Evaluate various searching and sorting algorithms.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24CH102 – Environmental Science & Sustainability (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To investigate and use conservational practices to protect natural resources.
CO2	To identify the causes of pollutants and illustrate suitable methods for pollution abatement.
CO3	To analyze the values of biodiversity and its conservational methods.
CO4	To classify suitable sustainable development practices and apply it in day-to-day life.
CO5	To assess the impacts of human population and suggest suitable solutions.
CO6	To develop innovative solutions and strategies to address sustainability challenges.

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.Tech. – Computer Science and Business Systems – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA203	Linear Algebra
2	2	24CS201	Data Structures (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24EC201	Principles of Electronics Engineering (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24GE201	Tamils and Technology
8	2	24MC201	Yoga for Stress Management (Non Credit)
9	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.Tech. / CSBS

24MA203 - Linear Algebra	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	apply Cramer's rule for solving the system of linear equations.
CO2	utilize the LU Decomposition technique to solve the system of equations.
CO3	execute the QR decomposition for a given matrix.
CO4	develop problem-solving abilities through the application of linear algebra techniques..
CO5	determine the eigenvalues and eigenvectors.
CO6	apply matrix techniques in Image Processing and Machine Learning.

24CS201 - Data Structures (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze algorithms and abstract data types (ADTs).
CO2	Evaluate fundamental data structures.
CO3	Implement linked data structures and its application.
CO4	Apply advanced tree data structures.
CO5	Understand basic graph theory concepts.
CO6	Evaluate various searching and sorting algorithms.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24EC201 - Principles of Electronics Engineering (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Examine the performance of electronic circuits using PN junction diode and Zener diode.
CO2	Construct electronic circuits using BJT and to sketch the input and output characteristics.
CO3	Examine the terminal characteristics of FET and MOSFET
CO4	Acquire the knowledge on feedback amplifiers and operational amplifiers.
CO5	Design of simple Digital Logic Circuits.
CO6	Perform practical exercises as an individual and / or team member to manage the task in time.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.



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Department of Science & Humanities

Course Outcomes – Even Semester - 2025 -26

B.Tech. – Information Technology – Even Semester

THEORY COURSES			
S.No.	Semester	Course code	Course Name
1	2	24MA201	Linear Algebra and Applications (Lab Integrated)
2	2	24PH201	Physics for Information Science (Lab Integrated)
3	2	24AI201	Introduction to Artificial Intelligence (Lab Integrated)
4	2	24CS202	Java Programming (Lab Integrated)
5	2	24CS201	Data Structures (Lab Integrated)
LABORATORY COURSES			
6	2	24ME211	Idea Lab II
MANDATORY COURSES			
7	2	24CH102	Environmental Science & Sustainability (Non Credit)
8	2	24GE201	Tamils and Technology
9	2	24MC201	Yoga for Stress Management (Non Credit)
10	2	24HS211	Innovation and Creativity Skills and Development

Second Semester B.Tech. / IT

24MA201 - Linear Algebra and Applications (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	solve the system of linear equations using Gauss elimination and Gauss Jordan method.
CO2	analyze vector spaces to determine their bases and dimensions.
CO3	apply Gram-Schmidt process to ortho normalize sets of vectors.
CO4	apply rank nullity theorem to analyse linear transformations.
CO5	compute the eigenvalues and eigenvectors using singular value decomposition.
CO6	understand the ideas of least squares approximations and its applications.

24PH201- Physics for Information Science (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	derive electrical and thermal conductivities using classical free electron theory.
CO2	calculate the electrical conductivity and bandgap in Intrinsic semiconductors.
CO3	associate the basic principles of working of laser and their applications in fiber optics.
CO4	calculate the energy eigen value and eigen function for a particle in a one- dimensional and three dimensional box using Schrodinger wave equations.
CO5	use quantum operators to frame equations for logic gates in Quantum computing.
CO6	relate the quantum properties of nanoscale materials with their applications.

24AI201 - Introduction to Artificial Intelligence (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Elaborate the basics and applications of Artificial Intelligence.
CO2	Apply the basics of Python programming to solve problems.
CO3	Use python libraries to solve simple ML problems.
CO4	Outline the different types of Machine Learning algorithms.
CO5	Use Machine Learning Algorithms to solve real world problems.
CO6	Outline the recent developments in the field of Artificial Intelligence.

24CS201 - Java Programming (Lab Integrated)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Solve core Java programming concepts.
CO2	Utilize object-oriented programming (OOP) principles.
CO3	Demonstrate competency in handling exceptions and implementing multithreading.
CO4	Develop expertise in input/output (I/O) operations and file handling.
CO5	Apply advanced Java programming concepts with generics and lambda expressions.
CO6	Implement database connectivity using JDBC.

24CS201 - Data Structures (Lab Integrated)	
COs	Course Outcomes: After the completion of the course, students should be able to:
CO1	Analyze algorithms and abstract data types (ADTs).
CO2	Evaluate fundamental data structures.
CO3	Implement linked data structures and its application.
CO4	Apply advanced tree data structures.
CO5	Understand basic graph theory concepts.
CO6	Evaluate various searching and sorting algorithms.

Laboratory Courses

24ME211 - Idea Lab II	
COs	Course Outcomes: Upon the completion of this course the students will be able to
CO1	Analyze the latest manufacturing methods in advancements and technologies related to their field.
CO2	Understand the operations of a laser cutting machine and CNC Router.
CO3	Analyze the process of design and fabrication of PCB and Soldering operations
CO4	Develop technical proficiency and problem-solving abilities, making more competent and confident in their field.
CO5	Develop themselves with the skills needed to address industry-specific problems.

Mandatory Courses

24CH102 – Environmental Science & Sustainability (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	To investigate and use conservational practices to protect natural resources.
CO2	To identify the causes of pollutants and illustrate suitable methods for pollution abatement.
CO3	To analyze the values of biodiversity and its conservational methods.
CO4	To classify suitable sustainable development practices and apply it in day-to-day life.
CO5	To assess the impacts of human population and suggest suitable solutions.
CO6	To develop innovative solutions and strategies to address sustainability challenges.

24GE201 – Tamils and Technology	
COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	identify the role of weaving and ceramic technology in ancient Tamil Culture.
CO2	assess the design and construction technology ideas in the current Tamil society.
CO3	identify the different types of manufacturing technology used in Tamil society and their significance.
CO4	classify agricultural and irrigation technologies in ancient Tamil society and its current relevance.
CO5	discuss the fundamentals of scientific Tamil and Tamil computing.

24MC201 - Yoga for Stress Management (Non Credit)	
COs	Course Outcomes: Upon completion of the course, the students will be able
CO1	relieve stress and achieve mental wellness.
CO2	experience the benefits of yoga.
CO3	keep self and body healthy.

24HS211 - Innovation and Creativity Skills and Development

COs	Course Outcomes: Upon completion of the course, the students will be able to:
CO1	Create study plans, value co-curricular activities, develop programming skills, and navigate for career advancement.
CO2	Understand about higher education options, resume enhancement, project management, and securing internships.
CO3	Learn entrepreneurship skills and strategies to develop successful business ideas.
CO4	Develop key entrepreneurial skills like opportunity recognition, risk management, and leadership through real-world examples.
CO5	Explore personal development, health management, scientific heritage, and cybercrime awareness.