



ST. THOMAS COLLEGE (AUTONOMOUS)
THRISSUR, KERALA - 680 001

College with Potential for Excellence
NIRF INDIA Ranking 2021 : 64th

www.stthomas.ac.in

PROGRAMME OUTCOMES
PROGRAMME SPECIFIC OUTCOMES
COURSE OUTCOMES

B.Voc Forensic Science

OUTCOMES:

At the end of Under Graduate Program at St. Thomas College (Autonomous), a student will have obtained:

PO1	Critical Thinking: Ability to take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives
PO2	Effective Communication: Ability to speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology
PO3	Effective Citizenship: Ability to demonstrate empathetic social concern and equity-centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering
PO4	Environment and Sustainability: Ability to understand the issues of environmental contexts and sustainable development
PO5	Ethical Living: Ability to recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them
PO6	Social Interaction: Ability to elicit views of others, mediate disagreements and help reach conclusions in group settings
PO7	Problem Solving and Analytical Skills: Ability to think rationally, analyze situations and solve problems adequately

PROGRAM SPECIFIC OUTCOMES:

At the end of B.Voc Forensic Science at St. Thomas College (Autonomous), Thrissur, a student will have developed:

PSO1	Understand the principles of Forensic Science and its practical application.
PSO2	Understand the importance of various physical evidence, its identification, collection/ preservation, packing, forwarding and chain of custody.
PSO3	Understand various fields of Forensic Science and crime scene investigation techniques.
PSO4	Perform laboratory procedures as per standard protocols in the various divisions of Forensic Science, report writing and presentation before court of law.
PSO5	Understand the importance of crime scene and can assist the criminal justice system as and when it is required
PSO6	Understand the Social commitment and importance of the subject knowledge to apply to avoid the escape of criminals from the law of the land

COURSE OUTCOMES:

B.Voc Forensic Science

SDC1FS01- FUNDAMENTALS OF FFORENSIC SCIENCE (Theory)

At the end of this course, a student will have developed ability to:

CO1	Cognize the significance of forensic science to human society.
CO2	Understand the fundamental principles and functions of forensic science
CO3	Understand the legality of scientific evidences
CO4	Describe divisions in a forensic science laboratory and working of the forensic establishments in India and abroad

B.Voc Forensic Science

SDC1FS03(P)- FUNDAMENTALS OF FORENSIC SCIENCE (PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Cognize the significance of forensic science to human society.
CO2	Understand the fundamental principles and functions of forensic science laboratories, Interpol, fingerprint bureau, national crime records bureau etc.,
CO3	Understand the crime report writing
CO4	Comparing the structure and functioning of police academy and police training college.

B.Voc Forensic Science

SDC1IC02-INDIAN CONSTITUTION, CRIMINAL MAJOR ACTS (IPC, Cr.PC, IEA)

At the end of this course, a student will have developed ability to:

CO1	Learn about the Constitution of India and Acts and provisions of the Constitution of India related to forensic science
CO2	Understand the concepts of Criminal Major Acts and the importance of Acts governing to social legislations
CO3	Enumerate the criminal minor acts and Elements of Criminal Procedure Code related to forensic science with Acts governing socio-economic and environmental crimes

B.Voc Forensic Science

SDC1IC04(P)- INDIAN CONSTITUTION,CRIMINAL MAJOR AND MINOR ACTS (IPC, Cr.PC, IEA)(PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Learn about the Constitution of India and Acts and provisions of the Constitution of India related to forensic science. Powers and limitations.
CO2	Understand the concepts of Criminal Major Acts sections in CrPC, IPC, IEA etc.,
CO3	Study different cases from each sections of importance.

B.Voc Forensic Science

SDC2FT05- FORENSIC CHEMISTRY & TOXICOLOGY

At the end of this course, a student will have developed ability to:

CO1	Understand the methods of analyzing trace amounts of petroleum products in crime scene evidence and analyzing contaminants in petroleum products
CO2	Understand the significance of toxicological studies in forensic science with classification of poisons and their modes of actions
CO3	Describe the classification and characteristics of the narcotics, drugs and psychotropic substances with the menace of designer drugs and the forensic identification of illicit liquors

B.Voc Forensic Science

SDC2FT07(P)- FORENSIC CHEMISTRY & TOXICOLOGY

(PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Understand the methods of analyzing trace amounts of petroleum products in crime scene evidence and analyzing contaminants in petroleum products
CO2	Understand the tests and methods to separate, identify and analyse poisons and drugs.
CO3	Hand on experience and understanding of separation techniques such as chromatography techniques.

B.Voc Forensic Science

SDC2IT06- INSTRUMENTATION TECHNIQUES

At the end of this course, a student will have developed ability to:

CO1	Cognize the importance of chromatographic and spectroscopic techniques in processing crime scene evidence and the utility of colorimetry, electrophoresis and neutron activation analysis in identifying chemical and biological materials.
CO2	Understand the significance of microscopy in visualizing trace evidence and comparing it with control samples and the usefulness of photography and videography for recording the crime scenes
CO3	Analyze the application of probability models and statistical techniques to scientific evidence and make conclusions and determine guilt or innocence in legal matters

B.Voc Forensic Science

A11- Basic Mathematics and General Awareness

At the end of this course, a student will have developed ability to:

CO1	Apply numerical and reasoning skills in competitive examinations.
CO2	Understand some basic concepts of research and its methodologies
CO3	Bridge the fundamental skills of computers with the present level of knowledge of the students
CO4	To train and equip the students with the skills of modern banking and insurance

B.Voc Forensic Science

A12- Professional Business Skills

At the end of this course, a student will have developed ability to:

CO1	Able to become a professional by acquiring various soft skills needed for business success.
CO2	Explore the world of e-learning and also the various consequences of Cyber space and crimes.
CO3	Application of data analysis and the role of artificial intelligence in e-business.
CO4	Apply the skills of digital marketing and e-commerce

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GEC3AE03- ARSON AND EXPLOSIVES

At the end of this course, a student will have developed ability to:

CO1	Understand the method of searching, collecting, preserving and analyzing arson evidence.
CO2	Describe the classification of explosives, including the synthesis and characterization of representative analogs
CO3	Recognize the significance of bomb scene management and understand the techniques of locating hidden explosives

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SDC3FP09- FORENSIC PHYSICS

At the end of this course, a student will have developed ability to:

CO1	Understand various methods of collecting, packaging and preserving different types of physical and trace evidence at crime scenes.
CO2	Identify the importance, collection and analysis of adhering material with comparison
CO3	Understand the tools and techniques for analysis of different types of crime scene evidence

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SDC3FB10- FORENSIC BALLISTICS

At the end of this course, a student will have developed ability to:

CO1	Learn about the classification of firearms and their firing mechanisms with characteristics of ammunition
CO2	Cognize the methods of identifying firearms and importance of firearm evidence
CO3	Identify the nature of firearm injuries and the methods for characterization of gunshot residue

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SDC3FP11 (P)- FORENSIC BALLISTICS (Practical)

At the end of this course, a student will have developed ability to:

CO1	Understand various methods of collecting, packaging and preserving different types of physical and trace evidence at crime scenes.
CO2	Identify the importance, collection and analysis of fire arm material and evidences for their comparison
CO3	Understand the tools and techniques for analysis of different types of crime scene evidence

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SDC3IT12(P)- INSTRUMENTATION TECHNIQUES

(Practical)

At the end of this course, a student will have developed ability to:

CO1	Cognize the importance of chromatographic and spectroscopic techniques in processing crime scene evidence and the utility of colorimetry, electrophoresis and neutron activation analysis in identifying chemical and biological materials.
CO2	Understand the significance and usefulness of photography and videography for recording the crime scenes
CO3	Analyze the application of probability models and statistical techniques.

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A13- Entrepreneurship Development

At the end of this course, a student will have developed ability to:

CO1	Able to understand the nature of entrepreneurship and the financial assistance and guidance from the government.
CO2	Confirm an entrepreneurial business idea
CO3	Explore entrepreneurial leadership and management style.
CO4	Confidence in Setting up of Industrial unit.

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A14- PUBLIC HEALTH, SANITATION & SAFETY

At the end of this course, a student will have developed ability to:

CO1	Identify the diseases associated with occupation
CO2	Identify the hazard in industrial area and propose preventive measures
CO3	Manage safety in industries and propose safety measures and PPE
CO4	Demonstrate the hygiene and sanitation procedures

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GEC4AV05- FORENSIC AUDIO VIDEO ANALYSIS

At the end of this course, a student will have developed ability to:

CO1	Learn about the speech anatomy and mechanisms
CO2	Understand the importance of audio video evidence in interpretation of a crime
CO3	Identify the precautionary measures and security issues

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SDC4FQ13- FORENSIC DERMATOGLYPHICS AND QUESTIONED DOCUMENTS

At the end of this course, a student will have developed ability to:

CO1	Understand the fundamental principles on which the science of fingerprinting is based
CO2	Cognize significance of foot, palm, ear and lip prints
CO3	Understand importance of detecting frauds and forgeries by analysing questioned documents

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SDC4FQ15 (P)- FORENSIC DERMATOGLYPHICS AND QUESTIONED DOCUMENTS (PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Understand types and classification of fingerprint and its comparison
CO2	Understand the types and individual traits of handwriting samples and its significance
CO3	Understand importance of detecting frauds and forgeries by analysing questioned documents and security features of currency notes, passports etc.,

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SDC4CPV14- CRIMINOLOGY, PENOLOGY, VICTIMOLOGY & FORENSIC PSYCHOLOGY

At the end of this course, a student will have developed ability to:

CO1	Understand the importance of criminology, penology and victimology
CO2	Recognize significance of criminal profiling to mitigate crime
CO3	Understand the critical assessment of advanced forensic techniques like polygraphy, narcoanalysis and brain electrical oscillation signatures.

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GEC5FM13- FORENSIC MEDICINE

At the end of this course, a student will have developed ability to:

CO1	Understand the duties of the first responding officer who receives a call on homicide or suicide case
CO2	Understand the steps involved in processing the death scene.
CO3	Cognize the importance of forensic odontology

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GEC5FBS14- FORENSIC BIOLOGY AND SEROLOGY

At the end of this course, a student will have developed ability to:

CO1	Identify the significance of biological and serological evidence.
CO2	Understand the importance of biological fluids – blood, urine, semen, saliva, sweat and milk – in crime investigations
CO3	Learn how forensic entomology assists in death investigations

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SDC5AP17- ADVANCED TECHNIQUES IN PERSONAL IDENTIFICATION

At the end of this course, a student will have developed ability to:

CO1	Learn the importance of basic principle of DNA analysis
CO2	Identify the Importance of forensic anthropology in identification of persons
CO3	Understand the classification of biometric processes

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SDC5CT18- CRIME INVESTIGATION TECHNIQUES

At the end of this course, a student will have developed ability to:

CO1	Illustrate the methods of securing, searching and documenting crime scenes.
CO2	Explain the art of collecting, packaging and preserving different types of physical and trace evidence at crime scenes.
CO3	Understand the tools and techniques for analysis of different types of crime scene evidence & to reconstruct crime scene

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SDC5APCT20 (P)- ADVANCED TECHNIQUES IN PERSONAL IDENTIFICATION&CRIME INVESTIGATION TECHNIQUES (PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Learn the importance of basic principle of DNA analysis, extraction, typing.
CO2	Identify the Importance of forensic anthropology in identification of persons using, bones , teeth etc.,
CO3	Become familiar with crime scene investigation, crime scene search, evidence collection, processing.

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SDC5CC19- Cyber-crime and cyber forensics

At the end of this course, a student will have developed ability to:

CO1	Learn the basics of digital forensics
CO2	Understand the cases which fall under the purview of digital crimes
CO3	Learn elements involved in investigation of digital crimes

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SDC5CC21 (P)- CYBER CRIME & CYBER FORENSICS (PRACTICAL)

At the end of this course, a student will have developed ability to:

CO1	Learn about encryption, deletions, modifications etc.,
CO2	To trace sources of emails and messages and information
CO3	Understand how to retrieve data from laptops, memory cards mobile phones etc.,

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SDC5CPV22(P)- CRIMINOLOGY, PENOLOGY,
VICTIMOLOGY & FORENSIC PSYCHOLOGY
(Practical)

At the end of this course, a student will have developed ability to:

CO1	Understand the importance of criminology, penology and victimology
CO2	Recognize significance of criminal profiling to mitigate crime
CO3	Understanding on how to prepare an interrogation report
CO4	Understand modernization of police stations and model police stations.