Computer forensics is explainable as the science of identifying, capturing and communicating convincing technical argument. Prosecutors attempt to use forensics to prove their case, while the defense uses forensics to disprove the assumptions of the prosecution. The existence of “objective truth” may or may not exist within the boundaries of the perspectives. The target of forensic science is therefore not always to convince the skeptic but to question and challenge belief systems.

The philosophy of forensics is therefore a way of dealing with the concept of an acceptable assumption of risk. The academic issue expressed within this Counter Forensics course is an approach that teaches engineers to recognize the risks that are associated with the modes and methods of obtaining objective truth through “scientific” faith.

The academic of the Forensic engineer involves acquiring an adequate understanding about how to question technical software and hardware tools that typically foster their scientific belief. A significant part of the problem of gaining that kind of understanding is the fact that engineering students arrive at forensics with an unshaken belief in the technology and logic of mathematics, computers and networks.

Forensic engineers have a fundamental requirement to recognize and understand the implications and consequences the gaps and flaws that can occur in perception, measurement, reason, rationality and logic. Counter Forensics is a graduate level course designed to improve the ability of Forensic engineers to provide a technical defense by recognizing and engaging in philosophical counter arguments and in doing so also improve technical the case of the prosecution.

The Counter Forensics course shall consist of 13 lectures plus individual and group research. The lectures will be interactive and participatory so that students will be required to contribute to the body of knowledge throughout the course. By the end of the course, students will be able to argue the pros and cons of the technical philosophy of Forensics and will possess an understanding of the root logical problem with irrefutably accepting evidence.
Course Week

1. **Course overview**: The Countering Technical Argument

   This lecture concerns the fundamental questions of forensics, the issues that define computer forensics and why it is important for science to continue to argue about technical facts.

2. **The Premise of Reductionism**

   Discussion of the concerns the underlying assumptions and beliefs that complex technical events can be defined separately, broken down into a series of events in order to be considered independently without loss of reason and rationality.

3. **The Premise of Logic; The Lost Model**

   Lecture concerns the conceptual work of Kurt Gödel who presented the fact that all formal logic is incomplete, that no logic can represent the full perspective of things, which exist around us, and why this is important to the problem of forensics.

4. **Counting and Order**

   This lecture concerns the qualities of our counting systems and order; that counting systems are applicable in all situations and that counting and our expectations of order are not always compatible with perspectives of situational empirical analysis.

5. **Belief Systems and Human Expectations**

   This lecture concerns the problem of Human Utility Theory, its roots, it implications, and implications of applying belief systems through computer forensics.

6. **Perception vs. Causality**

   This lecture concerns the simultaneous of existence of empirical vs. existential realities and the inevitable and subsequent conflicts with respect to proposing causality.

7. **Tangible Verifiability vs. Validity**

   This lecture concerns the differences between things, which can be verified, and things, which can be, validated which leads to the reasons why certification should never be considered permanent.

8. **Doubts of Scientific Evidence**

   This lecture concerns the concept of Scientific Evidence and the arguments that may be posed against using scientific principles as a basis of forensic evidence.
9. Evidence of Morality
   This lecture concerns the problems with the use of morality as a basis of categorizing
   and pursuing technical evidence.

10. Ownership of Evidence and Evidence as a Chain
   This lecture concerns the implications and expectations of the ownership of technical
   evidence and the issues, which affect the value of evidence as instruments of viable
   arguments when the ownership of evidence changes hands. This lecture asks the
   question: “Should the model of good technical evidence be considered a chain?”

11. Measurement of and as Evidence
   This lecture is about the principle that evidence can be measured, and whether anything
   can actually be measured well enough to defined as absolute and definitive.

   This lecture is about the ability for computers and networks to represent truth and the
   concept of the computers and the networks as a force of nature rather than an
   instrument of individual intent and human will.

13. Expectations vs. Choices
   This lecture is about expectations and choices when we choose to use technical
   measurements to define who and what we are and may have or may not be.

14. Writing final reports

15. Final exam