



ETI 101 Lecture Video Recordings

ETI 101 - Overview and Kick-off

- Pre-lecture recording: <https://drive.google.com/file/d/172WGnPKIKO8RmUgya2KKcFHJICxMFZ3z/view?usp=sharing>
- Live lecture recording: <https://drive.google.com/file/d/1SjJ692757UXGOdPwxNonAqxP31vblYES/view?usp=sharing>

Module 1 – Nuclear science of radiation interactions and applications

Module 1 - Lecture 1 - Basic Physics

- Pre-lecture recording: <https://bluejeans.com/s/ZRQ2FOH@1Bi/>
- Live lecture recording: <https://drive.google.com/file/d/1SjJ692757UXGOdPwxNonAqxP31vblYES/view?usp=sharing>

Module 1 - Lecture 2 - Radioactive Decay

- Pre-lecture recording: <https://bluejeans.com/s/ZPCJFI7Wqrn/>
- Live lecture recording: <https://bluejeans.com/s/bDVMwb6R3YL>

Module 1 - Lecture 3 - Neutron interactions, neutron reactions and neutron cross sections

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/8otjoGdkvWz>



Module 1 - Lecture 4 - Nuclear processes, nuclear reactions, transmutation, conservation principles, reaction rates, particle attenuation

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/IEr0lxhidqN>

Module 1 - Lecture 5 - Ion, electron and neutron interaction with matter and detection

- Pre-lecture recording:
<https://drive.google.com/file/d/1cwQF68jHYIzTLLpWA8mYWqHiOxxHHszS/view?usp=sharing>
- Live lecture recording: <https://bluejeans.com/s/jrxXnGz164X/>

Module 1 - Lecture 6 - Gamma interactions with matter and detection

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/wiD4Rb8DtWi>

Module 1 - Lecture 7 - Introduction to structural material properties

- Pre-lecture recording: (N/A)
- Live lecture recording (part 1): https://bluejeans.com/s/8zjlmonv9_5
- Live lecture recording (part 2):
<https://drive.google.com/file/d/1r6guGTW3MwcatHUx4rJPQ41SfV9Og9qn/view?usp=sharing>

Module 1 - Lecture 8 - Fusion reactions, forces, thermonuclear reactions and plasma

- Pre-lecture recording: (N/A)
- Live lecture recording:
<https://drive.google.com/file/d/1vcth4eXCozaRC9jbzpE9XwwQNgQZq-p/-view?usp=sharing>

Module 2 – Nuclear engineering of reactors and systems

Module 2 - Lecture 1 - How do nuclear reactors work?

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/yEn9XgtAvPN>

Module 2 - Lecture 2 - Energy conversion – Applications

- Pre-lecture recording: (N/A)
- Live lecture recording: https://bluejeans.com/s/gR47R_A_Gqt

Module 2 - Lecture 3 - Nuclear power plant – heat generation, removal, plant components and operational aspects

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/nHV0sZ2kYwo>

Module 2 - Lecture 4 - Reactor types and applications

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/tbqXV7bvFAR>

Module 2 - Lecture 5 - Nuclear safety, security and safeguards

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/ILr0aM5F0Oq>

Module 2 - Lecture 6 - Decommissioning

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/RFXKZBk3bvp>



Module 2 - Lecture 7 - Fusion Power Basics (Prof. Anne White, MIT)

- Pre-lecture recording:
https://drive.google.com/drive/folders/1f6gjnWvk2dEwuMIU7JjCL3GO1C_xGw1s?usp=sharing
- Live lecture recording: (N/A)

Module 2 - Lecture 8 - Externally-driven fission systems

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/E7NygkPBY2O/>

Module 3 – Nuclear fuel cycle and waste management

Module 3 - Lecture 1 - Introduction to the nuclear fuel cycle

- Pre-lecture recording: (N/A)
- Live lecture recording:
https://drive.google.com/file/d/1VtPLKAdOeVqCHk6lo3-FL54-e4ZSc9_2/view?usp=sharing

Module 3 - Lecture 2 - Uranium resources & geology - Phil Brown (UW)

- Pre-lecture recording:
<https://drive.google.com/file/d/1NXBNUsdOuLGvSbJjNPjgvFwF2KTdAsT3/view?usp=sharing>
- Live lecture recording:
https://drive.google.com/file/d/1rfRLzVtP_C-ASiyhUq2sLPWKW4gY58Ow/view?usp=sharing

Module 3 - Lecture 3 - Uranium enrichment technology

- Pre-lecture recording: (N/A)



- Live lecture recording:
https://drive.google.com/file/d/1UYboIWYz0bfoKOp7p7nqm_PILDcJVLAT/view?usp=sharing

Module 3 - Lecture 4 - In-core fuel management & isotopics

- Pre-lecture recording: (N/A)
- Live lecture recording:
<https://drive.google.com/file/d/10dtWdvWRLGrmAVKNwsWH8uYhkLZzuukz/view?usp=sharing>

Module 3 - Lecture 5 - Fuel forms

- Pre-lecture recording: (N/A)
- Live lecture recording:
https://drive.google.com/file/d/1j3leR7bUFW_9sjJCL7u8P15agl6BxCiX/view?usp=sharing

Module 3 - Lecture 6 - Chemical separations for partitioning

- Pre-lecture recording: (N/A)
- Live lecture recording:
<https://drive.google.com/file/d/1C7lX0ZGLh9K--7Dy6P5x5bCR8zvYtemA/view?usp=sharing>

Module 3 - Lecture 7 - Waste classification & management

- Pre-lecture recording: (N/A)
- Live lecture recording:
<https://drive.google.com/file/d/1vERLsyjbx4oIOUaoY-A0jWuQzAdpYTiB/view?usp=sharing>

Module 3 - Lecture 8 - Fuel Cycle Comparisons

- Pre-lecture recording: (N/A)
- Live lecture recording: (N/A)

Module 4 – Overview of Nuclear Security and Nonproliferation

Module 4 - Lecture 1 - National and International Laws and Organizations Supporting Nuclear Security and Nonproliferation

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/LDkc6qAOeJF>

Module 4 - Lecture 2 - An Inspector's View of IAEA Safeguards

- Pre-lecture recording: (N/A)
- Live lecture recording: https://bluejeans.com/s/_VVVF1eS4q4

Module 4 - Lecture 3 - The Role of Verification in Arms Control and Nonproliferation Treaties

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/CzQ97VZy8XE>

Module 4 - Lecture 4 - Fundamentals of Nuclear Material Accountancy (NMA)

- Pre-lecture recording: (N/A)
- Live lecture recording:
<https://drive.google.com/file/d/1pL3rdyT87tELI6NsrZLC9laJD25bvrQA/view?usp=sharing>



Module 4 - Lecture 5 - IAEA Facility Specific Safeguards Implementation

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/ZykK6t3OYHW>

Module 4 - Lecture 6 - Stored Energy Fingerprints for Treaty Verification

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/RhG4ekQDgno>

Module 4 - Lecture 7 - Nuclear Explosion Monitoring

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/GEB8ohjiuSy>

Module 4 - Lecture 8 - Radiation Imaging and its Applications in Nuclear Non-Proliferation

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/UsqYh7ABcB7>

Module 4 - Lecture 9 - Destructive and Non-destructive Assay Techniques

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/nKnNCAGE9Jb>

Module 4 - Lecture 10 - Radiation Detection Systems for Safeguards and Security Applications

- Pre-lecture recording: (N/A)
- Live lecture recording: <https://bluejeans.com/s/@Lpci3@OEEb>
