



**Department of Energy
& Nuclear Engineering**

April 19, 2024

Nuclear @ Ontario Tech University – an update for DNHC

**Dr. Kirk Atkinson (Associate Professor and UNENE-NSERC Associate IRC;
Director, Centre For Small Modular Reactors)**

International survey continues to rank Ontario Tech as a Top-3 Engineering school in Ontario

ONTARIO TECH PLACES NO. 7 AMONG ALL ENGINEERING PROGRAMS IN CANADA

February 15, 2024



Ontario Tech University Engineering students in a Faculty of Engineering and Applied Science machining lab.

Ontario Tech University's consistent strength in Engineering is reinforced again this year in an influential survey of global universities.

The latest data from the [U.S. News and World Report](#) shows Ontario Tech ranking competitively in the field of

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Ontario Tech celebrates renewed international accolade for environmental commitment



Ontario Tech Ridgebacks men's basketball team leaps into national Top-10 rankings for the first time



Smart engineering: Ontario Tech's expertise in real-time software systems research shining on international stage

Success!

Ranked #7 in Canada
for engineering

Nuclear-related academic programs/degrees

Bachelor's

- Nuclear Engineering, BEng
- Health Physics & Radiation Science, BSc
- Energy Engineering, BEng

Master's

- Nuclear Engineering, MAsC
- Nuclear Engineering, MEng - Course-based option
- Nuclear Engineering, MEng - Graduate Research Project option
- Nuclear Engineering, MEng - Industrial Research Project option
- Nuclear Engineering, MEng - UNENE administered program

PhD

- Nuclear Engineering, PhD

GDips

Developed for industry

- Nuclear Design Engineering
- Nuclear Technology - Fuel, Materials and Chemistry
- Nuclear Technology - Health Physics
- Nuclear Technology - Operation and Maintenance
- Nuclear Technology - Radiological Applications
- Nuclear Technology - Reactor Systems
- Nuclear Technology - Safety, Licensing and Regulatory Affairs
- UNENE Graduate Diploma in Nuclear Engineering



Ontario Tech's high school student application growth continues to significantly outpace provincial university system

OUAC DATA CONFIRMS ONTARIO TECH ESTABLISHES ANOTHER NEW RECORD FOR TOTAL APPLICANT NUMBERS

January 22, 2024

Canada's only accredited undergraduate Nuclear Engineering program is seeing double-digit percentage growth as high schoolers now see good job prospects in nuclear – this will help satisfy the strong workforce demand.

The Health Physics & Radiation Science program is being updated for Fall 2024 to better serve industry needs.



Ontario Tech students, between the Campus Library and Shawenjigewining Hall at the university's north Oshawa location.

As Ontario Tech celebrates its 20th anniversary, the university has experienced another significant achievement with more Ontario high school students than ever before applying to study at the university.



Ontario Tech researcher investigating the opportunities and risks associated with drone swarms

Out of schools in North America, Ontario Tech is 2nd or 3rd in terms of graduating bachelors-level nuclear students

Top marks: Ontario Tech named Canada's Research University of the Year

FOR THE FIRST TIME, RESEARCH INFOSOURCE RANKS ONTARIO TECH'S RESEARCH IMPRINT NO. 1 AMONG THE COUNTRY'S SMALLER, PRIMARILY UNDERGRADUATE UNIVERSITIES

December 7, 2023



Ontario Tech University research laboratory of Dr. Denina Simmons, Canada Research Chair in Aquatic Toxicology, and Associate Professor, Faculty of Science.

Ontario Tech University's impressive reputational trajectory for top-notch research continues with a fresh distinction as **Canada's Research University of the Year for 2023**. The accolade comes from [Research Infosource](#) (RI), Canada's premier research ranking organization and leading provider of research intelligence for business and higher education.

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Ontario Tech University promotes sustainable commuting solutions through scooter demonstration event



Partnership between Ontario University and Grandview Kids helping advance the field of childhood disability research



Ontario Tech University grows leadership and sustainability in engineering by hosting First Year Integration Conference

More success!

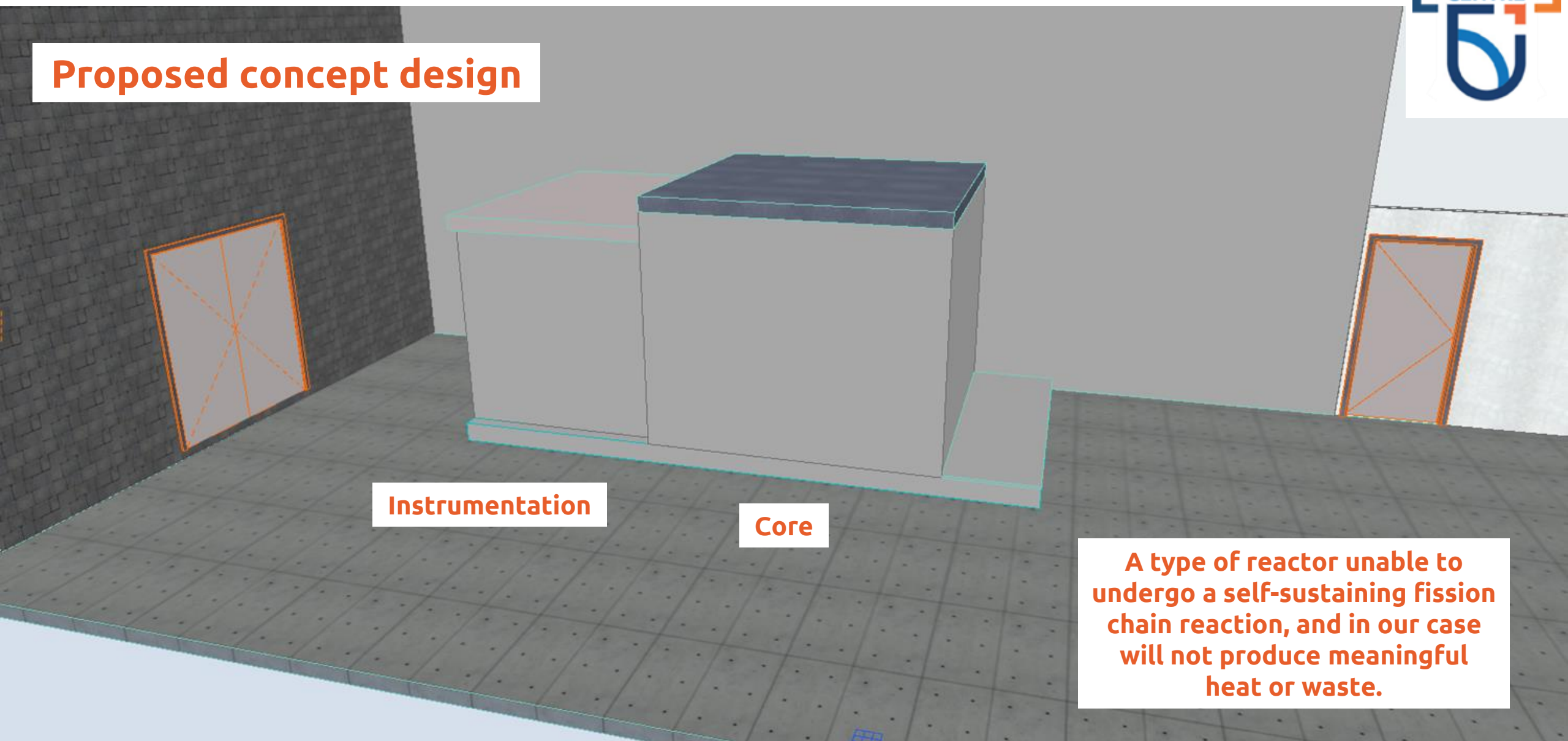
Significant federal funding recently awarded to support SMR deployment in Canada

Cs-137 irradiator
(12.4 TBq category 2 source)



New Research Capabilities

Proposed concept design



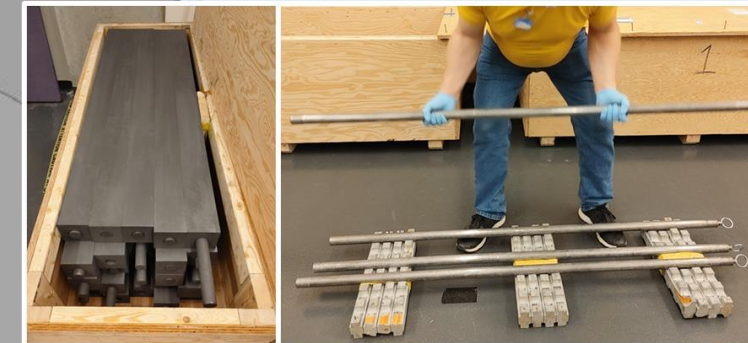
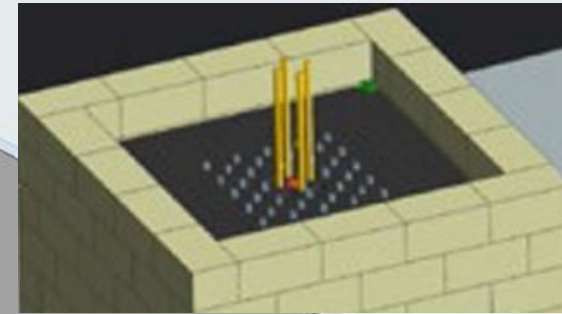
Instrumentation

Core

A type of reactor unable to undergo a self-sustaining fission chain reaction, and in our case will not produce meaningful heat or waste.

Subcritical Assembly Project (under development)

Proposed concept design



Graphite

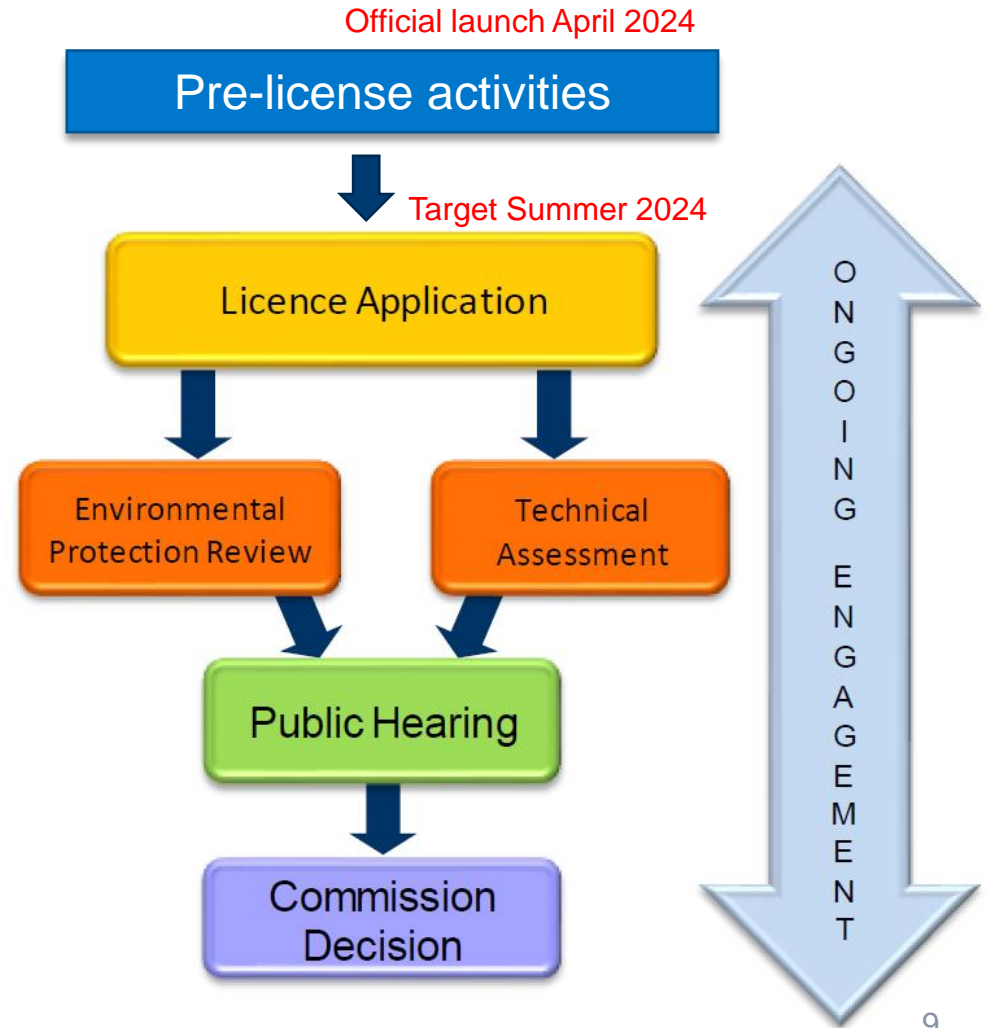
Natural uranium fuel

<https://ontariotechu.ca/subcritical/>

Subcritical Assembly Project (under development)

Canadian Nuclear Safety Commission - Licensing Process

- Currently in the preliminary planning stage of pre-license activities with many steps ahead.
- An operating license is required from the CNSC to operate the device.
 - In accordance with their graded approach, one license incorporating all necessary aspects of EA, preparing site, construction and operation will be sought.
- Commission will consider our application at a public hearing. Public has opportunity to participate.
- Participation by Indigenous representatives and the public is highly encouraged.



Engagement

Over 100 specific engagements undertaken, so far, for the subcritical assembly project (class 1A licence application)



Rama First Nation
Pow Wow

Point of contact:

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Shape the future of nuclear energy with us!

Ontario Tech University is at the forefront of innovation, elevating nuclear education, training, and research.

Join our global collaboration with industry, communities, academia, and government partners to advance sustainable nuclear technology and ensure universal access to clean energy and advanced medicine.

Partner with us for a cleaner, brighter future!