

UMass Lowell Radiological Sciences Program



Introduction: Facility History

In the late 1950s, a decision was made to establish a Nuclear Center at what was then called Lowell Tech.

It's purpose was to train scientists and engineers in the nuclear sciences and to serve as a research center; a Van de Graaff accelerator and a nuclear reactor would serve as the cornerstones of the center.

Construction began in the summer of 1966.

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Introduction: Facility History

The accelerator was put into service in 1970. The U.S.N.R.C. issued a license to operate at one megawatt on December 24, 1974.



The reactor was taken critical on January 2, 1975.

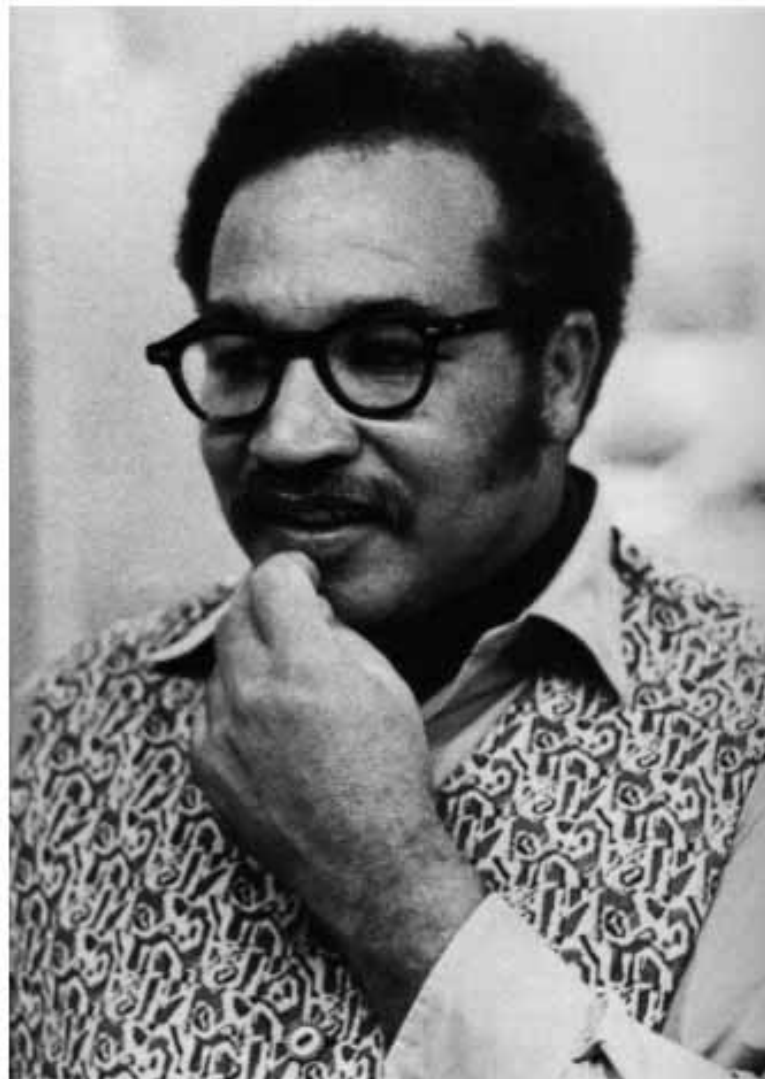
Ed Alexander – Founding Father



Kenneth Skrable



Jesse Harris



George Chabot



Anthony Liuzzi



Current Faculty



Radiological Sciences Program

241 B.S. Degrees Awarded (1973 – 2007)

287 M.S. Degrees Awarded (1975 – 2007)

37 Ph.D. Degrees Awarded (Physics 1985 - 2007)

1 Ph.D. Degree Awarded (BMEBT 2006 - 2007)

565 Degrees Awarded

449 Total Alumni

80 Plenary Certified Health Physicists

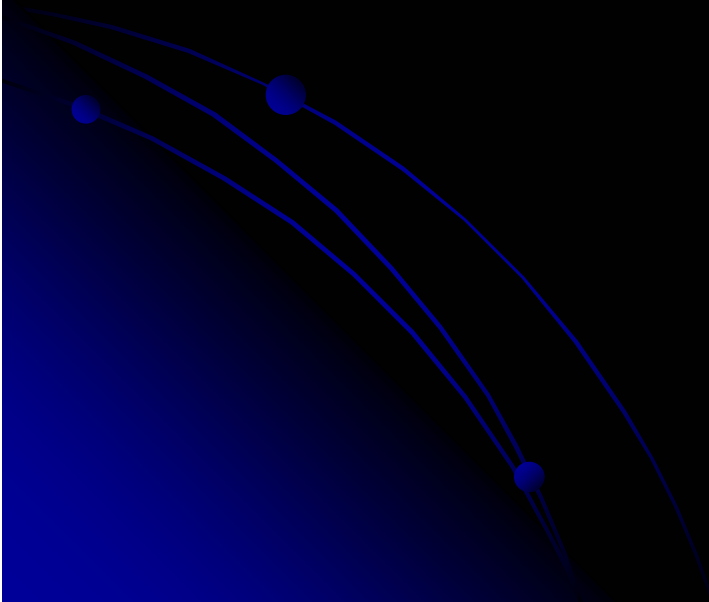
Enrollments

11 Undergraduates

25 M.S. students

16 Ph.D. students (Physics/Rad Sci)

6 Ph.D. students (BMEBT)



B.S. Curriculum

Physics I, II, III, Modern Physics + Labs

Calculus I, II, III, Differential Equations

Chemistry I, II + Labs

Probability & Statistics

Laboratory Automation Lab

Biology I, II

Anatomy & Physiology + Labs

Mathematical & Numerical Methods for Rad. Sciences

• Radiation Biology

Nuclear Instrumentation Lab

Radiation Safety & Control I, II + Labs

Health Physics Internship

General Education Courses

M.S. Curriculum

B.S. requirements plus:

External Radiation Dosimetry & Shielding

Internal Dosimetry & Bioassay Assessment

Graduate Seminars

Research Thesis or Project



Ph.D. Physics/Rad.Sci. Curriculum

M.S. requirements plus:

Mechanics

Electricity & Magnetism

Quantum Mechanics

- Nuclear Physics

Mathematical Methods of Physics

Ph.D. Research

Ph.D. BMEBT Curriculum

M.S. Requirements plus:

Biomedical Engineering & Biotechnology

Advanced Cellular & Molecular Biology

Quantitative Physiology

Bioethics

Specialty Courses in Medical Physics or
Radiological Sciences

Ph.D. Research

Strategies for Student Recruitment and Retention

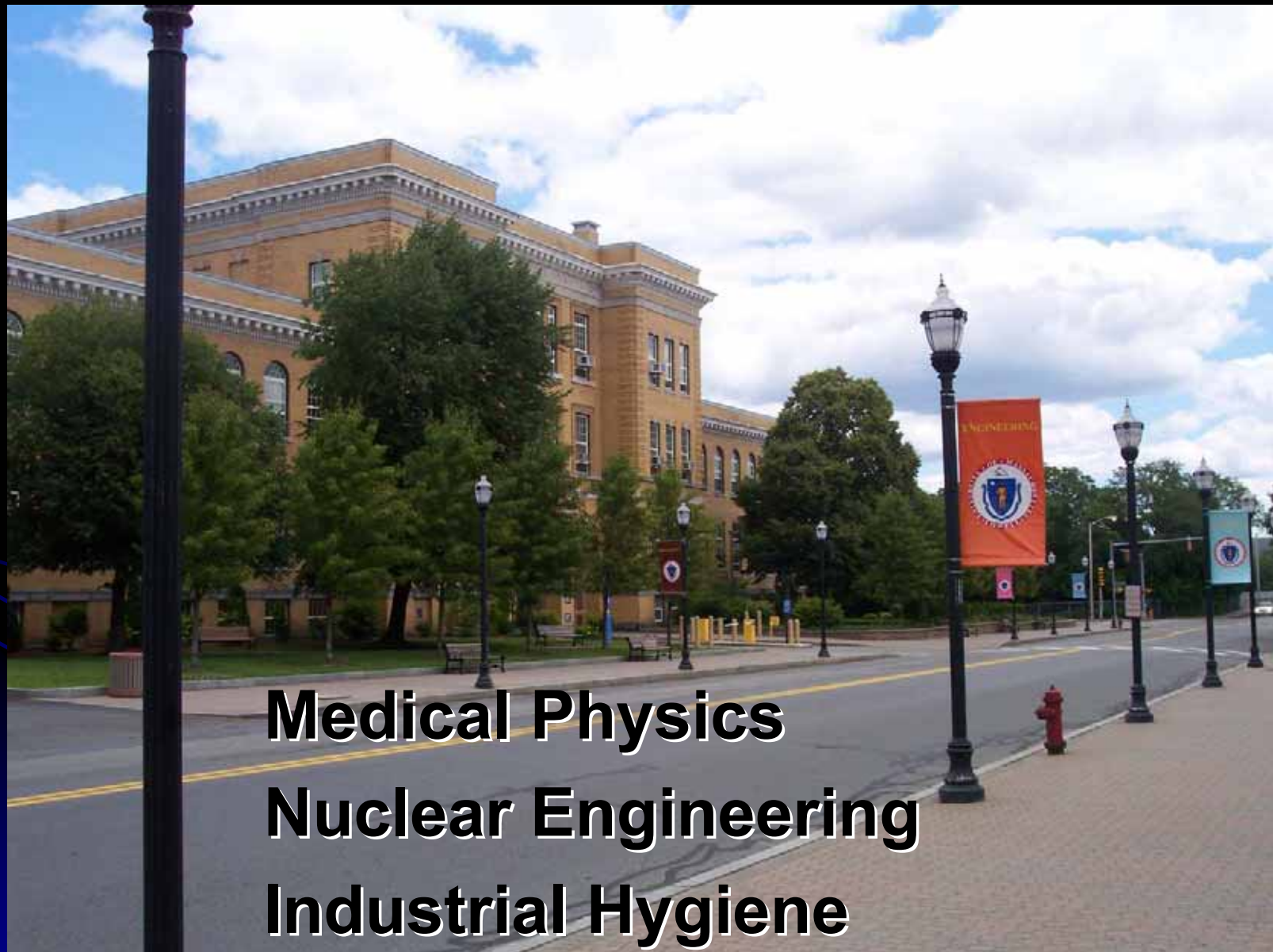
Undergraduate Program:

- Community College and H.S. Outreach
- Promotion by Alumni
- Northeast Regional Compact

Graduate Students:

- TA/RA Support
- Scholarships/Fellowships
- Time Shifting Classes
- Elective Courses
- Graduate Certificate Program
- Off-Campus Research

Competition with Related Fields



Medical Physics
Nuclear Engineering
Industrial Hygiene

Physical Improvements



Prospectus

WELCOME CHANCELLOR MARTY MEEHAN

On his first day

Monday, July 2

New Faculty?

Accreditation?

Administrative Support?

