Instructor: Prof. Michael Thoennessen
Office location: W209 Cyclotron
Office hours: by appointment
Contact information: tel.: off-campus 333 6323
on-campus 5-9672 ext 323
email: thoennessen@nscl.msu.edu
Meeting times: 10 sessions, Thursdays 3:00-4:20pm
Location: Cyclotron, Nuclear Seminar Room
Attendance Required
Assignment: Active Participation and Identifying and Addressing Nuclear Misconceptions
Grading: P/N
<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan. 12</td>
<td>Introduction, “The Nucleus Factory”</td>
</tr>
<tr>
<td>2</td>
<td>Jan. 19</td>
<td>Tour of the Cyclotron</td>
</tr>
<tr>
<td>3</td>
<td>Jan. 26</td>
<td>General overview</td>
</tr>
<tr>
<td>4</td>
<td>Feb. 2</td>
<td>Why produce rare isotopes</td>
</tr>
<tr>
<td>5</td>
<td>Feb. 23*</td>
<td>An actual experiment in action</td>
</tr>
<tr>
<td>6</td>
<td>Mar. 2</td>
<td>How to produce rare isotopes</td>
</tr>
<tr>
<td>7</td>
<td>Mar. 16</td>
<td>Possible practical applications</td>
</tr>
<tr>
<td>8</td>
<td>Mar. 23</td>
<td>Politics of large scale science</td>
</tr>
<tr>
<td>9</td>
<td>Mar. 30</td>
<td>Perceptions and reality of radioactivity and “nuclear”</td>
</tr>
<tr>
<td>10</td>
<td>Apr. 13</td>
<td>Final discussion: How to sell “nuclear”</td>
</tr>
</tbody>
</table>
Typical Questions

- What is a cyclotron?
- Is the cyclotron safe or can it explode?
- Is it radioactive?
- What are rare isotopes?
- Why study rare isotopes?
- Is there any practical use?
- How are the isotopes produced?
- What is it like to work at the “Cyclotron”?
First Assignment

- What do you know about the Cyclotron?
- What was your first impression walking to the seminar room?

Maybe answer the first three questions:
- What is a cyclotron?
- Is the cyclotron safe or can it explode?
- Is it radioactive?
The Nucleus Factory

http://wkar.org/nucleusfactory/

first aired May 2004
Remember Jeff...
He has acting experience
...and more...
Any new questions after the video?

email questions by Tuesday evening to:

thoennessen@nscl.msu.edu