Critical Information Literacies -- FYS: Science & Society

Description:
This class will encourage students to think critically and scientifically about seemingly controversial topics:

- Many Americans get their scientific ‘knowledge’ from popular news sources or non-expert sources:
  - Oversimplify scientific topics that are nuanced and complex
  - Topics are presented as a contentious battle that are filled with uncertainty and open to debate:
- This is not how the scientific method plays out in academic disciplines, nor is it the way that scientists think about their research
  - How does an informed citizen learn to think like a scientist?
  - How can a consumer of medicine, food, policy, and education approach data with understanding and skepticism

Outcomes:

1. **Research as Inquiry:** Research is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field
   a. **Knowledge Practice:** Formulate questions for research based on information gaps
   b. **Disposition:** Value persistence, adaptability, and flexibility, and recognize that ambiguity can be beneficial in the research process

2. **Searching as Strategic Exploration:** Searching for information is often nonlinear and iterative, requiring the evaluation of a broad range of information sources and the mental flexibility to pursue alternate avenues as new understanding is developed
   a. **Knowledge Practice:** Utilize divergent (e.g. brainstorming) and convergent (e.g. selecting the best source) thinking appropriately when searching
   b. **Disposition:** Understand that first attempts at search do not always produce adequate results

Schedule:

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Activity</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 – 12:45</td>
<td>Introduction</td>
<td>Instructor</td>
<td></td>
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<tr>
<td>12:45 – 1:00</td>
<td>Information Searching (Vaccinations MMR)</td>
<td>Student</td>
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<td>1:00 – 1:15</td>
<td>Discussion</td>
<td>All</td>
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<tr>
<td>1:15 – 1:30</td>
<td>Information Searching (GMO/GMF)</td>
<td>Student</td>
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<tr>
<td>1:30 – 1:45</td>
<td>Information Searching Discussion</td>
<td>All</td>
<td></td>
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</tbody>
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Exercise:

1. Watch clip on vaccinations
2. What is the speaker claiming?
3. What “facts” are associated with the claim?
4. Working in groups of 2-3:
   a. Broadly explore the claim
   b. Narrowly explore the facts associated with the claim
   c. Identify other facts associated with the claim
   d. Broadly explore the other facts associated with the claim

Assessment:

1. Three not-for-grade True or False questions