CIVL 1170 / ENVR 1170
Big History, Sustainability and Climate Change

Tuesday and Thursday 1030 – 1150

https://hkust.zoom.us/j/338833509
Zoom Meeting ID: 338 833 509

Instructor:
Alexis LAU (alau@ust.hk)

Please make sure you include the course code 1170 in your subject line when you email us !!!
<table>
<thead>
<tr>
<th>ATTRIBUTES</th>
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<tbody>
<tr>
<td>Common Core (S&amp;T) for 2010 &amp; 2011 3Y programs</td>
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<td>Common Core (S&amp;T) for 2012 3Y programs</td>
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<td>Common Core (S&amp;T) for 4Y programs</td>
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<table>
<thead>
<tr>
<th>DESCRIPTION</th>
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<tr>
<td>Big History as an emerging interdisciplinary framework, provides a long term perspective to see the world through reconstructing the history from the big bang all the way to the present. In such a longer time scale, overview of stars, planetary and species evolution, as well as concepts in climate change and how it is related to sustainability of the planet's environment for its current inhabitants, including humanity, will be discussed.</td>
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<td>The physical science basis, impacts, risk, mitigation and adaptation measures of climate change will also be investigated (including technical and social solutions). For local and regional vulnerabilities, such as extreme weather events, sea-levels rise, storm surge and coastal flooding, will be covered.</td>
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<td>The significance of collective learning under the big history framework, both as a driver for our exponentially growing impacts, as well as for better solutions, will be highlighted.</td>
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Assessment (2020)

- Two 1.5-hour lectures per week
- Instructor: Alexis Lau (alau@ust.hk)
- Class Quiz given in class using iPRS
- Online Mid-term during class time, MC or TF (30%)
- Essays and Group Poster submit through turnitin.com (40%)
- No Final Exam
- Mark penalty will be incurred for late essay / poster submission (deduct 20% for that assignment per day).
## Essay Expectations / Marking Rubrics

<table>
<thead>
<tr>
<th>Range (out of 10)</th>
<th>Content</th>
<th>Articulation</th>
<th>Evidence of Reading</th>
<th>Referencing</th>
<th>Presentation, Grammar and Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Comprehensive</td>
<td>New Insights</td>
<td>Exceed Expectation</td>
<td>Comprehensive</td>
<td>Professional</td>
</tr>
<tr>
<td>7, 8, 9</td>
<td>Solid</td>
<td>Solid</td>
<td>Solid</td>
<td>Solid</td>
<td>Good</td>
</tr>
<tr>
<td>5, 6</td>
<td>Average</td>
<td>Average</td>
<td>Fair</td>
<td>Fair</td>
<td>Reasonable</td>
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<tr>
<td>3, 4</td>
<td>Insufficient</td>
<td>Limited</td>
<td>Little</td>
<td>Little</td>
<td>lots of mistakes</td>
</tr>
<tr>
<td>0, 1, 2</td>
<td>Irrelevant</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Poor</td>
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</tbody>
</table>

Plagiarism unacceptable … will get you 0 in the essay and/or “Fail” for the course
Schedule of Topics

- Course Introduction and Overview
- Observed changes in Climate Change (IPCC WG1)
- CC Risk, Adaptation and Mitigation (IPCC WG2 & WG3)
- Other Sustainability challenges
- International and Local Environmental Management Framework
- Will society Collapse?
- Big History Introduction
- Big Bang, Stars and formation of Elements
- Solar system and life on earth
- Sapiens and Collective Learning
- Agriculture and Empires
- Unification of Humankind
- Scientific Revolution
- Modernity and Sustainability Challenges
References

- **Intergovernmental Panel for Climate Change (2014). Climate Change – Summary for Policy Makers for the Fifth Assessment Report.**
  - The Synthesis Report
  - WG II Report - Impacts, Adaptation and Vulnerability.
  - WG III Report - Mitigation of Climate Change.

- **Jared Diamond**
  - *Collapse: How Societies Choose to Fail or Succeed* (2005)

- **David Christian**
  - *Big History: Between Nothing and Everything* (2014)
  - [www.bighistoryproject.com](http://www.bighistoryproject.com)

- **Yuval Noah Harari**
  - *Sapiens: A Brief History of Humankind* (2014)