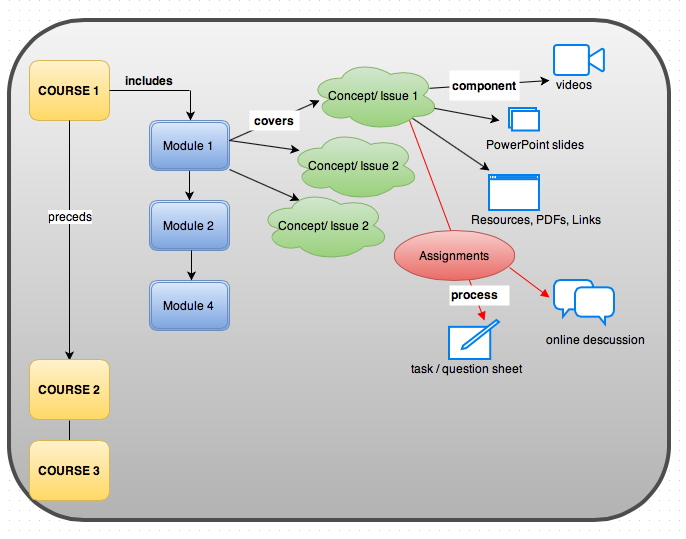
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| --- | --- |
| **Title** | Complex system |
| **Duration (in weeks)** | 1 |
| **Starting / ending week** |  |
| **Key Concepts and Issues** | Interacting parts, environmental issues, transdisciplinary approach |
| **Intended Purpose** | Presentation to the complex systems approach with reference to its meaning and value for the analysis of environmental issues. Discussion of the idea of complex system in relation with its application to economic and social sciences. |
| **Learning Outcomes** | By the end of this module learners will be able:   * to adopt a complex system approach to environmental education involving science, economic and social science |
| **Basic Learning Material** | Power Point Presentation |
| **Additional Learning Material** |  |
| **Educational video** | YouTube channel collecting NICO seminars on complex systems:  <https://www.youtube.com/channel/UC7OtqKhLoQVH2WBnyBpDK1g> |
| **Reading materials** | * Yaneer B.-Y., (2013). Overview: The Dynamics of Complex Systems — Examples, Questions, Methods and Concepts * Cash D. W., et al (2003). Knowledge systems for sustainable development * Brandt P., et al (2013). A review of transdisciplinary research in sustainability science * Kamp I., et al (2003). Urban environmental quality and human well-being Towards a conceptual framework and demarcation of concepts; a literature study * Principles of complex System, University of Vermont   <http://www.uvm.edu/~pdodds/teaching/courses/2013-08UVM-300/content/lectures.html> |
| **Activities** | Read the case study provided for Module 1 (“Cooling off a Warming Planet: Analyzing the Tradeoffs in Policies for Climate Change”).   * Describe which contribution you can give to the analysis according to your disciplinary and academic background (social sciences, humanities, economics, natural sciences, physics, engineering etc.) and explain your choice. * Illustrate the reason why an interdisciplinary or multidisciplinary approach could be relevant in the case study analyzed (complex system). |
| **Checklist** |  |
| **Evaluation** | Assignment grading |

Since there are different ways to lay out the course structure before uploading your document to the online classroom, the following is a prototype that can easily be adapted: