**Republic of the Philippines**



**NEGROS ORIENTAL STATE UNIVERSITY**

**RA 9299 FOUNDED 1907**

**Bayawan – Sta. Catalina**

Founded 1947

**COLLEGE OF ARTS & SCIENCES**

**COURSE SYLLABUS IN**

**SYS 100 (Systems Thinking)**

**2nd Semester, S.Y. 2017 – 2018**

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| **Course Code** | **SYS 100** |
| **Course Title** | **SYSTEMS THINKING** |
| **Course Description** | This course has been defined as an approach to problem solving, by viewing ‘problems’ as parts of an overall system, rather than reacting to specific part, outcomes or events and potentially contributing to further development of unintended consequences. Systems’ thinking is not one thing but a set of habit or practices within a framework that is based on the belief that the component parts of a system can best be understood in the context of relationships with each other systems, rather than isolation. Systems’ thinking focuses on cyclical rather than linear cause and effect. |
| **Contact Hours per Week** | 3 hours |
| **Prerequisite** |  |
| **Course Objectives** | **At the end of the semester, the student will be able to:**   1. analyze the lesson and the case study as an individual/group; 2. present the solution in class; 3. facilitate discussion; 4. develop a casual loop diagram; 5. develop a reinforcing loop; 6. create a balancing loop and evaluate its significance |

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| **COURSE OUTLINE AND TIMEFRAME** | |
|  | **Course Content / Subject Matter** |
| **Week 1** | **Lesson 0: Introduction** |
| **Week 2** | **Lesson 1 Natural System: Global Warning** |
| **Week 3** | **Lesson 2: Healthy System Obesity Epidemic** |
| **Week 4** | **Lesson3: Economic Systems Great Depression** |
| **Week 5** | **Lesson 4: Security System International Terrorism** |
| **Week 6** | **Lesson 5: Social System Poverty** |
| **Week 7** | **Lesson 6: Political System Corruption** |
| **Week 8** | **Lesson 7: Human System Overpopulation** |
| **Week 9** | **Lesson 8: Labor System Unemployment** |
| **Week 10** | **Lesson 9: Marketing Systems False Advertising** |
| **Week 11** | **Lesson 10: Financial Systems Bankruptcy** |
| **Week 12** | **Lesson 11: Operation Systems Product Recall** |
| **Week 13** | **Lesson 12: Human Resource System Layoff** |
| **Week 14** | **Case Study** |
| **Week 15** | **Case Study** |
| **Week 16** | **Case Study** |
| **Week 17** | **Case Study** |
| **Week 18** | **FINAL EXAMINATION-Submission of outputs** |

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| **Required Readings** | Materials are owned by the BPA/P Business Processing Association Philippines |
| **Suggested Readings and References** | Materials are owned by the BPA/P Business Processing Association Philippines |
| **Course Requirements** | At the end of semester, the learners are to comply the requirements on:   1. Attendance 2. Project 3. Oral Participation and Assignments 4. Quizzes 5. Major Examinations (Midterm and Final) |
| **Grading System** | The learners are graded according to the following criteria:   1. Attendance ------------------------------------------------- 10% 2. Project ------------------------------------------------------ 10% 3. Oral Participation and Assignments ----------------- 10% 4. Quizzes (Outputs) --------------------------------------- 30% 5. Major Examinations (Midterm and Final) ---------- 40%   (Case Study Outputs**)**  **TOTAL -------------------------- 100%**  Computation of Grade: 50% of Midterm Period Grade + 50% of Final Grade Period = SEMESTRAL GRADE  Passing Grade is 75% = 3.0. |
| **Classroom Policies** | **Attendance, Assignments and Submission Policies.** Students are required to observe attendance in the class as monitored in the School Register Form. Assignments and their submission must be on time as announced as scheduled in the class sessions.  **Uniform and Decorum.** Students are deemed accountable to follow the “Damn Psychology of Clothing” and the “RESPECT the 6 Cs” as campaigned in the class through posters.  **Academic Dishonesty.** All forms of dishonesty as indicated as ideal class rules in the basic and higher education is automatically equivalent to a failing grade of the academic exercise.Plagiarism if automatic “Failed” in an output.  **Disability Accommodation.** Persons with physical/ learning disabilities are requested to see the Professor within the first two weeks of the semester. A doable strategy is designed by both the Professor and student throughout the semester. Have an appointment with the Professor for his/ her consultation time.  **Gender and Development.** All oral and written communication output/ class interaction are required to observe the use of gender sensitive language.  **Harassment and Discrimination.** The course prohibits discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, and genetic information. Any student who has concerns about such behavior should the Professor.  **Religious Accommodation.** In the academic work in the class, everybody is required to refrain conflicts with student’s religious practices and/ or observances. For an exemption, the student may request reasonable accommodations. This request must be in writing, and the Professor will review the request and this may even seek for assistance from the Dean. |
| **Consultation Hours** | **08:00-10:00am Monday**  **02:00-05:00pm Wednesday** |
| **About the Instructor** | **Eugene S. Pabol**  **E-mail Address: eugene.norsubsc@gmail.com**  **Facebook Account: https://www.facebook.com/eugenepabol**  **Cellphone No: (+63)9269204268** |

**Note:**

1. **This syllabus is subject for revision and adjustment for whatever supplemental activities the faculty may find necessary as the course progresses.**
2. **The instructor shall conduct remedial classes for students who do not meet the minimum requirements for the course.**
3. **The instructor shall accommodate students with special needs and will assist them to finish the course.**

**Last Revised during the 2nd Semester of S.Y. 2017 – 2018.**

**Prepared by: Reviewed by: Approved by:**

**EUGENE S. PABOL, BSCS FRANCO T. ABEQUIBEL, MSIT ALBERTC. ALBINA, Ph.D. LIZA J. CABALLERO, Ed.D.**

Instructor Department Chair Dean, CAS Asst. Campus Admin. for Academics

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**LEARNING PLAN IN**

**SYS 100 (Systems Thinking)**

**2nd Semester, S.Y. 2017 – 2018**

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| **Desired Learning Outcomes (DLO)** | **Course Content /**  **Subject Matter** | **Textbooks / References** | **Teaching and Learning Activities (TLA)** | **Assessment Task (AT)** | **Resource Materials** | **Time Table** |
| At the end of the lesson, the students must have:   1. gathered the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. follow the steps in preparing the presentation of the problem. | **Introduction to Systems Thinking** | Materials are owned by the BPA/P Business Processing Association Philippines | Student oral reports  Facilitation of assigned topics  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop and LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance. | **Lesson 1:**  **Natural System: Global Warming** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance. | **Lesson 2:**  **Healthy System Obesity Epidemic** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance. | **Lesson3:**  **Economic Systems Great Depression** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 4:**  **Security System International Terrorism** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 5:**  **Social System Poverty** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 6:**  **Political System Corruption** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 7:**  **Human System Overpopulation** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 8:**  **Labor System Unemployment** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 9:**  **Marketing Systems False Advertising** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 10:**  **Financial Systems Bankruptcy** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 11:**  **Operation Systems Product Recall** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Lesson 12:**  **Human Resource System Layoff** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 3  Hours |
| At the end of the lesson, the students must have:   1. validated the variables, 2. measured the variables into frequency, volume, intensity, and etc.; 3. showed the relationship (Connecting the variables)/developed the causal loop; 4. developed reinforcing loop, and; 5. created balancing loop and evaluate its significance | **Case Study** | Materials are owned by the BPA/P Business Processing Association Philippines | Brainstorming  Student oral reports  Facilitation of assigned topics  Library research on topics & problems  Question-  generation  strategies | Individual/ group  Presentation of reports/ outputs | Laptop  LCD Projector  Instructor as aid in teaching  Use of Chalkboard/Whiteboard as aid in teaching  Use of slides  Use of educational videos  Manila paper/Cartolina | 15  Hours |

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