

## Sample Lesson Plans

### 50-minute Comparative Literature class on Rachilde's novel *The Juggler*.<sup>1</sup>

#### Objectives for student learning:

Students will be able to ...

1. Place the novel and its protagonist within the context of Rachilde's life and literary career.
2. Identify and analyze the "decadent" connections between Baudelaire and Rachilde.

#### On board:

Rachilde: Marguerite Emery Vallette (1860-1953)

"Mademoiselle Baudelaire"

Over 60 published works:

*Monsieur Vénus* (1884); *La Jongleuse/The Juggler* (1900, 1982 reprint, 1990 translation)

#### 1. Announcements and reminders (5 minutes)

#### 2. Introduce the novel (10 minutes)

##### 2.1. Prompts (5 minutes):

Poll: "How many read the introduction to the novel?" "Has anyone heard of Rachilde before?"

*If many students have read it:*

- "What was interesting, curious, or unexpected about the author?"
- "What are some connections between Rachilde's life and what you have seen in the novel so far?"

*If just a couple or no one has read it:*

- "The novel is said to be somewhat autobiographical: from reading the first fifty pages, what can you surmise about Rachilde's life?"
- "Why do you think she was called 'Mademoiselle Baudelaire'?"

##### 2.2. Connect novel and author through a short lecture on Rachilde's biography (5 minutes)

#### 3. "Decadent" connections between Baudelaire and Rachilde (20 minutes)

**3.1. Discussion:** "What are some key images we have seen in Baudelaire's poems that also appear in the novel?" (list images on board; e.g. make up, costumes, hair, Creole...) (5-7 minutes)

##### 3.2. Group activity (5 minutes):

Split class into groups of 4 or 5; assign roles: one note taker, one reporter. Assign one image to each group and ask them to look for specific examples in the text of that image and answer the question: "How is Rachilde using this Baudelairean image in the text? And to what effect?" (write questions on board)

##### 3.3. Class debrief of group work (8-10 minutes)

#### 4. Check for understanding (10-12 minutes)

**4.1. Discussion:** "So how can we understand Rachilde's nickname 'Mademoiselle Baudelaire'? As praise, irony, condemnation?" (If no time, ask students to write for a minute, then discuss answers next time.)

#### 5. Sum up main points and preview next class (the question of love in the novel) (3-5 minutes)

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<sup>1</sup>Submitted by Stiliana Milkova, CRLT

## Sample Lesson Plans Continued

### 80-minute Biology discussion on “prokaryote gene regulation”<sup>2</sup>

#### Goal for student learning:

To identify the structure and regulation mechanism of the lac operon and trp operon by using a role-play activity.

#### Materials:

Lecture and discussion notes.

#### 1. In-class quiz on previous three lectures (5 min).

#### 2. Review and role-play set-up (20 min).

**2.1 Review the *structure* of the lac and trp operon (7 min).** Draw the structure on the board for reference and review the biological process and regulation of lac operon.

**2.2 Ask the students to come to the board *in pairs* to complete the figure with important component molecules (5 min).**

- If the students can successfully draw the pathway, ask another student to talk through the pathway again.
- If the students have difficulty drawing the pathway, the other students or the GSI could help them to figure out the pathway.

**2.3 Review the trp operon mechanism (8 min).**

- Ask students to work in groups of 3-4 people each for 5 min to talk through how this operon is being regulated while referring to the structure on the board. (Instructions: discuss how the trp operon responds to environment with/without tryptophan, what proteins are involved, and how they interact with each other).
- To debrief, ask someone to talk through the trp operon mechanism (3 min).

#### 3. Check for Understanding: Play the “Lac Operon” role-play (45 min).

**3.1 Introduce the lac operon and trp operon role-play activity and explain the process (5 min).**

Assign the roles of different molecules to volunteer students who will be the “actors,” while all the other students will be the “directors” of the play.

**3.2 Role-play (15 min):** The “actors” play the dynamic regulation of the lac operon, and the “directors” judge whether they play a functional lac operon or not. Change the environmental conditions, play the responses of the lac operon again (10 min). If time permits, repeat for the trp operon. (5min)

**3.3 Group Discussion (10 min): As a large group, discuss the following questions:**

- What are the ways to improve the play by better representing the regulation of the pathway?
- How would one exhibit specific versus non-specific interactions?
- What other responses will be stimulated under other conditions, such as mutations?

**3.4 Students discuss remaining exercise questions in small groups (15 min).**

- Sample exercise question: *What do you think would happen in each of the following?*
- An E.coli missing a functional lacZ gene.
- An E.coli missing a functional lacI gene.
- An E.coli in which the repressor molecule no longer can bind lactose.

**4. Summarize the discussion and any remaining questions (10 min).**

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<sup>2</sup>Submitted by Yaxuan Yang, Molecular, Cellular & Developmental Biology as a sample lesson from Bio 172 (under the direction of Dr. Kenneth Cadigan)

## Sample Lesson Plans Continued

### 50-minute Comparative Politics Class on Modernization Theory<sup>3</sup>

#### Objectives for student learning:

Students will be able to ...

1. Analyze and discuss practical implications for contemporary political issues in light of modernization theory.
2. Solve game theoretic models related to modernization theory.

#### Materials:

- PowerPoint Slides
  - Handout of images from: Kashi, E. 2008. *Curse of the Black Gold: 50 Years of Oil in the Niger Delta*. New York: powerHouse Books.

#### Agenda:

1. **Review Economic Determinants of Democracy Theories – Think-pair-share (10 minutes)**  
 Show students PowerPoint slide of Figure 6.2 from textbook depicting “Proportion of Democracies at Various Levels of Wealth, 1950-1990”.
  - Think: Ask students to write a minute-paper about what this figure illustrates about the relationship between wealth and democracy. Ask them to write out the variants of modernization theory that explain this relationship as they recall them from the textbook.
  - Pair: Have them pair with a neighbor to discuss their reflections.
  - Share: Debrief with whole class by asking for 2-3 students to share some of the highlights of their conversation.
2. **Game Theoretic Model Illustration – Large group discussion (10 minutes)**  
 Display PowerPoint slide of Figure 6.8 from text, which illustrates an extensive form game between the state and the citizen. Solve the game together as a class. Discuss the following: Given the Nash Equilibrium solution to this game, what can we conclude about the relationship between wealth and democracy?
3. **Case Study Discussion – Large group discussion (5 minutes)**  
 Show PowerPoint slide of the book jacket image from the novel “Les Miserables.” Ask class the following discussion questions:
  - What did the text argue was the key difference between England and France in the 17th Century? How does this case study relate to modernization theory?
4. **Implications of the Theory – Small group exercises (20 minutes)**
  - 4.1. “Resource Curse” implications (15 minutes):  
 Put up PowerPoint slide with the following instructions:
    - First, I will give you each one of four photographs with a caption (a quotation or a poem) from “Curse of the Black Gold.” I’d like you to free write about how your photograph relates to the variant of modernization theory we just discussed. (2 minutes)
    - Second, join into groups with 4 people who each should have a different photo than you do. Take turns presenting your photo to the whole group. (6 minutes)
    - Finally, regroup with those who have the same photo as you. Take a few minutes to compare your ideas. Each group will present their key points to the entire class. (7 minutes)
  - 4.2. Foreign aid implications (5 minutes):  
 Discuss “What about foreign aid? According to this theory, does foreign aid to governments help or hurt their citizens living in poverty?”
5. **Summary activity – Think-pair (5 minutes)**  
 Display final PowerPoint slide with the following directions:  
 What are the key points of this unit? Write down what you see as the three most important concepts introduced, and in one sentence, explain why these concepts are significant.  
 Compare with a partner.

<sup>3</sup>Submitted by Laura Schram

## Sample Lesson Plans Continued

### 50-minute Civil Engineering discussion on reading plans & specifications<sup>4</sup>

#### Objectives for student learning:

Students will be able to:

1. Compare the features of Plans and Specifications.
2. Analyze and discuss the relationship between these two documents with others.

#### 1. Announcements and reminders (5 minutes)

#### 2. Introduce Assignment 1—Class discussion (10 minutes)

- Pose the following questions to stress the importance of Assignment 1's components:
  - Why is the “General Description” in the specifications?
  - What is the recap sheet? What does it tell us about this project?
  - If the plans and the specifications conflict, what happens?

#### 3. Introduction to reading Plans & Specifications—Small group discussion (10 minutes)

- Form students into groups of four people. Provide the same set of drawings for each group.
- Review the structure of information in the plans. Remind students that information is arranged from the most general to the most specific.
- Assign each group a particular subcategory (i.e., civil, architectural, structural, etc.) so they can practice reading these documents.
  - Ask each group to identify all information that is relevant to their subcategory.
  - Ask each group to select one student to present a summary of their subcategory to the class.

#### 4. Analysis of Plans & Specifications—Jigsaw Exercise (15 minutes)

- Divide students into pairs of two or three.
- For students with Plans, students are to write answers on a handout to the following questions:
  - On what sheet might you find: General information describing the project property?
  - Identify a center line: Where might you find this?
  - Identify a hidden line: What might this represent?
  - Find a section cut on sheet 4: Where does this lead you to? What is this showing?
- For students with Specifications, write answers on a handout to the following questions:
  - Identify the four subcategories of the “finishes” division.
  - Identify the strength of concrete required. Why is it important that the concrete strength is specified?
  - Identify three types of concrete finishing described. Why are there three different types?
  - Choose a division of your own interest. Do the specifications help you understand it?
- Arrange students into groups such that each pair has one person who worked on plans and the other person who worked on specifications. Students are to describe their answers to each other.

#### 5. Reflection —Think-Pair (5 minutes)

- Ask students to think individually about what process helped them find information and what parts of the plans and specifications they found confusing.
- Have students pair with a new partner and discuss their thoughts regarding the above questions.

#### 6. Summarize the lesson and answer student questions (5 minutes)

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<sup>4</sup>Submitted by Branden Clements, Civil and Environmental Engineering as a sample lesson adapted from CEE 431 (under the instruction of Professor Sang Hyun Lee)