

# CWSEI Teaching Practices Inventory

*For use in natural and social sciences*

To create the inventory we devised a list of the various types of teaching practices that are commonly mentioned in the literature. We recognize that these practices are not applicable to every course, and any particular course would likely use only a subset of these practices.

We have added places that you can make additions and comments and we welcome your feedback.

It should take only about 10 minutes to fill out this inventory.

Please fill out the inventory for the current or just completed Term, Lecture sections only.

Course number: \_\_\_\_\_  
Section #(s) or Instructor name: \_\_\_\_\_  
Total number of students in **sections**  
**you taught your class or section**  
(approximate): \_\_\_\_\_

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## I. Course information provided to students via hard copy or course webpage. (check all that occurred in your course)

- List of topics to be covered
- List of topic-specific competencies (skills, expertise, ...) students should achieve (what students should be able to *do*)
- List of competencies that are not topic related (critical thinking, problem solving, ...)
- Affective goals – changing students' attitudes and beliefs (interest, motivation, relevance, beliefs about their competencies, how to master the material)
- Other (please specify)

If you selected other, please specify \_\_\_\_\_

## II. Supporting materials provided to students (check all that occurred in your course)

- Student wikis or discussion boards with little or no contribution from you.
- Student wikis or discussion boards with significant contribution from you or TA.
- Solutions to homework assignments
- Worked examples (text, pencast, or other format)
- Practice or previous year's exams
- Animations, video clips, or simulations related to course material
- Lecture notes or course ~~Powerpoint~~ PowerPoint presentations (partial/skeletal or complete)
- Other instructor selected notes or supporting materials, pencasts, etc.
- Articles from related academic/scientific literature
- Examples of exemplary papers or projects
- Grading rubrics for papers or large projects
- Other (please specify)

If you selected other, please specify \_\_\_\_\_

### III. In-class features and activities

#### A. Various

Give approximate average number:

Average number of times per class: pause to ask for questions \_\_\_\_\_

Average number of times per class: have small group discussions or problem solving \_\_\_\_\_

Average number of times per class: show demonstrations, simulations, or video clips \_\_\_\_\_

Average number of times per class: show demonstrations, simulations, or video where students first record ~~predictions~~  
~~predicted behavior (write down, etc.)~~ and then afterwards explicitly compare observations with predictions \_\_\_\_\_

Average number of discussions per term on why material useful and/or interesting from students' perspective \_\_\_\_\_

Comments on above (if any): \_\_\_\_\_

Check all that occurred in your course:

- Students asked to read/view material on upcoming class session
- Students read/view material on upcoming class session and complete assignments or quizzes on it shortly before class or at beginning of class
- Reflective activity at end of class, e.g. "one-minute paper" or similar (students briefly answering questions, reflecting on lecture and/or their learning, etc.)
- Student presentations (verbal or poster)

Fraction of typical class period you spend lecturing/talking to whole class (presenting content, deriving mathematical results, presenting a problem solution, ...)

- 0-20%
- 20-40%
- 40-60%
- 60-80%
- 80-100%

Considering the time spent on the major topics, approximately what fraction was spent on the *process* by which the theory/model/concept was developed, including the experimental methods and results that support specific theories?

- 0-10%
- 11-25%
- more than 25%

**B. Personal Response System (PRS) Individual Student Responses (ISR)**

If a student response ~~system method~~ is used to collect responses from all students IN REAL TIME IN CLASS, what method is used? (check all that occurred in your course)

- ~~raising hands~~
- ~~raising colored cards~~
  - electronic (e.g. "clickers") with student identifier
  - electronic anonymous
- ~~colored cards~~
- ~~raising hands~~
  - written student responses that are collected and reviewed in real time
  - Other (please specify)

If you selected other, please specify \_\_\_\_\_

Number of ~~PRS-ISR~~ questions posed followed by student-student discussion per class \_\_\_\_

Number of times ~~PRS-ISR~~ used as quiz ~~device~~ (counts for marks and no student discussion) per class  
\_\_\_\_\_

**IV. Assignments (check all that occurred in your course)**

- ~~Homework/p~~ problem sets/~~homework~~ assigned or suggested but did not contribute to course grade
- ~~Homework/problem sets~~ ~~Problem sets/homework~~ assigned and contributed to course grade at intervals of 2 weeks or less
  - Paper or project (an assignment taking longer than two weeks and involving some degree of student control in choice of topic or design)
  - Encouragement and facilitation for students to work collaboratively on their assignments
  - Explicit group assignments
  - Other (please specify)

If you selected other, please specify \_\_\_\_\_

**V. Feedback and testing; including grading policies (check all that occurred in your course)**

**A. Feedback from students to instructor during the term**

- Midterm course evaluation
- Repeated online or paper feedback or via some other collection means such as clickers
- Other (please specify)

If you selected other, please specify \_\_\_\_\_

**B. Feedback to students (check all that occurred in your course)**

- Assignments with feedback ~~from instructor, teaching assistant, or peer~~ before grading \_\_\_\_\_ or with opportunity to redo work to improve grade
- Students see graded assignments
- Students see assignment answer key and/or grading rubric
- Students see graded midterm exam(s)/~~quizzes~~
- Students see midterm exam(s)/~~quizzes~~ answer key(s)
- Students explicitly encouraged to meet individually with you
- Other (please specify)

If you selected other, please specify \_\_\_\_\_

**C. Testing and grading**

Number of ~~midterm exam~~ tests during term \_\_\_\_\_  
that reflect course expectations (e.g. midterm exams, but not final exams)

Approximate fraction of ~~exam test mark~~ \_\_\_\_\_ %  
scores from questions that required students to explain reasoning

Approximate breakdown of course ~~mark grade~~ \_\_\_\_\_ (% in each of the following categories)

- Final exam \_\_\_\_\_ %
- Midterm/~~other~~ exam(s) \_\_\_\_\_ %
- Homework assignments \_\_\_\_\_ %
- Paper(s) or project(s) \_\_\_\_\_ %
- In-class activities \_\_\_\_\_ %
- In-class quizzes \_\_\_\_\_ %
- Online quizzes \_\_\_\_\_ %
- Participation \_\_\_\_\_ %
- Lab component \_\_\_\_\_ %
- Other \_\_\_\_\_ %
- If you selected other, please specify: \_\_\_\_\_

**VI. Other (check all that occurred in your course)**

- Assessment given at beginning of course to assess background knowledge
- Use of instructor-independent pre-post test (e.g. concept inventory) to measure learning
- Use of a consistent measure of learning that is repeated in multiple offerings of the course to compare learning
- Use of pre-post survey of student interest and/or perceptions about the subject
- Opportunities for students' self-evaluation of learning
- Students provided with opportunities to have some control over their learning, such as choice of topics for course, paper, or project, choice of assessment methods, etc.
- New teaching methods or materials were tried along with measurements to determine their impact on student learning

**VII. Training and guidance of Teaching Assistants (check all that occurred in your course)**

- No TAs for course
- TAs must satisfy English language skills criteria
- TAs receive 1/2 day or more of training in teaching
- There are Instructor-TA meetings every two weeks or more frequently where student learning and difficulties, and the teaching of upcoming material are discussed.
- TAs are undergraduates
- TAs are graduate students
- Other (please specify)

If you selected other, please specify \_\_\_\_\_

**VIII. Collaboration or sharing in teaching**

- Used or adapted materials provided by colleague(s)
- Used "Departmental" course materials that all instructors of this course are expected to use

**Discussed how to teach the course with colleague(s)**

- 1 Never
- 2
- 3
- 4
- 5 Very Frequently

**Read literature about teaching and learning relevant to this course**

- 1 Never
- 2
- 3
- 4
- 5 Very Frequently

**Sat in on colleague's class (any class) to get/share ideas for teaching**

- 1 Never
- 2
- 3
- 4
- 5 Very Frequently

**IX. General (open-ended comments)**

**Please write any other comments here. If this inventory has not captured an important aspect of your teaching of this course, or you feel you need to explain any of your above answers please describe it here.**

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**Approximately how long did it take you to fill out this inventory?** \_\_\_\_\_

**We thank you for taking the time to fill out this inventory.**