

**Course Evaluation Measures Menu**

**Course number: NRG 202**

**Course title: Photovoltaic Systems II**

**Campus location(s): Dover, Stanton**

**Effective semester: 2023 51**

**Core Course Performance Objectives**

1. Engage in professional behavior. (CCC 1, 3, 4, 5)
2. Design and size PV systems for a variety of uses. (CCC 1, 2, 3, 4, 6; PGC 1, 2, 3, 5, 6, 7)
3. Design PV mechanical systems. (CCC 1, 2, 3, 4, 6; PGC 1, 2, 3, 4, 5)
4. Design PV electrical systems (CCC 1, 2, 3, 4, 6 : PGC 1, 2, 3, 3, 5, 6, 7)
5. Prepare a professional technical report based upon a site assessment for a given location. (CCC 1, 2, 3, 4, 6; PGC 4, 5, 6, 7)
6. Explain and determine the economic considerations related to solar energy systems, including state and federal policy mechanisms. (CCC 1, 2, 3, 4, 6; PGC 2, 5)

**Summative Evaluations**

*Please note: All courses must have a* ***minimum******of four*** *summative evaluation measures, and those measures should include a variety evaluation methods (e.g., test, oral presentation, group project).* ***Please list all summative evaluation measures.*** *In addition to these summative measures, a variety of formative exercises/quizzes/other assignments should be used to guide instruction and learning* *but do not need to be included on this template.*

*For each measure, please include a scope of the assignment: for example, if requiring a research paper, include the range of required number of words and numbers and types of sources; for a test, include the types and numbers of questions; for a presentation, include the minimum and maximum time, and so on.*

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| **Evaluation Measures:** Include each agreed upon measure and scope of that measure (see above). | **Which CCPO(s) does this evaluation measure?**  |
| **Quizzes Summative (2-5):** Mixture of multiple choice, short answer, matching, and calculations; 10-30 questions. Quizzes are not weighted equally | **1 - 6** |
| **Project Checkpoints (formative):** These are essentially rough drafts of each section of the final project. This is an opportunity to get feedback on each component of final project. Each checkpoint is weighted differently depending on the scope of assignment. There can be 8-12 checkpoints throughout semester, including a rough draft. Each checkpoint is weighted 1-4% of final grade.  | **2-6** |
| **Final Project, summative:** Final report to be submitted to client. This is technical report which may number 20-40 pages. This should follow NABCEP technical sales requirements.  | **1-6** |
| **Final Presentation, summative:** Presentation to client in final week of the semester. This is likely to be presented as a group. The group presentation should be about 20-30 mins with questions.  | **1-6** |
| **Homework formative:**  Homework worksheets to practice calculations and material covered in class. 4-10 assignments.  | **2-6** |
| **Labs (4 – 10), formative:** Mixture of calculations, short answer, essay; done individually and in groups, depending on the assignment. | **3,4** |

**FINAL COURSE GRADE**

(Calculated using the following weighted average)

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| **Evaluation Measure** | **Percentage of final grade** |
| Summative: Quizzes | 15% |
| Formative: Project Checkpoints | 30% |
| Summative: Final Paper | 20% |
| Summative: Final Presentation | 10% |
| Formative: Labs | 10% |
| Formative: Homework | 15% |
| TOTAL | 100% |

(Electronic Signature Permitted)

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| **Submitted by (Collegewide Lead):** |  |  |  |
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| **[ ]  Approved by counterparts** |  |  |  |
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| **[ ]  Reviewed by Curriculum Committee** | **Date** |  |