Variate Student Guide

Accessing Variate from Brightspace

1. **Open** a web browser, **navigate** to purdue.brightspace.com, and **log in** using your Purdue Career Account credentials**.**

2. **Open** the course that will be using Variate. Depending upon how your instructor set up the course, you may find a 'Variate' link in the left column or perhaps listed as an assignment in a weekly module. Once you have found the link, **click** on it to open the topic.

3. **Click** the 'Variate' link inside the main window to launch the tool. You will be automatically signed in and taken to your course landing page within Variate.
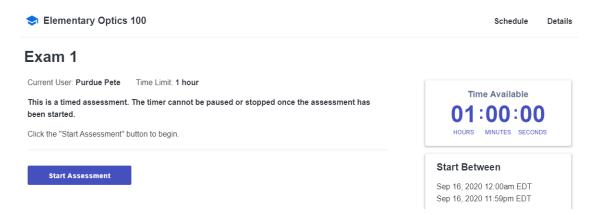

   a. *Note: If you are using Safari and Variate is not set to open in a new window, you will need to switch to another browser like Chrome or Firefox for it to work correctly. If the link is set to open in a new window, Safari will work fine.*

Finding Currently Open Assessments in Variate

1. Once you have launched Variate from your Brightspace course, you will be taken to your course in Variate. There is a list of current, upcoming, and past assessments.

2. **Click** on the name of the assessment you want to work on in the 'Current' section. Note the dates and times during which the assessment is open.

3. Once you have opened the assessment, you may begin working on it.
   a. *Note: You can close and re-open the assessment as many times as you wish while you are working on it and your progress will be saved for you.*

4. **Timed assessments** can be started at any time between the assessment start and due dates, and you have the full length of the timer set by your instructor to complete the assessment. You will then confirm you are ready to start the assessment before the timer begins.

   a. *Note: Closing the window or navigating away from the assessment will **not** pause the timer.*

Answer Entry – How to Enter Your Answers to Problems

1. Variate accepts answers that are numbers, expressions, or multiple choice options depending on how your instructor created the problem. The expected answer type can be found by clicking the ❓ icon next to the answer box. The help window also includes answer input information for the problem type. If the question is multiple choice, the help button is not available.

2. A **virtual keyboard** is available in the answer box to aid in answer entry. To open the keyboard, click on the icon. To dismiss the keyboard, click on the icon again. The options available on the keyboard depend on whether the problem requires a numerical or expression response.
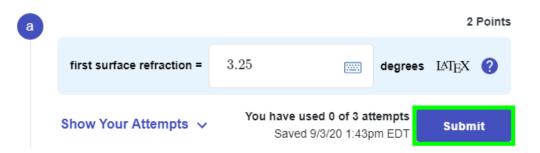

3. For **numerical response problems**, a number written as an integer, a decimal, in scientific notation or E-notation will be accepted as a valid answer.
   a. *Note: If a rounding message appears, be sure to round your answer to the indicated number of decimal points.*

4. For **expression response problems**, variable letters, operators, and functions are accepted as valid inputs as well as numbers. The help window has comprehensive input information, but a few tips for entering expressions are as follows:
   a. Some symbols and operators can be entered via your keyboard. These include the operators +, -, and / (division). Multiplication can be added by hitting the 'x' key twice. Superscripts can be entered using ^ (SHIFT 6), subscripts using the underscore key (SHIFT -). Exponential e can be input by hitting the 'e' key twice.
   b. Some functions are recognized by typed input - these include trig functions and others such as ln, log, and exp.

c. **LaTeX input** is also supported.
    i. To display the supported commands, you can enter command mode by typing \. As you start typing a command, a suggestion box will pop up. You can navigate the suggestion box with the up and down arrow keys. Use the tab key to accept a suggestion.
    ii. You can also click the "LaTeX" button to view and edit the LaTeX directly in a secondary text box.
d. When editing an expression, use the left and right arrows to move the cursor to the desired location.
e. The virtual keyboard includes all accepted inputs and can be used exclusively or in combination with typed input from your keyboard.

Answer Entry – Saving vs. Submitting

1. **Saving** an answer allows you to exit the assessment and re-open it later to continue working. Once you **enter** your answer, it will automatically be saved for you.

2. **Submitting** an answer will send the answer to Variate for scoring. Each time you submit an answer, it will use one of your available attempts. In order to submit your answer for scoring, you will need to **click** the 'Submit' button.

3. When an assessment time ends, any answers that were saved will be **automatically submitted** for scoring.

Correct Answer Feedback from Your Instructor

1. After you **submit** an answer, the feedback you receive may vary depending on your instructor's choice for that problem (or problem part).

2. After you have submitted an answer, you will **receive feedback** about whether that answer was correct or incorrect.

3. In addition to correctness feedback, the exact correct answer may be revealed once you have exhausted your attempt limit or if your answer was within the tolerance the instructor set for grading. This depends on the instructor's setting for that problem (or part).
   a. *Note: If you do receive the correct answer for multi-part problems, be sure to use the provided value as needed for further calculations in the same problem.*

4. If you had started the assessment before it ended, the correct answers will be visible to you after the assessment ends.

Viewing Problem Attempts

1. Each problem (or part for multi-part problems) may either have unlimited attempts or a set number of attempts you can use, as specified by your instructor.

2. For **unlimited attempt** problems (or problem parts), you can submit answers as many times as you would like until you get it correct.

3. For **limited attempt** problems, you may use up to the specified number of answer submissions. After you have reached the attempt limit, you will not be able to submit any more answers to that problem (or problem part).

4. Once you have saved or submitted an answer, you can **click** on the 'Show Your Attempts' link under the problem to show what answers you have entered. They will appear in a list with the most recent at the top. Clicking the 'Hide Your Attempts' link will hide the list.

5. **Saved** answers will have a save icon next to them. Remember, saved answers do **not** count against your attempt limit if there is one.

6. **Submitted** answers will either show that they were Correct or Incorrect. Submitted answers **do** count against your attempt limit if there is one.

Viewing Your Assessment Score and Feedback

1. Once an assessment has passed its due date, you will be able to find the assessment in the 'Past' list on your course landing page in Variate.

2. To view your overall score, correct/incorrect feedback, and correct answers for each problem (or problem part), **click** on the assessment name and scroll through the problems.
   a. The date scores become available to view may be later than the due date of the assessment. The assessment name will become a link at this later time.

3. ***Note:*** *If you did not start the assessment before it ended, you will not be shown any results.*