

# FinTech: Curriculum Writing Assignment

At 2U, we take pride in designing engaging, hands-on courses that can be easily scaled and taught by many different university partners. To accomplish this, we want to ensure that the curriculum we create is:

1. **Teachable** (can an instructor, someone who hasn't written the lesson, teach it with only 1 to 2 hours of prep?)
2. **Instructive** (how much are we showing students today?)
3. **Engaging** (how much engagement or fun are we bringing to class today?)

In this assignment, you will complete a lesson plan writing assignment on a FinTech topic (provided below). You will create three deliverables that demonstrate how you would convey this subject to a class of adult students from a variety of different backgrounds.

## Deliverables

The submission for this assignment should include:

- 1) A **class outline**, in table format using the template provided, that explains how you would structure a single 2-hour class to ensure that the content is taught in an instructive, engaging and teachable way.
- 2) A partial **lesson plan** describing *to instructors* how the class should be run, using the lesson plan template provided.
- 3) A short **slideshow**, illustrating the visuals that would accompany the lesson plan you create. These slides will be displayed to the class while the instructor teaches your lesson plan.

## Instructions

1. Choose **one of the following topics** to base your lesson on:
  - a. Sagemaker
  - b. Natural Language Processing
  - c. Robo Advising
  - d. Customer Segmentation
2. Using either Google Docs or MS Word, create a **class outline** of what a single live class would look like. Walk us through a **two hour lesson**, at a high level, using the table format below.

**Tip:** Keep in mind that our classes are designed to be hands-on; *less than 50% of total class time should be composed of instructors lecturing to the class.*

Time	Specific Topic Being Taught	What Is the Instructor Doing?	What are the Students Doing?	Learning Goal
7:00				

3. Complete the step-by-step details for the **first 20–30 minutes** of the class using the [lesson plan template](#) provided in this document. You will write:
  - a. One introduction section that includes: an overview or introduction paragraph, 2–learning goals/objectives, and 2–3 instructor notes.
  - b. One “instructor do” (a lecture or demonstration led by the instructor)
  - c. One “student do” (a student activity performed by students alone, in pairs or in groups)
  - d. One “instructor review” (an in-class review of the student activity led by the instructor, revealing the solutions to support students’ understanding)

In this lesson plan, you should write directly to the instructor, not the students. You can say things like “Explain that...” or “Make sure that students understand...” Include screenshots as needed to help instructors know what to model to the class.

In the “student do,” you may want to include activity instructions that can be sent by the instructor to the students directly. Our instructors and TAs typically use Slack to send such messages to students during class.

4. Using either Google Slides or PowerPoint, create **at least 4 slides** to accompany the first 20–30 minutes of the class.
  - a. The slides are displayed to the class and should support students in understanding the topics being taught.
  - b. Do not worry about the styling of the slides or the visual design. Please include at *least* one image intended to clarify the topics and/or keep students engaged in the class. Be creative!
  - c. You should feel free to refer to the slides by number in your lesson plan (e.g., “Move to slide 3 and explain...”).

5. *Submit all three parts of your completed assignment to the recruiter you are working with.*

## What We’re Looking For

### **In the class outline:**

- The outline is logically sequenced so that activities and concepts build on one another.
- The class provides consistent opportunities for students to get hands-on practice with what they're learning.
- The learning goals are clearly articulated for each section.
- The amount of content covered is appropriate for the time allotted.

**In the lesson plan sample:**

- The lesson plan is well-written and can be easily understood by an editor. You do *not* have to worry about style, grammar, or spelling, but the core concepts must be clearly articulated.
- The instructions (in the 20–30 minute section) are detailed enough that an instructor could follow it without speaking to the writer.
- The topic has been broken down into blocks that build on each other and create a logical narrative flow.
- The students are engaging in several logical activities throughout the class, whether in groups, pairs, or as individuals.

**In the slides:**

- The content of the slides complements and enriches what is being taught in the lesson plan.
- Abstract ideas are made concrete or otherwise visualized through metaphors or diagrams.
- The words on your slides can easily be understood by a class of students with a variety of backgrounds; any industry terms or abbreviations are clearly explained.
- The slides are engaging and include at least one image that will keep students engaged and captivated during the class.

## Lesson Plan Template

# 1.1 Lesson Plan: [Title]

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## Overview

**Two to four sentences** describing what's in the lesson and how it's relevant to the student; for example, how you apply what is covered in this lesson in the short term (this class), mid-term (first job), or long-term (career).

## Learning Objectives

By the end of class, students will be able to (sample objectives below):

- **Explain** why the command line is important for IT and security professionals.
- **Use** commands like ls, cd, mkdir, touch, cp, mv, and cat for basic file navigation and manipulation.
- **Describe** the business goals of B2B and B2C companies, and select appropriate channels for each.
- **Define** time value of money and explain how it relates to net present value via discounted future values/cash flows.

## Instructor Notes

- Instructor notes set the lesson expectations for the instructor. The notes should include tips on how to have a successful class, including letting the instructors know if there is anything they need to complete ahead of class.
- The first bullet should describe the lesson at a high-level, specifically explain the flow of the lesson. For example, is this lesson activity heavy or lecture heavy? Is there a difficult project at the end? Will they be working with partners, etc.
- Explain the areas where students might struggle (or find easy). Make sure your instructors and your TAs understand how to assist students who require it.

## 1. Instructor Do: [Catchy Title: Lesson Intro] (X min)

One to two sentences describing for instructors the idea that will be discussed. Be sure to include context (real-world), and why do the instructors need to teach it, as well as why do the students need to learn it.

Then, include a link to the class slides.

## 2. Instructor Do: [Title] (X min)

Every Instructor Do should include the following four critical aspects in addition to the actual content that will be delivered:

- Goal or objective for this Instructor Do.
- Description of how this Instructor Do equips the students for the real world.
- Explicit information about how this Instructor Do connects to and builds on previous activities and lessons.
- Finally, be sure to include a transition. The many instructors delivering your content will have very different levels of teaching and speaking experience, and providing clear methods to transition from Instructor Dos to Student Dos ensure that the flow of activities makes sense to the individuals in the room.

Visuals: Insert code blocks & screenshots as needed throughout lesson plans.

**Tip:** Use “**Tip:**” to callout special advice for the Instructor or TA.

## 3. Student Do: [Title of Activity] (X min)

Every Student Do should include the following four elements:

1. Overview of the activity for the instructors.
2. Link to student-facing instructions (e.g., **Link to instructions file**).
3. Directions for the instructor and TA, including what the instructors and TAs should be doing during the activity.

**Examples:** instructors and TAs should walk around the room and encourage students to think broadly and creatively. Consider including what instructors should do if a student struggles with the activity or finishes early.

4. Links to relevant files the students will need (e.g., **Link to starter code file**).

**Hint:** Use “**Hint:**” to callout more information (or steps) to help struggling students complete an activity.

## 4. Instructor Do: Review [Activity Name] (X min)

An Instructor Review follows every Student Do. Instructor Reviews should contain:

- Instructor commentary, facilitation questions and talking points.
- Solutions and explanations to the activity that are comprehensive, but not pedantic.
- Feedback that instructors should provide to allow students to track their own progress as they work to master the class objectives.
- Be sure to include a transition to the next activity.