



MedTech: Digital Health and Wearable Technology

Discover digital health and learn how wearable technology is transforming healthcare with this online MedTech course.

If your students are completing the whole of this course online and are not participating in the teacher-led lessons based on it, then they can complete useful and engaging activities based on the content covered. You can choose for your students to complete individual tasks by themselves or encourage group work. Though you may have your own ideas about what your students can do with the course content, we've made things easy for you by suggesting some activities that you can submit to your students below. Instructions for the students can be found later in this document.

Individual student tasks taken from the course

Reflection: Students write a 500 word reflection on what they learned from the course, including anything they might do differently now as a result of their learning, and anything additional they found out from their own reading around the topic. They will submit this reflection as a written essay, podcast or video.

Activity: Students complete the activity in Step 2.2 'Body sensors'. They can either self- or peer-assess using the answers provided, or submit their activities to the teacher.

Research task: Students complete an individual research project on a wearable device of their choosing. They should list the design considerations, and consider the following:

- What is the purpose of the device?
- What are some benefits or challenges of using the device?

Students will submit their reports to the teacher.

Group tasks based on the course

Research task: Groups research the two implantable medical devices in Step 2.7 (Electroencephalogram and VERASENSE). Groups should discuss the examples and create a presentation which explains the devices, and considers the ethics of the devices. What do they think are the implications of a device being implantable?

Discussion task: In groups, students consider the following questions:

- What do you think of when you think of digital medicines?
- How does this compare to what you think of as traditional medicine?
- Can you think of any examples of wearable health technology?
- What do you think these developments in patient healthcare mean to the different stakeholders in the healthcare industry?

Collaborative task: Groups should create a mind map, brainstorming all of the ways in which digital medicine and wearable technology can assist the healthcare system. Mind maps should include

specific examples and uses of technology, as well as the stakeholders involved (who will benefit from digital medicine) and how they will benefit. Information from Step 1.4 will be useful for eliciting ideas from students.

Additional support

You can use the [How to use FutureLearn guide](#) with your students to get them started. There is also a school-facing [Guide to safeguarding and security on FutureLearn](#) if you need it.

Test

You can use the test questions listed in the student instructions below as a short assessment to enable your students to demonstrate what they have learned on the course. The assessment has 15 marks in total.

The questions have been designed to be flexible and open. The questions indicate which steps the answers can be found on. The marks available reflect the likely length and complexity of the answer expected, and how many points they are likely to make. For example, a 5-mark question might reflect a longer, more complex question, or one where they have asked to describe or explain a number of elements. Depending on the level and ability of your students, you can decide how you wish to award the marks so they are appropriate for your class.

Each question suggests which steps the students may wish to return to answer the questions. **You can decide if you want to include this information when you share the assessment with your students.**

Student instructions

Reflection

Write a 500 word reflection of what you have learned from the course. It should include anything you might do differently now because of what you learned, and anything additional you found out in your reading around the topic. Submit this reflection to your teacher as a written essay, podcast or video.

Activity

Complete the activity in Step 2.2 'Body sensors'. You can either self- or peer-assess using the answers provided, or submit your activities to your teacher (they will specify).

Research task

Complete an individual research project on a wearable device of your choosing. You should list the design considerations, and consider the following:

- What is the purpose of the device?
- What are some benefits or challenges of using the device?

Submit your report to your teacher.

Group discussion

In your group, consider the following questions:

- What do you think of when you think of digital medicines?
- How does this compare to what you think of as traditional medicine?
- Can you think of any examples of wearable health technology?
- What do you think these developments in patient healthcare mean to the different stakeholders in the healthcare industry?

Make notes of your answers and submit the notes to your teacher.

Group research task

Research the two implantable medical devices in Step 2.7 (Electroencephalogram and VERASENSE). Your group should discuss the examples and create a presentation which explains the devices, and considers the ethics of the devices. What do you think are the implications of a device being implantable?

Submit your presentation to your teacher.

Group collaborative task

With your group, create a mind map, brainstorming all of the ways in which digital medicine and wearable technology can assist the healthcare system. Mind maps should include specific examples

and uses of technology, as well as the stakeholders involved (who will benefit from digital medicine) and how they will benefit. Information from Step 1.4 will be useful. Submit your mind map to your teacher.

Test

Complete the assessment questions below to demonstrate your understanding of the course. You can refer back to the course to find the answers or more detail as you need to. You should not however share your answers with other students.

Your answers should be written in full sentences and be appropriately detailed. Make sure you read the questions carefully before starting to answer. Each question shows how many marks are available – use this to guide how much detail or how many points you need to include.

[The questions also indicate where you can start to look to find the answer. You can also include information from other steps if that is relevant.]

1. Define the term 'digital medicine', giving examples. (4 marks) [Step 1.3]
2. What are some differences between digital and traditional medicine? (3 marks) [Step 1.3]
3. List four different stakeholders in digital healthcare. (4 marks) [Step 1.6]
4. List two examples of wearable technology and explain their function. (2 marks) [Step 2.4]
5. Give one argument for and one argument against implantable health technology. (2 marks) [Step 1.10, 1.13]