

Welcome from the STEM Executive Dean

KAREN FOLEY: Good afternoon, and welcome to the Student Hub Live Faculty of Science, Technology, Engineering and Mathematics Freshers Event. My name's Karen Foley, and I will be your host for this afternoon. And I've had a sneak look at the chat, and it's wonderful to see some familiar faces there and plenty of new students. You're all very, very welcome.

The Student Hub Live is the Open University's online interactive space to facilitate academic community. And we host a range of events, like this and in Adobe Connect, which is The Open University's tutorial platform, to support you in your studies. So you can have a look at the website and take a look and see what else we've got in store that you might like to come along to.

We're going to be doing a big freshers event, talking all about the essentials that you'll need to know about as an Open University student, on the 28th of September. So do make sure you come to that. But today, we're just focusing on an induction provision for the faculty. So we've got a great programme lined up for you today.

And this is your chance to not only meet other students in the chat, but also ask any questions to our panel. It's a live and interactive show, so you can talk about whatever you'd like to talk about. And we also have some widgets or voting tools that we'd very much like you to fill in.

So you can tell us where we are. We've got a wonderful international audience, some of who have been here since 11:30 today. You can always tell it's an international audience when we never know what time it is. And we've just been joking that we don't know really what time it is here in the UK either, most of the time.

But it's wonderful to welcome guests from Kuwait, South Africa, France, and also plenty of newbies who may be feeling a bit excited and nervous about your OU studies. So fill in the widgets. We've got word clouds. Those have three options in them, and they come into a lovely Wordle at the end of the session. So do put words in that you'd like to respond to to the specific question.

But we need three things to submit your result. So if you can only think of one or two, that's absolutely fine. Just put a full stop in the boxes. Otherwise they won't send. The rest are fairly self-explanatory. Just click on the option that applies to you. So moderating our chat, we have wonderful colleagues, some of whom will pop in and out throughout the day.

And we have some of our Student Hub Live ambassadors in the chat who will fill in lots of links, et cetera, for you. But bringing your comments to our studio panel is Vic. Hello, Vic. What do you do when you're not here on our Hot Desk?

VICTORIA PEARSON: So I'm an academic in the School of Physical Sciences. I'm the chair, co-chair, of S111 and some of our guys in the chat are already talking about being new onto S111 this year, which is great to hear. And I'm also a researcher in the astrobiology research group.

KAREN FOLEY: Brilliant. And how is everybody at home today, Vic, what's going on. We've got a few nervous people. There's a lot of excitement. We've got someone suggesting

we should do a proper freshers week and maybe start with some shots, which I think it's still a bit early for that.

VICTORIA PEARSON: We've got a lot of discussion around the different subjects that people are hoping to go into beyond their first level. I think people are really raring to go from the sound of it. And people are joining us as we're going along now, which is great. So welcome to everybody.

KAREN FOLEY: Brilliant, so these sessions are recorded. You can watch on catch-up if you'd like to make the most of talking to everybody else about what you think we should be drinking at this time of day. Or you can turn the chat off and just watch the videos as well. There are different options on the interface screen you can play around with to choose what suits you best.

There's also a little pin button, which looks like one of those dots on Google Maps, you know? So if you'd like to scroll down and see something that's been said, if it's moving a little bit quickly, you can just pin the chat and then scroll up and down. And that can be quite handy.

If there's something that we haven't covered or something you're not sure about, you can also email studenthub@open.ac.uk, and we'll do our very best to find the answer to your question. So please do use this as an opportunity to ask questions of others, but also know that there are other ways to engage.

So it's a busy environment. You do what's best for you. But what our aim is of today is to introduce you to some of the faculty, to some of the support systems, and to hopefully get you up and running with some of the key things that you need to know. So firstly, we're going to have a welcome from this STEM Executive Dean.

Then we're going to talk about what to expect from Student Support. We're going to then focus on tutor support, help and guidance, and then the OpenSTEM practical apps. Then we're going to talk about being a STEM student. So we've got some live, breathing, thriving students for you to meet who'll share their advice with you.

And then also, to end the show, we're going to talk about what happens after you have your degree. And we're going to talk to some STEM research and PhD students. So a really wonderful programme here for you today. But first, let me introduce you to the Executive Dean, Nick Braithwaite.

Nick is the chief academic officer and head of the spending unit and is also the Chief Administrative Officer of the faculty with the accountability to the Vice Chancellor ... that's the big boss ... for its overall management. And as the executive dean, it's Nick's job to ensure that we receive the finest quality experience and have the greatest opportunity to succeed.

So Nick, this is a very big role. Thanks for joining us. Let me just introduce Carlton as well, who's the associate dean for student experience. Carlton's not only put this programme together for us, but he's also there to ensure that whatever is possible, we look at the perspective from the learner. And whether that's about signing up or sending in an

assignment, et cetera, Carlton's task is to facilitate a top-quality experience for all of our students.

So big jobs there. But let's talk a little bit first about the faculty. Nick, I wonder if you could tell us ... STEM, you know. Why is the faculty called STEM? And tell us a little bit about some of those boundaries between the various STEM bits. We've also got a Wordle that we'd like you to fill in at home as well.

NICK BRAITHWAITE: Yeah, great. Science, technology, engineering, and mathematics ... it's a recognisable name the way it's used throughout the world. You can find it in Europe, in the United States as well. And it's used to summarise those aspects of life, I suppose, that are slightly technical, slightly numerical.

And they make a good teaching bundle. Course, there's more to life. It's three-dimensional. We shouldn't forget the arts. But STEM goes together quite well. I think you'll find science and maths in almost everything. And then to do anything for society, on Earth, you need the technical and engineering skills to make it happen. Personally, I feel associated with all of it, but I'm really keen to find which areas people feel strongly associated with.

KAREN FOLEY: Brilliant. So let us know at home which area of the S, T and E and M you feel most strongly associated by filling that option in in the word cloud. Obviously, there would probably only be one choice, although there might be a couple. So just put a full stop in. Otherwise, the results won't submit. Carlton, Nick sort of mentioned some distinctions. And I wonder if we could maybe talk about connections also between these various areas.

CARLTON WOOD: Well, that's ... I mean, for me, that's one of the best things about being in a large faculty like STEM. It is to do with the interactions, the really interesting stuff that occurs, occurs at this little junction between different areas. So you can think about, I don't know, creating vaccines, for example, requires input from a number of different people.

And it might be from actually generating the vaccine to being able to administer the vaccine. And various people within STEM would be involved in that kind of process. So that's the bit ... that's a really good thing. And the fact, we've got an open STEM degree is really interesting as well because it means some students who will register on that can take a whole range of modules from across the portfolio modules that we've got. We've got about 150 modules in STEM. So it's a very large faculty indeed.

KAREN FOLEY: Wonderful. Vic, how is everyone doing at home? You're typing away furiously. Have we got any key questions right now?

VICTORIA PEARSON: There's a lot of discussion now just around the types of ... the modules that people are on. A lot of talk about how this afternoon might pan out in terms of the excitement of hearing from new people, a lot of hellos to Carlton and to Nick. There's some people say they might be terrified, which they really shouldn't be. So yeah, it's quite busy in the chat.

KAREN FOLEY: Oh, poor thing, Vic. As you said earlier, what have I signed up for? Well yes, it is very, very busy. And if we don't answer any questions because Vic is very busy with all of these, if there's anything that we miss in the plethora of responses, please do email us, because we really do want to be able to answer your questions. But the chat is busy.

And also, if you know the answer to one of those questions that somebody's asking, please do share as well. So my next question then is something that you spoke about earlier, Nick. You mentioned, of course the arts are important. And I wanted to sort of talk about that area. I mean, is STEM just about gadgets, devices, coding, technologies and things? Are people a factor? And if so, how important are they in the overall scheme of things?

NICK BRAITHWAITE: Yeah, good question. We can forget people. Things like science tend to get the people out of it. But it's people that do it, and it's people that were doing it for. The gadgets are important because we need things beyond just the ordinary printed text. And so we're more than websites and web links and so on. We need to go out there and connect with devices. We do need those gadgets.

You've got the OpenSTEM labs coming later this afternoon. I think that's an exciting area. The people in computing need machines to work with. But things like the human-computer interface are very important to us. We've got researchers who are very interested in that. We've also got researchers who are interested in the animal-computer interface. That's very interesting, seeing ways in which dogs can communicate through touch screens and so on.

So yeah, people are absolutely at the heart of it. And I guess at the engineering end of things, that's where it really shows. We build buildings for people. We build machines for people. We're doing artificial intelligence not to satisfy artificial intelligence, but because we want to make the lives of people more agreeable.

KAREN FOLEY: But to some extent, gadgets and technologies will always be a part of STEM, won't they, Carlton?

CARLTON WOOD: I mean, certainly, because I mean, as Nick had mentioned, is our gadgets are linked to a lot of what we do. But I think the key thing mentioned ... Vic was mentioning earlier on there about some students being slightly worried. There isn't really any need to be because it's only in terms of the engagement with the gadgets.

You've got people who will help you through that. We do sort of supported open learning. And you'll come across some of our tutors. And at the moment, they've been so allocated to students, to you. And you'll find out in the next few days who your tutor is. And their role is to help guide you through the various different bits of the process.

And if that involves gadgets, they will help you, sort of talk you through some of the things that may concern you, some of the difficulties that you may have. And in many ways, it's the gadgets that bring thing ... brings things to life. We've got some really cool gadgets within STEM. My personal favourite, because I'm a plant scientist, is one that measures the growth rate of trees in real time.

And students can access this and draw information down in real time. And every time I walk into my work, when I'm able to, when the pandemic is not here, I walk past one of the trees ... that's why [INAUDIBLE] to the internet. And it's a really sort of exciting part of life and of what we do at the OU.

KAREN FOLEY: No, that's wonderful, isn't it? And hopefully we'll all be back on campus soon. But also, I think one of the beauties of studying at a distance with STEM is that you don't have to be there. And we'll cover that a little bit later today. So on the topic of people

saying hi to both of you, and of course, Vic, as co-chair of S111, I wanted to take a look and see what people are studying and then maybe talk a little bit about some of the academics here that we are meeting and what they're like in terms of putting modules together.

So first, let's take a look and see what people said they were studying. Gosh, there's a huge range here ... S111 coming in very popular, TM111. You'll get used to some of these codes. They stand for different things and different levels and then different specific types of modules at that level.

But interestingly, people are also talking about some of their end results here as well. And it's very interesting that some students are studying things like psychology, environment, counselling, social sciences, and other things that are in some way connected. And while we have these distinctions between faculties, very often there are huge connections, as we found out yesterday, between the various departments, but a huge range of things people are studying.

So one of the things that we really like about Student Hub Live is meeting people and seeing them now, in their home environments. So what can you tell us, Nick, about some of the people behind the modules, people who are creating them? Because you have a huge range of academics and some incredibly famous ones in the faculty also.

NICK BRAITHWAITE: We have, and they're all famous in their own terms, in their own environments. I've got to be careful not to mention some by name. I will upset somebody by those that I mean, but we have people who go hunting planets, of course. We've got people who are interested in finding viruses, not only of the sort that Carlton was referring to, but the sort that are in computer code as well.

We have people who are interested in the way that animals interact, as I said, with screens just now. We have people ... they're real people who are, above all, enthusiastic about what they do. They're interested in engineering. They're interested in geosciences, in the environment. We're very strong in the environment.

We've got some people who care deeply and who apply their skills to it ... people who model the climate, people who are modelling the effects of climate change, looking for it in the history of the rocks. I've got to be careful as well to make sure I covered the whole range there. Am I missing a school, Carlton? Is there something that I should be doing?

CARLTON WOOD: You're doing pretty well there, Nick, doing pretty well.

NICK BRAITHWAITE: Excellent, excellent. And what they do, what I like about it, is this really makes a difference to the way that we teach, is that they bring that enthusiasm into the materials that they teach. And it brings it alive and gives it the real context.

So it shouldn't be dry. Some is difficult, which is the university. They've got to do difficult things. But at least it's being done by people who desperately want to get their story across. And I'll say, spending time with any of my colleagues is always exciting.

KAREN FOLEY: It is. And not only do they know lots of stuff, but very often, they're very concerned about how they're teaching, how they're delivering and explaining very complex concepts together. And that's really important as part of the student experience because very

often, people might come to a subject and think, oh gosh, I might struggle with this, or physics sounds a bit hard.

Some people think physics sounds great. So we all have our different sorts of associations with things. But it's that teaching and that experience that's so important. Isn't it, Carlton?

CARLTON WOOD: Absolutely. And it's interesting now because the sort of times that were in. Lots of universities are going towards online delivery, online teaching. The OU, The Open University's got 50 years experience of doing this. And when we put modules together, we put them together with great skill and with great care.

Some of the modules take two years in the production, and we can spend, well, in some cases, millions of pounds in producing some of these modules. So it involves the sort of skill of the educators in putting them together but also to ensure that our students are really well-supported. Students have said that they ... some of them are concerned about starting.

But what you'll find is, you'll get lots of support. There'll be lots of other students in the same position. Some of the big Level 1 modules that we've just seen go through on there have thousands of students on, 3-, 4-, 5000 students at a time. So you're not alone, definitely not alone. And there's lots of support, both in the teaching material and from the individuals as well.

KAREN FOLEY: Nick.

NICK BRAITHWAITE: Yeah, I wonder if I could just come back, I forgot one area very important to plug right now in view of this pandemic. And that's the area of statistics and the contributions that statisticians have been making to the radio programmes that we get involved with, giving the real side and a proper interpretation of statistics about coronavirus ... really helpful.

The way that we try to extend our mission is something I'm really proud of because we are communicators and educators. And the contributions that we make to that BBC effort I think is fantastic. And I hope that people identify with it. You're a student of the university that is committed to this kind of communication. And look out for it. It's all done to a terrific standard.

KAREN FOLEY: Absolutely. I mean, so many people don't know and don't notice until they start watching TV and then being mindful of the OU badge, see at the end of a production, made in association with The Open University. And they'll start to notice some of their course writers being the academic representatives on some of these programmes.

But we do a lot, not only with the BBC in terms of these co-productions, working with the news, et cetera, but there are also many, many other connections that we've got with places like NASA, Nick.

NICK BRAITHWAITE: Indeed. And I can take that a little bit further because one of our master's modules is about Mars and has a little element of visiting Mars in a simulated Mars environment. And the person that put that together is a geologist who's worked with NASA with their Rover that's wandering around Mars and has enabled us to create a very realistic experience for this kind of planetary exploration, just as part of our educational programme.

That ability to bring the experience of the real world, the practical world, the place where it's actually happening, is absolutely superb and matched very well to a distance-learning environment, I should say.

KAREN FOLEY: Brilliant. So I hope that you at home realise what an amazing institution you're part of, all of the incredible work. If you are interested, OpenLearn is a really great source to find out more about some of these projects and initiatives. It's all free. It's available to everybody. But if you are interested in finding out more, that is always a good place to look.

And we have lots of resources on the Student Hub Live website that relate to this particular event. I'd like to end by asking about how useful a STEM degree is. I mean, it is interesting. A lot of people think, I'm going to study planetary sciences because I've always wanted to. But how useful is having a STEM degree, Nick?

NICK BRAITHWAITE: Well, I'm very biased. But I'm very happy to answer that question. I mean, I think the point about doing it as a degree is doing it in the company of people who can facilitate the acquisition of the knowledge, which is difficult to get. Some things you can study unassisted, and those things you can pick up later on in life.

But you should keep coming back to an environment, a special learning environment, for things which have the complexity of STEM. Now, I'm sure other areas are complex, but STEM is particularly complex. You've touched on some of the things and what you've helped us to talk about here just now. So I think it's incredibly important. It's a way of life. It may be a way of employment. But for me, it's just a way of life.

KAREN FOLEY: And Carlton, you may have the last word in today's session. How useful do you think a STEM degree is?

CARLTON WOOD: It's phenomenally useful because it's not just basic STEM knowledge that you gain, but it's a whole set of what we call transferable skills. So you find most people who get through a STEM degree are numerate, they're capable of presenting information in different ways, they're capable of taking information, a vast amount of information and distilling it down to key points. And those kind of skills are highly valued by employers.

And so I would say it is extremely valuable. And we've got lots of evidence that shows students who complete a STEM degree go on and do really, really well, either in the current jobs that they've got, or even using our STEM degrees as our springboard to get a different job. But it's just interesting in its own right, as Nick was ... as Nick was saying as well.

KAREN FOLEY: Brilliant. Nick and Carlton, thank you so much. Everyone at home, I hope you've enjoyed meeting Nick and Carlton and seeing the inspiration and passion that they have for their subject areas.

Vic, are people feeling slightly less anxious now?

VICTORIA PEARSON: I think so. There's a lot of discussion going on now that isn't focused around fear and dread, which is great news. I just want to flag a couple of things if I can, that have come up earlier. In terms of how we study in STEM, there's been a couple of points made by people of different ways of studying.

So one is around using gadgets. So actually, this is an output of STEM in itself, is the gadgets that people then go on to use to support them to study, particularly if somebody has a disability and how they could be used with study materials. There's been some discussions around how and when people might study, whether or not they study in short bursts, or they sit down and they focus for long periods of time.

We've still got some maths fear coming in here, which again, it's not a thing to be worried about, particularly not until you've got going. But there's a really good phrase here from Sasha on the back of what Nick and Carlton both said about the importance of STEM degrees, was that STEM feels powerful. That's pretty good.

KAREN FOLEY: Oh, that's a wonderful point. Excellent. Well, anyone who's worried about maths, don't worry. I've got Katie and Sally coming on later, who are the most friendly people. And I'm sure that they've got some advice for you. There's a maths help guide that you can use to sort of upscale and things.

But also, I hope that they'll be able to tell you that maths is really, really not scary because we teach it in such a wonderful way. So Beverly, please don't be worried about the maths, but you'll look forward ... oh, and James, sorry as well. We will get Sally and Katie to come and allay, hopefully, some of your fears about that.

Right, well, let me introduce you to the library I'm going to show you in a video now. So grab a cup of tea if you haven't got one, or coffee or whatever it is that you're drinking at this time of day. And this is a little campus tour of our library. At our freshers event on the 28th of September, where we talk about all the generic things for the university, I'll introduce you to some of our wonderful library colleagues. They do a whole range of live events online and support you in your studies in a number of different ways, in addition to creating things within the modules, but also helping with things like referencing and various other skills that you will find useful in your studies.

So let me show you what the actual library is like on campus. And then I will be back for our next session, talking about student support. See you in a minute.

[MUSIC PLAYING]