

# TEACHING STATEMENT

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## 1 Teaching Qualifications

**Postgraduate Certificate for Teaching in Higher Education and Fellow of the Higher Education Academy** Jun 2019

*Oxford Brookes University*

- Collaborative research into effectiveness of group work and peer assessment in HE
- Peer observation of practice and reflection by three peers and senior colleagues
- Individual investigation of an issue around teaching in higher education

**Associate Fellow of the Higher Education Academy** Feb 2018

*University of Exeter*

- Training on interactive teaching methods; planning teaching sessions; assessment principles and challenges; marking and feedback
- Evaluation of teaching through pedagogic literature, lenses of peers and students
- Peer observation of practice and reflective essays evaluating teaching

## 2 Teaching Experiences

**University of Greenwich**

*Lecturer in Mathematics*

Jul 2019 - Present

*London, UK*

- **Module leader** of 3 modules for BSc **Mathematics** and BSc **Computing**
- Nominated for **Extra Mile** and **Faculty Star** in the 2020 **Student Led Teaching Awards**
- **Leading and developing** interactive, student centred, and modern courses on
  - MATH1166 Problem Solving and Mathematical Thinking (Level 4, Term 1, BSc Mathematics): **Python Programming for Mathematics**
  - MATH1167 **Vector Calculus and Number Theory** (Level 5, Term 2, BSc Mathematics)
  - MATH1180 Computational Methods and Numerical Techniques (Level 5, Term 2, BSc Computing and Mathematics): **Probability and Statistics with R**
- Developing **data science** workshops to enhance **employability** for **industry**. Workshop Title: **Data Analytics Software Development via RShiny and RMarkdown**

**Oxford Brookes University**  
*Teaching Fellow in Mathematics and Statistics*

Oct 2018 - Jul 2019  
*Oxford, UK*

- **Leading** and delivering, in collaboration with ONS,
  - **Statistical Programming with R** (Level 7, Term 1, MSc Data Analytics)
  - **Survey Fundamentals** (Level 7, Term 2, MSc Data Analytics)
  - **Statistics in Government** (Level 7, Term 2, MSc Data Analytics for Government)
  - **Modelling with MATLAB** (Level 6, Term 1, BSc Mathematics)
  - **Quantitative Research Methods with SPSS** (Level 5, Term 1, BSc Mathematics)
  - **Numerical Analysis with MATLAB** (Level 5, Term 2, BSc Mathematics)
- **Supervision** of final year undergraduate projects in data science

**University of Exeter**  
*Teaching Assistant/Private Tutor*

Sep 2012 - Mar 2018  
*Exeter, UK*

- Sep 2017 - Feb 2018: Algebraic Structures, Linear Algebra, Mathematics for Natural Sciences, Vector Calculus and Applications
- Sep 2016 - Mar 2017: Differential Equations, Vector Calculus and Applications
- Sep 2014 - Mar 2015: Analysis, Vector Calculus and Applications, Mathematics for Natural Sciences
- Private tutoring: Complex Analysis, Fluid Dynamics, Partial Differential Equations
- Sep 2013 - Mar 2014: Analysis
- Sep 2012 - Mar 2013: Vectors and Matrices; Numbers, Symmetries, and Groups

### 3 Teaching Philosophy

The days in which I have teaching activities are the best days of my life. I love mathematics, and this passion fuels my teaching practice to motivate and inspire students, and engage with them in the learning of mathematics. I believe in, and actively employ, teaching techniques that are research informed and led with a particular focus on student engagement. Furthermore, I believe practice, repetition, and discussion with others play an important role in making one become the master of new ideas. The most important part of learning is finding the confidence in one's ability to learn, and the ultimate achievement of a teacher is to enable students to gain this confidence.

To draw from experience, in my teaching sessions, I usually plan to dedicate a part of the session to creating an organized discussion among students in which as a class we aim to solve a particular problem or understand a topic. Therefore, apart from providing the necessary guidance and motivation, I aim to minimize my interference where possible and prefer this part of the session to be student led. I observe this allows the students to learn from each other and be confident about their abilities; furthermore, this gives them the opportunity to make mistakes so that they can understand the reasoning as to why a particular idea is not a valid solution to a certain problem. In my practice I employ a variety of teaching techniques ranging from direct lectures, audience response systems, group presentations, and flipped classroom where groups of students are in charge of producing teaching materials and delivering presentations which are peer assessed. I am also highly interested in the best use of technology in higher education and constantly use interactive slides and teaching/learning web resources in my sessions.

I can further touch upon my experience as being a private tutor. In these sessions, I would provide some information on applications of the topic studied in research and industry together with the short-term objectives of our session. Then starting with a simple idea, I would guide the student, patiently, through questioning, even sometimes reviewing fundamental concepts, to arrive at the required formula, identity, or proof. I would often manage to achieve this in such a way that the student would have the impression that it was he or she who arrived at the result without any help at all. In doing so, I would aim to make them confident in their own ability and realize that they too have the capability to learn and perform complicated procedures. In the subsequent sessions, I would review previous session's topics, or provide questions from a problem sheet, to reinforce and consolidate the materials.

In my teaching role, I strive to augment my experiences with obtaining up-to-date knowledge of pedagogy. I have completed many courses relating to learning and teaching in higher education and currently on course to become a fellow of the higher education academy. To this end, I constantly look for opportunities to develop my knowledge of pedagogy and to remain informed about modern teaching methods. Recently, I have been observing senior lecturers in the mathematics department, who teach a variety of subjects to students at different stages of their course, with a focus to learn about their practices and reflect on factors that make them successful. Subsequently, I also had the opportunity to be formally observed in many of my teaching sessions by my senior colleagues who have provided me with invaluable feedback, which has allowed me to further refine my practice.

These valuable experiences I aim to build upon in my future practices. In particular, I have had the opportunity to reflect on them in depth as a part of my training to obtain my latest teaching qualification. Thus, my experiences together with my enthusiasm for teaching and the pedagogy of mathematics guide me to succeed as an effective teacher.

## 4 Peer Observation Feedback

**Numerical Analysis 1 (Level 5), Oxford Brookes University, Students Present 18/23**

Mar 2019

*Observer: Armando Coco*

*Senior Lecturer in Mathematical Modelling*

### • Summary of the Observation:

2:00: Very good start, with a proper summary of the previous lecture (by engaging students to recall what has been done previously), and an outline of the current lecture, with a description of the learning outcomes.

2:05: There are a couple of students chatting, which can be disturbing for other students close to them.

2:10: Good to see that you ask students to work on the questions and then you ask later their findings, that you summarise on the whiteboard. I appreciated that you point out specific students that have to answer the question.

2:15: Sometimes you talk to only one side of the room (the side on your right), which might make the other side feel less engaged.

2:25: Nobody had the error term expression, and you wrote it on the whiteboard for them. Sometimes they might learn that you give them solutions for them if they do not put any effort to solve challenging questions.

2:30: You ask "can this derivative be zero?", suggesting the answer.

2:35: Good to see you around tables to ask if everyone is happy with the answers

2:40: Room started to be a bit dark, making more difficult to read what it is written on the whiteboard.

2:45: You had whiteboard pens of different colours, but you mainly used only one colour.

2:50: You had one more question for them to solve and less than 10 minutes left. You asked them to work on the question, but then you realised that time was over and then you moved on. You might consider to use a different flexible strategy to speed up and manage your time in these extreme conditions.

2:55: Nice to see a slide summarising “what is next” before the break.

3:00: Break was called on time.

- **Strengths:** I found the lecture well structured and clear overall. Kayvan made a clear outline of the lecture, preparing students with what they were going to learn. He also made a summary of previous lectures, increasing student motivation. There is evidence of effective and efficient effort to prepare slides and Matlab codes. He is keen to go around the class to check if anyone fell behind. Kayvan also made a clear summary of the topics covered and, just before the break, showed a brief motivational slide for the following hour, which is very useful and effective to keep high motivation and to help students to follow the flow of the content. The pace of the lesson is mainly appropriate. Sometimes it would be better to consider a change in the pace to improve engagements and avoid that well prepared students feel that the pace is too slow.
- **Possible Reflection Points:** I appreciated that you ask students to solve questions and then you summarise at the end. Sometimes, this may be time consuming, so if you feel that you are behind with the material you may consider alternative approaches for some of the questions. This also helps to chance the pace and the tone of the lectures, avoiding that they will decrease their attention. Using many resources, such as lecture notes, slides and whiteboard, is very helpful especially for those students that have different learning approaches. Sometimes, this might create some confusion, especially if they follow the lecture notes and are not able to link them to the slides. Consider the possibility to have milestones where you make sure that everybody is looking at the same content, either in lecture notes or slides. Reflect on a strategy to stop/engage chatting students. Reflect on a strategy to improve flexibility if time is over and you had some more content to cover (for example, you had one more question for them to solve). Reflect on a strategy to keep engagement in the case where you ask a question to the audience and nobody answer.  
*Response: The comments are highly appreciated and taken on board.*

**Modelling with Matlab (Level 6), Oxford Brookes University, Students Present  
10/13**

Nov 2018

*Observer: Julie Valk*

*Lecturer in Anthropology of Japan*

- **Strengths:** The session had a clear structure which Kayvan outlined at the beginning of the class. It was good to have a summary of the material covered previously (including a task to go over based on material from the previous session). The session had a relaxed atmosphere and Kayvan had a good rapport with the students, steering them towards collaborative problem-solving. Kayvan encouraged students to assist each other in groups and the session made good use of peer-based learning. The session was very interactive, with good use of traditional questioning alongside use of technology such as FLINGA. Not being familiar with this technology myself, it was helpful to see it in use and gave me ideas for my own teaching practice. The session had a good mix of lecturing combined with practical tasks which demonstrated good ability to change pace – this helped the students keep focus. One student had not attended the class before, and Kayvan was careful to

assist her not just at the beginning of the session but throughout as well as she tackled new tasks. The small number of students and Kayvan's attentive approach to each student meant that students could get tailored help for solving problems and tasks.

- **Suggestions:** I suggest giving students a time frame in which to complete their tasks, i.e. indicating that they will have 10 or 15 minutes to complete a task. This should help avoid/limit the occasional lack of focus. Some students had a tendency to dominate the class and tended to quickly answer the questions Kayvan asked. I suggest ensuring that the quieter students get a say as well, and to not always allow the more dominant students to answer the questions. *Response: The comments are highly appreciated and taken on board.*

### Statistical Programming (Level 7), Oxford Brookes University, Students Present 7/9

Nov 2018

Observer: Elizabeth Lovegrove

Subject Coordinator for the PCTHE

- **Strengths:** Nice to see use of mid-module feedback and responses to it. Good use of questioning with the students, checking that they've understood, then affirming and clarifying their answers if necessary. Charts and graphs of examples, plus tables and code; great use of laser pointer while talking through fairly complex slides. Giving students an idea of the size of the work required in the exercise: "10-12 lines of code, maybe 1 or 2 loops". Good rapport with students, occasional checking in to make sure they understand, comfortable interactions between you and the students throughout.
- **Things to Consider:** I wondered if some of your responses to the mid-module feedback risked putting students on the spot, asking specific students to expand on the suggestions? *Response: Yes, comment taken on board.* Might it be easier for students to get a handle on the data, and for everyone to talk about it, if the labels are in natural language (rather than "pre", "fac", etc.)? *Response: Yes, comment taken on board.* Would some of this work better if the students were able to try things out as they go along rather than simply listening to the lecture? *Response: Yes, this is a two hour session, so in the first hour, part of the lecture was dedicated to mid-term module review, and second part to a lecture. The second hour of the day was entirely dedicated to students working on coding the examples in their notes.* You used a few questions that assumed their answers, e.g. "Most of you have done ANOVA before, yes?" Might be worth rethinking the way you frame those questions to make it easier for the answer to be "no". *Response: Yes, that is correct, comment taken on board, however most of these students had taken the regression models module which included the ANOVA.*
- **General Comments:** The exercise, manually coding in a statistical test, doesn't seem to be using the material covered in the lecture. Do the students also get a chance to practice the lecture material? *Response: The was an extra exercise for students who wanted to preform more algorithmic work relating to the materials they learnt during their previous lectures, see student feedback below.*

## 5 Student Feedback

### MATH1167 Vector Calculus and Number Theory (Level 5, Term 2, BSc Mathematics) 2019-20

- *Interactive, actually teaches so we understand what's happening, engaging*
- *Today's lecture is going well. I like the use of menti and the competition. We could go a little faster tbh otherwise it's great xx*

- *The module outcomes are clear and the presentations are well structured. The lectures are engaging and have a good use of examples.*
- *I have found the module engaging and have felt the content has been delivered well. I like that we are engaged more during lectures than some of our other modules. Proud of you*
- *I learn derivative matrix and also participate on mentimeter by putting the right values as soon as possible. It was useful as we had fun and learn at the same time!*
- *It's interesting topic and the way it is presented is entertaining, simple and student centered as well*
- *I liked how interactive mentimeter is. Really good to keep the students focused on the lecture.*

**MATH1180 Computational Methods and Numerical Techniques (Level 5, Term 2, BSc Computing and Mathematics): Probability and Statistics with R 2019-20**

- *You are very good at explaining the concepts that we have covered (a lot better than my A level statistics teacher 10 years ago) and when you work through things on the projector it is very help. It is also great that it's then on Panopto to go over at home, because I don't like writing things down in lectures as I prefer to listen and absorb.*
- *The lecture overall was good, easy to understand the lecturer.*
- *"Educational and Interesting. Recommendation: Please Finish all the Lecture Slides in Time :)"*
- *Very nice lecture. modern and young approach*
- *Understood everything right of the bat. Well explained and the tutor really gave his interest.*

**Data Analytics Software Development via RShiny and RMarkdown (Open to all CMS Levels, 2 hours Workshop) Feb 2020**

- *Positive, energetic presentation by tutor*
- *Well explained, hands on experience*
- *How the use of RShiny makes life much easier*
- *The event had practical elements that were easy to follow*
- *Interactive, practical and insightful*
- *The teacher is very friendly*
- *Lecturer, being interactive*
- *More time (5-10 hours)*

**MATH1166 Problem Solving and Mathematical Thinking (Level 4, Term 1, BSc Mathematics): Python Programming for Mathematics 2019-20**

- ***Student Representative:*** *Based on people that I communicate there are some comments on MATH1166 module. The main strength of your lecture people tend to say is your communication with the audience and use of mentimeter. Students feel fully engaged and interested, as it not only 'dry' theory, but practice for students as well. The usage of examples in the lectures and application of them, that lecturer do, makes theory more understandable. However, some students tend to say, in some cases the summery of the previous week lecture might be to long, therefore the new content they feel is a bit rushed/confusing. Is not lecturers problem, but people do tend to say that tutorials could be longer as in this module particularly tutorial have to be done from beginning to understand what to do in harder questions, which most of the time might be confusing without lecturers help.*
- *The Menti interactive elements were useful as it allowed for a class discussion/gathering of knowledge from fellow students, making the lecture more engaging than typical lectures.*

- *Everything was clear and concise, with any queries being addressed appropriately.*
- *The recap which went over the previous learnt topics to refresh my memory.*

**Survey Fundamentals (Level 7, MSc Data Analytics for Government, Delivered in ONS Newport)** May 2019

- *Starting by using a proof and getting us to think about sample design at this fundamental level was challenging but also very effective.*
- *Examples of theory and practical. Tutor has good knowledge.*
- *Like being able to see the maths principles, good to do exercises as we go. Discussion around topics has been good to enhance understanding.*
- *A mixture of teaching and exercises keeps the course engaging.*
- *The way of teaching by the leader is very effective. Opportunity to ask many questions and ask for help.*
- *Interactive lecturing style, group work and presentation to the class is effective and engaging.*
- *The latter half of the week has definitely improved, and feedback taken on board. Used a lot more interactive presentations/discussions and real-world examples. Examples were especially helpful in the theory slides to put equations into practice.*
- *Cluster sampling was very good. Having the definition, example, positives and negatives at the beginning was extremely helpful rather than jumping straight into the maths. Also really enjoyed the interactive discussion.*

**Survey Fundamentals (Level 7, Term 2, MSc Data Analytics)** 2018-19

- *I like the assignment structure, and because of the smaller pieces of coursework and having given other people feedback, you'll know if you're going along the right lines before the main piece of coursework.*
- *The detailed guidance and practice of the mathematical side of statistics.*
- *The theory and applications to real life scenarios.*
- *Generally, I have a bit of a proof-aversion as I did a maths degree that was very proof heavy and wasn't something I liked as the proofs were incomplete or ill-explained and we were never shown how to apply them (so although I've heard of a lot of them (because remembering the statement of the theorems was worth marks in exams)), my knowledge of them is terrible. The proofs we cover in the survey fundamentals, are the best explained and taught I have come across and helped by useful examples of how we can apply them. This is really helpful. Thank you!*
- *More real-life scenarios when not fully understanding the theory - see where the numbers go and why.*

**Numerical Analysis 1 (Level 5, Term 2, BSc Mathematics)** 2018-2019

- *Logbook questions are done at the start of the lecture, helps with understanding of learning. Lecture comes and helps out to further consolidate learning.*
- *Great teacher that was able to help with questions.*
- *The booklet is well-made and the ability to take notes on it is a good point.*
- *Well-structured lectures.*
- *Interesting classes, clear slides.*
- *you go through all the content in detail and the notes are pretty sufficient, but you could put more relevant examples I think the leap from the examples and assignments is a bit ridiculous tbh it's supposed to be a challenge not impossible.*

- *The teacher is good, and I found the exercises in the booklet easy enough to get the point of the lesson.*
- *Having the full lecture as a booklet at the beginning of the semester was a good thing.*
- *The structure (chapters) of this module were well organized.*
- *Thorough understanding of the content taught, easy to access resources to help with learning.*

**Modelling with Matlab (Level 6, Term 2, BSc Mathematics)**

2018-2019

- *The group work and presentations were really engaging and beneficial to my learning.*
- *The lecturer was very enthusiastic and used multiple strategies for teaching the module.*
- *Interactive and fun.*
- *Group work and presentation.*
- *Useful applications in real world.*
- *Kayvan is a good lecturer who is friendly and helpful to the students on the module.*
- *The module notes are detailed and complete although slightly out of date.*
- *The module encourages discussion among students, which is appreciated.*
- *Flexibility of teaching and feedback.*
- *The tutor knowledge regarding the subject sometimes lacked which meant increased independent learning. Therefore more structured lectures whereby the objectives are set out clearly and monitored by the end would be a good idea, to ensure everyone has the same level of understanding.*

**Statistical Programming (Level 7, Term 1, MSc Data Analytics)**

2018-2019

- *Good introduction to R. Detailed notes, good worked examples.*
- *The practical focus of the lectures and all the interesting real-world examples are my favourite part of the module. Learning R.*
- *Could explain more about the statistical techniques.*
- *Be more forthcoming with information.*
- *Could be options for making it harder for people who have used R before.*
- *I am very happy with the module as it is. A possible suggestion may be that we can have more algorithm-based practical tasks instead of using ready-made packages in R.*