## Health Analysis and Health Informatics Session

16/07/2021



## Are there any modules you would recommend taking specifically in the first or second year?

General question asked by Szymon U. | 15 replies



#### Paul T.

Professor Of Health Informatics, University College London 16/07/2021

Hi, In the health informatics specialism there is no choice in the first year. There are options in the second year, but you have to take them in the second year.



Jennifer B.

Health Analysis Trainee, NHS 16/07/2021

Hi Szymon, I'm on health analysis and I would say it depends what your interests are. There are a few core modules then some which you can choose. I'd recommend reading the module guides to understand the content and assignments and then ask any further guestions of the tutors.



Jennifer B.

Health Analysis Trainee, NHS 16/07/2021

If you have questions about what some of the modules are like, I can answer them from a student perspective



#### Henry P.

Associate Professor, UCL

16/07/2021

On Health Analysis, there's a bit of choice in the first year and more in the second year around modules. All the modules are suitable for you, so it's really up to you in terms of what you're interested in. You can always chat to me about choices (or Paul if you're doing Health Informatics).



#### Szymon U.

16/07/2021

I'm on HA, which statistical software does the course entail, or does it differ by module? Think I remember seeing STATA and R pop up



#### Henry P.

Associate Professor, UCL 16/07/2021

Our main stats software is Stata, but we also cover some R. There's one module that particularly uses R (Public Health Data Analysis). We're happy for students to use either (or indeed something else), but our teaching is focused on Stata and R.

#### Jennifer B.

Health Analysis Trainee, NHS



16/07/2021

It depends on the module. They will tell you whether there are prerequisites beforehand, otherwise you will learn on the course. Personally, I have learnt STATA through one module, and R through another (which I had to do some courses beforehand to understand), and Orange (for machine learning)



Szymon U.

16/07/2021

Thank you all



Katrina W.

16/07/2021

Are there many overlapping modules for HA and HI



Henry P.

Associate Professor, UCL

16/07/2021

There are some modules available on both programmes.



#### Henry P.

Associate Professor, UCL

16/07/2021

Leaning Health Systems and Patient Safety are both available on both programmes



#### Henry P.

Associate Professor, UCL 16/07/2021

Other modules are separate, but there are elements of teaching common to both programmes. There's a module called Health Analysis Principles that is similar to the one called Principles of Health Data Analytics on the other programme.



#### Szymon U.

16/07/2021

Are there any modules that are first come/first serve type of basis or is there sufficient space on all?



#### Henry P.

Associate Professor, UCL 16/07/2021

Nearly always, there is sufficient space for all on all modules. There may be some constraints because of COVID restrictions: I don't foresee any problems, but there may possibly be optional modules where there will be a first come first served arrangement. We will probably avoid that.



#### Szymon U.

16/07/2021

Thank you



Will lectures on the Health Informatics PGDip be delivered face-to-face or virtually this year?

General question asked by Imogen D. | 3 replies



Paul T.
Professor Of Health Informatics, University College London
16/07/2021

Hi, We usually deliver both programmes through what we call blended learning which is mainly online with three face to face days in the middle. Last year we moved the face to face online because of the pandemic. Next year expect to move back to face to face but we are aware that things may change. Two exceptions: in HI one of the term one modules in Manchester will be online only and the optional programming module in year two will be online only, because we felt it worked better having the synchronous contact spread over the whole module and we can't do that face to face.



Imogen D.

16/07/2021

Thank you, that's very helpful!



Henry P.

Associate Professor, UCL 16/07/2021

Health Analysis, the same applies, except we're just in London -- no Manchester!



## How many assignments are there per module generally?

**General** question asked by **Anna M.** | 5 replies



Henry P.

Associate Professor, UCL 16/07/2021

In Health Analysis, one assignment per module. In Health Informatics, sometimes one, sometimes two.



Mati C.

Informatics Project Manager - Health Informatics GMTS Trainee, NHS 16/07/2021

For informatics there was one exam and the rest were all written reports ranging from 2000-4000 words



Steph C.

Health Analysis Trainee, NHS 16/07/2021

Hi Anna

There's on assignment per module ( For HA) . Usually a 2500 word essay/report

They tend to differ in style depending on the module. Some examples are portfolios, analytical reports, literature reviews etc



#### Anna M.

16/07/2021

Thank you all:)

#### Paul T.

Professor Of Health Informatics, University College London 16/07/2021



The HI award is joint between UCL and the University of Manchester. UCL has one assignment per module. Manchester has two, but generally these are one short assignment, often group work or done in class and one longer assignment. It isn't that big a difference.



# Are there any resources/reading you would recommend in advance of starting a Health Informatics role?

General question asked by Tom R. | 2 replies



Paul T.
Professor Of Health Informatics, University College London 16/07/2021

Good question. I would start by reading some policy documents, e.g. the long term plan. It's also good to look at websites like Digital Health. There isn't a great text book. (I wrote a great one but it's a bit out of date now!) Have a look at some of the journals too. Twitter is a good way to get pointers to things. Current trainees may have other ideas.



**Henry P.**Associate Professor, UCL 16/07/2021



# Do the assignments/exams involve case studies from our day-to-day roles or is it more theory based?

General question asked by Tina L. | 5 replies



**Jennifer B.** Health Analysis Trainee, NHS 16/07/2021

It will be similar to your undergraduate degree, research based on current literature. The issues are applied and may be applicable to your workplace but it will not be about your work. Hope that makes sense?



**Steph C.**Health Analysis Trainee, NHS 16/07/2021

Hi Tina.

The assignments are usually case studies or based on data provided. However some modules give you flexibility to choose your own essay title. I've found these ones the most engaging and have often used real life examples or topics from my placement



**Henry P.**Associate Professor, UCL 16/07/2021

Yes, as Jennifer and Steph have said, it varies from module to module. Some modules, we'll get you to pick a problem at work. Others, we give you the problem.



Mati C.
Informatics Project Manager - Health Informatics GMTS Trainee, NHS
16/07/2021

There is a fair amount of application from the real world using the theories and skills you learn. I personally have drawn on my every day working for the assignments but there are lots of resources provided to help you if you do not have relative examples. Other's doing this course do not necessarily work in the NHS so it is not necessary to use your work



**Tina L.** 16/07/2021

Thanks for the insight all!



### Are classes normally delivered in the evenings?

General question asked by Anna M. | 6 replies



**Jennifer B.**Health Analysis Trainee, NHS 16/07/2021

Modules are usually across 9 weeks and includes distance learning where you work through material at your own pace (whether that be evenings or during the day). Then per module there are usually 3 full days of teaching (9-5). A mix of lectures, workshops and group work



**Jennifer B.** Health Analysis Trainee, NHS 16/07/2021

These are current delivered virtually but may be in person in the future



**Steph C.**Health Analysis Trainee, NHS 16/07/2021

Once you have your timetable for uni it is worth speaking to your placement manager and blocking out the days in advance. Your placement will understand that you have educational commitments and that you wont be available on those days



Henry P.

Associate Professor, UCL 16/07/2021

Yes, we will be back to face-to-face teaching for modules in the new academic year. 9-5 or thereabouts.



Paul T.

Professor Of Health Informatics, University College London 16/07/2021

Next year we will have some scheduled slots online in addition to the face to face days. We will make sure that these are advertised well in advance so people can get them in diaries.



Henry P.

Associate Professor, UCL 16/07/2021

We don't deliver any teaching in the evenings, but most students do a lot of their course work in the evenings using the materials (videos, readings etc.) provided.

# What have previous graduates of the Health Analysis scheme moved onto once they have finished the two years?

Career Choices question asked by 

✓ Kyla S. | 4 replies



Steph C.

Health Analysis Trainee, NHS 16/07/2021

Hi Kvla

I think it really varies

For my intake there is a real mix from purely analytical roles with NHS England and improvement and NHS Digital to service manager roles within a trust

The scheme gives you the opportunity to build a lot of transferable skills. I would recommend if possible trying to get involved in both strategic and operational roles projects while on the scheme, this will help you think about roles after the scheme



#### Henry P.

Associate Professor, UCL 16/07/2021

The Health Analysis scheme is fairly new, so we don't have a lot of data to draw on! But generally people coming off the Scheme have been able to move up to more senior positions. Long term, we see roles both centrally (NHS England etc.), in individual Trusts and everything in between.



Oscar G.

GMTS Programme Coordinator, NHS 16/07/2021

Hi Kyla, the great thing is that the scheme & HI qualification leaves you open to a variety of roles. Like Steph mentioned there's alot of transferable skills and while many of our Alumni end up at NHSE/I you will find grads in various different roles across other NHS trusts and beyond. We are working more with past grads and usually invite trainees to career development centres where they share their journey from leaving the scheme but also looking to do a lot more work in the future with our alumni network so you're likely to hear more and more from them in the coming years.



Kyla S.

16/07/202

Hi, it sounds like there is a lot of transferable skills which will be great for a lot of future opportunities - thank you all!

### To what extent is coding intensive in health informatics?

General question asked by 

■ Matthew S. | 10 replies



**Paul T.**Professor Of Health Informatics, University College London

Good question. You don't have to code at all! But most students either have some or want to learn some. There is an optional module in python coding.



Mati C.
Informatics Project Manager - Health Informatics GMTS Trainee, NHS

I had no experience with coding and have mostly learnt SQL and R through work. Coding itself is not really needed in the modules but having an awareness of it is useful



Matthew S. 16/07/2021

Thankyou!



**Jennifer B.** Health Analysis Trainee, NHS 16/07/2021

To get a head start on SQL, I'd recommend looking at SQL Zoo, which has interactive learning of SQL for all the basics. This is how I learnt in my first few months!



**Paul T.**Professor Of Health Informatics, University College London 16/07/2021

This is one of the big questions about the health informatics programme. We started teaching programming at the beginning but it was hard to do it well without spending too much time on it and squeezing out all the health informatics specialised stuff. Then we more or less completely dropped it, which didn't feel right. I think the approach we have now is good but I'm conscious that the intake and expectations change. I think it is becoming more common for trainees to want and to expect to graduate with some technical skills.



**Eva G.** 16/07/2021

Thanks Jennifer, that sounds good. Are there similar introduction sites available for Python and R?



Henry P. Associate Professor, UCL 16/07/2021

There's a lot of great resources online for Python and for R.



**Steph C.**Health Analysis Trainee, NHS 16/07/2021

It sounds really basic Eva, but Youtube has been really helpful for me learning R GitHub also provides useful insight into packages on R. but just beware that its a forum type website and i think anyone can leave replies



Steph C. Health Analysis Trainee, NHS 16/07/2021

But often a good starting point if you're struggling with a problem



**Eva G.** 16/07/2021

Thanks Steph and Henry.

### For the PGDip in HI, is it a dissertation to do to progress to a MSc?

Also, do you have a rough cost estimate?

General question asked by 
☐ Tina L. | 9 replies



#### Henry P.

Associate Professor, UCL 16/07/2021

It's about £4200 to do the dissertation, and that will upgrade your PGDip to an MSc. Many people on the scheme do stay on to do that in a third year. Sometimes they get funding from the NHS, occasionally they've paid themselves.



#### Tina L.

16/07/2021

Thank you Henry, that's very helpful.



#### Henry P.

Associate Professor, UCL 16/07/2021

We love having people stay on to do a dissertation, so you'll be very welcome if you choose that path.



#### Paul T.

Professor Of Health Informatics, University College London

I think it is becoming more common for students to do this. We have a lot of interest in the dissertation for next year.



Joe S.

16/07/2021

Is it possible to see previous trainees' dissertations if they're available? I'm curious to see what sort of topics and projects are involved.



#### Henry P.

Associate Professor, UCL 16/07/2021

When you get here, we'll have lists of past project examples and future possible projects. You can either bring your own project idea, maybe related to a problem at your workplace, or we have ideas/ongoing projects.



#### Henry P.

Associate Professor, UCL 16/07/2021

Recent HI dissertations include: Use of an electronic health record system to support cross-hospital MDTs in paediatric cancer; Designing an improved system to handle the literature for supporting systematic reviews



Henry P.
Associate Professor, UCL

Recent HA dissertations include: Studying the uptake of teleconsultations in hospitals across COVID; How the weather impacted socialising behaviour and quality of life during COVID; An analysis of apps for eating disorders in adolescents



**Joe S.** 16/07/2021

Thank you, those topics seem very interesting.



# Are there any particular orientation activities that trainees have found helpful in terms of the wider picture?

Especially in a hospital setting

General question asked by Tina L. | 6 replies



**Jennifer B.**Health Analysis Trainee, NHS 16/07/2021

Visiting a hospital bed capacity management team was really good for an overarching understanding of how capacity is managed and how patients across specialties are given priority. More broadly, visiting a CCG to understand commissioning of services is really useful.



**Steph C.**Health Analysis Trainee, NHS 16/07/2021

Hi Tina

I would really recommend going to hospital settings during your orientation if possible. It will help you understand how your analytics impacts patients and clinicians, and like you say, helps you see the wider picture. One day that i really enjoyed was shadowing the ambulance service in London!



Clare R.

Programme Officer, NHS Leadership Academy
16/07/2021

Hi Tina, in terms of your GMTS orientation, you will receive guidance on this which will include examples of what trainees have done in the past, what you should be looking to plan and will give you an idea of what things will be available to you. We would recommend sitting down with your placement manager once you have their information, and talking through what is available to you, mindful that Covid may still impact what you can see and do. If there is something you would really enjoy, ask if you can see this. It's also worth noting that if you are really wanting to do something that may not be available right now (ride out with paramedics for example), then keep this in mind and ask later in the year. To note too, this doesn't have to be linked to your specialism.



Mati C.
Informatics Project Manager - Health Informatics GMTS Trainee, NHS
16/07/2021

I think of it as 3 inductions: one onto the scheme, one into your place of work, and one onto the educational component. For the workplace one I'd really try and get as much exposure to the different areas and departments. Shadowing senior leaders from different teams (e.g finance, data warehouse management etc) has helped build important longer term relationships



Henry P.

Associate Professor, UCL

There will be an induction at UCL for that component, introducing you to the place and everyone.



**Tina L.** 16/07/2021

Thank you all



## For any HI trainees here, what did you do in your two main placements?

Was the second placement a very different role from the first placement?

General question asked by Imogen D. | 2 replies



Mati C.

Informatics Project Manager - Health Informatics GMTS Trainee, NHS 16/07/2021

#### First placement:

Business Intelligence Unit - a bit of coding with a strong emphasis on interpreting and visualising data and presenting to senior leaders to inform decision making. I was the lead analyst for the Covid response which involved establishing a data recording, storing, and analysis process to track our covid patients. For example - patients may be put on a covid ward but not yet have a test result. Establishing a process to identify patients beyond saying 'if they have a positive test then count them' was really important and a great experience.

#### Second placement:

This is different because I sought out a different opportunity. I wanted more experience in project management and digital transformation so I used my existing network to find the placement. A lot of my day to day work is working with clinical and analytical teams across London on system interoperability and technical PAS changes. For example - we are implementing a new patient follow up pathway but this requires changes in the recording, coding, and tracking of patients which requires input from regional and national teams.



#### Imogen D.

16/07/2021

Thank you Mati, it's really helpful to hear about what you've done!



### What is the induction like at UCL for HI? Is there a residential?

General question asked by Anna M. | 2 replies



#### Henry P.

Associate Professor, UCL 16/07/2021

Details are to follow, but I think the UCL induction (for both programmes) is over 2 days. So you'll be staying overnight. The Scheme will organise your stay in a local hotel.



**Henry P.**Associate Professor, UCL 16/07/2021

The induction dates should be confirmed early next week



## When will we find out about schedules for the modules (HI), esp. for face-to-face elements?

General question asked by Eva G. | 2 replies



Paul T.

Professor Of Health Informatics, University College London
16/07/2021

I think provisional detailed timetables will be available early August. But I think that the outline timetable (when modules start and end and when the face to face days are) is probably already available. I'll see if I can find it.



**Eva G.** 16/07/2021 Great, thank you!



### What's the best way to get in touch with UCL?

I think I had an issue with my references and have emailed but am yet to get a response. Perhaps I need access to the portal?

General question asked by Victoria C. | 2 replies



**Paul T.**Professor Of Health Informatics, University College London 16/07/2021

Email <a href="mailto:IHI.education@ucl.ac.uk">IHI.education@ucl.ac.uk</a> with these kinds of issues



**Victoria C.** 16/07/2021

Thank you!



## What are the main differences/similarities between HI and HA?

General question asked by Anna M. | 15 replies



Henry P.

Associate Professor, UCL 16/07/2021

There is some overlap in the programmes and one or two shared modules. Health Analysis is focused on analysing health data, but a lot of health data these days comes from big digital systems, like hospital electronic health care record systems. Health Informatics covers the use of information and communication technology in healthcare, so various digital systems. But a big part of digital health systems these days is around analysing the data you get from them. Thus, there's some overlap!



Jennifer B.

Health Analysis Trainee, NHS 16/07/2021

Do you mean the scheme in general or the education?



#### Henry P.

Associate Professor, UCL 16/07/2021

I gave examples of dissertation topics in another thread and I think most of those dissertations would have been acceptable on the other programme.



#### Anna M.

16/07/2021

Thanks Henry, that's a great summary. Jennifer, I would say both really!



Jennifer B.

Health Analysis Trainee, NHS

On the scheme one of the main differences is that HI trainees are hospital based usually for the whole scheme, they change roles but their major focus is often the digital/information strategy and governance within a trust



Jennifer B.

Health Analysis Trainee, NHS 16/07/2021

Whereas HA trainees are always based at an arms length body for their first and last placement (NHS England), usually working at a regional or national level



Jennifer B.

Health Analysis Trainee, NHS

There is a lot of overlap, but HA is more using information to make changes and HI is more ensuring that information is there to make the change and covers digital systems more



Henry P.

Associate Professor, UCL 16/07/2021

HA placements are opening up more in the future to include a few hospital-based roles, although I don't know timescales.



**Eva G.** 16/07/2021

Would you say that it's possible to start on HI and switch to HA job after the scheme? And vice versa?



**Jennifer B.** Health Analysis Trainee, NHS 16/07/2021

Definitely would say so, the skills are interchangable



**Henry P.**Associate Professor, UCL 16/07/2021

Yes. We've had people on HI end up doing more HA-like roles in the past. HA is newer as a stream, so less to draw on there. Certainly some HA graduates are doing jobs involving elements of HI.



**Anna M.** 16/07/2021

This is all really interesting, thank you both



**Eva G.** 16/07/2021

That's good to know, thank you.



**Henry P.**Associate Professor, UCL 16/07/2021

I'm Programme Director of the Health Data Analytics programme at UCL, but if someone asked me at a party what do I do, I say health informatics. (OK, people usually then look blank because they don't know what that means!) I spend most of my days at the moment analysing COVID data for the Dept of Health and Social Care, but I also do some digital health work for Public Health England. So, yes, overlap.



**Anna M.** 16/07/2021

Oh that's a great insight, thank you!

## Could you provide some sources of information, influencers etc in HI?

Are you able to recommend any social feeds from educators and influencers in the space? Eg people to follow on Twitter, or YouTubers who cover HI topics? Personally, this is one of my favourite ways of learning so it would be handy to have a few to help get started

General question asked by 

Alex W. | 10 replies



Henry P. Associate Professor, UCL 16/07/2021



Henry P.

Associate Professor, UCL 16/07/2021

At www.youtube.com/channel/UCwwj238hf0HNNRb...



Mati C.

Informatics Project Manager - Health Informatics GMTS Trainee, NHS 16/07/2021

Twitter: Simon Dixon, Ian McNicoll, Techinhealth, Beautifulinformation, Marc farr



Henry P.

Associate Professor, UCL 16/07/2021

I'm on Twitter at @hwwpotts



#### Henry P.

Associate Professor, UCL 16/07/2021

Simon Dixon is great... and a big Buffy the Vampire Slayer fan



#### Henry P.

Associate Professor, UCL 16/07/2021

Paul is @paul3548



#### Henry P.

Associate Professor, UCL 16/07/2021

Enrico Coiera is good to follow on Twitter



#### Tina L.

16/07/2021

Are there any podcasts you would recommend?



Alex W.

16/07/2021

Brilliant, thanks!



#### Henry P.

Associate Professor, UCL 16/07/2021

Indra Joshi is good to follow too