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Year in Data Analytics

Stand for ambition.
kent.ac.uk

Welcome!

- I'm Alfred Kume
- Course lead of the Year in Data Analytics

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- Course lead of the Year in Data Analytics
- I use data analytics to analyse big data related to images and shapes.
- Applications in Astronomy.

Data Analytics in the news

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Big Data London: When is the event and who is speaking?

The annual conference will be headlined by history-making British astronaut Tim Peake

Google Cloud expands developer tools and data analytics capabilities with generative AI

Google announces a number of very helpful capabilities for developers and those building data-centric applications at Google Next '23. We take a look at those likely to prove the most game-changing.

The Impact of Data Analytics on Football

Market Trends
September 18, 2023 . 3 mins read

Spokane startup raises $20M for data analytics software used by finance and treasury teams

BY **NATE BEK** on September 12, 2023 at 5:00 am

What is data analytics?

- We all generate huge amounts of data:

What is data analytics?

- We all generate huge amounts of data:
  - Social media
  - Credit card transactions
  - CCTV footage
  - Train, coach and plane bookings

What is data analytics?

- More than 100 zettabytes of data available globally
- 800,000,000,000,000,000,000,000 ones and zeroes
- They represent numbers, text, images, videos, sound

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What is data analytics?

- More than 100 zettabytes of data available globally
- 800,000,000,000,000,000,000,000 ones and zeroes
- They represent numbers, text, images, videos, sound
- There is a shortage of people who know how to analyse this data

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What is data analytics?

- Data analysts make sense of this data:
  - Trending topics
  - Credit card fraud
  - Energy prices and use
  - Demand on transport systems
  - Automatic monitoring of CCTV

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  - https://www.youtube.com/watch?v=ywZXpfdqg1o

Applications

- Driverless cars
- Cameras used to collect image-based data
- Models turn data into information:
    - What does that sign say?
    - Is that a pedestrian?
- Information turned into actions:
    - Brake
    - Steer left

Applications

- Medical imaging
- X-rays, MRI, CT scans
- Doctors look manually
- Hard to see microscopic problems
- Models used to improve diagnosis

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Applications

- Astronomy
- Telescopes generate terabytes of data each night
- Exoplanets in other star systems
- Redshifts in distant galaxies
- Intelligent life?

What do you need to do now?

- Nothing yet
- We'll take you through data analytics from the start

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- You'll start learning R next week
- You don't need any knowledge beforehand

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Who are you doing the year with?

- Kent Business School, Kent Law School, School of Biosciences, School of Computing, School of European Culture and Languages, School of History, School of Physical Sciences, School of Politics and International Relations, School of Social Policy, Sociology and Social Research

- Accounting & Finance, Ancient, Medieval and Modern History, Biochemistry, Biology, Biomedical Science, Business and Management, Chemistry, Computer Science, Computer Science (Artificial Intelligence), Criminology, Criminology and Social Policy, Criminology and Sociology, Finance and Investment, Forensic Science, History, International Business, Law, Law and Management, Management, Marketing, Physics, Politics, Politics and International Relations, Politics and International Relations with Quantitative Research, Sociology

Course structure

- Six taught modules
- 3 terms (2 modules per term):
    - An Introduction to Data Analytics
    - Understanding and Synthesising Research
    - Predictive Modelling
    - Creating Your Own Data
    - Communicating and Presenting Results
    - Big Data and Machine Learning

A typical week in Autumn term

Course structure

- Credits require the same amount of work in each school
- Our modules are no different
- But…. depending on your main course, you may find the structure a bit different
- 20-credit modules with two or more pieces of coursework
- No exams, no revision

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Course structure

- An Introduction to Data Analytics
- MAST5100
- First ten weeks of the autumn term
- 4 hours per week
- 42 contact hours

Course structure

- Understanding and Synthesising Research
- MAST5112
- Autumn term
- Lectures and seminars
- 4 hours per week

Course structure

- Predictive Modelling
- MAST5114
- Spring term
- 42 contact hours
- 4 hours per week

Course structure

- Big Data and Machine Learning
- MAST5118
- Spring term
- 42 contact hours
- 4 hours per week

Course structure

- Creating Your Own Data
- MAST5116
- Summer term
- 4 hours per week

Course structure

- Communicating and Presenting Results
- MAST5120
- Summer term
- 4 hours per week

Autumn term   Spring term   Summer term

Unit 1: An Introduction to Data Analytics

Fundamentals of what data analytics means in the real world.

Core statistical techniques and data handling.

Hands-on use of software.

Autumn term   Spring term   Summer term

Unit 5: Creating Your Own

Surveys, market research data, social media posts, administrative data, opinion polls.

An understanding of how these are created, and an ability to do it yourself, will give you the flexibility to work in a number of fields.

Unit 6: Communicating Presenting Results

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Support

- Module lecturers
- CEMS Student Engagement
- Course lead
- Academic advisors

Engagement Support

New email: **EngagementSupport@kent.ac.uk**

New locations: advice and support in central locations making it easier for you to find and visit.

Co-locating with other student facing teams so that you can go to one place and get help from the correct team when you visit.

You can email, call, drop-in or visit by appointment as needed.

Templeman Library, Canterbury

Sibson Building, Canterbury

Medway Building, Medway

https://student.kent.ac.uk/support/engagement

New Late Submission Policy

For all students who submit late with penalty.

**24 hours late
60 max mark**

Where the assignment is submitted within 24 hours of the published deadline, the mark recorded for the piece of work may not exceed the mark of 60;

**48 hours late
Module pass
mark max**

Where the work is submitted within 48 hours of the published deadline, the mark to be recorded for the piece of work will be capped at the pass mark for the module.

**> 48 hours
Mark of zero**

Where work is submitted more than 48 hours after the published deadline a mark of zero will be recorded for it.

OR you can request an extension to the deadline without any mark penalty if you have extenuating circumstances that are eligible for mitigation.
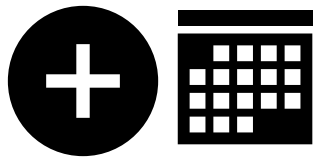
Mitigation for Extenuating Circumstances

2 options

You can request **Extension** and/or **End of Year Mitigation.**
Please note that for some assessments an extension is not possible, and in these cases End of Year Mitigation is the only option.

7-day max extension

7-day extension from the original deadline as standard, and no more than **1 extension for each assessment.** Please note in some cases 7 days is not possible, and shorter extensions will be advised.

Evidence

Only **ILPs with adjustments for deadlines count as evidence** and all other students (with or without an ILP) need to provide evidence or self-certify for up to two 7-day periods to cover in-course extensions.

If an extension is approved, then the Late Submission Policy is no longer applicable; a mark of zero is recorded if the submission is late following an approved extension.

These are standard guidelines but there will always be exceptional circumstances where additional support and other adjustments can be considered.

Any questions?

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