



# Department of Computing & Informatics

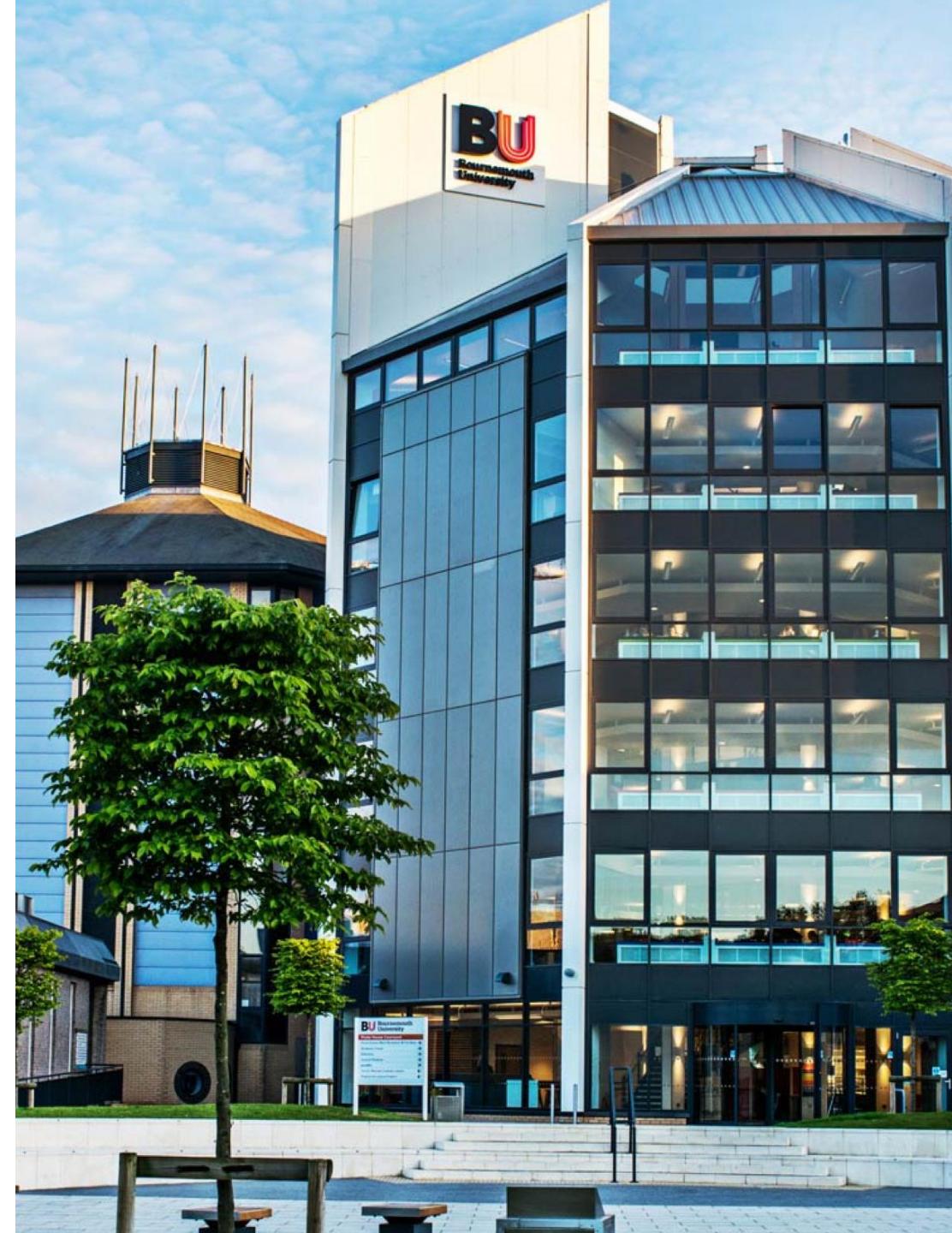


Welcome to our Computing Open Day!

# Today's Outline

Welcome to Bournemouth University!

- This presentation
  - **30 - 45 minutes**
- Tour of Department Facilities
  - **15 - 30 minutes**





We focus on:

- Student-centred learning environment
- Emphasis on intellectual achievement and employability
- Applying technical skills to solve problems

Our Courses in Numbers:

**£30.5k**

The average salary after three years for BU Computer Science graduates

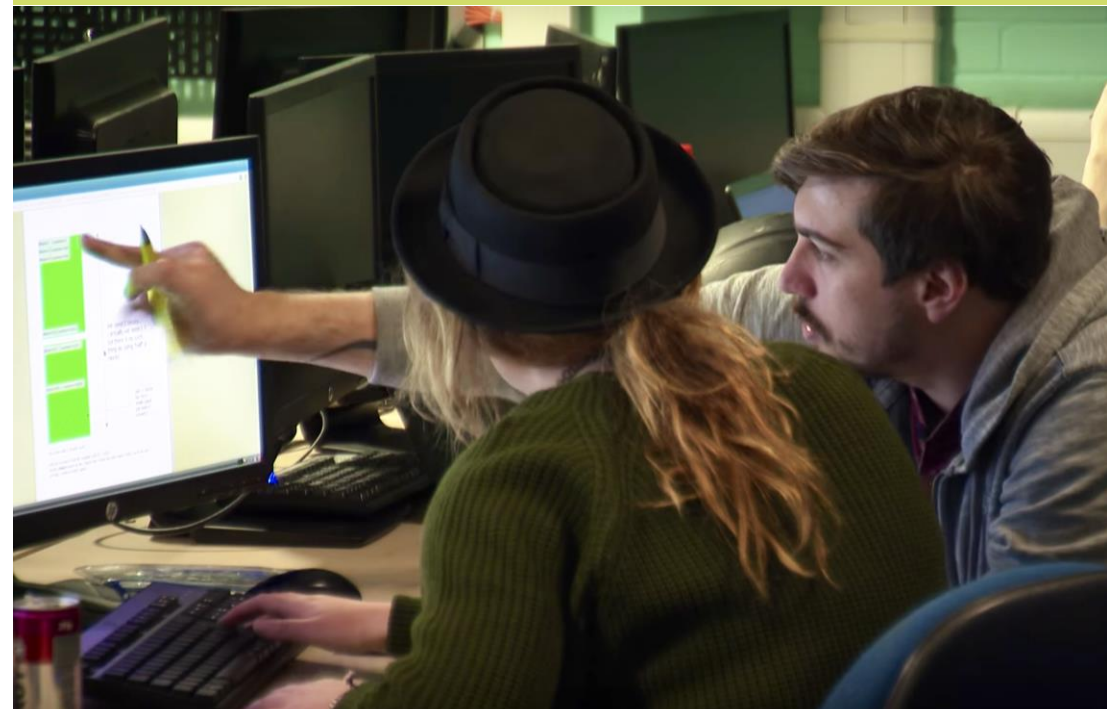
**95%**

Percentage of our graduates in this subject area who are in work or further study six months after finishing their course

**8**

Number of pathways available; you can swap courses after your first year if you decide another route is best for you

*All statistics are taken from Unistats or BU institutional data unless otherwise stated.*





## Our Department

- ~40 Full time faculty
- 5 Demonstrators & Lab Support

## Diverse backgrounds:

- Research active
- Industry & Professional Practice Connections

All staff are based in Poole House



# Our Courses

## Systems Development Route:

- BSc (Hons) Computing
- BSc (Hons) Computer Networks
- BSc (Hons) Software Engineering

## Business Computing Route:

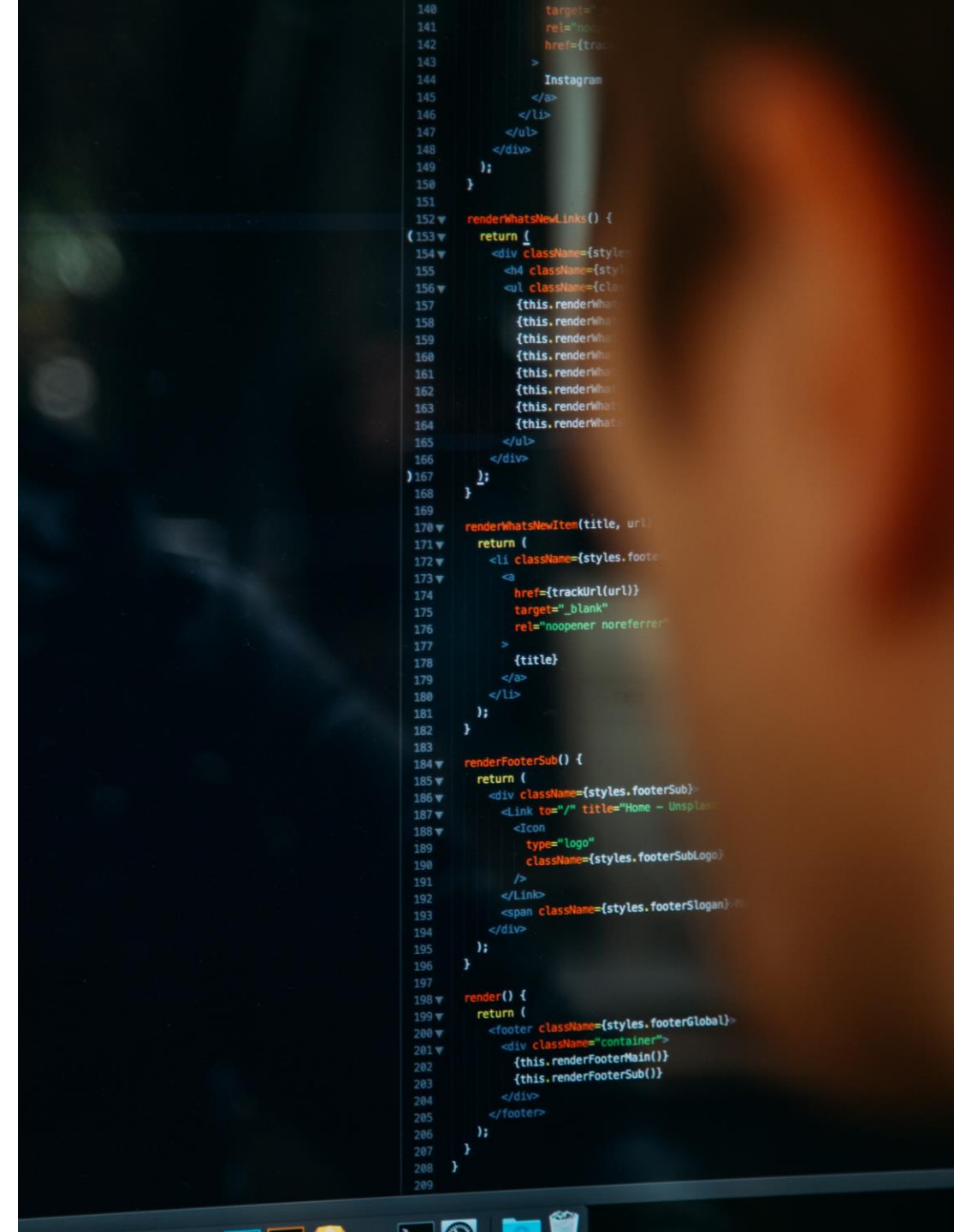
- BSc (Hons) Business Information Technology
- BSc (Hons) Information Technology Management

## Cyber Security Route:

- BSc (Hons) Forensic Computing & Security
- BSc (Hons) Cyber Security Management

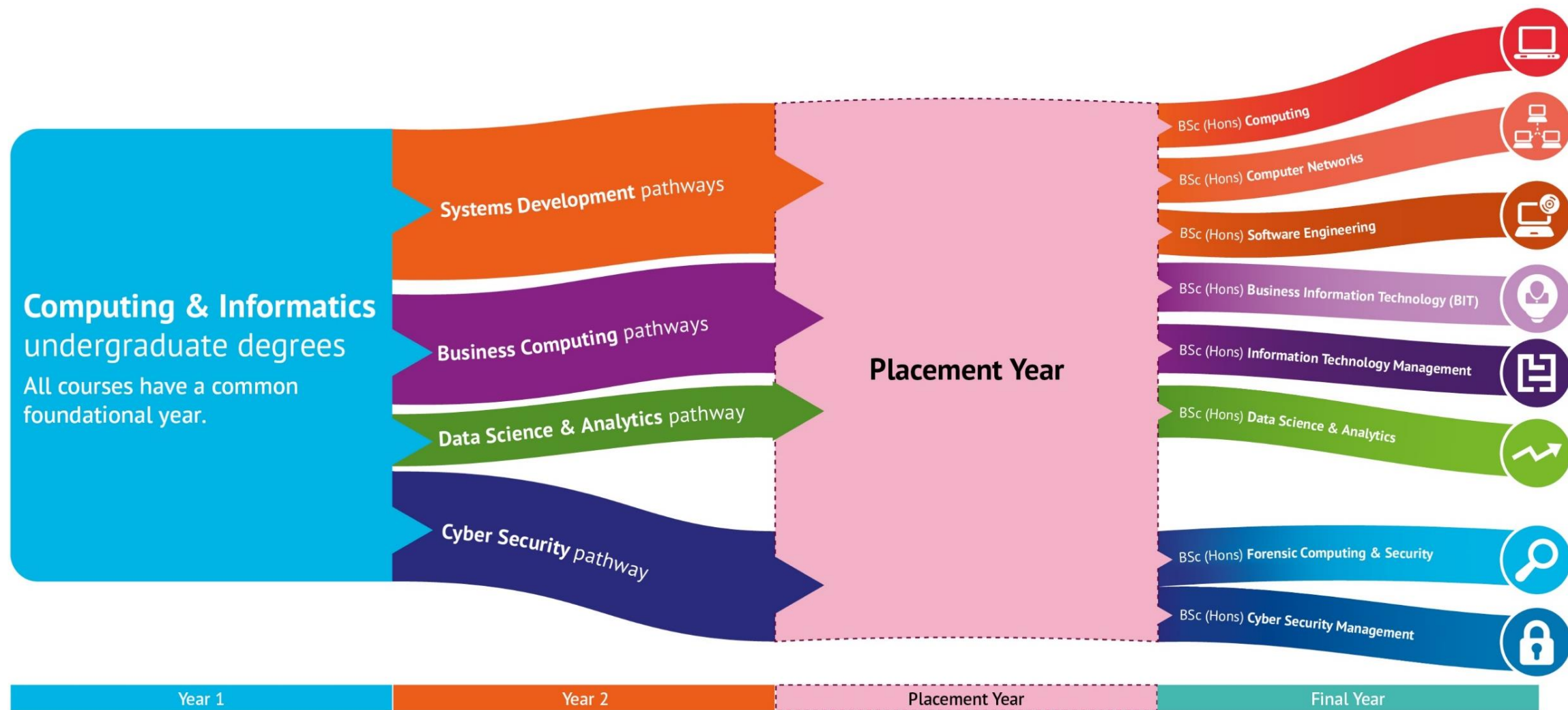
## Data Science and Analytics Route:

- BSc (Hons) Data Science and Analytics





# How our courses are structured



# Your Degree

## Year 1 (Level 4):

- Common to all our Computing courses

## Year 2 (Level 5):

- You begin to specialise
- Allowed to pick from some optional units

## Placement Year:

- In industry - apply your skills!
- Gain experience & start earning!

## Final Year (Level 6):

- More choice of units
- Your project & supervisor choice





# Year 1 (Level 4)

What will you study?

- Data and Databases (S1)
- Principles of Programming (S1)
- Computer Fundamentals (S1)
- Networks and Cyber Security (S2)
- Applications of Programming Principles (S2)
- Business Systems Analysis and Design (S2)

Assessment Structure:

- Typically 50:50 coursework : exam or 100% coursework
- Can be individual and group work





# Year 1 (Level 4)

- Two Semesters
  - Exams in January & May
- Contact Hours (~18)
  - 3 x 2-hour Lectures
  - 3 x 2-hour Labs / Seminars
  - 6 x Drop-in general support
- First year tutors
  - **Provide academic and pastoral care**
- Peer-Assisted Learning (PAL)
- Computing in Business Week
  - Practical group work on a development project



A holistic and tailored education for computing.

Course Focus:

- Software development – from analysis to deployment
- Tailoring your degree

Example Course Activities:

- Analysing software
- Developing software





A holistic and tailored education for computing.

Typical Placements:

- Developing software
- Designing software
- Anything to do with computing, really..

Prospective Job Titles:

- Software developer
- Software tester
- Web developer
- UX developer



Creating high quality software systems by employing engineering strategies.

## Course Focus:

- Software engineering processes
- Using tools and techniques to ensure high quality software development

## Example Course Activities:

- Design and implementation of software
- Software testing (quality assurance)





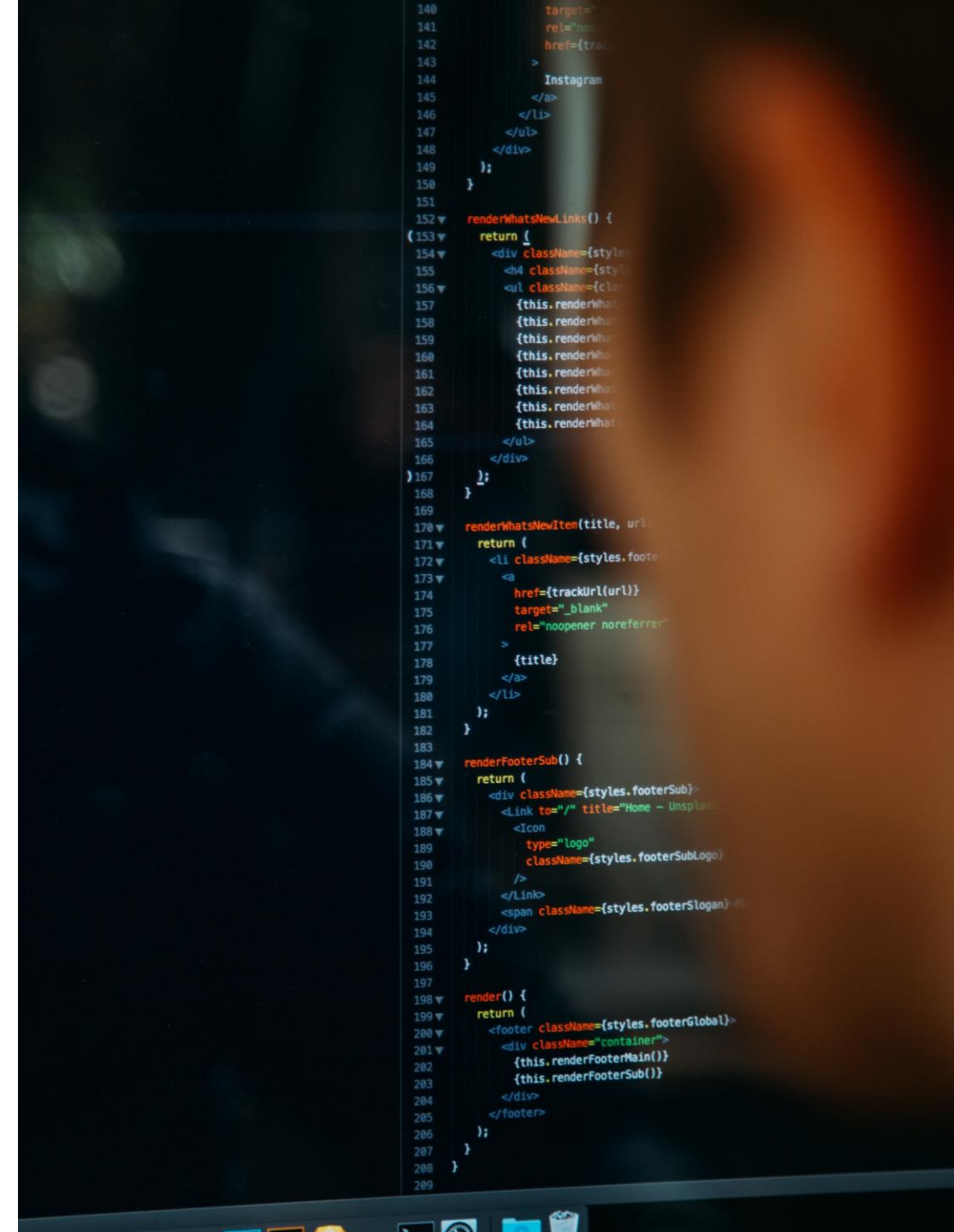
Creating high quality software systems by employing engineering strategies.

Typical Placements:

- Software design
- Software development
- Software testing

Prospective Job Titles:

- Software Engineer
- Software Developer
- Software Tester



Connecting the world with the latest networking technologies.

## Course Focus:

- State-of-the-art networking technologies, e.g., 5G, IoT and SDN
- Hands-on and in-depth, technical, know-how on computer networks

## Example Course Activities:

- Hands-on network configurations and setup
- Network simulation and performance analysis





Connecting the world with the latest networking technologies.

Typical Placements:

- Network configuration and management
- Administering business networks and IT infrastructure

Prospective Job Titles:

- Network Manager / Engineer
- Data Centre / System Administrator
- Network Scientist



Integrating computing technology into organisational processes to improve efficiency and effectiveness

Course Focus:

- Providing specific computing solutions that add value within a process or value chain.

Example Course Activities:

- Using idea generation techniques to identify market opportunities
- Data analysis experiments





Integrating computing technology into organisational processes to improve efficiency and effectiveness.

Typical Placements:

- Database Systems Analyst
- User Experience Designer
- Technical Marketer

Prospective Job Titles:

- Business Information Analyst
- Data Analyst
- SEO Executive



Overall strategic management of technology-dependent processes within an organisation

Course Focus:

- Modelling Business processes and requirements
- Solving management issues with IT solutions

Example Course Activities:

- Learn about the relationship between business processes and the IT systems supporting them
- Learn how to manage a range of computing activities from supplier and consumer perspectives





Overall strategic management of technology-dependent processes within an organisation

Typical Placements:

- Global Systems Communication Officer
- Technical Support

Prospective Job Titles:

- Information Management Analyst
- IT Project and Programme Manager



The course will give you knowledge of state-of-the-art techniques for intelligent data analysis, enabling you to apply them to real-world problems.

## Course Focus:

- Big Data and Visual Analytics
- Machine Learning and Deep Learning

## Societal Impact:

- From self-driving cars to detecting cancer
- Business value estimated at \$3.9T by 2022
- Active Research Area:
- Data Science and AI MSc & PhD opportunities
- Growing demand in both industry and academia





### Example Course Activities:

- Learn to use Big Data algorithms from Google
- Implement Machine Learning workflows in Python
- Create advanced, interactive, visualisations of data

### Typical Placements:

- Data analysis to provide insights and guidance, and identify areas of opportunities for AI application
- Implement, enhance, and extend AI and Machine Learning algorithms

### Prospective Job Titles:

- Data Scientist / Data Analyst
- Machine Learning Engineer



Provides you with an in-depth grounding in the multi-disciplinary field of cyber security management

## Course Focus:

- Cyber Security in technology, business and law
- Cyber Psychology and Human factors

## Example Course Activities:

- Cyber security risk assessment and treatment
- Capture The Flag (CTF) events and Hackathons





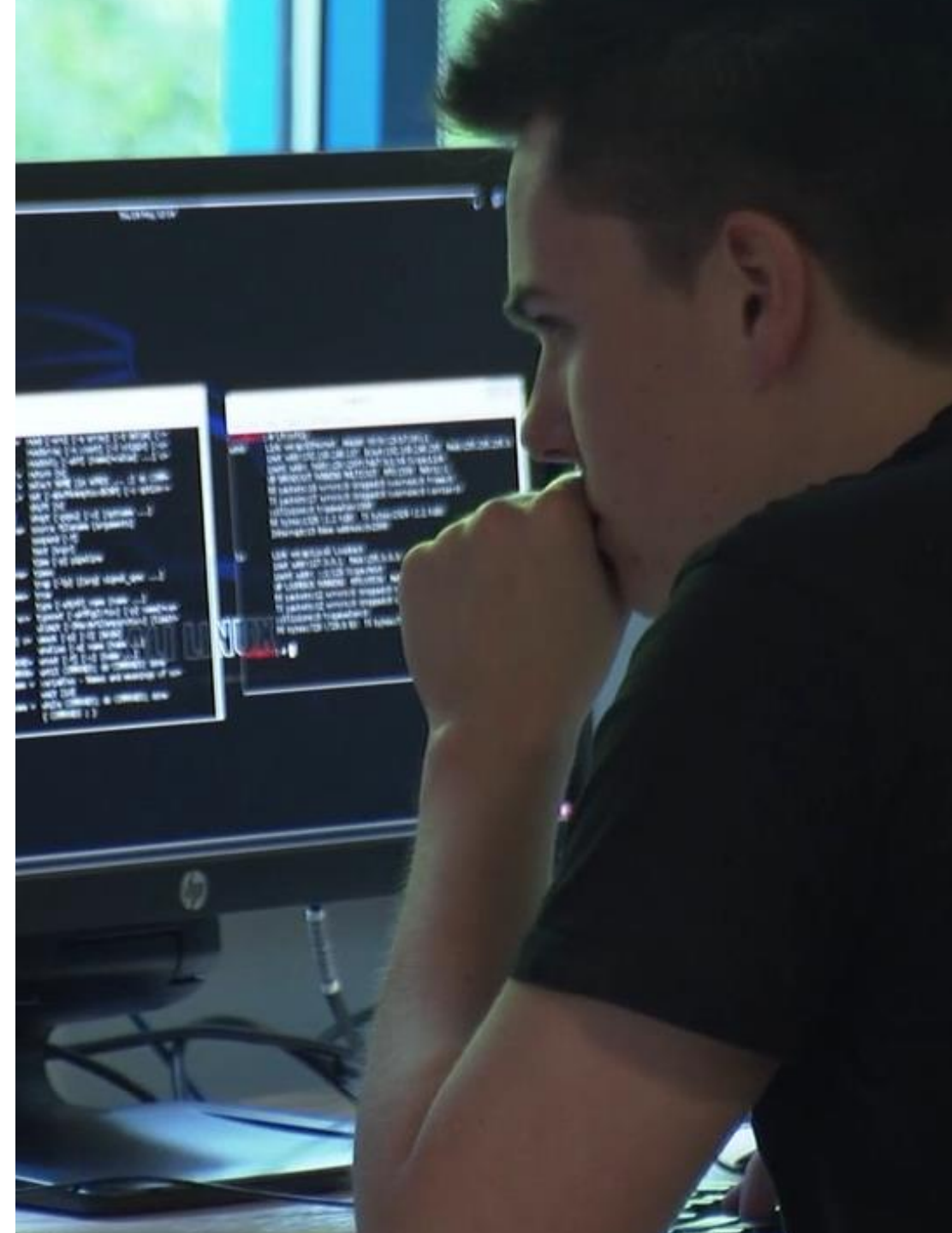
Provides you with an in-depth grounding in the multi-disciplinary field of cyber security management

#### Typical Placements:

- Security Apps and Managed Security Providers (Curatrix, Cybsafe, Egress, BAE Systems, etc.)
- Financial Institutions (Nomura, Chubb, Allianz, etc.)

#### Prospective Job Titles:

- Information Security Analyst/Consultant/Manager
- Governance, Risk and Compliance Auditor



Providing you with the tools and techniques needed to design & evaluate **secure** software

Course Focus:

- Digital Forensics
- Ethical Hacking
- Design for security

Example Course Activities:

- Forensic investigations
- Threat modelling





Providing you with the tools and techniques needed to design & evaluate **secure** software

Typical Placements:

- Sophos
- JP Morgan

Prospective Job Titles:

- Information Security Consultant
- Security Engineer



# Year 3 - Placement Year

Very important part of the course

- Put into practice your first two years learning
- Valuable industrial experience
- Big competitive edge for graduate employment

Minimum of 30 weeks

- Paid, large or small company, UK or international

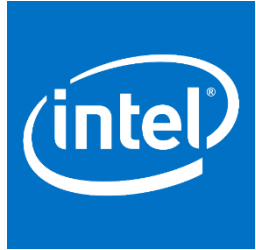
Departments Placement Service

- Helps you find and apply for suitable placements
- Also provide supervision while on placement





# Where our students have had their placements:



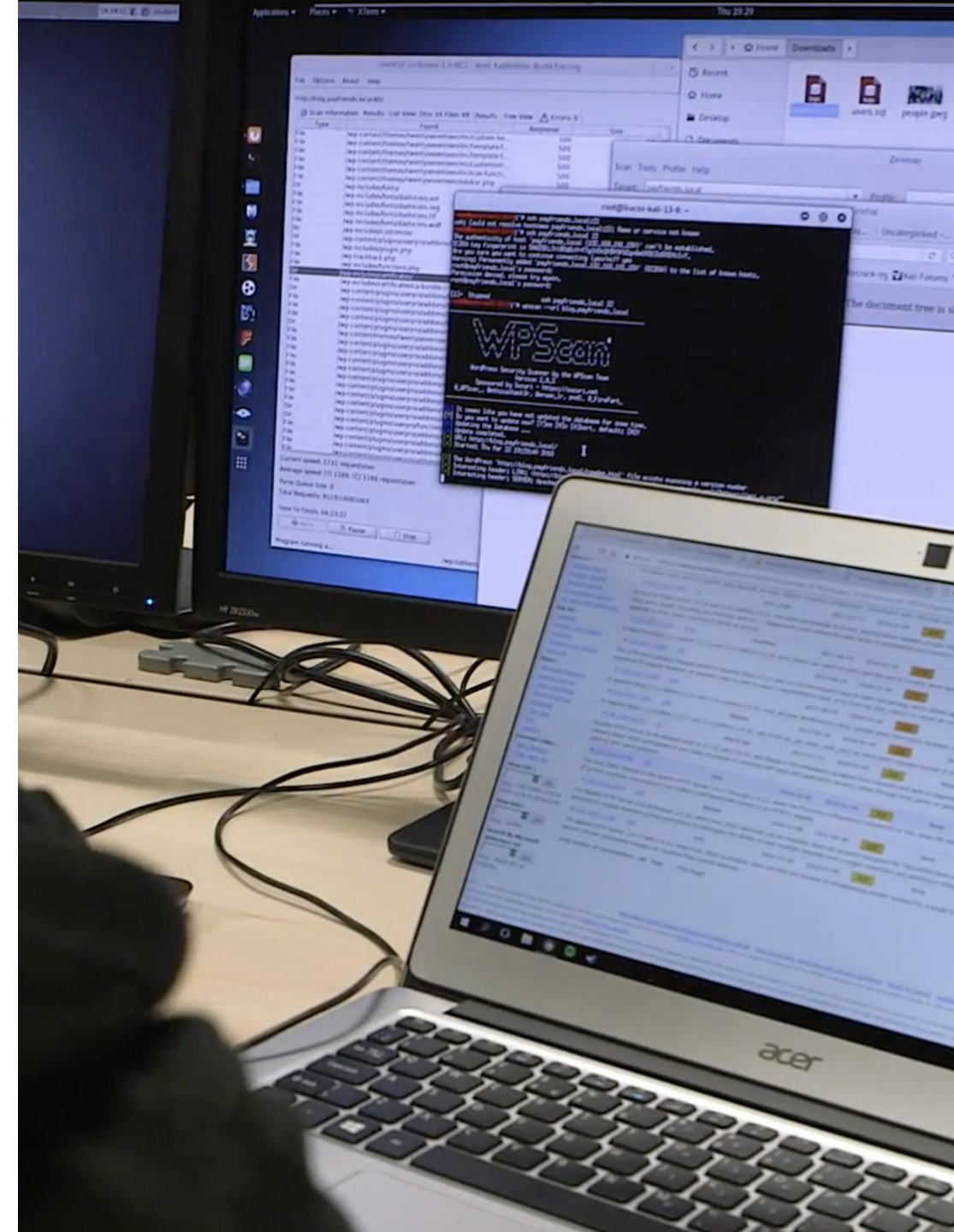
# Final Year (Level 6)

## Semester 1

- 3 taught units
- 2 fixed core units per course
- Free choice of the 3rd unit

## Semester 2 - Final Year Project

- You choose what you work on and pick your project supervisor (an academic member of staff):
  - Software development, mobile application development, feasibility study, etc.
- Produce an artefact (equivalent to 5,000 words)
- A written dissertation (10,000 words)





# A Selection of Final Year Units...



Advanced Development



Cyber Crime



Software Quality & Testing



Business Dev. & Enterprise



Human Factors in Computing Systems



Security by Design

...and more!



## Beyond the degree...

BUCSS  
Student Society



## External Events



## Industry & Academic Conferences



## Facilities - 24/7 Computing Study Zone

- Available for all computing students
- Available 24 hours a day, 7 days a week
- Never booked for lessons
  - free for students all the time
- Staff supported 6 hours a day



# Facilities - Networking, Development, and Security Labs

- Dedicated Development Lab
  - Virtual Machines & Linux
- Cyber Security Facility
  - Facilitates simulation of cyber attack on large enterprise networks
- Open Innovation Lab (Internet of Things)
  - IoT Devices & Development Boards
- Dedicated Networking Labs
  - CISCO Routers and Switches





# Bournemouth & Social Life





# Why Computing @ BU?

- Flexibility in study (choice)
- Placements (30+ weeks)
- Projects (60 credits)
- Career & placement support
- Outstanding employability
- Fuse industry and research into teaching
- Courses are technical in nature
- Friendly and inclusive community
- Support via PALs & Academic Advisors





# What we expect from you?

- Creativity
- Analytical and problem-solving skills
- A passion for learning
- The ability to commit to study!

```
140         target="
141         rel="noopener"
142         href={trackUrl(url)}
143     >
144         Instagram
145     </a>
146 </li>
147 </ul>
148 </div>
149 );
150 }
151
152 renderWhatsNewLinks() {
153     return (
154         <div className={styles.whatsNewLinks}>
155             <h4 className={styles.whatsNewLinksTitle}>
156                 What's New
157             </h4>
158             {this.renderWhatsNewItem(
159                 'https://www.instagram.com/bournemouthuniversity',
160                 'https://www.instagram.com/bournemouthuniversity',
161                 'https://www.instagram.com/bournemouthuniversity',
162                 'https://www.instagram.com/bournemouthuniversity',
163                 'https://www.instagram.com/bournemouthuniversity',
164                 'https://www.instagram.com/bournemouthuniversity'
165             )}
166         </div>
167     );
168 }
169
170 renderWhatsNewItem(title, url) {
171     return (
172         <li className={styles.whatsNewItem}>
173             <a
174                 href={trackUrl(url)}
175                 target="_blank"
176                 rel="noopener noreferrer"
177             >
178                 {title}
179             </a>
180         </li>
181     );
182 }
183
184 renderFooterSub() {
185     return (
186         <div className={styles.footerSub}>
187             <Link to="/" title="Home - Unsplash">
188                 <Icon
189                     type="logo"
190                     className={styles.footerSubLogo}
191                 />
192             </Link>
193             <span className={styles.footerSubSlogan}>
194                 Bournemouth University
195             </span>
196         </div>
197     );
198 }
199
200 render() {
201     return (
202         <div className={styles.footerGlobal}>
203             <div className="container">
204                 {this.renderFooterMain()}
205                 {this.renderFooterSub()}
206             </div>
207         </div>
208     );
209 }
```

# Find out more on our course websites

## BSc (Hons) Computing

Course open for late applications

UCAS Code: Institution: Delivery:  
G610 B50 Full-time

Request a prospectusContact usVisit usApply now

IntroductionCourse detailsPlacementsYour applicationEntry requirementsCareersCosts and feesOur staffCourse changes

for the future. Business transformation and organisational change are top priorities and roles in these areas will increase. Skills gaps are in mobile and application development, the internet of things, AI & machine learning and data analysis. [Computer Weekly](#) reports that advertised tech sector roles grew by 12% in 2017, and soft skills present largest tech industry skills gap.

On our Computing degree you'll cover a range of subjects relating to modern computing, including internet technologies, usability and systems software, and hone your soft, transferable skills by working in teams on projects; and you'll gain valuable work experience on your placement, giving you a head start in your career. This course is accredited by the British Computing Society (BCS). To be awarded Chartered IT Professional status from BCS you will need to complete a year of further learning beyond graduation and meet other criteria, details of which can be found on the [BCS website](#).

We understand that computing is a diverse subject and that it can be difficult to know what area you'd like to specialise in at this stage. So all of our courses within the computing framework share a common first year, giving you the time to really explore the subject before deciding on a specialism. There are courses that allow you to keep a relatively wide focus, as well as degrees that provide a greater level of specialism, giving you plenty of flexibility when it comes to which direction you want your career to take.

BSc (Hons) Computing forms part of BU's framework of computing alongside the following other courses:

- [Bsc \(Hons\) Business Information Technology](#)
- [BSc \(Hons\) Computer Networks](#)
- [BSc \(Hons\) Cyber Security Management](#)

£9,250  
per year

Fees shown are for 2019 entry.

Your tuition fee will not change for the duration of your course.

Tuition fees during your placement year (if applicable): **£830**.

Scholarships are available from **£1,000**. [Find out more](#).

[Find out more about course fees and costs](#).

### Related courses

Take a look at some of the other courses that we offer at BU.

[bournemouth.ac.uk/computing](https://bournemouth.ac.uk/computing)





# Department of Computing & Informatics

Thank you

We look forward to  
welcoming you soon!

Now it's time to have a look around the  
department

