PROGRAMME SPECIFICATION (Undergraduate)	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	BSc Hons
4	**Programme Title**	Cognitive Science Cognitive Science with Professional Placement Cognitive Science with Placement Year Cognitive Science with International Study Abroad Year
5	**UCAS/Programme Code**	C859, 1972U, 1964U, 1965U
6	**Programme Accreditation**	N/A
7	**QAA Subject Benchmark(s)**	Psychology, Linguistics
8	**FHEQ Level**	6
9	**Last updated**	May 2025

10 Programme Aims

1. To provide coherent and detailed knowledge and systematic understanding of the study of cognitive science, including the theoretical and empirical basis of the major disciplines in the field, particularly psychology and linguistics, but also philosophy and computational approaches to cognition.
2. To provide detailed knowledge of the main theoretical approaches to the study of human and animal communication, including formal approaches to linguistic analysis.
3. To provide coherent and detailed knowledge of and competence in the practical skills, research methods and data analysis needed to evaluate and conduct research in cognitive science.
4. To prepare students to progress to postgraduate study or professional training related to cognitive science.
5. To develop students' intellectual and transferrable graduate skills, scientific and philosophical literacy, and cultivate the application of these skills to professional, social, and policy domains.

Additional for Placement Year

1. To provide students with the experience of seeking and securing a position with an employer.
2. To facilitate independent self-management and proactive interaction in a non-university setting.
3. To provide a period of practical work experience that will enhance employability.
4. To enable students to ethically apply their knowledge and skills in the workplace, reflect upon their development.

Additional for International Study Year

1. To cultivate intercultural competence and global citizenship through studying in a different culture and learning environment.
2. Study a broader range of modules than available in the standard-length degree.

11 Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas. The programme outcomes have references to the benchmark statements for Psychology and Linguistics.

Knowledge and Understanding

On completing the programme students should:

A1 Describe, evaluate, and apply key theories, findings, and research methods in the main disciplines of cognitive science including psychology, linguistics, philosophy, and artificial intelligence.

A2 Synthesise and evaluate knowledge from the main disciplines of cognitive science, with a unique understanding of how links between these disciplines create opportunities for new knowledge and insights.

A3 Understand how to manage an independent research project under interdisciplinary supervision and collaboration, from conception to design (including ethical considerations), data collection, and analysis using appropriate quantitative and/or qualitative methods.

Additional for placement year

A4 Apply personally and professional development strategies to independently prioritise, plan, and manage skill development and learning.

A5 Research, select and apply relevant knowledge aimed at enhancing effectiveness in duties specific to their placement.

A6 Gain a working knowledge of the functioning of professional environments, including their place within the environment.

A7. Understand how learning in professional contexts relates to other areas of academic development and performance

Teaching and Learning Methods

The primary method of imparting knowledge and understanding is lectures, supplemented by additional materials and online resources. Learning is further supported by small group work, which may take the form of tutorials, seminars, practical classes and workshops appropriate to the module content. Small group work will generally include students on the degree together, allowing them to actively synthesize knowledge from the variety of disciplines in their degree. These delivery mechanisms allow outcomes A1, A2. Students will take core compulsory modules in research methods and data analysis culminating in a final year independent project, ensuring outcome A3.

Additional for Placement Year:

A placement taken after Stage 2 allows outcomes A4-A7

Assessment Strategy

Assessment of A1-A3 is by means of formal unseen and seen written examinations (essay, multiple choice questions (MCQs), short answer questions (SAQs)) and oral presentations and coursework which may include, essays, practical reports, poster presentations and group work assignments amongst others. Modules provide opportunity for formative assessment and feedback and students are encouraged to reflect on feedback so it can be fed – forward into future assessments and encourages students' progress and self-monitoring.

Intellectual Skills

On completing the programme students should be able to:

B1 Collect, analyse, and evaluate data, with an emphasis on behavioural data, structured and unstructured language datasets of varying sizes, and data from computational modelling and artificial intelligence.

B2 Gather, analyse and critically evaluate primary literature and its argumentation, with a particular emphasis on using an interdisciplinary lens.

B3 Develop theoretically motivated research questions, understanding their position within the existing state of knowledge and how to formulate testable hypotheses.

B4 Reflect on their own learning, knowledge, and skills, understanding the benefits and drawbacks of broad interdisciplinary approaches to cognition.

Teaching and Learning Methods

The primary method for developing Intellectual Skills are lectures, supplemented by additional materials and online resources. Skill development is further supported by small group work, which will take the form of seminars, tutorials, practical classes, and workshops appropriate to the module content (B1-B2). Small group work will be cohort specific, providing unique support for B4 in the context of other students developing the same unique skillset outlined in B1-B2. Research methods and data analysis will be taught cumulatively across multiple modules in stage 1-2, culminating in a final year independent project (B3).

Assessment Strategy

Assessment of B1-B3 is by means of formal unseen and seen written examinations (essay, MCQs and SAQs), coursework and oral presentations. B4 is assessed via reflective logs, essays and SAQs. Modules provide opportunity for formative assessment and feedback and students are encourages to reflect on feedback so it can be fed – forward into future assessments and encourages students' progress and self-monitoring.

Practical Skills

On completing the programme students should be able to:

C1 Design effective, theoretically motivated research appropriate to a given research question and hypothesis, producing interpretable results.

C2 A basic knowledge of computer programming, including its potential application in computational modelling, data analysis, and artificial intelligence.

C3 Understand and apply basic knowledge from data science using appropriate tools, including data cleaning, coding, wrangling, visualisation and statistical analysis appropriate to the data.

C4 Effectively interpret data to revise and inform understanding of behaviour, cognition, and language, including broad theoretical implications.

Teaching and Learning Methods

The primary method for developing Practical Skills is through our core modules in research methods and data analysis in stages 1-2, which will be applied independently as part of the independent project in stage 3 (C1-C4), and complemented via learning across the curriculum (C4). Modules are delivered via lectures and practical workshop sessions, and additional project-specific skills will be developed independently as part of interdisciplinary supervision during the independent project.

Assessment Strategy

Assessment is by means of research reports and other coursework. Modules provide opportunity for formative assessment and feedback and students are encourages to reflect on feedback so it can be fed – forward into future assessments and encourages students' progress and self-monitoring

Transferable/Key Skills

On completing the programme students should be able to:

D1 Communicate effectively in a variety of contexts using written argumentation, visual presentation of data or narrative argumentation, and through effective oral presentation.

D2 Effective information seeking skills agnostic to a particular discipline, particularly for primary literature and primary data.

D3 Ability to independently "trouble shoot" practical and analytical problems, evaluating a wide variety of tools and independently choosing and applying appropriate solutions.

D4 Respect and value diverse perspectives and experiences, both cross-culturally and in terms of different disciplinary or professional backgrounds and approaches.

D5 Ability to work both independently and as a member of a team, effectively managing project workflows including project planning and time management.
D6 Capacity to reflect on and manage learning and development independently in personal, professional, and social contexts.

Teaching and Learning Methods

The development of these key transferable skills or graduate attributes are interwoven in teaching and learning across the programme. For example, D1 and D5 are acquired across modules where students must prepare their work in different mediums and for different audiences, both independently and in groups. The use of demonstrator-led small group work specifically developed for Cognitive Science focuses not only on acquiring specific skills, but on how to reliably develop and extend skills independently using reliable resources (D2, D3). Modules explicitly cover strategies relating to D5 and D6, although it is anticipated this is developed through successful completion of the programme, adhering to deadlines and maintaining satisfactory attendance. D4 is explicitly covered in a variety of modules, with broad disciplinary backgrounds covered throughout the degree.

Assessment Strategy

Skills D1-D6 are assessed across the programme through coursework, culminating in the independent project which requires effective use of D1-D6. D5 is necessary for the student to achieve success over the three-year period, and explicit guidance in relation to this is provided where necessary by personal tutors.

12 Programme Curriculum, Structure and Features

Basic structure of the programme

The following awards are offered:

BSc (Hons) Cognitive Psychology – three-years full time programme
BSc (Hons) Cognitive Psychology with Professional Placement – four-years full time programme *
BSc (Hons) Cognitive Psychology with Placement Year – four-years full time programme *
BSc (Hons) Cognitive Psychology with International Study Year - four-year full time programme *

* The placement/international study year is based on two semesters.

Modules to the value of 120 credits are taken in each year or stage, and 10 credits are equivalent to 100 hours of study time (contact time plus private study time). Modules can vary in size, although the majority are worth either 10 or 20 credits. The third year of the four-year programmes is comprised of a single 120 credit placement/international study year module.

In Stage 1 all modules are compulsory. Stage 2 comprises 50 credits compulsory modules and 70 credits optional modules. In Stage 3, the independent project will be 40 credits spanning the entire academic year, alongside 80 credits from optional modules. Students may take up to 20 credits of advanced modules from other units with degree programme director approval.

Key features of the programme (including what makes the programme distinctive)

Cognitive science is an influential field drawing on a range of disciplines including psychology, linguistics, and artificial intelligence. The field is unified by its aim to create a joint theoretical and empirical understanding of cognition and behaviour, in humans and beyond.

Students will begin their journey in stage 1 with a carefully curated roster of compulsory modules drawn from psychology, linguistics, philosophy, and computing. This will give

them a broad theoretical foundation in cognitive science, human behaviour, and the structure of human language, alongside the basic building blocks for computational and quantitative methods. In stage 2, students will deepen their foundations in behavioural science with core compulsory modules in more advanced psychology and experimental methods in linguistics, complemented by a variety of optional modules from other areas of psychology, linguistics, philosophy, and computer science. The final stage will have a single core module in the form of an independent research project, drawing on supervision from staff across all three faculties, fostering effective collaborations that will be embedded within interdisciplinary research practice across the university more generally. The module accomplishes this by taking a unique approach to interdisciplinary supervision, requiring each student to be co-supervised by staff from at least two distinct faculties. Our distinctive approach to training students revolves around diverse theoretical, methodological, and analytical approaches to the collective disciplines in cognitive science - and applying these through our unique interdisciplinary independent projects. This will not only create excellent student-led research well placed to contribute meaningfully to the field, but also allow students to effectively apply the sought-after practical and transferrable skills outlined above.

Our Cognitive Science degree will draw on applicants with diverse previous experiences – from disciplinarily broad A-levels to international and non-traditional students – who wish to study a variety of disciplines in a focused and rigorous way, without narrowing their further study or employment paths. This diverse group of students will work closely together in a unique way: their coursework will be drawn from existing modules across psychology, linguistics, philosophy, and computing, where they will learn during lectures alongside students undertaking more focused study in each of these disciplines. However, for small group work, the Cognitive Science students will be together, giving them significant structured contact time to consolidate their learning across disciplines and engage in critical discussion that integrates their experiences from across the university. While other cognitive science offers in the UK sit almost entirely within the social, psychological, or computing sciences, Newcastle's offering will be unique in its approach to intentionally building the degree from different disciplines across all three faculties to effectively represent the field. Students on this degree will be unique cross-faculty ambassadors within the university, but will also be ideally situated to take this experience forward into a variety of professional and academic domains.

Programme regulations (link to on-line version)

-RC859, 1972U, 1964U, 1965U_2526_vFinal.pdf

13 Support for Student Learning

Generic information regarding University provision is available at the following link.

Generic Information

14 Methods for evaluating and improving the quality and standards of teaching and learning

Generic information regarding University provision is available at the following link.

Generic Information

15 Regulation of assessment

Generic information regarding University provision is available at the following link.

Generic Information

In addition, information relating to the programme is provided in:
The University Prospectus: http://www.ncl.ac.uk/undergraduate/degrees/#subject Degree Programme and University Regulations: University Regulations

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided.

Annex

Mapping of Intended Learning Outcomes onto Curriculum/Modules

Intended Learning Outcome	Contributing Modules
A1: Describe, evaluate, and apply key theories, findings, and research methods in the main disciplines of cognitive science including psychology, linguistics, philosophy, and artificial intelligence.	PHI1017 PSY1004, PSY1015, PSY2002, PSY2014 SEL1027, SEL1028, SEL2229 SFY0025
A2: Synthesise and evaluate knowledge from the main disciplines of cognitive science, with a unique understanding of how links between these disciplines create opportunities for new knowledge and insights.	PHI1017, MAS1499 PSY3099 SEL2229
A3: Understand how to manage an independent research project under interdisciplinary supervision and collaboration, from conception to design (including ethical considerations), data collection, and analysis using appropriate quantitative and/or qualitative methods.	MAS1499, MAS2499 SEL2229 PSY3099
Additional for Placement Year A4: Apply personally and professional development strategies to independently prioritise, plan, and manage skill development and learning.	PSY3000 NCL3000
Additional for Placement Year A5: Research, select and apply relevant knowledge aimed at enhancing effectiveness in duties specific to their placement.	PSY3000 NCL3000
Additional for Placement Year A6: Gain a working knowledge of the functioning of professional environments, including their place within the environment.	PSY3000 NCL3000
Additional for Placement Year	PSY3000

A7: Understand how learning in professional contexts relates to other areas of academic development and performance.	NCL3000
B1: Collect, analyse, and evaluate data, with an emphasis on behavioural data, structured and unstructured language datasets of varying sizes, and data from computational modelling and artificial intelligence.	MAS1499, MAS2499 PSY3099 SEL1027, SEL1028 SFY0025
B2: Gather, analyse and critically evaluate primary literature and its argumentation, with a particular emphasis on using an interdisciplinary lens.	PHI1017 PSY1004, PSY2002, PSY3099
B3: Develop theoretically motivated research questions, understanding their position within the existing state of knowledge and how to formulate testable hypotheses.	PHI1017 PSY3099 SEL2229
B4: Reflect on their own learning, knowledge, and skills, understanding the benefits and drawbacks of broad interdisciplinary approaches to cognition.	PHI1017 PSY1004, PSY1015 SEL2229
C1: Design effective, theoretically motivated research appropriate to a given research question and hypothesis, producing interpretable results.	SEL2229 PSY3099
C2: A basic knowledge of computer programming, including its potential application in computational modelling, data analysis, and artificial intelligence.	MAS2499 SEL2229 SFY0025
C3: Understand and apply basic knowledge from data science using appropriate tools, including data cleaning, coding, wrangling, visualisation and statistical analysis appropriate to the data.	MAS1499, MAS2499 PSY3099 SEL2229
C4: Effectively interpret data to revise and inform	PSY3099

understanding of behaviour, cognition, and language, including broad theoretical implications.	
D1: Communicate effectively in a variety of contexts using written argumentation, visual presentation of data or narrative argumentation, and through effective oral presentation.	All modules
D2: Effective information seeking skills agnostic to a particular discipline, particularly for primary literature and primary data.	PHI1017 PSY1004, PSY2002, PSY3099
D3: Ability to independently "trouble shoot" practical and analytical problems, evaluating a wide variety of tools and independently choosing and applying appropriate solutions.	PSY3099 SEL1027, SEL1028, SEL2229
D4: Respect and value diverse perspectives and experiences, both cross-culturally and in terms of different disciplinary or professional backgrounds and approaches.	PHI1017 PSY1015 SFY0025 (NCL3000)
D5: Ability to work both independently and as a member of a team, effectively managing project workflows including project planning and time management.	PSY3099 SEL3005 (NCL3000)
D6: Capacity to reflect on and manage learning and development independently in personal, professional, and social contexts.	All modules