 

**CENTA Science Opportunity Studentship (CSOS)**

**Application for 2025 Intake**

CENTA is committed to widening the diversity of our PhD student cohorts in order for them to reflect the diversity of our society. In order to address a historical imbalance, it is our ambition to offer a small number of fully funded studentships to Black, Asian or Minority Ethnic (BAME) Home-award-eligible applicants who meet the academic requirements (at least a 2:1 at UK BSc level or at least a pass at UK MSc level or equivalent, see Q1 and Q2 below).

**Is the CSOS right for you?**

You must fulfil **all** of the three criteria below to be eligible for the CSOS route of entry to CENTA:

* You identify as BAME, AND;
* You are classified as a ‘Home’ Student in terms of University Fees (see criteria in table below; **International Students should apply through a different route of entry**), AND;
* You understand that the CSOS is not designed for application to a specific advertised project (though you may also/alternatively apply to these separately using the standard CENTA project application form).

The CSOS provides funding that is not attached to any specific project at the point of award, with the understanding that you use the CSOS to give you the flexibility to co-develop a tailored project in a research area that interests you, with a supervisor from within the CENTA network.

Please note, CENTA is funded by NERC – we can only fund projects which are [within the NERC funding remit.](https://www.ukri.org/councils/nerc/remit-programmes-and-priorities/) For example, we do not fund medical research. For more information, see pp.10-12 of this form.

In the 2025 recruitment round, for autumn 2025 entry, we are only able to host a maximum of one CSOS studentship at any one of our university or Research Centre partners. Therefore we ask you to indicate on this form at least one CENTA supervisor, based at one of our university or Research Centre partners, with whom you would be interested in working. Further information on the research areas covered by our university and Research Centre partners, and how to find out more about them, can be found at pp.9-11 of this form and on our website at <https://centa.ac.uk/apply/how-to-apply/>.

In this recruitment round we are able to offer **one** additional CENTA Science Opportunity Scholarship which **must** be based at the University of Birmingham and where the successful candidate **must** commence their PhD before 1st July 2025.

**Application to the CENTA Science Opportunity Scholarship**

**Your application to the CSOS will only be taken forward if you can answer YES to both questions below. Please note, you will be expected to provide proof of ‘Home Student’ Status. If you cannot provide this you are not eligible for CSOS and should apply to CENTA via a different route.**

**Please also provide a UK address and contact number on your CV.**

Please note, although you might eventually need to duplicate some of the information requested on this form on your host university’s application portal, it is the information in *this* form which is used to assess your application. Therefore, please complete it in in full and do not skip any sections.

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| **EDI Survey Completion Receipt Number**  This can be obtained by going to: <https://app.onlinesurveys.jisc.ac.uk/s/bham/edi-survey-for-centa-phd-applicants-2025-entry> | **Application forms without this number will automatically be rejected.** |
| **Do you identify as Black, Asian or Minority Ethnic (BAME?)** | **YES/NO (Delete as applicable)** |
| **Are you eligible for a Home award?** | Please indicate whether you are a HOME student:  **YES/NO (Delete as applicable)**  To be eligible for a full (Home) award candidates must meet the following criteria:   * Be a UK National, or * Have settled status, or * Have pre-settled status, or * Have indefinite leave to remain or enter * Be an Irish National   If a candidate does not meet the criteria above, they would be classed as an *International* student.  The full eligibility criteria can be found in Annex B of this document from UKRI: <https://www.ukri.org/wp-content/uploads/2024/04/UKRI-020424-TrainingGrantTermsConditionsGuidanceApril2024.pdf> |

**Submission**

This form must be submitted electronically along with your CV to the CENTA Studentship Selection Panel **by 23:59 GMT 8th January 2025** to: [centa-admin@contacts.bham.ac.uk](mailto:centa-admin@contacts.bham.ac.uk).

Once CENTA has made a decision on your application, CENTA will contact you about how to develop a project in your area of interest, and how to apply to a hosting university.

**References**

To allow us to assess your application, please provide here the names and contact details of two referees, at least one should be an academic. CENTA will contact them, so please inform them about your application.

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| Name | Email address | Institution/Company |
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**Your application**

**Personal details**

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| **Forename** |  |
| **Surname** |  |
| **Email address** |  |
| **Please tell us where you found out about this opportunity** |  |
| **Please tick to confirm that you have not had assistance / coaching from other people or used a chatbot in completing this form ☐**  The answers on this form should be entirely in your own words with no help from other people in the preparation, writing and editing of answers to each question. | |

**Pre-July 2025 Entry**

If you are interested in applying for our CENTA Science Opportunity Scholarship which **must** be based at the University of Birmingham and where the successful candidate must commence their PhD before 1st July 2025, please indicate this here and indicate the name of at least one CENTA supervisor with whom you would be interested in working.

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| **I am interested in this opportunity** | **YES/NO (Delete as applicable)** |
| **I confirm I will be able to commence a PhD before 1st July 20205** | **YES/NO (Delete as applicable)** |
| **Supervisor name (must be University of Birmingham)** | **Supervisor email address (if known)** |
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**Autumn 2025 Entry**

If you are interested in our CENTA Science Opportunity Scholarships commencing in autumn 2025 please indicate this here and indicate the name of at least one CENTA supervisor with whom you would be interested in working.

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| **I am interested in this opportunity** | | **YES/NO (Delete as applicable)** |
| **Supervisor name** | **University or Research Centre** | **Supervisor email address (if known)** |
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Please see the end of this form for further information on identifying a supervisor.

**Please answer the following questions.**

**Q1. Bachelors-level degrees awarded and grade/classification**

For 4 year integrated masters (MSci, MGeol etc.) please report your *third* year mark here and the final “M” grade in Q2.

Where a final grade is not yet known, please provide a predicted grade justified from your academic transcript. Please ensure that your academic referee is aware that they should also provide a predicted grade in their reference letter. Please also ensure your referee(s) are aware of the need to provide reference letters.

If you gained your Bachelor’s degree at a non-UK institution, please check the international student webpages at your preferred CENTA host institution (if you have a host institution in mind at this stage) for guidance on the UK equivalent of your grades. If you do not have a specific host institution in mind at this stage the guidance on the [University of Birmingham international student webpages](https://www.birmingham.ac.uk/international/students/country/index.aspx) provides an example of the UK equivalent of grades for one of our host institutions.

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| **Start date** | **End date** | **University** | **Subject** | **Qualification awarded**  **(e.g., BSc)** | **Class/grade awarded**  **(local and UK equivalent)** |
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**Q2. Masters-Level degrees and grade/classification or equivalent experience**

Where a final grade is not yet known, please provide a predicted grade justified from your academic transcript or indicate whether only a pass/fail is awarded. Please ensure that your academic referee is aware that they should also provide a predicted grade in their reference letter. Please also ensure your referee(s) are aware of the need to provide reference letters.

If you gained your MSc (or are working towards one) at a non-UK institution, please check the international student webpages at your preferred CENTA host institution (if you have a host institution in mind at this stage) for guidance on the UK equivalent of your grades. If you do not have a specific host institution in mind at this stage the guidance on the [University of Birmingham international student webpages](https://www.birmingham.ac.uk/international/students/country/index.aspx) provides an example of the UK equivalent of grades for one of our host institutions.

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| **Start date** | **End date** | **University** | **Subject** | **Qualification awarded or predicted**  **(e.g., MSc, MSci, etc.)** | **Class/grade awarded or predicted**  **(local and UK equivalent)** |
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| **Q3. Why do you want to do a PhD?**  A PhD is a 3.5 to 4 year commitment that requires high personal motivation. Please explain in **up to 200 words** how doing a PhD will lead to your chosen career, why you are interested in research and how you developed that interest. |
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| **Q4. In which subject area(s) are you most interested to study for a PhD?**  CENTA offers studentships within the NERC remit (see <https://www.ukri.org/councils/nerc/remit-programmes-and-priorities/>), specifically within three Science themes: Climate and Environmental Sustainability; Organisms and Ecosystems; Dynamic Earth. Further information is included at the bottom of this form and on the CENTA website (<http://www.centa.ac.uk/about/>).  Please write up to **200** words explaining the subject areas in which you are most interested in studying for a PhD. Please try to be as specific as possible so that we can help match your ideas to potential supervisors actively researching your area of interest. |
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| **Q5. Which skills, aptitude and experience do you have that make you an ideal candidate for a PhD in the area you have chosen?**  In up to **200** words please tell us how your skills (e.g. technical, laboratory, field, computing, independent work or teamwork skills) align with the topic you are interested in. You may use examples from a wide variety of life experience including work, academic study, research, presentations or public engagement activities, wider reading, extra-curricular activities such as sports, volunteering or other community activities. |
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| **Q6. What do you think are the key research challenges in the PhD topic you are interested in?**  You may use **up to 350 words** for your answer, showing evidence of information found from a range of academic or non-academic sources. If you wish you may provide a separate Harvard-style reference list at the end of your answer, which will not be included in the 350 word count. Alternatively you may use in-text references (e.g. I love dinosaurs (Matthews, 2020)) which will be included in the 350 word count. |
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| **Q7.**  **How do you plan and manage your time and motivate yourself during long-term projects?**  Good project and time management skills are key to the successful completion of a PhD, so here is the opportunity to show us how you approach planning and carrying out projects. In **up to 200 words** please describe how you plan tasks and manage your time using evidence from your academic, work or life experience. |
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| **Q8. What strategies do you use to solve problems?**  You will have to solve many problems during your PhD research, so here is the opportunity to show us how you approach problem solving. In **up to 200 words** please describe a problem you have had to solve during your studies, at work, at home or elsewhere. Please describe how you solved the problem and how you might respond differently if you were faced with that problem again. |
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| **Q9. OPTIONAL Individual Circumstances:**  CENTA is committed to widening participation and opportunity for PhD studentships to a diverse community of applicants. To help provide further context to your application, here is an **optional** opportunity to provide information or context that may have impacted your academic career path so far. This may include (but is not limited to) caring responsibilities, disabilities, ill health and/or financial pressures. Personal details are NOT needed, but a note about the *effect* of the circumstance(s) on time available for study/extra-curricular experience and the *timescale* over which the circumstance(s) occurred (or continue to occur) would be helpful for appropriately evaluating your application relative to opportunity. |
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**Information and Help**

We ask you to indicate on your application form at least one CENTA supervisor, based at one of our university or Research Centre partners, with whom you would be interested in working. (You may indicate more than one supervisor if you wish). You will therefore need to think in advance about which of our partner universities or research centres you would wish to be based at and which supervisors you might wish to work with. Our University and Research Centre partner points-of-contact, listed below, can provide more information on the research areas carried out in their institution and supervisors working in these fields. We also provide further information on the NERC-remit research carried out at University and Research Centre partners on the following webpage: <https://centa.ac.uk/apply/how-to-apply/>

**University Partners:**

University of Birmingham: Dr Tom Matthews ([t.j.matthews@bham.ac.uk](mailto:t.j.matthews@bham.ac.uk))

Cranfield University: Prof. Steve Hallett ([s.hallett@cranfield.ac.uk](mailto:s.hallett@cranfield.ac.uk)) & Dr Abdou Khouakhi ([A.Khouakhi@cranfield.ac.uk](mailto:A.Khouakhi@cranfield.ac.uk))

University of Leicester: Dr Tom Harvey (thph2@leicester.ac.uk)

Loughborough University: Dr Jeff Evans (J.Evans2@lboro.ac.uk)

The Open University: Dr Luke Mander ([luke.mander@open.ac.uk](mailto:clare.warren@open.ac.uk))

University of Warwick: Dr Ryan Mushinski (Ryan.Mushinski@warwick.ac.uk)

**Research Centre Partners:**

National Centre for Earth Observation (NCEO):

Dr Jeremy Harrison ([jh592@leicester.ac.uk](mailto:jh592@leicester.ac.uk))

British Geological Survey (BGS):

Dr Keely Mills (kmil@bgs.ac.uk)

UK Centre for Ecology & Hydrology (UKCEH):

Dr Cedric Laize ([clai@ceh.ac.uk](mailto:clai@ceh.ac.uk))

**How do I decide which research area to do a PhD in?**

CENTA researchers cover the following fields:

**Climate and Environmental Sustainability**

Climate System - satellite and ground-based observational capacities and approaches, climate system modelling, consequences of climate for hazard risk and its impact on societal and infrastructure resilience.

Air Quality - quantifying and modelling the sources, chemistry, transport and transformation of air pollutants (including bioaerosols) and their impact upon environmental and public health; modelling dynamics of air pollution; the impacts of (green) infrastructure on air pollution removal and dispersion; global chemical transport models; novel sensors and observations.

Water Science – water science; global biogeochemical cycles; hydrology; fluvial geomorphology; quantification and prediction of environmental impacts of hydro-climatological extremes, environmental and public health impacts of environmental pollution; ecosystem responses and resilience to environmental change.

Soil Science - land resources and sustainable soil management; pedology; soil health and quality; soil systems resilience; contributions to environmental change science and policy, food security, and ecosystem services.

Environmental Pollutant Fate and Behaviour - the fate and transport of synthetic organic pollutants (including pesticides and organic chemicals); plastic breakdown (e.g. in composting, anaerobic digestion, terrestrial soils, oceans); ecotoxicology; nanomaterials safety assessment; novel methods for detecting pollutants including microplastics.

Upper Atmosphere Science - interactions between the Sun’s outer atmosphere, solar wind and Earth’s atmosphere; improving resilience to key societal risks.

**Organisms and Ecosystems**

Palaeobiology and Evolution - vertebrate evolution; diversity and extinctions; exceptional preservation; plant speciation and extinction; quantitative macroevolutionary and palaeobiogeographical analyses; advanced imaging techniques for virtual analysis; human and societal evolution.

Contemporary Ecology and Biodiversity - biodiversity and ecosystem responses to global environmental changes (natural and anthropogenic); experimental and field-based studies on cognitive, behavioural, locomotor, restoration and urban ecology; natural capital and ecosystem services.

Environmental microbiology and biogeochemistry - microbial biology; metabolomics and genomics; C, S and N cycling in marine, freshwater, and terrestrial ecosystems; microbial life in extreme environments; quantitative population dynamics and predictive microbial ecology.

Vegetation and biogeochemical modelling - global–scale vegetation monitoring/modelling; estimating wildfire extent and forest cover and characteristics; land-use change and ecosystem function; P and N, and C dynamics in forests, crops and peat systems.

**Dynamic Earth**

Natural Resources and Energy - hydrocarbon exploration; transport of critical elements from the mantle to the surface; radioactive waste disposal; carbon capture and storage; energy storage; geothermal energy and mineral resources.

Surface processes, hazards, risk and products - sediment transport and deposition; assessment and mitigation of volcanic products, risks and hazards; assessment of changes in coasts and estuaries; rates of erosion.

Solid Earth Processes - sub-surface chemical and physical Earth processes including volcanic, igneous and metamorphic geology; analytical geochemistry; geochronology; geophysics.

Palaeoclimates and Palaeoenvironments - dynamics of Earth’s climate, oceans and ecosystems across a range of temporal scales; developments of chemical proxies; paleontological approaches.