

ACADEMIC CAREER PATHWAYS: RESEARCH & TEACHING SCHOOL OF THE PHYSICAL SCIENCES

Excellence is expected of all staff and the purpose of the promotions system is to recognise outstanding contributions and celebrate academic achievements. All applicants for promotion must show service to the University and / or to the wider academic community and are expected to share and role model the University's values in promoting collegiality and mutual respect. Research integrity is also considered paramount in maintaining the University's international standing and reputation; staff are therefore expected to maintain and uphold these principles at all times.

The University recognises that the lines between research leadership (or education or clinical leadership) and service are not always clear-cut and that there may be differences between disciplines. Assessments should be made within the context of relevant disciplinary norms, taking care to avoid double-counting and ensuring that decisions are objective and clearly documented.

A continued rising research trajectory would be expected for progression and promotion at all levels.

This document sets out the Excellence Criteria and Local Indicators for the University and those agreed by the Council of the School of the Physical Sciences for the purposes of promotion in the Institutions within the School.

Promotion to Professor and Professor (Grade 11)

Research and Research Leadership Professor

Promotion to Professor requires **outstanding achievement in research and research leadership assessed by reference to international levels of excellence**. This includes both individual and collaborative contributions to research, as well as contributions to leading an excellent institutional research culture.

There are two criteria and outstanding achievement is normally required in both.

The School expects excellence in research as a baseline, below are some example indicators of excellence in research and research leadership.

These example indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for Professorship. Applicants are encouraged to discuss their case with their Head of Department.

CRITERION 1: Consistently conducts rigorous research addressing significant questions, contributing new ideas and advancing the boundaries of the field whilst ensuring the highest standards of research integrity are promoted and maintained

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none">• A substantial portfolio of high quality research outputs that are internationally recognised as world class in terms of their originality, significance and rigour. The University acknowledges that the intellectual content of a paper is much more important than publication metrics or the identity of the journal in which it was published• Makes a significant contribution to the advancement of knowledge in their research discipline• Produces and disseminates research outputs that have an impact, for example in the REF or informs national or international policy development | <ul style="list-style-type: none">• Frequently invited to present work at major national and international conferences and institutions• A significant track record of winning competitive research funding• In receipt of prizes and honours for research |
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Examples of local indicators of excellence and impact

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CRITERION 2 : Consistently provides high-quality research leadership, strategically planning for the future and supporting an inclusive and productive research culture

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Leads and contributes to collaborative research projects • Elected/appointed to research-related leadership roles • Creates and manages large research groups • Convenes and leads major research conferences and seminar programmes • Provides intellectual thought leadership which informs and contributes to setting the international research agenda in an individual's area | <ul style="list-style-type: none"> • Participation in high-quality public, industrial and/or policy engagement activities linked to research • Edits major academic journals • Promotes collaboration and develops cross-disciplinary research activities |
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Examples of local indicators of excellence and impact

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| <ul style="list-style-type: none"> • Demonstrates a commitment to a positive and inclusive culture for all those involved in and supporting research activity, for example acting as adviser to underrepresented groups, active engagement in championing and implementing change • Actively contributes to research engagement and impact beyond the academy • Promotes and maintains high standards of research integrity | |
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Research and Research Leadership Professor (Grade 11)

Promotion to Professor (Grade 11) requires **outstanding achievement in research and research leadership assessed by reference to national levels of excellence and international recognition**. This includes both individual and collaborative contributions to research, as well as contributions to institutional research culture.

There are two criteria and outstanding achievement is normally required in both.

The School expects excellence in research as a baseline, below are some indicators of excellence in research and research leadership.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for Professorship (Grade11). Applicants are encouraged to discuss their case with their Head of Department.

CRITERION 1: Consistently conducts rigorous research addressing significant questions, contributing new ideas and advancing the boundaries of the field whilst ensuring the highest standards of research integrity are promoted and maintained.

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • A substantial portfolio of high quality research outputs that are internationally recognised in terms of their originality, significance and rigour. The University acknowledges that the intellectual content of a paper is much more important than publication metrics or the identity of the journal in which it was published. • Contributes to the advancement of knowledge in their research discipline | <ul style="list-style-type: none"> • Produces research outputs that have an impact, for example in the REF. • A track record of winning competitive research funding. • Invited to present work at major national and international conferences and institutions. |
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Examples of local indicators of excellence and impact

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| | <ul style="list-style-type: none"> • Award of prizes and honours for research |
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CRITERION 2: Contributes to high-quality research leadership and supports an inclusive and productive research culture

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Makes a significant contribution to collaborative research projects. • Contributes to organisation of major research conferences and seminar programmes. | <ul style="list-style-type: none"> • Participation in high-quality public, industrial and/or policy engagement activities linked to research. • Edits major academic journals. • Promotes collaboration and develops cross-disciplinary research activities. |
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Examples of local indicators of excellence and impact

- Developing intellectual thought leadership which influences the international research agenda in an individual's area
- Developing contributions to research engagement and impact beyond the academy
- Promotes and maintains high standards of research integrity
- Demonstrates a commitment to a positive and inclusive culture for all those involved in and supporting research activity, for example acting as adviser to underrepresented groups, active engagement in championing and implementing change

Teaching and Researcher Development Professor and Professor (Grade 11)

All applicants are required to show that they have made an effective contribution towards the University's goal of providing high-quality research-led teaching to undergraduate and postgraduate students and/or fostering the professional development of research students and early career research staff.

It is recognised that applicants may contribute in different ways at different points in their career and that effective contributions may differ between disciplines.

Contributions will be assessed in the context of the relevant Institution's expectations, including the local workload model where applicable.

The School expects that all University Teaching Officers deliver consistently well-organised and clear teaching and/or research supervision. Teaching should be effective and provide a sound basis for further learning.

It is expected that individuals contribute in this area through actively creating and maintaining a positive and inclusive environment for those from all backgrounds, including supporting and nurturing PhD students and researchers.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for promotion. Applicants are encouraged to discuss their case with their Head of Department

CRITERION 1: Consistently delivers excellent teaching that benefits from and engages with Cambridge's research-rich environment and is intellectually challenging

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Designs and develops new programmes. • Leads/makes a significant contribution to internal teaching reviews. • Demonstrates breadth of knowledge and teaches effectively beyond immediate research area. • Receives prizes for teaching. • Undertakes examination/acts as a course examiner. • Provides educational leadership and organisation including curriculum development and learning design. | <ul style="list-style-type: none"> • Successfully introduces innovative teaching/assessment methods or significant contribution to their enhancement. • Publishes major textbooks/e-learning materials adopted in courses internal or external to the University. • National or global press coverage of the candidate's educational ideas or activities. • Holding an educational leadership position within a professional body. • Receives excellent student feedback. • Demonstrates sophisticated, reflexive approach to teaching and supporting learning which enables students to develop subject knowledge and capabilities. |
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Examples of local indicators of excellence and impact

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| <ul style="list-style-type: none"> • Hosting summer students • Setting essays and projects | |
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CRITERION 2: Consistently delivers high-quality research supervision that is intellectually challenging and supportive

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Consistently high research student completion rates. • Award of prizes and honours for researcher development. • Consistently receives positive feedback from research students. | <ul style="list-style-type: none"> • Provides inclusive leadership and delivers excellence through the performance of others. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Contributes significantly towards recruiting and winning support for research students. • Recognises and nurtures talent and demonstrates consistent engagement with researcher training and development processes. |
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Examples of local indicators of excellence and impact

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| <ul style="list-style-type: none"> • Demonstrates a commitment to actively creating and maintaining a positive and inclusive environment and culture within their group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect | |
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CRITERION 3: Consistently ensures that early-career researchers receive excellent opportunities to develop their potential and prepare them for future success.

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Consistently receives positive feedback from postdoctoral researchers. • Enables and encourages early-career researchers to develop independent research lines and/or pursue independent publications or funding applications. • Mentors or coaches early-career researchers in other groups or departments. | <ul style="list-style-type: none"> • Provides inclusive leadership and delivers excellence through the performance of others. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Recognises and nurtures talent and demonstrates consistent engagement with researcher training and development processes. • Helps early-career researchers to be creative about their futures and takes active steps to support career pathways both in and beyond academia. |
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Examples of local indicators of excellence and impact

- Positively facilitates early-career researchers to be creative about their futures and take active steps to investigate career pathways both in and beyond academia
- Able to demonstrate a commitment to actively creating and maintaining a positive and inclusive environment and culture within their group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect

Service to the University and to the Academic Community Professor and Professor (Grade 11)

All applicants are required to show an **effective service contribution**. University members are expected to demonstrate and promote collegiality by nurturing a culture of mutual respect. The University recognises that individuals may contribute in different ways at different times and that as individuals become more senior they may be asked to take on more commitments that are external to the University. Nevertheless the University normally expects applicants to demonstrate a significant degree of service contribution that is internal to the University.

The School expects applicants to show an effective contribution and share the administrative burden and supporting the work of the relevant Institution. It is expected that individuals contribute in this area through actively creating and maintaining a positive and inclusive environment.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for promotion. Applicants are encouraged to discuss their case with their Head of Department.

CRITERION: Consistently makes an effective contribution of service to the University and to the academic community beyond the University. Promotes collegiality and engenders a culture of mutual respect.

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Departmental/Faculty/University academic leadership roles. • Sits on Departmental/Faculty University committees and bodies. • Provides active mentoring and support for colleagues. • Promotes and demonstrates effective use of the Staff Review and Development Scheme. • Significant and sustained contributions to equality, diversity and inclusion activities. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Promotes cross-disciplinary collaboration and knowledge sharing. | <ul style="list-style-type: none"> • Contributes to leadership, administration and student support within Colleges. • Significant and sustained contribution to widening participation activity • Engages significantly in peer review activity. • Advises government and parliamentary bodies. • Sits on public review bodies. • Significant and sustained contributions to fostering strategic partnerships (e.g. Industry, trusts and foundations, philanthropic donors). • Supports the work of other HEIs (e.g. significant external examining; participation in research/teaching and learning reviews). • Significant and sustained public engagement activity. |
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Examples of local indicators of excellence and impact

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| <ul style="list-style-type: none"> • Significant and sustained contribution to equality, diversity, inclusion activity, which may include mentoring, acting as adviser to underrepresented groups, active engagement in championing and implementing change • Demonstrates a commitment to actively creating and maintaining a positive and inclusive environment and culture within their | |
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<p>group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect</p> <ul style="list-style-type: none">• Makes an effective contribution to Department / Faculty and University committees and bodies	
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Progression to Associate Professor (Grade 10)

Progression to Associate Professor (G10) is intended to recognise and reward academic staff who are fulfilling **all** the ACP criteria (research; teaching and / or researcher development; service to the University and to the academic community) but who have a **special focus on teaching**. The University aims to achieve the highest international levels of excellence and all applications will be assessed against this standard.

An Associate Professor (Grade 10) remains on the Academic Career Pathway and thus eligible to apply for further progression. It is recognised that the balance between research, teaching and / or researcher development and service can shift in different directions over the course of an individual's career and the Pathway has the flexibility to accommodate this.

Teaching and Researcher Development

An applicant seeking progression to Associate Professor (Grade 10) is required to show consistent and sustained excellence in **providing high-quality undergraduate and postgraduate education that benefits from and engages with Cambridge's research-rich environment and/or nurturing the professional and personal development of research students and early career research staff**.

It is recognised that effective contributions may differ between disciplines and that an applicant's contribution is therefore to be assessed in the context of their Department/Faculty's expectations, including the local workload model where applicable.

Sustained excellence must be shown by reference to all or some of the following criteria:

The School expects that all University Teaching Officers deliver consistently well-organised and clear teaching and/or research supervision. Teaching should be effective and provide a sound basis for further learning.

It is expected that individuals contribute in this area through actively creating and maintaining a positive and inclusive environment, including supporting and nurturing PhD students and researchers.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for promotion. Applicants are encouraged to discuss their case with their Head of Department

CRITERION 1: Consistently delivers excellent teaching that benefits from and engages with Cambridge's research-rich environment and is intellectually challenging

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Designs and develops new programmes. • Contributes to internal teaching reviews. • Undertakes examination / acts as a course examiner. • Provides educational leadership and organisation, including curriculum development and learning design. | <ul style="list-style-type: none"> • Successfully introduces innovative teaching/assessment methods or significant contribution to their enhancement. • Publishes materials adopted in courses internal or external to the University. • National or global press coverage of the candidate's educational ideas or activities. • Receives excellent student feedback. |
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<ul style="list-style-type: none"> • Demonstrates sophisticated, reflexive approach to teaching and supporting learning, which enables students to develop subject knowledge and capabilities. 	
Examples of local indicators of excellence and impact	
<i>CRITERION 2: Consistently delivers excellent research supervision that is engaging, intellectually challenging and supportive</i>	
University examples of indicators of excellence and impact	
<ul style="list-style-type: none"> • Supervises research students effectively. • Consistently receives positive feedback from research students. 	<ul style="list-style-type: none"> • Provides inclusive leadership and delivers excellence through the performance of others. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Contributes towards recruiting and winning support for research students. • Recognises and nurtures talent and engages with researcher training and development processes.
Examples of local indicators of excellence and impact	
<ul style="list-style-type: none"> • Demonstrates a commitment to actively creating and maintaining a positive and inclusive environment and culture within their group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect 	
<i>CRITERION 3: Consistently ensures that early-career researchers receive excellent opportunities to develop their potential and prepare them for future success.</i>	
University examples of indicators of excellence and impact	
<ul style="list-style-type: none"> • Consistently receives positive feedback from postdoctoral researchers. 	<ul style="list-style-type: none"> • Provides inclusive leadership and delivers excellence through the performance of others. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Recognises and nurtures talent and engages with researcher training and development processes.

Examples of local indicators of excellence and impact

- Demonstrates a commitment to actively creating and maintaining a positive and inclusive environment and culture within their group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect

Research

An applicant is required to demonstrate **achievement in research** assessed by reference to national levels of excellence. This may include individual and/or collaborative contributions to research.

The School expects excellence in research as a baseline, below are some indicators of excellence in research and research leadership.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for an Associate Professorship. Applicants are encouraged to discuss their case with their Head of Department.

CRITERION: Consistently conducts rigorous research addressing significant questions, contributing new ideas and advancing the boundaries of the field, whilst ensuring the highest standards of research integrity are promoted and maintained.

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • A portfolio of high quality research outputs that are nationally recognised as excellent. The University acknowledges that the intellectual content of a paper is much more important than publication metrics or the identity of the journal in which it was published. • Invitations to present work externally. | <ul style="list-style-type: none"> • Invitations to join research consortia. |
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Examples of local indicators of excellence and impact

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Service to the University and to the Academic Community

An applicant is required to show an **effective service contribution**. University members are expected to demonstrate and promote collegiality by nurturing a culture of mutual respect. The University recognises that people may contribute in different ways at different times and that as individuals become more senior they may be asked to take on more commitments that are external to the University. Nevertheless the University normally expects applicants to demonstrate some degree of service contribution that is internal to the University.

The School expects applicants to show an effective contribution and share the administrative burden and supporting the work of the relevant Institution. It is expected that individuals contribute in this area through actively creating and maintaining a positive and inclusive environment.

These indicators are not exhaustive and additional indicators may be offered to illustrate your suitability for promotion. Applicants are encouraged to discuss their case with their Head of Department.

CRITERION: Consistently makes an effective contribution of service to the University and to the academic community beyond the University. Promotes collegiality and engenders a culture of mutual respect.

University examples of indicators of excellence and impact

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| <ul style="list-style-type: none"> • Departmental/Faculty/University academic leadership roles. • Sits on Departmental/Faculty University committees and bodies. • Provides active mentoring and support for colleagues. • Promotes and demonstrates effective use of the Staff Review and Development Scheme. • Significant and sustained contributions to equality, diversity and inclusion activities. • Creates a positive working environment and acts as a role model in promoting the University's values relating to inclusion and mutual respect. • Promotes cross-disciplinary collaboration and knowledge sharing. | <ul style="list-style-type: none"> • Contributes to leadership, administration and student support within Colleges. • Significant and sustained contribution to widening participation activity. • Engages significantly in peer review activity. • Advises government and parliamentary bodies. • Sits on public review bodies. • Significant and sustained contributions to fostering strategic partnerships (e.g. industry, trusts and foundations, philanthropic donors). • Supports the work of other HEIs (e.g. significant external examining; participation in research/teaching and learning reviews). • Significant and sustained public engagement activity. |
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Examples of local indicators of excellence and impact

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| <ul style="list-style-type: none"> • Able to demonstrate a commitment to actively creating and maintaining a positive and inclusive environment and culture within their group and wider department, as well as acting as a positive role model in promoting the University's value of mutual respect | |
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<ul style="list-style-type: none">• Makes an effective contribution to Departmental/Faculty and University committees and bodies	
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