

# Assessed Self-Discovery for EDI Advocacy



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In October 2022 the Mechanical Engineering department launched a new elective module Equality Diversity and Inclusion (EDI) in Engineering.



<https://www.imperial.ac.uk/media/imperial-college/faculty-of-engineering/mechanical-engineering/public/EDI-in-Engineering-Module-Creation-UROP-Final-Report.pdf>

# Autumn term

Students learn:

- How to use reflective and reflexive tools to consider their positionality
- About a range of EDI issues, by a diverse group of speakers from minority groups.

## WHEEL OF POWER/PRIVILEGE



Adapted from ccrweb.ca

@sylvriaduckworth



D&I in Eng. / Gender

Dawn Bonfield  
Towards Vision



Neurodiversity

Sara Rankin  
Imperial – Medicine/NHLI



Race & Colonialism

Aakeen Parikh  
Imperial – Mech Engineering



WP / Class

Simon Foster  
Imperial – Physics



Uni Measures / Actions

Stephen Curry  
Imperial – Associate Provost EDI



Ind. Measures / Actions

Kieran Thompson  
Cundall



LGBTQIA+

Mark McBride Wright  
Equal Engineers



Embedding & Evaluating

Kate Ippolito  
Imperial – Educational Dev. Unit

# Student Interaction



MODULE  
CREATION



REFLECTIVE  
LOGBOOK



EXTENSIVE  
TIMETABLED  
DISCUSSION



STUDENT  
VOICE FOR  
DEADLINES



COFFEE  
MORNINGS

# Spring Term


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Initiatives proposed

Small student teams

4x biweekly assessments (40% total)

Formative peer assessment



Prizes to be won!

## FEMFLUENCE

### ENGINEERING INITIATIVE EVENT

28<sup>th</sup> March 2-4pm

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#### HAVE YOU CONSIDERED A DEGREE IN ENGINEERING?

Talks run by women Alumni from ... who are completing their degree!

Debunking Engineering Myths!

Opportunity to ask questions about application and university life!

Get a Glimpse into the world of engineering!

**DID YOU KNOW:  
ONLY ABOUT 16.5% OF  
ENGINEERS ARE FEMALE?**

More info  
[www.femfluence.com](http://www.femfluence.com)



# ACCESSIBLE BOILERSUITS



The workshop boilersuits are an essential part of the student experience here at Imperial College.

This student-led initiative aims to tackle the issue of ill-fitting PPE and lack of inclusivity by catering to a range of body shapes, sizes, disabilities and cultural beliefs.

For more information, scan the QR code below or reach out to [accessibleboilersuits@ic.ac.uk](mailto:accessibleboilersuits@ic.ac.uk)



## Initiatives

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Class and entry to university

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Decolonising A-Level STEM

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Gender and choosing engineering

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Inclusive PPE

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Literature Review Assessment

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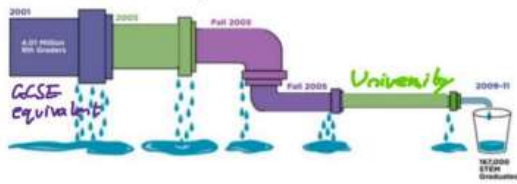
Neurodiversity and culture

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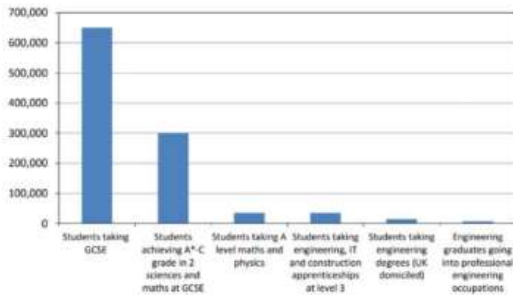
WP transition to employment

From the very first session, it struck me that EDI measures are put in place far too late. Not only in terms of time (why is this module only happening now, for example), but in terms of education and professional development. In school, there was never any mention of EDI, especially not within specific subject areas like STEM. In sixth form it only cropped up as a result of university applications but was generally seen as a negative (in my college at least). Obviously, it is not a negative, and if it were introduced earlier it would surely not be as stigmatised. I found it particularly interesting in Dawn Bonfield's lecture that, while most businesses strive for diverse teams, they are severely limited in what they can do due to the failings of the earlier education system in not just not diversifying, but in actively discouraging diversity in subjects, it seems.

### The STEM Pipeline



At GCSE, boys - girls are equal in STEM, as it is compulsory.  
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 At A-level many girls drop out of STEM  
 ↓  
 Why?  
 - Stigma from families & family?  
 - Don't want to be the only girl in a class  
 - Encouraged to do what 'same' boys do at  
 ↓  
 It's not that boys are better at STEM, it's that girls are better at humanities/arts.



20% of STEM students at undergraduate level are female; 10% have a disability; and 30% are non-white.

In the workplace it's only 16.5% female (though this is up from 10.5% in 2010)  
 ↓  
 Heading in right direction? Sure, but not fast enough..  
 ↓  
 Businesses are stupid not to hire diverse teams  
 ↓  
 Teams with various cultures, genders, ethnicities etc. always outperform a team of 'straight white males'

► An extract of my notes during Dawn's lecture.

### Strong Business Case – e.g. McKinsey

- McKinsey's 2019 analysis finds that companies in the top quartile for gender diversity on executive teams were 25% more likely to have above-average profitability than companies in the fourth quartile
- A substantial differential likelihood of outperformance—48%—separates the most from the least gender-diverse companies.
- In the case of ethnic and cultural diversity, the business-case findings are even more compelling: in 2019, top-quartile companies outperformed those in the fourth one by 36% in profitability

# End of module assessment:

## Curated log book

- 40% of marks
- 4 A4 pages
- ~500 new words
- Demonstrate a learning journey



End of  
module  
assessment:  
Reflective  
Essay (20%)

“Upon completing this reflection, I now recognise that my strengths lie with actual completion of tasks, however my weaknesses appear to be a result of my own perception of the power I possess (based on the wheel of power/privilege) in comparisons to those I am around. I allowed my ideas of how others perceive me to influence my actions and contributions which at times compromised communication and submission quality”

# Next steps in self discovery



Staff reflection – our own self discovery



Running again next year with adaptations



Student project implementation



A catalyst for broader self-discovery (ND UROP, LRPs, etc.)



Other departments / universities interested