

UCD Engineering Electronic & Electrical Engineering

Welcome for Stage 2 Students
September 2023

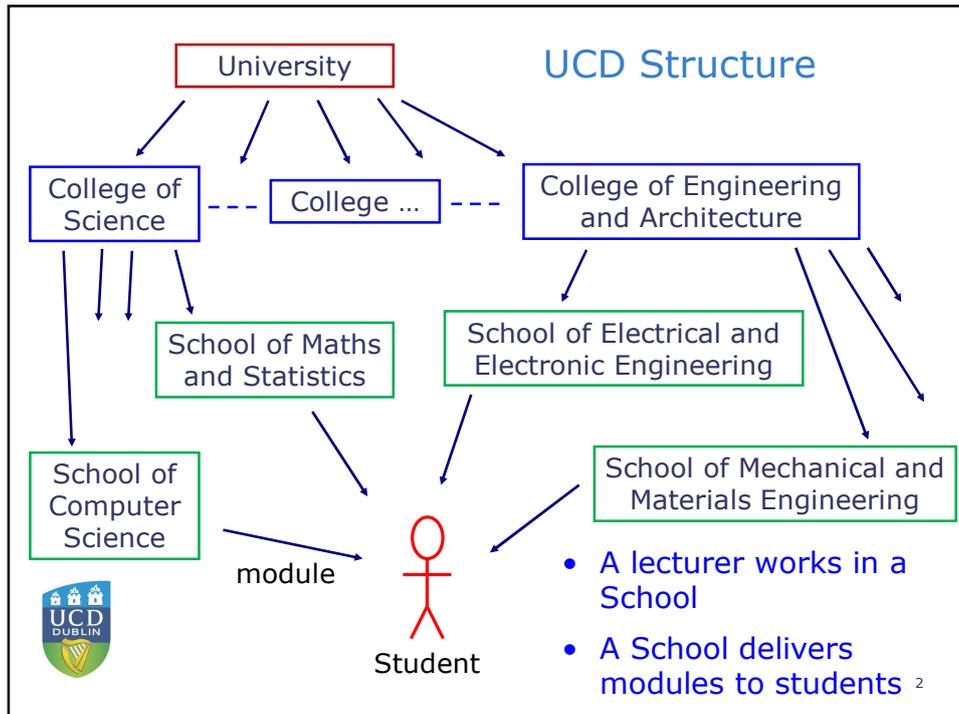
Brian Mulkeen
Programme Director



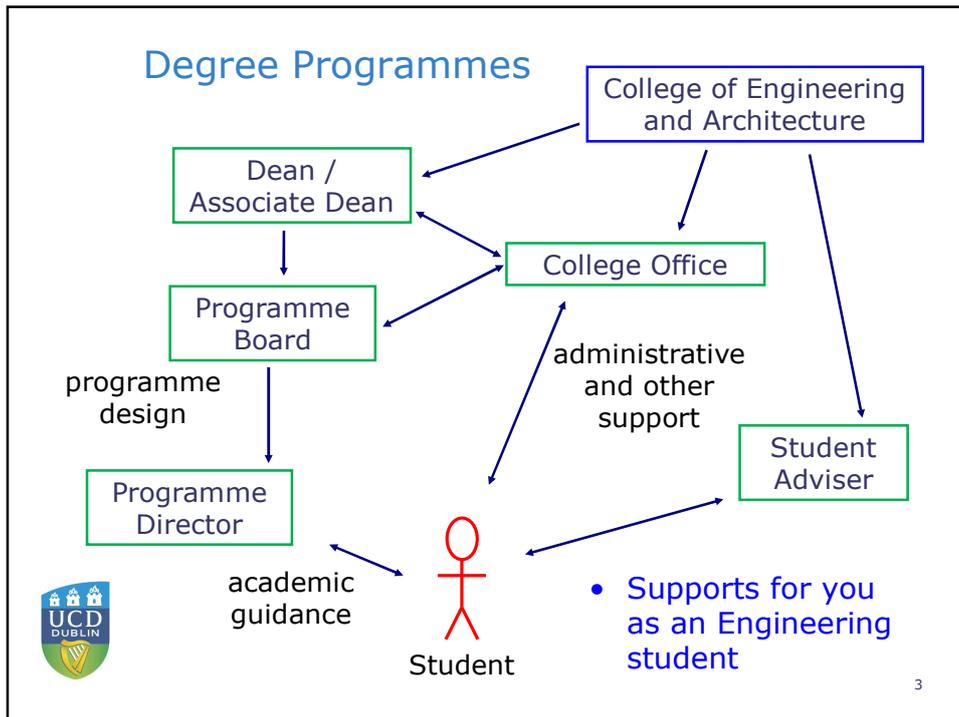
UCD School of Electrical and
Electronic Engineering

Scoil na hInnealtóireachta
Leictrí agus Leictreonaí UCD

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UCD Engineering & Architecture College Office

Room 122, Engineering and Materials Science Centre

<p>Ms Sue Philpott College Office Director</p> <p>Ms Debra Heeney Programme and Operations Manager - Engineering</p> <p>Ms Shelly Smith Programme Manager</p>	<p>Ms Carolyne Dillon Ms Niamh Fitzgerald Ms Claudia Schmid College Office Team</p> <p>Use the Student Connector for fastest response: www.ucd.ie/engineer - follow the link...</p>
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WELCOME TO

UCD

IRELAND'S GLOBAL UNIVERSITY

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Names and Faces

- **College of Engineering and Architecture**

- College Principal: Professor Aoife Ahern
 - also has the role of Dean of Engineering



- Associate Dean for Engineering: Professor James O'Donnell



- **Student Adviser**

- Julia Maher Julia.Maher@ucd.ie
- room 130A in Engineering



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Names and Faces

- **School of Electrical and Electronic Engineering**

- responsible for all EEEN modules
- head of school: Professor Paul Curran



- **Programme Director, Electrical Engineering**

- Stage 4 of BE Electrical, ME Electrical Power
- Professor Damian Flynn



- **Programme Director, BE Electrical/Electronic**

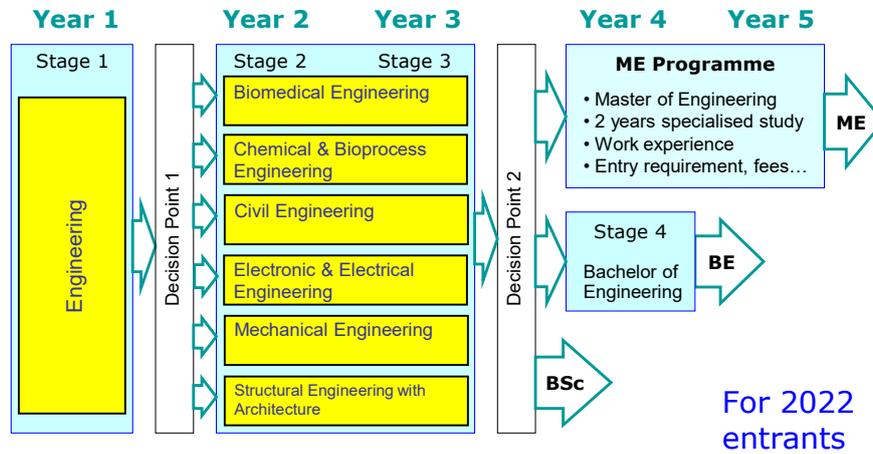
- Brian Mulkeen brian.mulkeen@ucd.ie
- Engineering, room 332



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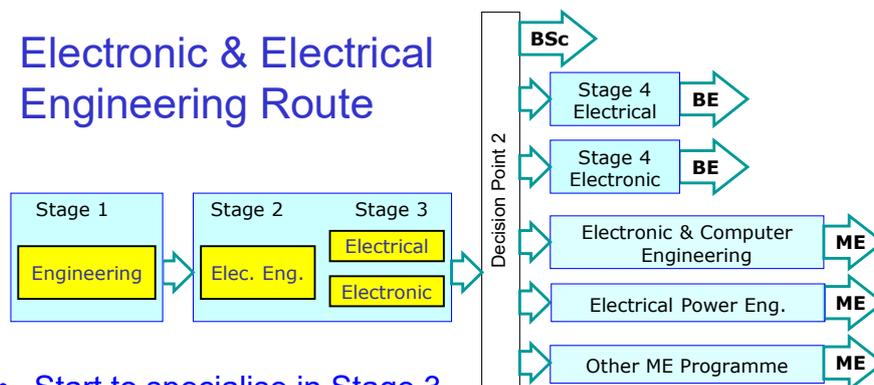
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UCD Engineering Pathways – DN150



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Electronic & Electrical Engineering Route



- **Start to specialise in Stage 3**
 - choose options relevant to electrical or electronic engineering
- **At end of stage 3, choose:**
 - progress to stage 4 of BE in Electrical Engineering
 - progress to stage 4 of BE in Electronic Engineering
 - graduate with BSc (Engineering Science)
 - or, if eligible, enter ME programme in area of interest...
 - need GPA ≥ 2.8 (stages 2 & 3, weighted by factors 3 and 7)

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Stage 2 Core Modules

- Foundations of electrical & electronic engineering
- Autumn trimester
 - EEEN20010 Computer Engineering
 - EEEN20020 Electrical and Electronic Circuits
 - EEEN20050 Digital Electronics
 - EEEN20070 Solid-State Devices
 - MATH20290 Multivariable Calculus for Engineers
- Spring trimester
 - EEEN20030 Electromagnetic Fields
 - EEEN20040 Electronic Circuits
 - EEEN20060 Communication Systems
 - EEEN20090 Electrical Energy Systems
 - STAT20060 Statistics and Probability



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Stage 2 Elective Modules

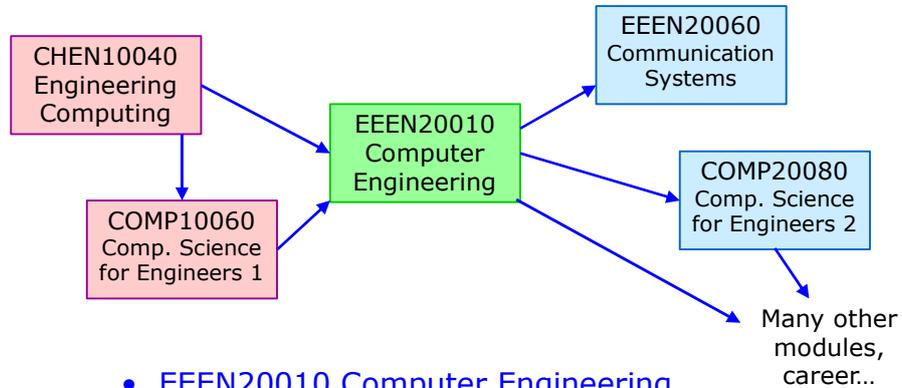
- Choose one in each trimester, to balance load
 - subject to prerequisites and timetable clashes
- Some relevant modules that fit your timetable:
 - COMP20200 UNIX Programming (spring)
 - IA20010 Creative Thinking and Innovation (autumn and spring, in blocks)
 - MEEN20030 Applied Dynamics I (spring)
 - SCI20020 Introduction to Project Management and Leadership (autumn only, some clashes)



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Module Details – Autumn Modules



- **EEEN20010 Computer Engineering**

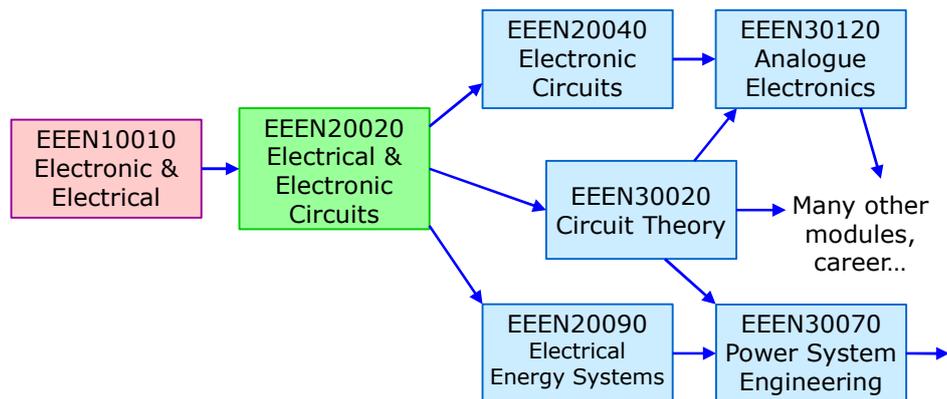
- programming in C
- lab: one 2-hour session each week (from week 2)
 - 2 offerings: Thursday 15:00 – bring your own laptop
 - Friday 15:00 – desktop computers available



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Module Details - Autumn Modules



- **EEEN20020 Electrical & Electronic Circuits**

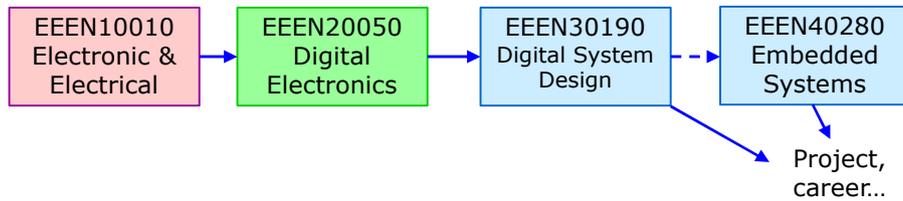
- key concepts in electrical circuits, foundation for many things, also some electronics: amplifiers etc.
- 3 lab sessions and 3 tutorials during the trimester



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Module Details - Autumn Modules



- **EEEN20050 Digital Electronics**

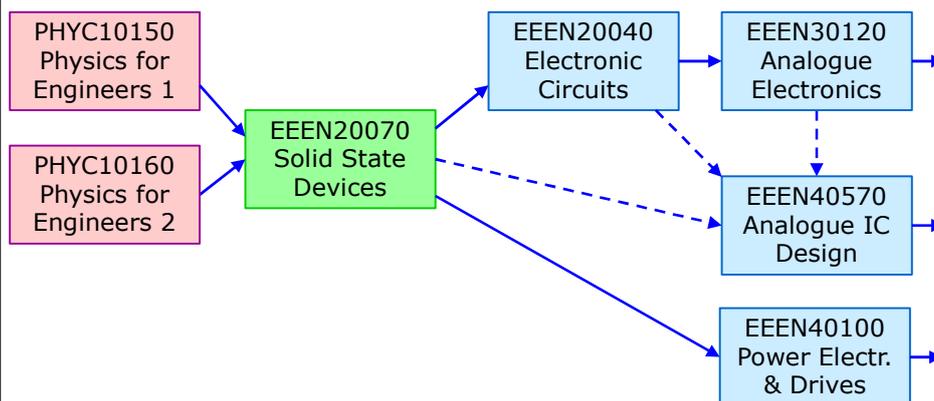
- foundation for digital systems, computer hardware...
- tutorials in weeks 1 and 2, Wednesday 9-11
- lab from week 3, Wednesday 9-11



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Module Details - Autumn Modules



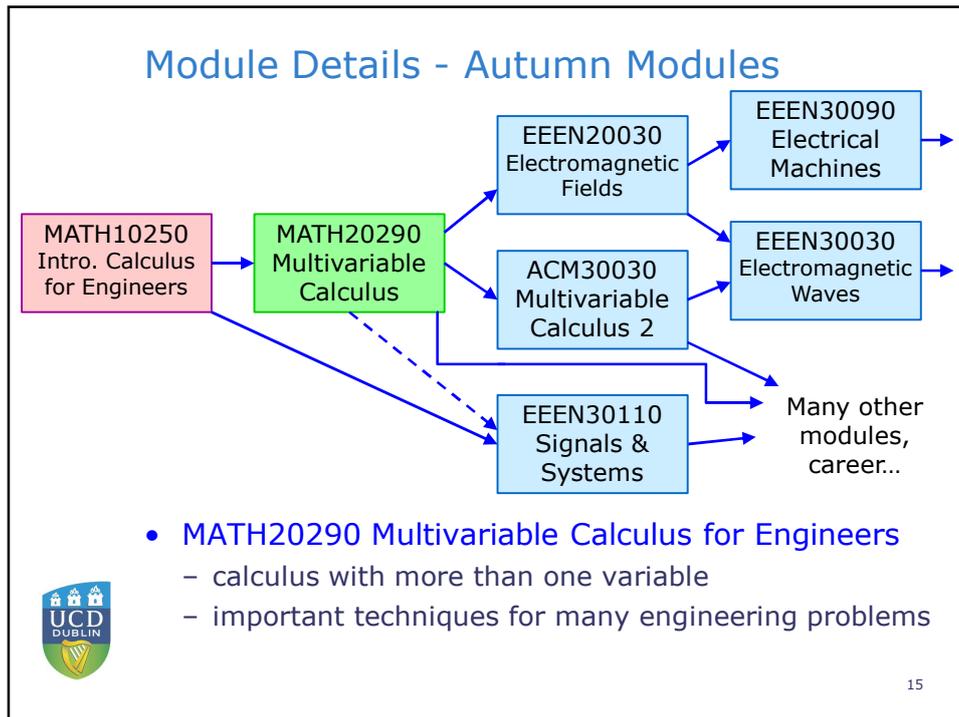
- **EEEN20070 Solid State Devices**

- devices like diodes, transistors
- how are they made, how do they work internally...



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Assessment - Autumn Modules

Module	Exam at end of trimester	Quiz or Test	Lab, Assignment or Homework
EEEN20010	60%		Lab assignments 40%
EEEN20020	40% *	week 6, 20% *	3 labs 20%, homework assignments 20%
EEEN20050	30%	week 5, 10%	Lab assignments 30%, homework assignments 30%
EEEN20070	65% *		Assignments 35%
MATH20290	85%	class test 15%	

- **Assignment details usually in Brightspace**
 - instructions, deadlines, etc.
- *** = open-book exam**



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Things to Watch

- **Stage 2 modules significantly harder than stage 1**
 - was stage 1 easy? maybe some familiar material?
 - all new material in stage 2...
 - **understanding** is important!
 - laying the foundation for more advanced modules...
- **Lots of continuous assessment**
 - labs in many modules
 - need to plan your time – clashing deadlines
 - no penalties for early submission of assignments...
- **Grades matter...**
 - for BSc in Engineering Science
 - degree based on grades in stages 2 and 3, weighted
 - this is also the entry criterion for ME programmes
 - eligibility for study abroad in stage 3...



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Academic Integrity

- **Basic rules apply – no cheating!**
 - want to keep assessments fair for all students
- **Most submissions start with a declaration**
 - this is all my own work, except where I state that it was done by someone else – citation, referencing
 - or, for a team, this is all our own work, except...
- **If that declaration is not true, you get penalised**
 - grade reduced, maybe to zero (NM), record kept
 - serious or repeated cases go to Registrar...
- **See the detailed information**
 - Student Conduct: <https://www.ucd.ie/secca/studentconduct/>
 - UCD Library: <https://libguides.ucd.ie/academicintegrity>



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Study Abroad

- Arranged through UCD Global www.ucd.ie/global
 - watch for information sessions this autumn
- Erasmus exchange
 - to a university in another European country
 - so most lectures will be in the local language!
 - recent exchanges to Munich, Lausanne, Lyon
- Non-EU exchange
 - to a university outside Europe
 - recent exchanges to USA (various cities), Canada, Singapore, Australia, New Zealand
- Our exchange coordinator: Prof. Stephen Redmond
 - need his approval for the modules that you propose to take on exchange – don't leave to last minute!



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UCD Study Abroad



Exchange Opportunities

When?

- Stage 3
- Autumn Trimester
- Spring Trimester
- Full Year

Requirements for Engineering Study Abroad

- Stage 1 complete, minimum GPA of 3.00
- 30 credits in Autumn trimester of Stage 2, minimum GPA of 3.00
- No grade less than C- in any core module in those 3 trimesters



Note: Students with a grade less than C- may be considered under other criteria. Contact College Office for further details on this.

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Class Representative(s)

- **Engineering staff-student committee**
 - needs student representatives from each stage and from each stream of engineering
- **Students' Union**
 - election for class representatives
- **Point of contact for me**
- **Choose 1 or 2 people to represent you**
 - when you get to know each other better?
- **Class communication channel?**



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Talk to Us!

- **If you find yourself in any difficulty, or have any problem, talk to someone**
 - sooner is better – easier to solve problems earlier
- **Module Coordinator (lecturer)**
 - if the problem relates to a particular module
- **College Office (use the student connector)**
 - registration problems, extenuating circumstances, leave of absence, reduced workload, etc.
- **Student Adviser**
 - Julia Maher – general and pastoral advice
- **Programme Director**
 - Brian Mulkeen – academic advice



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