

Murray Inglis

4th year Electrical and Computer Engineering student

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🌐 murrayinglis
📄 Murray Inglis

EDUCATION

- **University of Cape Town** *Final year*
BSc(Eng) in Electrical and Computer Engineering CGPA/Percentage: 83.12
- **Westerford High School** 2016-2020

EXPERIENCE

- **Vac Work at LEDWise** *2021*
Intern Cape Town
 - Practical training
 - Soldering
 - Solidworks
 - Design
- **iPay** *2023*
Software Developer Cape Town
 - DLMS smart meter software development
 - Cellular network integration
- **Tutoring** *2021-2024*
Private high school tutoring and tutoring UCT engineering and computer science courses Cape Town
 - Private tutoring: maths, chemistry, physics
 - UCT computer science: CSC1015F, CSC1016S, CSC2001F
 - UCT engineering: EEE2045F (Analog Electronics), EEE3092F (Signals and Systems II)

PERSONAL PROJECTS

- **Analog Modular Synthesizer** *Current*
Replicating a Eurorack modular synthesizer using analog electronics
 - I have a keen interest in music, as a guitarist and pianist.
 - Studying electrical engineering has enabled me to design and build effects for creating music.
- **OpenGL graphics engine** *Current*
A custom graphics and game engine coded in C++ with OpenGL
 - Tools & technologies used: C++, OpenGL
 - A field of mathematics I enjoyed learning was linear algebra. Rendering graphics and moving objects uses mainly matrix and vector multiplications. I enjoy trying to recreate video games I have played as a challenge and to develop my skills

TECHNICAL SKILLS AND INTERESTS

Languages: C, C++, Assembly, Python, Java, Julia

Developer Tools: Git, Unix

Areas of Interest: Signal processing, machine learning, analogue electronics

Personal skills: Communication, time management, teamwork, leadership

ACHIEVEMENTS

- **Dean's merit list - 1st year** Above 75% average for 1st year *2021*
- **Dean's merit list - 2nd year** Above 75% average for 2nd year *2022*
- **Class Medal - 2nd year** Highest grade in 2nd year for Electrical and Computer Engineering *2022*
- **Dean's merit list - 3rd year** Above 75% average for 3rd year *2023*



ACADEMIC RECORD

(RETRIEVED VIA SELF-SERVICE)

Name: Inglis, Murray Douglas Colin
Campus ID: INGMUR002
Birthdate: 02/10/2002

Student Records Office
University of Cape Town
Private Bag X3
Rondebosch
7701
South Africa

Telephone +27 21 650 3595

----- Beginning of Undergraduate Record -----

2021

Programme: Bachelor of Science in Engineering in Mechatronics
Specialisation: Mechatronics Specialisation

<u>Course</u>	<u>Description</u>	<u>NQF Level</u>	<u>NQF Credits</u>	<u>Results</u>
AXL 1200S	Africa: Culture, ID & Gblsn	05	8	82 1
CSC 1015F	Computer Science 1015	05	18	90 1
CSC 1016S	Computer Science 1016	05	18	88 1
EEE 1006F	Intro Electronic Engineering	05	12	89 1
EEE 1007S	Intro Electrical Engineering	05	12	94 1
MAM 1020F	Mathematics 1A for Engineers	05	18	81 1
MAM 1021S	Mathematics 1B for Engineers	05	18	96 1
MEC 1003F	Engineering Drawing	05	8	78 1
PHY 1012F	Physics A for Engineers	05	18	85 1
PHY 1013S	Physics B for Engineers	05	18	73 2+

Term GPA: 85.88

Dean's Merit List

Academically eligible to continue

2022

Programme: Bachelor of Science in Engineering in Mechatronics
Specialisation: Mechatronics Specialisation

<u>Course</u>	<u>Description</u>	<u>NQF Level</u>	<u>NQF Credits</u>	<u>Results</u>
CON 2026S	Project Management	06	8	76 1
EEE 1000X	Practical Training	05	0	GIP GIP
EEE 2044S	Introduction to Power Eng	06	16	85 1
EEE 2045F	Analogue Electronics	06	16	91 1
EEE 2046F	Embedded Systems I	06	16	82 1
EEE 2047S	Signals and Systems I	06	16	86 1
EEE 2048F	Prof Comm for Elec Eng	06	8	74 2+
MAM 2083F	Vector Calculus for Engineers	06	16	93 1
MAM 2084S	Linear Alg & De for Engineers	06	16	97 1
MEC 1009F	Intro to Engineering Mechanics	05	16	95 1
PHY 2010S	Electromagnetism for Engineers	06	16	93 1

Term GPA: 88.56

Class Medal: PHY2010S

Class Medal: Electrical & Computer Eng 2nd Year

Dean's Merit List

Academically eligible to continue

2023

Programme: Bachelor of Science in Engineering in Electrical & Computer Engineering
Specialisation: Electrical and Computer Engineering Specialisation



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Course	Description	NQF Level	NQF Credits	Results	
CSC 2001F	Computer Science 2001	06	24	81	1
CSC 2002S	Computer Science 2002	06	24	81	1
CSC 2004Z	Programming Assessment	06	0	PA	PA
EEE 1000X	Practical Training	05	0	PA	PA
EEE 3000X	Practical Training	07	0	PA	PA
EEE 3088F	Design Principles	07	8	73	2+
EEE 3089F	Electromagnetic Engineering	07	16	96	1
EEE 3090F	Electronic Devices & Circuits	07	16	87	1
EEE 3092F	Signals & Systems II	07	16	90	1
EEE 3094S	Control Systems Engineering	07	16	76	1
EEE 3096S	Embedded Systems II	07	16	79	1
EEE 3097S	Engineering Design: ECE	07	8	77	1
FTX 2000S	Personal Financial Managmt	06	18	85	1

Term GPA: 83.12

Dean's Merit List

Academically eligible to continue

2024

Programme: Bachelor of Science in Engineering in Electrical & Computer Engineering
Specialisation: Electrical and Computer Engineering Specialisation

Course	Description	NQF Level	NQF Credits	Results	
CML 4607F	Law for Engineers		0		
EEE 4022S	Research Project		0		
EEE 4113F	Engineering Systems Design		0		
EEE 4114F	Digital Signal Processing		0		
EEE 4119F	Mechatronics		0		
EEE 4120F	Digital Systems		0		
EEE 4124C	Impact of Engineering		0		
EEE 4125C	NVPPP		0		

Potential March/April qualifier

The conduct of the student was satisfactory.

The University of Cape Town teaches and examines in English.

----- End of Academic Record -----

Royston Pillay

Registrar



EXPLANATION OF CODES AND SYMBOLS USED		
1 COURSE CODES		
Every course described overleaf has a name and corresponding code. Each code has eight characters as follows, AAAInnnB, where:		
AAA	is the three alpha code of the department or unit administering the course (or in the case of a Faculty-administered course, of the Dean's Office).	
I	indicates the academic level of the course	
nnn	a number between 001 and 999 identifying the course	
B	the 'year portion' indicator, or suffix, identifying the type of course and when it is offered	
EWA	Examination without attendance at lectures	
CE	Continuing education course	
SUP	Supplementary examination in a course	
Credit values for non-GSB undergraduate programmes are displayed only as from 2010, and for the postgraduate programmes and GSB undergraduate programmes, as from 2011.		
2 HEQSF COURSE LEVEL DEFINES WORK TYPICAL OF		
5	The entry level of an undergraduate diploma or bachelor's qualification	
6	The intermediate level of an undergraduate diploma or bachelor's qualification	
7	The exit level for a general 3-year bachelor's degree	
8	The exit level for a professional 4- or 6-year bachelor's, postgraduate diploma or honours qualification	
9	A master's degree	
10	A doctoral degree	
3 RESULTS SYMBOLS		
Note: results for courses completed in the current year will remain PROVISIONAL until confirmed at the end of the year.		
A.	Pass	
1	75 – 100%	First Class
2+	70 – 74%	Second Class, Division One
2-	60 – 69%	Second Class, Division Two
3	50 – 59%	Third Class
PA	Pass	Note that certain courses are graded Pass or Fail only
UP	Unclassified Pass	A condoned pass or a supplementary examination written on academic grounds is graded as an Unclassified Pass
SP		Pass result obtained via a supplementary examination
B.	Fail	
F	0 – 49%	Fail
FS	0 – 49%	Failed, but permitted to write a supplementary examination on academic grounds
SF		Supplementary examination failed
A SF		Failed, absent from supplementary examination
UF SM		Unclassified fail, subminimum not met
OSS		Subminima failed, supplementary examination awarded
C.	Other Results Symbols	
DPR		Duly performed certificate refused, i.e. not permitted to write the examination in the course
AB		Absent from the examination
DE		Permission to write a deferred examination in this course on medical, religious, political or other good cause
OS		Result not yet available
GIP		Grade in progress – result expected in a subsequent term
LOA		Leave of Absence
ATT		Course attended
INC		Incomplete
EXA		Excluded from assessment
D.	Academic Concession – granted on grounds of courses completed elsewhere or towards different qualifications at this university	
CR		Credit, but in general the student is not allowed to continue with further courses in the subject
EX		Exemption, but in general another course must be substituted for this course
CX		Credit and Exemption. The course is counted towards the qualification for which the student is registered, and the student is permitted to proceed with further courses in the subject
EXC		Credit excluded. Indicates that the course is not recognised towards the current programme. Used where a student changes programme before graduation.
4 TRANSCRIPT ABBREVIATIONS		
GPA	Grade Point Average	
NQF	National Qualifications Framework	
SAQA ID	South African Qualifications Authority Identification Number	