

The University of Western Ontario

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The University of Western Ontario office of the registrar

LONDON, ONTARIO, CANADA N6A 3K7

Student ID: 250964533

Student : Dunlop, Spencer James Edward

Degrees Awarded

1402B PHYSICS FOR ENG STDNTS II

Birthdate : May-12

OEN 822823464 Send To: SPENCER JAMES EDWARD DUNLOP

ON CANADA



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TRANSCRIPT VALID ONLY IF BEARING OFFICIAL SEAL/SIGNATURE IN TOP

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Academic Program History	niversity	y_of \	
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	Bachelor of Engineering Science Mechatronic Systems Engineering with P 2022-Jun Scholarships and Awards be: Non-graduate scholarships are list Graduate scholarships are listed f The Western Scholarship of Excellence Academic Program History Faculty of Engineering Bachelor of Engineering Science Mechatronic Systems Engineering with P Completed Program Basis of Admission W 2017 Ontario Secondary School Diplom Academic Record 2017 Fall/Winter Description 1411A LNR ALG NUM ANALYSIS FOR ENG 1413 APP MATH FOR ENGRS I 1299E BUSINESS FOR ENGINEERS 1302A DISCOVERING CHEMICAL ENERGETIC 1021B PROPERTIES OF MATERIALS 1022Y ENGINEERING STATICS 1036B PRGMMNG FUNDAMNTLS FOR ENGRNS 1050 INTRO ENG DESIGN & INNOVIN STU	Bachelor of Engineering Science Mechatronic Systems Engineering with Profession 2022-Jun Scholarships and Awards Description Bachelor of Engineering are listed from Machanara for the Western Scholarships are listed from Septement of Engineering Science Academic Program History Faculty of Engineering Science Mechatronic Systems Engineering with Profession Completed Program Basis of Admission W 2017 Ontario Secondary School Diploma 2017 Academic Record 2017 Fall/Winter Description 1411A LNR ALG NUM ANALYSIS FOR ENG 1413 APP MATH FOR ENGRS I 1.0 1299E BUSINESS FOR ENGINEERS 1.0 1302A DISCOVERING CHEMICAL ENERGETIC 0.5 1021B PROPERTIES OF MATERIALS 0.5 1022Y ENGINEERING STATICS 0.5 1036B PRGRMMNG FUNDAMNTLS FOR ENGRNS 0.5 1050 INTRO ENG DESIGN & INNOVIN STU 1.0	Bachelor of Engineering Science Mechatronic Systems Engineering with Professional I 2022-Jun Scholarships and Awards Description Completed Program Academic Program History Faculty of Engineering Science Mechatronic Systems Engineering with Professional I Completed Program Basis of Admission W 2017 Ontario Secondary School Diploma 2017 Academic Record Basis of Admission W 2017 Ontario Secondary School Diploma 2017 Academic Record 1411A LNR ALG NUM ANALYSIS FOR ENG 0.5 0.74 1413 APP MATH FOR ENGRS I 1.0 0.76 1299E BUSINESS FOR ENGINEERS 1.0 084 1302A DISCOVERING CHEMICAL ENERGETIC 0.5 0.72 1021B PROPERTIES OF MATERIALS 0.5 0.90 1022Y ENGINEERING STATICS 0.5 0.5 1036B PRGRMMNG FUNDAMNTLS FOR ENGRNS 0.5 0.91 1050 INTRO ENG DESIGN & INNOVIN STU 1.0

		2018 Fall/Winter					
	Course	<u>Description</u>	Unts	Grd	Siz	Avg	
	APPLMATH	2270A APPLIED MATH FOR ENGINEER II	0.5	076	241	74	
	APPLMATH	2276B APP MATH ELEC & MEC ENG III	0.5	062	187	60	
	COMPSCI	1037A COMP SCI FUNDAMENTALS II	0.5	090	261	79	
	ECE	2205A ELECTRIC CIRCUITS	0.5	077	174	62	
	MSE	2200Q ENGINEERING SHOP SAFETY TR	0.00	PAS			
	MSE	2201A INTRO TO ELECTRICAL INSTRUMENT	0.5	088	63	91	
	MSE	2202B INTRO TO MECHATRONIC DESIGN	0.5	087	67	76	
	MSE	2212A MECHANICS OF MATERIALS	0.5	087	65	78	
	MSE	2213B ENGINEERING DYNAMICS	0.5	078	70	77	
	MSE	2214A THERMODYNAMICS	0.5	084	82	73	
	MSE	2233B CIRCUITS AND SYSTEMS	0.5	091	79	80	
	MSE	2273B FLUID MECHANICS & HEAT TRANSFR	0.5	081	64	73	
	WRITING	2130G BETTER COMMUNICATION BRIDGES	0.5	077	100	76	
	Dean's Ho	nor Liste University of Western Uni					
		2019 Fall/Winter					

	f Wes <u>i</u>	2019 Fall/Winter				
Course		Description	Unts	Grd	Siz	Avg
APPLMATH	3415A	ADV APPL MATH ELEC ENGINEERING	0.5	093	106	83
ECE	2277A	DIGITAL LOGIC SYSTEMS	0.5	078	196	70
ECE 118	3330A	CONTROL SYSTEMS	0.5	088	160	74
ECE	3331B	INTRO TO SIGNAL PROCESSING	0.5	098	154	89
ECE	3375B	MICROPROCESSORS & MICROCOMP	0.5	092	168	88
GEOGRAPH	2041B	GEOGRAPHY OF CHINA	0.5	084	128	76
MSE	3301A	MATERIALS SELECTION & MNFT	0.5	086	80	78
MSE	3302B	SENSORS & ACTUATORS	0.5	093	75	93
MSE	3310A	ELECTRIC MOTORS AND DRIVES	0.5	085	74	81
MSE	3360B	FINITE ELEMENT METHODS FOR MSE	0.5	091	77	87
MSE	3380B	MECH COMP DSGN MECHATRONIC SYS	0.5	092	79	86
MSE	3381A	KINETICS & DYNAMICS OF MACHINE	0.5	088	74	77

		2020 Fa	all/Winter	i ver sity			
Course		Description			Unts	Grd	Siz Avq
ENGSCI	3352	ENGINEERING	INTERNSHIP		3.0	SAT	
ENGSCT	3353	ENGINEERING	TNTERNSHIP		3.0	SAT	

Dean's Honour List

The University of Western Ontario office of the registrar London, ontario, canada n6a 3k7

Student ID: 250964533



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ENGSCI	3354 ENGINE	ERING INTERNSHIP	3.0	SAT		HC (
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- Course	<u>Descri</u>		<u>Unts</u>	Grd	Siz	Avq
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WWE		E: MANUFACTURING TECH	0.5	085	40	83
		E: REVERSE ENGINEERING	0.5	096	50	83
MSE		C MANIPULATORS	0.5	076	63	75
MSE		RONIC DESIGN PROJECT	1.0	094	59	83
PHILOSOP		ING & CRITICAL THINKING	0.5	085	886	80
STATS		ROB & STATS FOR ENGINEER	Ste0.5	085	339	77
MME MSE MSE PHILOSOP STATS Progr	am Completed.	Graduation Spring Convoc	cation			
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THE UNIVERSITY OF WESTERN ONTARIO

AFFILIATED COLLEGES: BRESCIA UNIVERSITY COLLEGE, HURON UNIVERSITY COLLEGE, KING'S UNIVERSITY COLLEGE

The University is a member of the Association of Universities and Colleges of Canada, the Association of Universities of the Commonwealth, and the International Association of Universities.

LANGUAGE OF THE UNIVERSITY - Aside from language courses, all courses at The University of Western Ontario are taught in English.

COURSE UNITS & EQUIVALENCIES

A full course (1.0 units) normally consists of three lecture hours each week for the full year, September to April. Each full course is equivalent to six semester hours or nine quarter hours. Courses with suffixes A. B. F. G. Y. Z denote 0.5 units. Courses with 0.5 units denote half courses. Courses with 0.25 units denote quarter courses. Courses with 1.0 units denote full courses. A full course load consists of 3.5 or more courses.

GRADE POINT AVERAGE - The University of Western Ontario does not issue a grade point average for students.

COURSE TITLES appear on transcripts for all courses recorded after September 1984.

COURSE NUMBERS - Effective May 01, 2008 course numbers are 4 digits in length.

UNDERGRADUATE SCHOLARSHIPS, AWARDS, PRIZES, FELLOWSHIPS AND MEDALS awarded by the University to the student during the student's academic career at the University are available from May 01, 2000.

UNDERGRADUATE CLASS AVERAGES and SIZES - Available from September 01, 2000.

COURSE NUMBER SUFFIXES

A 0.5 course in first term

٠.	0.0 codisc in ilist term
В	0.5 course in second term
С	January courses in the Faculty of Law (4.0 credit weight)
D	Feb/March/April (FMA) courses in the Faculty of Law
Ε	1.0 essay course
_	

F 0.5 essay course in first term G 0.5 essay course in second term

H 1.0 accelerated course (8 weeks) in the School of Nursing J 1.0 accelerated course (6 weeks) in the School of Nursing

K 0.75 course at the School of Business

L 0.5 graduate course offered in summer term (May-August)

Q 0.25 course in the first half of first term

R 0.25 course in the second half of first term

S 0.25 course in the first half of second term

T 0.25 course in the second half of second term

U 0.25 course in other than a regular session V 0.375 course offered by the Faculty of Education

W 1.0 accelerated course in first term

X 1.0 accelerated course in second term

Y 0.5 course in other than a regular session

Z 0.5 essay course in other than a regular session

No Suffix 1.0 course not designated as an essay course

ACADEMIC TERMS

Undergraduate, Education, Professional, Preliminary Year Careers

Fall/Winter Term: September to April Summer Term: May to August

Note: the Summer Term is comprised of several sessions within the term: Intersession, Summer Evening, and Summer Day, etc.

Graduate Studies

AEG Aegrotat

Winter Term: January to April Summer Term: May to August

Fall Term: September to December

MBA Spring Term: March to March

EXPLANATION OF ABBREVIATIONS

AUD	Audit*	GRD	Grade	SIZ	Class Size*
AVG	Class Average	INC	Incomplete*	SPC	Special Exam*
COM	Complete*	IPR	In Progress*	SRP	Supplemental Examination/Remedial
CR	Credit*	NC	No Credit		Work passed*
DEF	Deferred Exam*	NGR	No Grade Recorded*	SUP	Supplemental Exam*

FTW Failed Term Work*

DNW Did Not Write* OEN Ontario Education Number*

PAS Pass*

DRP Dropped (penalty)*

FAI PWD Passed With Distinction*

*No numeric mark recorded

Supplemental Exam UNTS Units*

SAT Satisfactory*

WDN Withdrew (no penalty)*

GRADING SCALES (For historical grading scales, visit http://registrar.uwo.ca/transcriptscale)

Undergraduate Faculties and Affiliated University Colleges

Effective September 2000

A+ 90 - 100% One could scarcely expect better from a student at this level

A 80 – 89% Superior work which is clearly above average

70 – 79% Good work, meeting all requirements, and eminently satisfactory

60 - 69% Competent work, meeting requirements

D 50 - 59% Fair work, minimally acceptable

F below 50 Fail

In some Faculties, failing grades are distinguished as follows: E 40-49% Fail with supplemental examination privileges. Note: Grades assigned for courses taken on a letter of permission at another institution follow the grading scale of The University of Western Ontario.

Effective May 01, 2010, grades for undergraduate courses taken on exchange will be recorded as PAS+ (pass with distinction). PAS or FAI.

Faculty of Education

Effective September 2020 Equivalent of 76%

The B.Ed. program is a two-year program consisting of 9.0 credits, 2.0 of which are practicum/in field components. In the course component, one credit is normally equivalent to 72 hours of classroom contact time. The practicum/in field components include 29-30 weeks of block practice teaching plus 7 weeks of alternative field experience. Prior to 2015, the one-year program was comprised of 6.0 credits, with practicum comprising 10-12 weeks. Enquiries concerning practicum days, or program requirements in place prior to September 1979, should be directed to the Faculty of Education. Before September 1999, additional qualifications half course weights are 2.0, and full course weights are 4.0. Effective September 1999, half course weights are 0.5, and full course weights are 1.0.

The School of Graduate and Postdoctoral Studies

Effective September 2002 Note:		Note:	Failure to achieve 60% (C) or higher in any undergraduate course taken as	
I	Α	80 – 100%		credit towards a graduate degree is interpreted as a failure.
I	В	70 – 79%		Effective November 01, 1998 Thesis courses are replaced by non-course
I	С	60 – 69%		milestones.
I	F	00 - 59%		milestories.

Effective Fall 1998 the appearance of "Continuous Graduate Enrollment" on the transcript indicates that all program requirements have not yet been met (e.g. if the student is pursuing research towards a thesis at this time). If the student is in a program requiring completion of a thesis, "thesis completed" will appear on the transcript following successful completion of the thesis requirements.

Schulich School of Medicine & Dentistry Dentistry (DDS)

Effective September 1987

С 60 - 69%A 80 - 100% F 00 - 59% B 70 – 79%

Medicine (MD)

Effective September 2019 (Class of 2023) and beyond

Clear competency with regard to all criteria considered essential for the completion of that specific course, including a minimum of 70% on summative assessments in the course as outlined in the course syllabus.

FAI An inability to meet the minimal acceptable standards and/or competency for a specific course including a minimum of 70% on summative assessments in the course as outlined in the course syllabus.

Effective September 2004 (For students who entered the MD Program prior to September 2019)

Clear competency with regard to all criteria considered essential for the completion of that specific course. On any evaluation, this will be determined by achieving a minimum of 60%.

FAI An inability to meet the minimal acceptable standards for a specific course. Less than 60%.

Faculty of Law

Effective September 2020

A+, A, A- Excellent B+, B, B- Good C+, C Competent C-**Barely Competent** D Marginal Pass Fail