

ACADEMIC TRANSCRIPT

NAME	STUDENT ID	DATE OF BIRTH	ACADEMIC YEARS	DATE OF PRINT
Drew Michael Terren Ramirez	H1910027	21/08/2006	2019 - 2024	06/11/2024

AWARDED: DIPLOMA (HIGH DISTINCTION) WITH HONOURS IN MATHEMATICS AND PHYSICS AND MAJORS IN CHEMISTRY AND COMPUTER SCIENCE

GRADUATION GPA WITH MOTHER TONGUE:	4.5		
GRADUATION GPA WITHOUT MOTHER TONGUE:	4.7		
<u>SUBJECTS TAKEN</u>	<u>TOTAL UNITS</u>	<u>SUBJECT GPA</u>	<u>HONOURS GRADE</u>
English Language	24	3.6	-
Mother Tongue	16	2.8	-
Mathematics	40	5.0	Distinction
Biology	6	4.5	-
Chemistry	30	4.9	-
Physics	30	4.9	Distinction
Humanities, Art & Music	8	4.8	-
Computer Science	27	4.6	-
<i>Subjects taken in BOLD refer to Majors or Majors with Honours.</i>			
In addition, <u>Drew Michael Terren Ramirez</u> read and completed <u>3</u> external university courses.			
Please refer to section on EXTERNAL UNIVERSITY COURSES			

Course Code	Course Title	Units	Final Grade	Remarks (if any)
Academic Year 2024 - Year 6 Semester 2 (GPA - 4.7)				
CM6132	Experiments in Synthetic Chemistry	4	A-	
CS6132	Computer Networking and Security	4	A-	
EL6132	Language For Personal And Professional Communication	2	B+	
EL6133	Advanced Academic Reading And Writing: Language And Society	2	A	
HU6131	Capstone	2	A	
PC6131	Advanced Physics V	4	A-	
PC6432	Numerical Modelling of Physical Systems	2	Distinction	

Academic Year 2024 - Year 6 Semester 1 (GPA - 4.7)

Course Code	Course Title	Units	Final Grade	Remarks (if any)
CM6131	Chemistry In Context	4	A	
CS6131	Database Design	4	A-	
EL6131	Critical reading and writing III: Emerging issues in a changing world	2	B+	
PC6132	Practical Circuitry & Introductory Electronics	4	A+	
PC6431	Calculus-Based Physics III	2	Distinction	

Academic Year 2023 - Year 5 Semester 2 (GPA - 4.7)

CL5531	Chinese V	8	C+	
CM5132	Thermodynamics And Electrochemistry	4	A	
CS5132	Data Structures And Algorithms	4	A+	
EL5131	Critical Reading And Writing II: The Global Connection	4	B-	
EL5132	Language For Public Communication	2	B	
MA6132	Advanced Mathematics II	5	A+	Accelerated
PC5132	Advanced Physics IV	4	A+	
PC5432	Calculus-Based Physics II	2	Distinction	

Academic Year 2023 - Year 5 Semester 1 (GPA - 4.6)

CM5131	Organic Chemistry	4	A	
CS5131	Introduction To Artificial Intelligence	4	A-	
MA6131	Advanced Statistics	5	A	Accelerated
MA6432V	NUS/MA2002 Calculus	4	Distinction	
PC5131	Advanced Physics III	4	A	
PC5431	Calculus-Based Physics I	2	Distinction	

Academic Year 2022 - Year 4 Semester 2 (GPA - 4.5)

CL4531	Chinese IV	8	B-	
CM4132	Chemical Kinetics And Equilibria	4	A	
CS4132	Data Analytics	4	B+	

Course Code	Course Title	Units	Final Grade	Remarks (if any)
EL4131	Critical Reading And Writing I: Social Institutions And Issues	6	B	
MA5132	Statistics	5	A+	Accelerated
MA5431V	NUS/MA1101R/MA2001 Linear Algebra I	4	Distinction	
PC4132	Advanced Physics II	4	A+	
Academic Year 2022 - Year 4 Semester 1 (GPA - 4.7)				
CM4131	Principles of Inorganic Chemistry and Structure of Matter	4	A-	
CS4131	Mobile Application Development	4	A	
GC3331	Wonderment Exploration III	2	Pass	Accelerated
MA5131	Advanced Calculus	5	A+	Accelerated
PC4131	Advanced Physics I	4	A+	
Academic Year 2021 - Year 3 Semester 2 (GPA - 4.5)				
BL3131	Foundations in Biology III	6	A-	
CL3531	Chinese III	6	B	Excluded
CM3131	Foundations In Chemistry III	6	A+	
CS3132	Object Oriented Programming II	3	B	Excluded
EL3131	Exposition And Argumentation: Community And Society	6	B	
MA4132	Advanced Mathematics IB	5	A+	Accelerated
MU3132	Elements Of Music Theory	3	A	
PC3131	Foundations In Physics III	6	A+	
Academic Year 2021 - Year 3 Semester 1 (GPA - 4.9)				
CS3131	Object Oriented Programming I	3	A+	
GC2331	Wonderment Exploration II	2	Pass	
MA4131	Advanced Mathematics IA	5	A+	Accelerated
MA4231V	Math Olympiad Training VI	2	A+	Accelerated
MU3131	Music: The Extravagant Art	3	A-	

ALL COURSES READ IN YEARS 1 & 2 ARE EXCLUDED FROM GRADUATION GPA.

Academic Year 2020 - Year 2 Semester 2 (GPA - 4.5)

BL2131	Foundations in Biology II	6	B+	
CL2531	Chinese II	6	B+	
CM2131	Foundations In Chemistry II	6	A+	
CS3234	Informatics Olympiad Training II	2	B+	Accelerated
EL2131	Language And Literary Studies II	6	B+	
HU2131	Humanities Studies II	2	A-	
MA2232	Math Olympiad Training IV	2	A+	
MA3132	Foundations In Mathematics IIIB	4	A+	Accelerated
MU2132	Basic Musicianship II	2	A	

Course Code	Course Title	Units	Final Grade	Remarks (if any)
PC2131	Foundations In Physics II	6	A+	
Academic Year 2020 - Year 2 Semester 1 (GPA - 4.6)				
CS2231	Introduction To Programming	2	A+	
MA2231	Math Olympiad Training III	2	A+	
MA3131	Foundations In Mathematics IIIA	4	A+	Accelerated
MU2131	Basic Musicianship I	2	A	
PC3231	Physics Olympiad Training II	2	A-	Accelerated
Academic Year 2019 - Year 1 Semester 2 (GPA - 4.4)				
BL1131	Foundations In Biology I	4	A+	
CL1531	Chinese I	6	B+	
CM1131	Foundations In Chemistry I	4	A+	
CS1131	Computational Thinking	2	A+	
EL1131	Language And Literary Studies I	8	B	
HU1131	Humanities Studies I	4	B+	
MA1232	Math Olympiad Training II	2	A+	
MA2132	Foundations in Mathematics IIB	4	A+	Accelerated
MU1131	Foundations In Music	2	A-	
PC1131	Foundations In Physics I	4	A+	
PC2231	Physics Olympiad Training I	2	B+	Accelerated
Academic Year 2019 - Year 1 Semester 1 (GPA - 5.0)				
AR1131	Foundations In Art I	2	A	
MA1131	Foundations In Mathematics IA #	3	-	Exempted
MA1231	Math Olympiad Training I	2	A+	
MA2131	Foundations In Mathematics IIA	4	A+	Accelerated

EXTERNAL UNIVERSITY COURSES

MA2202S	Algebra I (S) AY2023/2024 Semester 2	NA	A	Offered by National University of Singapore
MA2002	Calculus AY2022/2023 Semester 2	4	A+	Offered by National University of Singapore (Honours in lieu)
MA2001	Linear Algebra I AY2022/2023 Semester 1	4	A+	Offered by National University of Singapore (Honours in lieu)

ACADEMIC TRANSCRIPT

AWARDS

Name of Award	Year
DSO Star Award	2024
Excellence Award (Mathematics)	2024
DSO Star Award	2022

ACADEMIC TRANSCRIPT EXPLANATORY NOTES FOR CLASS OF 2021 ONWARDS

Grade Point Average (GPA) ¹ = $\frac{\text{sum (course grade point} \times \text{Units assigned to courses)}}{\text{sum (Units assigned to courses)}}$	
* Shows academic performance up to current time point ² * Grade points of all Year 3 – 6 Core and Elective ¹ courses are used for computation of GPA ²	
Subject GPA	Computes grades of all Core and Elective 1 courses at Level 3000 - 6000, in that subject <ul style="list-style-type: none"> Subject GPA shall be shown for English Language, Mother Tongue Language (except for exempted/MTLB students), Mathematics, Physics, Chemistry, Biology and Computer Science (for students who read Computer Science as a Major/Major with Honours). who read a 4th Major in Art/Economics/English Literature/Geography/History/Music shall have the Subject GPA shown as 'Humanities, Art and Music (Art/Economics/English Literature/Geography/History/Music), where applicable.

¹ Elective courses may be included in computation to maximize units for total workload calculated on top of core courses to attain the best GPA.

² The period to be included for the computation will depend on the specific year of studies and up to current time point.

Grading System

Core And Elective Courses						Honours and Enrichment Courses ³
Grade	Grade Point	Grade	Grade Point	Grade	Grade Point	No Grade Point Awarded
A+	5.0	B	3.5	D+	1.5	Distinction
A	5.0	B-	3.0	D	1.0	Merit
A-	4.5	C+	2.5	F	0	Pass
B+	4.0	C	2.0			Unclassified

³ The performance of these courses is not used in the computation of GPA.

Additional Indicators for Courses:

Exempted	The student was exempted from reading the course, after appropriate assessment was passed. Units are fulfilled. No Grade and Grade Point will be awarded for the exempted course.
Accelerated	The student completed a higher level course.
Repeated	The student repeated the course.
Excluded	The course was excluded from Graduation GPA computation.

Course Code: Example - BL1107 / CS3204C / MA2203V / PC5403 / CH1531

First two letters: Subject code that denotes the discipline (see List of Subject Codes)

The first digit indicates the academic level of course offered. '1' for Level 1, '2' for Level 2, '3' for Level 3, '4' for Level 4, '5' for Level 5 & '6' for Level 6.

The second digit indicates the type of course: 1 for **Core**, 2 for **Elective**, 3 for **Enrichment**, 4 for **Honours**; 5 for **Mother Tongue Language Core**.

The last two digits indicate the course number.

Suffix letter for courses (where applicable): 'A' indicates the course is a preclusion and taken in lieu of the core course, with different assessment weighting. 'M' indicates an approved Mother Tongue Language in-lieu course including Non-Tamil Indian Language (NTIL) conducted in Ministry of Education (MOE)-approved language centers. 'V' indicates the course is offered by external agencies or Institutes of Higher Learning, but is considered a school course.

List of Subject Codes

AR Art	CH Higher Chinese	EC Economics	GC General Curriculum	HD Hindi	MA Mathematics	PC Physics	TL Tamil
BG Bengali	CL Chinese	EL English Language	GE Geography	HY History	MH Higher Malay	PE Physical Education	UD Urdu
BL Biology	CM Chemistry	EN English Literature	GJ Gujarati	HU Humanities	ML Malay	PJ Panjabi	
CE Character & Citizenship Education	CS Computer Science	FR French	GM German	JP Japanese	MU Music	TH Higher Tamil	

Class of Diploma	High Distinction	Distinction	Merit	Pass
Graduation GPA with OR Graduation GPA without Mother Tongue (whichever is higher)	4.5 – 5.0	4.0 – 4.4	3.0 – 3.9	2.5 – 2.9

STUDENT DEVELOPMENT TRANSCRIPT

NAME		STUDENT ID		DATE OF BIRTH	ACADEMIC YEARS	DATE OF PRINT
Drew Michael Terren Ramirez		H1910027		21/08/2006	2019 - 2024	13/11/2024
I. LEADERSHIP				The International Olympiad of Metropolises Inter-School National Scrabble Championship Singapore Junior Physics Olympiad Singapore Mathematical Olympiad (Junior) Singapore Mathematical Olympiad (Open) Singapore Rubik's Cube Competition		
INVOLVEMENT OR RESPONSIBILITIES				Silver	2020	
Organisation	Event/Committee	Role	Year	2nd Place	2019	
School	Mathematics Interest Group	Executive Committee Member	2023	Honorable Mention	2019	
				Gold	2019	
				Silver	2019	
				Participation	2019	
TRAINING AND DEVELOPMENT				III. AWARDS/SCHOLARSHIPS		
Organisation	Training	Competency	Year	Name of Award/Scholarships	Domain (if any)	Year
School	Student Leadership	Empathy	2023	NUS High Research Excellence Award		2024
	Development Workshop	Inspiring Others		Nus High School Character Award		2024
School	Inspiring Others (Year 2 Workshop)	Building Teams Excellence	2020	Temasek Foundation Scholarship for Excellence in STEM		2023-2024
School	Resilience Camp (Year 2)	Building Teams	2020	The Lee Kuan Yew Award for Mathematics and Science		2023
		Emotional Self-control		Edusave Scholarships for Independent Schools (ESIS)		2019-2024
		Resilience		NUS High School Scholarship		2019-2021
II. ACADEMIC ACHIEVEMENT				IV. CO-CURRICULAR ACTIVITIES ACHIEVEMENT		
Name of Event		Awards	Year	CCA	Event/Committee	Involvement/Award
Asian Pacific Mathematics Olympiad		Silver	2024	Basketball		Member
Chinese Mathematical Olympiad		Silver	2024	Chess Club		Member
International Mathematical Olympiad		Silver	2024	Fibonacci House		Member
Singapore Mathematical Olympiad (Open)		Gold	2024			
Asian Pacific Mathematics Olympiad		Gold	2023	V. SUBJECT INTEREST GROUPS		
International Mathematical Olympiad		Silver	2023	Name of Interest Group		Year
Singapore Mathematical Olympiad (Open)		Gold	2023	Mathematics Interest Group		2021-2024
Singapore Physics Olympiad		Silver	2023	English Language Interest Group		2019-2020
International Mathematical Olympiad		Silver	2022	TRAINING AND DEVELOPMENT		
Singapore Junior Chemistry Olympiad (SJChO)		Certificate Of Participation	2022	Name of Event		Involvement
Singapore Mathematical Olympiad (Open)		Gold	2022	In charge of MIG General Meeting 5 Activities		Leader
Singapore Mathematical Olympiad (Senior)		Gold	2022	In charge of SMO Training (Open)		Leader
Singapore Junior Chemistry Olympiad		Participation	2021			2024
Singapore Mathematical Olympiad (Open)		Gold	2021			2024
Singapore Mathematical Olympiad (Senior)		Gold	2021	VI. OTHER NON-ACADEMIC ACHIEVEMENT/PARTICIPATION		
Singapore Mathematical Society (SMS) Essay Competition		Participation	2021	Name of Event		Involvement/Award
Tuymaada Olympiad		Silver	2021	Student Exchange Programme with Fazekas		Year
Australian Informatics Olympiad - Intermediate Division		Silver	2020	Mihaly Primary and Secondary School		2024
Singapore Junior Physics Olympiad		Bronze	2020	Inter School National Scrabble Competition		Second Place
Singapore Mathematical Olympiad (Junior)		Gold	2020			2022
Singapore Mathematical Olympiad (Open)		Silver	2020			

VII. HUMANITARIAN EDUCATION PROGRAMME
HUMANITARIAN EDUCATION PROJECT (YEAR 5)

Purpose and Description	Competency	Role	Project Duration	Year
The project aims to encourage active ageing in Seniors in our community by engaging them with various activities. Project Beneficiaries: Seniors from the Lions Befrienders	Humanitarian Spirit Active Citizenry	Team Member	12 months	2023

VIII. SERVICE SUMMARY

Activity	Organisation	Involvement	Role	Hours	Year
HE Project 2023: Active Ageing with Seniors	Lions Befrienders	Student-initiated (School-based)	Member	16	2023
NUS High School Open House	NUS High School	School-organized	Leader	4	2023
NUS High School Direct School Admission (DSA) School Preview	NUS High School of Math and Science	School-organized	Member	4	2022
NUS High School (English Language and Literature Department Outreach)	NUS High School of Math and Science	School-organized	Member	1	2020

— END OF TRANSCRIPT —

RESEARCH, INNOVATION & ENTERPRISE TRANSCRIPT

NAME	STUDENT ID	DATE OF BIRTH	ACADEMIC YEARS	DATE OF PRINT
Drew Michael Terren Ramirez	H1910027	21/08/2006	2019 - 2024	13/11/2024

Overview

NUS High strives to inspire research, innovation and enterprise according to students' passion and aptitude. This transcript records the courses taken, and the achievements of each student in the area of research, innovation and enterprise.

Innovation/Research Awards

Competition	Award	Year
Singapore Mathematics Project Festival (Senior Section)	Foo Kean Pew Memorial Prize	2023
Singapore Science and Engineering Fair	Gold	2023
Singapore Mathematics Project Festival (Junior Section)	Bronze	2021
Singapore Science And Engineering Fair (Junior Category)	Merit (Project)	2021

Innovation/Research Projects

Title	Chromatic Number of Graph Powers
Year	2023
Grade	Distinction

This project satisfies the graduation requirement. The project won the Foo Kean Pew Memorial Prize at the Singapore Mathematics Project Festival (Senior Section) 2023 and the Gold Award at the Singapore Science and Engineering Fair 2023.

Abstract

The chromatic number of a graph has been widely studied by mathematicians, with vast applications in real-world situations such as sorting products or grouping of items. Adding on the concept of graph powers, we get a new function called the d-distance chromatic number. This is an area which has not been explored that much by people in the past, making it an interesting research area with many more possibilities. Building on a research paper in 2018, in this project, we aim to find the values for the d-distance chromatic number for a class of wheel related graphs.

Innovation/Research Projects

Title	Quoridor
Year	2021
Grade	-

This project was completed as part of the module DV2136 Junior Math Research in 2020. The project won a Bronze award at the Singapore Mathematics Project Festival (Junior Section) 2021.

Abstract

Quoridor is a board game that was created only a few years ago and in this project we hope to analyse Quoridor quantitatively, come up with some mathematical and intuitive arguments, and also hopefully find the largest board with the largest number of walls that a human can play on while using our arguments confidently to guarantee a win. Quoridor really reached its peak in 1997, and thus has been analysed mathematically only a few precious and thus, the task of researching this game has been a work in progress for many years. Many of the researches done on this game have also, always have been in the infancy stage. Thus, due to the real-life constraints on our research ability and time, we hope to make some progress on only a intuitive solving progress and also work on finding the limit to when Quoridor turns NP with varying factors.

Da Vinci Courses

Course Code	Course Title	Final Grade	Year
DV1132	Design And Engineering	Distinction	2019
DV1133	Science Presentations	Distinction	2019
DV2136	Junior Math Research	Distinction	2020
DV3131	Research Methodology	Distinction	2021

— END OF TRANSCRIPT —

EXPLANATORY NOTES

Explanation of transcript categories (only categories that are present will be included.)

Publications in Peer Reviewed Scientific Journals

This section records the research publications in which our students are included as co-authors

Scientific Conferences

This section records the projects presented at the science conferences in which our students are included as co-authors.

Innovation/Research Awards

This section record awards won by students in innovation or research based competitions

Student Science Fairs

These are innovation/research fairs or hackathons organized for students.

Innovation/Research Projects

NUS High requires all students to complete at least one innovation/research project in the area related to math/science/computing or technology to graduate. When such a project is completed and graded by our teachers, the title, abstract and grade are reflected in the transcript. Projects completed under courses or other external programmes are also recorded but no grades are reflected.

Da Vinci Courses

To inspire research, innovation and enterprise in our students, NUS High conducts a range of courses to give our students the necessary skills, aptitudes and mindsets for research and innovation.

Core Courses

DV1131	Da Vinci Foundation
DV2131	Design and Engineering
DV2133	Science Presentations
DV2134/5/6	Junior Maker/Science Research/Math Research
DV3131	Research Methodology

Elective Courses

DV3232	Advanced Design and Engineering
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Other Innovation/Research Activities

This section includes any other innovation/research activities the student attended (e.g. workshops, seminars)

Grading System

Da Vinci Programme Courses
No Grade Point Awarded, Da Vinci is excluded from the Cumulative Average Point.
Distinction
Merit
Pass
Unclassified