



College of Education for Pure Science  
**Department of Mathematics**  
 Graduation Projects (2023-2024)

N	Project Title	Supervisor	First Student	Second Student	Third Student
1	Two-dimensional wave equation	Dr. Akram Hassan Mahmoud	Muhammad Qasim Muhammad Ali	Moataz Ghalib Jalil Jassim	Raed Awad Ahmed Muhammad
2	Solve boundary value problems using Laplace transforms	Dr. Akram Hassan Mahmoud	Abdul Rahman Maysar Ali	Aya Muzaffar Ali	Hind Fares Abdullah
3	Numerical sequences	Dr. Ammar Siddiq Mahmoud	Amna Muhammad Youssef	Khaled Shaker Mahmoud	Ruqaya Hassan Muhammad
4	Calculating hash value after swapping rows of abacus chart of pattern -e	Dr. Ammar Siddiq Mahmoud	Ayat Khalil Ahmed	Amna Idris Omar	Alaa Ayman Abdel Wahed
5	The intersection of the main charts of the pattern - e	Dr. Ammar Siddiq Mahmoud	Eliana Anwar Khader	Hanifa Amir Abdul Rahman	Khawla Khalil Ibrahim
6	Future anxiety among students of the College of Education for Pure Sciences	Prof. Enas Younis Mustafa Al-Ezzo	Heba Rafi Yassin	Zainab Shamil Youssef	Rahma Faris Hussein
7	Self-regulation skills among students in mathematics departments at the University of Mosul	Prof. Enas Younis Mustafa Al-Ezzo	Nour Ahmed Ali	Marwa Qutaiba Sheet	Spa Ali Suleiman

8	Mental wandering among middle school students in mathematics lessons	Prof. Enas Younis Mustafa Al-Ezzo	Baraa Muhammad Riad	Maysam Girgis Akram	Reem Ezz El-Din Muhammad
9	Some characteristics of semi-open sums and open sums of type alpha in topological spaces	Prof. Dr. Amer Abdullah Muhammad	Roaa Idris Danuk	Roaa Adnan Allawi	Hind Muhammad Qasim
10	A study in measurement theory about $\sigma$ -type algebras	Prof. Dr. Amer Abdullah Muhammad	khattab Omar Hazem	Zahraa Khalaf Ali	Doaa Iyad Badr
11	Construction of Projective space PG (3,9)	Prof. Dr. Nada Yassin Qasim Yahya	Ammar Mahmoud Saleh	Nada Mowafaq khalaf	Rehab Abdel Moneim Ahmed
12	ON PROJECTIVE Space PG(3,8)	Prof. Dr. Nada Yassin Qasim Yahya	Maryam Waad Allah Issa Muhammad	Mahasen Fares Ramadan Khalil	Mustafa Firas Ghanem Jaro
13	Study Projective space PG(3,17)	Prof. Dr. Nada Yassin Qasim Yahya	Muhammad Hammoud Hussein	Abdullah Youssef Muhammad	Ghassan Ibrahim Hassan
14	Fields of cryptography (block cryptography)	Prof. Dr. Nada Yassin Qasim Yahya	Montazer Jalal Qasim Ahmed	Ali Abbas Hussein Saeed	Ammar Mustafa Muhammad Juma
15	Fuzzy numbers	Prof. Dr. Alaa Abdel Rahim Ahmed	Ahmed Nizar Younis	Taqwa Abdul Wahed	Riyam Hazem Saleh
16	Different mathematical methods for solving the heat equation	Prof. Dr. Alaa Abdel Rahim Ahmed	Khadija Abdul Karim	Rahma Hani	Wessal Nabil
17	Study some iterative methods for solving systems of algebraic equations	Prof. Dr. Alaa Abdel Rahim Ahmed	Manal Bayez	Aya Muhammad	Maryam Aqeel Aziz
18	Fourier series for even and odd functions	Aseel Muayyad Qasim	Rakan Adnan Ismail	Zainab Mustafa Muhammad Younis	Rahma Saleh Khader
19	Applications of the number e in public life and medical fields	Aseel Muayyad Qasim	Ali Awad Ismail	Qasim Khalaf Sultan	Zainab Nour al-Din Ibrahim
20	Application by simple functions in the complex plane	Taghreed Hamdoun Shukr	Rania Khalaf Mahlo	Arkan Golo Jockey	Firas Nimr Qassem
21	Calculating defective integrals using residuals	Taghreed Hamdoun Shukr	Nawar Muhammad Hussein	Obaida Walid Muhammad	Younis Muhammad Abdul Ghani

22	Using the multiple projection method to find the approximate numerical solution to some boundary value problems	Azzam Saladin Younis	Yamama Fadel Hamed	Amina Imad Hassan	Asmaa Khader Muhammad
23	Solving third-order differential equations with initial conditions using MATLAB	Azzam Saladin Younis	Diana Ramzi Zumaya	Zahra Haider Jassim	Amna Muhanna Mukhlif
24	Solve fuzzy differential equations numerically	Dr. Amal Jassim Mohammed	Sawsan Adnan Hashem	Zainab Bashar Thanoun	Duaa Ibrahim Mahmoud
25	Runge-Kutta with Bound's method to solve integral equations	Dr. Amal Jassim Mohammed	Maha Mohi El-Din Hadi	Mahmoud Ali Khalaf	Shaima Jamil Habbo
26	Open sets of type - c	Dr. baida Suhail Abdullah	Muhammad Mahmoud Muhammad	Muhammad Fajr Muhammad	Yassin Taha Khalif
27	Continuous mapping of type - c	Dr. baida Suhail Abdullah	Omar Abbas Ahmed	Lazim Hafez Lazim	Ali Habash Sultan
28	Edmond's method for solving integral equations	Dr. Junaid Idris Mustafa	Nour Nazir Muhammad	Intisar Muhammad Ahmed	Aya Mumin Muhammad
29	The level of academic advancement among students of the College of Education for Pure Sciences	Dr. Hussein Obaid Thawi	Khansa Miqdad Nazir	Zainab Muhammad Ali	Aisha Shamil Ghanem
30	VARK learning styles among mathematics department students	Dr. Hussein Obaid Thawi	Shaima Muhannad Ahmed	Doha Abdul Jabbar Abdul Ghafour	Shahba Saad Muhammad
31	The level of depth of mathematical knowledge among mathematics department students	Dr. Hussein Obaid Thawi	Saja Salah Ahmed	Zahraa Hatem Nafi	Farah Muhammad Lazem
32	About elementary open sets with strength and continuity	Dr. Sabih Wadie Askandar	Ahkham Saddam Saleh	Amna Muhannad Muayyad	Hala Muhannad Ali
33	Semi-open sets of type_S	Dr. Sabih Wadie Askandar	Rahma Ismail Fathi	Saja Jamal Aziz	Zainab Ammar Muhammad Al-Tayeb
34	Semi-generalized Homeomorphisms and Generalized semi-Homeomorphisms in topological spaces	Dr. Sabih Wadie Askandar	Ahmed Bahjat Ayed	Zain Al-Abidin Hashem Zain Al-Abidin	Safaa Ghafoor Yassin
35	Weak and strong patterns of oscillating frequency applications	Dr. Sabih Wadie Askandar	Zainab Nabil Youssef	Zozan Ahmed Hasso	Fatima Neamat Reda

36	Solutions and stability of two-dimensional linear dynamical systems	Dr. Suhaib Talal Hassan	Amira Jassim Muhammad	Asma Raed Hamza	Rasha Mahmoud Khalaf
37	Single parameter bifurcations in two-dimensional nonlinear dynamical systems	Dr. Suhaib Talal Hassan	Hanan Bassam Sabah	Siri Jahin Salem	Youssef Hamad Suleiman
38	Group and generative statement	Dr. Ali Abdul Qader Al Abdali	Athra Moqdam, Jassim	Maryam, Muhammad Ali	Maysa Amer Sami
39	Paths of subgroups of a group	Dr. Ali Abdul Qader Al Abdali	Ola Bahaa El-Din Muhammad	Taiba Omar Shafiq	Fatima Mahmoud Sultan
40	Using central differences in studying the heat equation	Dr. Ghanem Mohammed Saleh Abdullah	Salwan Abdullah Muhammad	Amna Muhammad Qasim	Arwa Muhammad Omar
41	Multivariate normal distribution	Dr. Ghanem Mahmoud Dhafer Al-Hasoud	Safa Ahmed Abdel Latif	Ghofran Marei Younis	Aya Mamdouh Muhammad
42	One-way analysis of variance	Dr. Ghanem Mahmoud Dhafer Al-Hasoud	Ahmed Omar Abdel Latif	Taqi Rakan Nizar	Zahraa Bashar Muhammad
43	Parametric tests: one-sample and two-sample t-tests, theoretically and practically using Spss	Dr. Ghanem Mahmoud Dhafer Al-Hasoud	Muhammad Sajid Muhammad Saeed	Zahraa Qusay Qasim	Omar Saad Majeed
44	The isotropic exponential-Weibull distribution with application	Dr. Ghanem Mahmoud Dhafer Al-Hasoud	Walid Khaled Farhan	Hadeel Muhammad Abdullah	Shaima Abdel Aziz Muhammad
45	Statement of the zero divisors of the ring of integers	Dr. Lama Ahmed Khalil	Safwan Muhammad Yassin	Rahma Khaled Abdullah	Khaled Amer Abdullah
46	Color the zero divisor statement for the integer ring	Dr. Lama Ahmed Khalil	Lubna Ayman Saeed	Shaima Sobh Hussein	Bariq Ziad Tariq
47	Pure loops of pattern _r	Dr. Lama Ahmed Khalil	Ahmed Omar Abdullah	Nazir Muhammad Ibrahim	Ahmed Thaer Muhammad

48	Solve integral equations using the method of successive approximations	Dr. Lamia Hazem Saadoun Al-Taie	Reham Hazem Saleh	Raghad Majid Burhan Al-Din	Muhammad Latif Younis
49	Noise conditions for solving linear integral equations	Dr. Lamia Hazem Saadoun Al-Taie	Safwan Mazen Hashem	Abdullah Ismail Ibrahim	Fatima Adnan Mahmoud
50	Origin of integral equations	Dr. Lamia Hazem Saadoun Al-Taie	Ali Younis Ismail	Asim Muhammad Muhammad	Muhammad Abd al-Amir Abbas
51	Method of dividing the period in numerical optimization and numerical analysis	Dr. Maha Salah Younes	Ali Muhammad Mahmoud	Ali Talal Hussein	Laith Falih Idris
52	Dichotomous Method	Dr. Maha Salah Younes	Abdel Rahman Ayoub Khaled	Zeina Abdel Qader Thannoun	Shorouk Thannoun Younis
53	A study on Bayes' theorem and its applications	Dr. Younis Hazem Ismail	Saja Ibrahim Muhammad	Dalal Saddam Rashid	Enas Sheet Haider
54	Weibull distribution	Dr. Younis Hazem Ismail	Maryam Abdel Karim Hussein	Dima Mahmoud Ahnid	Ansam Ali Khalil
55	Study of static fluids (compressive and incompressible)	Dr. Naseer Sabah Abdullah	Julia Darwish Barakat	Omar Dahham Omar	Bushra Shukur Haider
56	Comparison between the variances of simple random sampling and stratified sampling using proportional allocation with application	Azhar Abdul Razzaq Saeed Al-Hasso	Mustafa Muthanna Hazem	Mahdi Abdel Karim Muhammad	Ahmed Hussein Qasim
57	The relationship between open sums of type $_iD$ and open sums of type ${}_aD$ in the topological space	Ruqaya Nafi Blue	Maryam Imad Muhammad Sharif	Reem Adnan Abdullah	Zahraa Haitham Salem
58	Axioms of $iD$ separation in topological space	Ruqaya Nafi Blue	Rasmiya Awad Jadea	Abrar Bashar Jassim	Tasneem Ghanem Aqeel
59	The relationship between semi-open sums of type $_D$ and open sums of type $_iD$ in the topological space	Ruqaya Nafi Blue	Khaled Saleh Muhammad	Ghazi Faisal Jassim	Haitham Raed Taha
60	Open beta sets	Nadia Adnan Abdel Razzaq	Ahmed Muhammad Matar	Ahmed Majid Hamandush	Ahmed Nazir Ismail
61	Basic principles in group algebra	Naglaa Siddiq Yahya	Ahmed Firas Akram	Ishaq Ibrahim Salem	Hudhayfah Abd Ahmed

62	the sample	Naglaa Siddiq Yahya	Ibrahim Falah Ghalib	Haneen Ahmed Hashem	Muhammad Nazim Muhammad
63	Counting and probability	Naglaa Siddiq Yahya	Ali Younis Elias	Younis Khalaf Hassan	Saad Khader Latif
64	Fixed points and periodic points	Hamsa Daoud Selim	Roaa Ghanem Hamid	Tahani Khaled Abdullah	Buthaina Ibrahim Ali
65	Equations of motion, study and applications	Hamsa Daoud Selim	Khaled Saleh Ibrahim	Amjad Maysar Mahmoud	Elias Jassim Khadr
66	Distillation in matrices	Hanan Salem Muhammad	Rahma Laith Ibrahim	Maryam Falah Al-Din Sabah	Bashaer Fathi Mahmoud
67	Expanded beta setup chart plus	Hanan Salem Muhammad	Abdul Khaleq Abdullah Ahmed	Ahmed Saleh Othman	does not exist
68	$g_i$ -closed sets in topological spaces	Dr. Marwan Aziz Jardo	Ibrahim Yasser Abdel Sattar	Amin Ismail Jamil	Ali Hashem Younis
69	$\alpha_i$ -open sets in topological spaces and their applications	Dr. Marwan Aziz Jardo	Ibtihal Salem Muhammad	Basma Jamal Ibrahim	Nour Ali Muhammad
70	Topological spaces and some of their applications	Tariq Hamad Abdullah	Mustafa Ali Asghar Hussein	Fatima Ali Asghar Hussein	Heba Saud Issa
71	About linear spaces	Ikram Muhammad Abdullah	Obaid Crete Murad	Aziz Murad Shamo	Jalal Suleiman Shamo
72	Boolean algebra and some of its applications	Tariq Hamad Abdullah	Dalia Ibrahim Hassan	Saja Firas Salem	Ghufran Qahtan Hashem
73	Integral equations	Noura Laith Hussein	Abdel Moneim Abdullah	Hussein Muhannad Ahmed Ali	Suleiman Ahmed Abdullah
74	Converting an initial value problem into a Volterra integral equation	Noura Laith Hussein	Aya Louay Younis Amna	Ammar Mahmoud Asma	Abdel Hamid Hamed
75	Solving differential equations using Laplace transforms	Heba Shukur Mahmoud	Ahmed Khaled Saeed	Ahmed Asim Qasim	Ghufran Qusay Idris
76	Study of some geometric characteristics of the effect $f(z)$ A	Ahmed Hussein Muhammad	Jassim Riyad Jassim	Youssef Ali Mahmoud	Hussein Ali Khattab

77	Heat conduction equation	Iman Hashem Najm	Muhammad Nazim Ali	Hamad Youssef Saleh	Mahmoud Faleh Muhammad
78	Hosoya polynomials and Wiener's proof for some data	Israa Adnan Negm	Hussein Saad Farhan	Raed Khudair Abdullah	Hussein Khudair Muhammad Khudair
79	Navier-Stoke equations in polar coordinates	Shaima Muhammad Younis	Nour Adnan Mahmoud	Yassin Amjad Ibrahim	Muhammad Younis Aliwi
80	Stability analysis of fluid flow under the influence of a magnetic field	Shaima Muhammad Younis	Shahad Iyad Mahmoud	Shaima Abdullah Fathi	Sarah Ali Sharif
81	Perspitron network algorithm in artificial neural networks	Zainab Abdul Latif Rashid	Muhammad Riyad Salem	Saad Aswilam Ali	Farhan Saleh Ramadan
82	Tree algorithm in artificial intelligence	Zainab Abdul Latif Rashid	Saleh Khader Ali	Saleh Ahmed Sultan	Sanad Abdul Halim Hassan
83	The Laplace Transform and its Applications	Dilshad Qasim Hamza	Ahmed Omar Ahmed Omar	Hussein Ali Muhammad Raad	Harith Raad Sinjar
84	Linear differential equations	Dilshad Qasim Hamza	Omar Asham Attia	Othman Ahmed Jassim	Abdul Rahman Saleh Ibrahim
85	Complex integration	Dilshad Qasim Hamza	Ahmed Saad Muhammad	Khairallah Ismail Abdul Qadir	Shamil Jassim Ibrahim