Ministry of Higher Education and Scientific research

Department of Mathematic

College of …Education

University of Salahhadin

Subject: General topology

Lecturer's name Dr. Nehmat K. Ahmed

Academic Year: 2023/2024 **Second Course**

Course Book

1. Course name	**G. topology**
2. Lecturer in charge	
3. Department/ College	**Mathematic: Education**
4. Contact	**e-mail: nehmat.ahmed@us.edu.krd** **Tel: (optional)07504511977**
5. Time (in hours) per week	**For example Theory: three Hours per a Week** **Practical:0**
6. Office hours	**10-12 Mon. And 9-11 Win. In each week.**
7. Course code	
8. Teacher's academic profile	2009-2013 Ph.D. In Mathematics (by course and research): Department of Mathematic College of Education University of Salahddin\Erbil \Iraq Thesis Title: ”On some types of semi open sets in topological spaces" Supervisor: Prof. Dr. Alias B. Khalaf 1989 - 1990 M.Sc. In Mathematics (by course& research) ' Department of Mathematic College of Education University of Salahddin\Erbil \Iraq Thesis Title: ' On some types of separation axioms' 1981 -1985 B.Sc. in General Mathematics University of Salahddin

College of Education
Department of Mathematic
Employment History
2003 - Assistant Prof.
University of Salahaddin
College of Education
Department of Mathematic
1999 - 2003 Lecturer
University of Salahaddin
College of Education
Department of Mathematic
1990 - 1999 Assistant lecture
University of Salahaddin
College of Education
Department of Mathematic I taught the following subjects:
☐ General Topology; Fourth year Mathematics.
☐ Foundation of Mathematics; First year Mathematics.
☐ Mathematical Analysis; Third year Mathematics.
☐ Differential and Integral Calculus; First year Mathematics.
☐ Linear Algebra: Second year Mathematics.
☐ Selected Topics in Topology , M.Sc. Mathematics

Research and publications

1. On α-continuous and α-open function, Education college journal;

2. On rs-continuous function and semi-T2 -space, Salahaddin university journal;

3. On δ^*-compact space, Duhok university journal;

4. Strongly Semi – Continuous function, Journal of dohuk University 2001

5. Same equivalents in a Topological Space, zanco journal of pure and applied sciences 2002

6. On function with semi θ-closed and irresolute semi θ-closed graph; Duhok university journal; 2004

7. On pδ-open set and pδ-continuous function, Salahaddin university journal.

8- On pθ -open set and p θ -continuous function, Journal of Kirkuk University, 2007, https://www.iasj.net/iasj/download/5993253f3abaafaf

9. Sβ-open sets and Sβ continuity, Thai Journal of Mathematics; 2012,

http://thaijmath.in.cmu.ac.th/index.php/thaijmath/article/view/512

10. weak separation axioms and function with Sβ closed graphs, International Journal Of Mathematical Sciences and Engineering Applications (India);

11. Sβ compact and Sβ closed spaces, International Journal of Scientific and Engineering Research;

12. Sβ Para-compact spaces, Journal of Advanced Studies in Topology (Egypt);

2013, https://www.researchgate.net/profile/Nehmat-Kahmed/publication/340267141_document/links/5e810bf492851caef4ac9858/document.pdf

13. Sβ compact sets and Sβ locally compact spaces, Journal of Advanced Studies in Topology; 2013, https://www.academia.edu/download/84014350/531-Article_Text-4067-2-10-20180403.pdf

14- p͂c -OPEN SETS and p͂c -CONTINUITY in SOFT TOPLOGICAL SPACES, ZANCO Journal of Pure and Applied Sciences, 2018, https://zankojournal.su.edu.krd/index.php/JPAS/article/view/2342

15- Characterizations of p͂c -Open Sets and p͂c - almost Continuous Mapping in Soft Topological Spaces, Eurasian Journal of Science & Engineering ISSN 2414-5629 (Print), ISSN 2414-5602 (Online); 2018, https://scholar.google.com/scholar?cluster=9790584133587420078&hl=en&oi=scholarr

16- On Soft pc-Separation Axioms, Demonstr. Math.; 2020 , http://dx.doi.org/10.1515/dema-2020-0003

17- On Soft pc -Regular and Soft pc -Normal Spaces, Italian journal of pure and applied mathematics; *Italian Journal of Pure and Applied Mathematics, Accepted for publication*

18- On Soft pc-Connected Spaces, Iraqi Journal of Science;2020, http://dx.doi.org/10.24996/ijs.2020.61.11.28

19- On Soft Pc-Compact Spaces, New Mathematics and Natural Computation 2022,Vol. 16, No. 3; http://dx.doi.org/10.1142/s1793005720500283

20- Soft Separation Axioms and Functions with Soft Closed Graphs, Proyecciones (Antofagasta)2022   Journal of Mathematics Vol. 41, No 1; http://dx.doi.org/10.22199/issn.0717-6279-4004

21- On nano $S\beta$ -open sets in nano topological spaces, General Letters in Mathematics; 2022, http://dx.doi.org/10.31559/glm2022.12.1.3

22- Soft pre Separation Axioms and Functions with Soft pre-Closed Graphs, General Letters in Mathematics; 2022, http://dx.doi.org/10.31559/glm2022.12.2.4

23- Nano SC-Open Sets in Nano Topological Spaces, Ibn AL-Haitham Journal For Pure and Applied Sciences 2023 https://jih.uobaghdad.edu.iq/index.php/j/article/view/2958.

24- Nano Sβ-Connectedness in Nano Topological Spaces, Al-Mustansiriyah

Journal of Science 2023 https://doi.org/10.23851/mjs.v34i2.1245

25- On pre-topological BCK-algebras, Journal of Algebra and Related Topics

2023, https://jart.guilan.ac.ir/article_6796.html

26- Nano $S\beta$ -operators And Nano -continuity in Nano Topological Spaces, *The Journal of University of Duhok 2023 ,*
http://dx.doi.org/10.26682/sjuod.2023.26.1.1

27- Some Separation Axioms Via Nano Sβ-open sets in Nano Topological Spaces, *Italian Journal of Pure and Applied Mathematics, Accepted for publication*

9. Keywords	

10. *Course Programmer*

Second corse

Week 1-3: Mappings in topological spaces: continuity, (open and closed) mappings, homeomorphisms and topological property.

Week 4-6: Topological notions: separated sets, connectedness , compactness

Week 7: Separation axioms: T_0, T_1 and T_2-spaces.

Week 8-9: Sequences in topological spaces, denseness and separability.

Week 10-11: Regular and normal spaces, completely regular and completely normal spaces.

11. Course objective:

   The course will cover:

1- The fundamentals of general topology in logical order processing from the most general case of a topological space.

2- The topological concepts like (interior, exterior, cluster, adherence and boundary) points in other spaces differ from spaces related with the set of real numbers.

3- Types of mappings between topological spaces like continuity which takes an important area in mathematics.

4- Topological notions like compactness, connectedness and denseness are as basic to mathematicians of today as sets and functions.

5- Metric spaces as a topological space to study different concepts like metrizibility, isometry, diameter and distance between set to set and set to point.

6- The concept of productivity between topological spaces.