



Course Syllabus

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|--------------------|---|-------------------|---------------------|
| Course Name | Mathematical Analysis | Course ID. | MAC3309 |
| Teacher | Assistant Professor Dr.Thanatyod Jampawai Division of Mathematics Faculty of Education Suan Sunandha Rajabhat University | Semester | 2/2023 |
| Time | Wendesday 8 a.m. - 12 a.m. Wendesday 1 p.m. - 5 p.m. | Office | 1144 |
| | | Section | 01 Room 1143 |
| | | Section | 02 Room 1143 |

| WEEK | DATE | COURSE OUTLINE | ACTIVITIES |
|------|----------|---|--|
| 1 | 06/12/23 | Clarification of teaching and measurement criteria Ordered field axiom and Well-Ordering principle | Practice & Present A1 |
| 2 | 13/12/23 | Completeness axioms and Functions | Practice & Present A2 |
| 3 | 20/12/23 | Limit of sequence Limit theorems | QUIZ 1 (10 marks) Practice & Present A3 |
| 4 | 27/12/23 | Divergence, Monotone and Cauchy sequences | Practice & Present A4 |
| 5 | 03/01/24 | Topology on \mathbb{R} Limit of functions | QUIZ 2 (10 marks) Practice & Present A5 |
| 6 | 10/01/24 | Limit Theorems of functions, One-sides limits and Infinite limits | Practice & Present A6 |
| 7 | 17/01/24 | Presentation of Project 1 (10%) | Present Project 1 |
| 8 | 24/01/24 | Midterm Examination (25%) | |
| 9 | 31/01/24 | Continuity and Uniform continuity | Practice & Present A7 |
| 10 | 07/02/24 | Derivative, Mean Value Theorem (MVT) and IFT | Practice & Present A8 |
| 11 | 14/02/24 | Riemann integral | QUIZ 3 (10 marks) Practice & Present A9 |
| 12 | 21/02/24 | Riemann sum and Fundamental Theorem of Calculus | Practice & Present A10 |
| 13 | 28/02/24 | Integral by part Infinite series | QUIZ 4 (10 marks) Practice & Present A11 |
| 14 | 06/03/24 | Test of series | Practice & Present A12 |
| 15 | 13/03/24 | Absolute convergence and Alternating series | Practice & Present A13 |
| 16 | 20/03/24 | Presentation of Project 2 (10%) | Present Project 2 |
| 17 | 27/03/24 | Final Examination (25%) *Withdraw : 1-20 March 2024 | |

TEXT AND REQUIRED SUPPLIES

Thanatyod Jampawai (2022). **Mathematical Analysis**. Division of Mathematics, Faculty of Education, Suan Sunandha Rajabhat University.

William R. Wade. (2004). **An Introduction Analysis**, Pearson Education. Inc., New Jersey.

CRITERION

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|-----------------|-----|-----------------|-------------|
| • Collaboration | 5% | • Project | 20% |
| • Home Work | 5% | • Midterm Exam. | 25% |
| • Assignment | 10% | • Final Exam. | 25% |
| • Quiz | 10% | TOTAL | 100% |