Advanced STEM Students

Nguyễn Quản Bá Hồng*

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Tóm tắt nội dung

This text is a part of the series Some Topics in Advanced STEM & Beyond: URL: https://nqbh.github.io/advanced_STEM/. Latest version: • Advanced STEM Students. PDF: URL: https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.pdf. TFX: URL: https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.tex. PDF: URL: .pdf. $T_{\!E}X\text{: URL: .tex.}$ Mục lục Miscellaneous UMT Summer Semester 2025/1480: Introduction to Mathematical Analysis 1. Trần Thanh Cường. • Absence: -2. • Early attendance: 0.5. • Bonus: 2. Huỳnh Lâm Vũ Đình. • Early attendance: 0.5 + 0.5. • Bonus: 3. Trương Công Hoan. • Early attendance: 0.5 + 0.5. • Bonus:

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4. Nguyễn Huy Hoàng.

• Bonus:

• Early attendance: 0.5 + 0.5.

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- 5. Lữ Minh Hoàng.
 - Early attendance: 0.5.
 - Bonus:
- 6. Hà Quang Huy.
 - Early attendance: 0.5.
 - Bonus:
- 7. NGUYỄN BẢO KHÁNH.
 - Early attendance: 0.5 + 0.5.
 - Bonus: 1.
- 8. Nguyễn Lê Đăng Khoa.
 - Early attendance: 0.5 + 0.5.
 - Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
- 9. Phan Gia Lac.
 - Early attendance: 0.5 + 0.5.
 - Bonus: 0.5.
- 10. Phan Phương Phi.
 - Early attendance: 0.5 + 0.5.
 - Bonus: 1.
- 11. Đặng Minh Phương.
 - Early attendance: 0.5.
 - Absence: -2.
 - Bonus:
- 12. Nguyễn Hoàng Quân.
 - Early attendance: 0.5 + 0.5.
 - Bonus:
- 13. Đường Nguyễn Minh Sơn.
 - Early attendance: 0.5 + 0.5.
 - Bonus:
- 14. Tạ Minh Thiện.
 - Early attendance: 0.5 + 0.5.
 - Bonus:
- 15. Lê Nguyễn Quốc Toàn.
 - Early attendance: 0.5 + 0.5.
 - Bonus:
- 16. Nguyễn Hoàng Ngoc Trân.
 - Absence: -2 2.
 - Bonus:
- 17. Nguyễn Anh Tuyển.
 - Early attendance: 0.5 + 0.5.
 - Bonus:
- 18. Nguyễn Như Ý.
 - Early attendance: 0.5 + 0.5.
 - Bonus:

1.1 Potential topics for midterm exam

1. Cho dãy số $\{u_n\}_{n=1}^{\infty}$. Cho vài giá trị cụ thể của ε , tính N_{ε} .

2 UMT Summer Semester 2025/1481: Introduction to Mathematical Analysis

- 1. LÊ MINH TRÂM ANH.
 - Early attendance: 0.75 + 0.75 + 0.75.
 - Bonus:
- 2. Nguyễn Bảo Anh.
 - Early attendance: 0.75.
 - Late: 5 mins.
- 3. Cao Gia Bảo.
 - Absence: -2.
 - Early attendance: 0.75 + 0.75.
- 4. Vũ Văn Đạt.
 - Absence: -2.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1.
- 5. TRẦN VĂN HẬU.
 - Absence: -2.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1.
- 6. Nguyễn Ngọc Bích Hiền.
 - Early attendance: 0.75 + 0.75 + 0.75.
 - Bonus: 0.25 + 1 + 1.
- 7. Nguyễn Văn Hiếu.
 - Early attendance: 0.75 + 0.75.
- 8. Dương Xuân Hưng.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1 + 1.
- 9. Trần Lê Gia Huy.
 - Early attendance: 0.75 + 0.75.
- 10. TRẦN QUANG HUY.
 - Absence: -2.
 - Early attendance: 0.75.
- 11. Đặng Phúc An Khang.
 - Early attendance: 0.75.
 - Late: 15 + 52 mins.
 - Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 1.
- 12. Lương Quốc Khánh.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1 + 1 + 1 + 1.
- 13. Nguyễn Hà Đăng Khoa.

- Early attendance: 0.75 + 0.75.
- Bonus: 1.
- 14. Nguyễn Huy Đăng Khoa.
 - Absence: -1.
 - Early attendance: 0.75.
- 15. HUỳNH Đỗ ĐĂNG KHOA.
 - Late: 23 mins.
 - \bullet Early attendance: 0.75.
- 16. TRẦN TRUNG KIÊN.
 - Early attendance: 0.75 + 0.75.
- 17. Nguyễn Huỳnh Chí Lâm.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1 + 0.75 + 1 + 1.
- 18. Lê Hoàng Linh.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 1.
- 19. Lâm Bảo Ngọc.
 - Absence: -1.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 0.25.
- 20. Nguyễn Lương Nghĩa.
 - Early attendance: 0.75 + 0.75 + 0.75.
 - Bonus: 0.5 + 1 + 1 + 3.
- 21. TRẦN PHÚC NGUYÊN.
 - Early attendance: 0.75 + 0.75 + 0.75.
- 22. Bùi Văn Nhớ.
 - Early attendance: 0.75 + 0.75.
 - Late: 40 mins.
 - Bonus: 1 + 1 + 1 + 1 + 3.
- 23. Lê Thanh Tân.
 - Absence: -1.
 - Late: 5 mins.
- 24. HUỳNH THỊ KIỀU THU.
 - Early attendance: 0.75 + 0.75 + 0.75.
 - Bonus: 1 + 1 + 1.
- 25. Hoàng Nghĩa Tín.
 - Early attendance: 0.75 + 0.75.
- 26. Hoàng Anh Tuấn.
 - \bullet Absence: -2.
 - Early attendance: 0.75 + 0.75.
- 27. Ngô Thanh Tùng.
 - Absence: -2 2.

- 28. Ngô Hoàng Tùng.
 - Early attendance: 0.75 + 0.75.
 - Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 1.5.
- 29. TRẦN MỘNG TUYỀN.
 - Early attendance: 0.75 + 0.75.
- 30. Nguyễn Quang Vỹ.
 - Absence: -1.
 - Early attendance: 0.75.
 - Bonus: 1.5 + 4.

3 UMT Summer Semester 2025/1387: Combinatorics & Graph Theory

- 1. VÕ NGỌC TRÂM ANH.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
 - Bonus: 0.75 + 1 + 2 + 1.5 + 0.5 + 0.5.
- 2. Hoàng Anh.
 - Early attendance: 0.25 + 0.25 + 0.5 + 0.25.
 - Bonus: 1.5 + 1 + 0.5 + 1.5.
- 3. VÕ HUỲNH THÁI BẢO.
 - Early attendance: 0.25 + 0.25 + 0.5 + 0.25.
 - Late: 7 mins.
 - Bonus:
- 4. TRẦN MANH ĐứC.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.25.
 - Bonus: 1.5 + 1.
 - Late: 18 mins.
- 5. Nguyễn Trung Hâu.
 - Absence: -2.
 - Early attendance: 0.25 + 0.25.
 - Bonus:
 - Late: 24 mins.
- 6. Phạm Phước Minh Hiếu.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
 - Bonus: 1.
- 7. Hoàng Quang Huy.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
 - Bonus: 2 + 1.5.
- 8. Phan Nguyễn Duy Kha.
 - Early attendance: 0.25 + 0.25 + 0.25.
 - Bonus: 1.5 + 1 + 1 + 1 + 1.5.
 - Late:
- 9. Đặng Phúc An Khang.
 - Bonus: 0.5 + 1 + 1.

- 10. Pham Minh Khoa.
 - Absence: -2.
 - Early attendance: 0.25 + 0.5 + 0.25.
 - Bonus:
 - Late:
- 11. TRẦN THÀNH LỢI.
 - Absence: -2.
 - Early attendance: 0.25 + 0.25.
 - Bonus:
 - Late: 23 mins.
- 12. Lê Đức Long.
 - Early attendance: 0.25 + 0.25 + 0.5 + 0.25.
 - Bonus: 1 + 0.5 + 1 + 1.
- 13. Lê Công Hoàng Phúc.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.25.
 - Bonus:
 - Late: 24 mins.
- 14. Huỳnh Nhật Quang.
 - Absence: -2 2.
 - Late: +10 mins.
 - Bonus:
- 15. Cao Sỹ Siêu.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
 - Bonus: 1 + 1.
- 16. Sơn Tân.
 - Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
 - Bonus: 1 + 1 + 1.5.
- 17. NGUYỄN NGỌC THẠCH.
 - Early attendance: 0.25 + 0.25.
 - Bonus: 3 + 1 + 1 + 1.5.
 - Late: 5 + 23 mins.
- 18. Phan Vĩnh Tiến.
 - Late: 8 + 25 mins.
 - Early attendance: 0.75.
 - \bullet Bonus: 2.

3.1 Potential topics for midterm- & final exams

- Chứng minh bằng phương pháp quy nạp toán học.
- Bài toán chia kẹo Euler.
- Khai triển nhị thức Newton.
- Sử dụng định lý Euler & thuật toán Havel-Hakimi để chạy tay kiểm tra 1 dãy có phải là graphical sequence hay không. Vẽ đồ thị minh họa.
- Shortest path problem on graph Bài toán đường đi ngắn nhất.

4 UMT Summer Semester 2025/1488: Introduction to AI

- 1. Hồ Lê Duy.
 - Absence: -2.
 - Early attendance: 0.5 + 0.5.
- 2. Trương Công Hoan.
 - Early attendance: 0.5 + 0.5 + 0.5.
- 3. Lữ Minh Hoàng.
 - Early attendance: 0.5 + 0.5 + 0.5.
- 4. DINH KIM HUNG.
 - Early attendance: 0.5 + 0.5 + 0.5.
 - Bonus: 3.
- 5. HUỲNH VÕ QUỐC KHÁNH.
 - Absence: -2 2.
 - Early attendance: 0.5.
- 6. Nguyễn Nhật Khôi.
 - Absence: -2.
 - Early attendance: 0.5.
- 7. Vòng Lỷ Nàm Phúc.
 - Early attendance: 0.5 + 0.5 + 0.5.
 - Bonus: 1.5.
- 8. Hầu Trung Thành.
 - \bullet Absence: -2 2.
 - Early attendance: 0.5.
- 9. Nguyễn Thi.
 - Absence: -2 2 2.
- 10. Đặng Nguyễn Duy Trường.
 - Early attendance: 0.5 + 0.5 + 0.5.

5 UMT Summer Semester 2025/1493: Information Technology Fundamentals 2

- 1. Cao Nguyễn Gia An.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 3.5 + 2 + 2 + 2.5 + 2.5.
- 2. Hoàng Trâm Anh.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 1 + 2 + 2 + 2.5.
- 3. Bùi Nguyên Minh Dũng.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 2.5 + 2 + 2 + 2.5 + 2.5.
- 4. Nguyễn Ngọc Hân.
 - Early attendence: 0.5 + 0.5.

- Bonus: 0.5.
- 5. Nguyễn Thành Thái Hiệp.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 3 + 2 + 2 + 2.5 + 2.5.
- 6. Vũ Nguyễn Yến Hoa.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 1 + 2 + 2.5.
- 7. Đỗ Huy Hoàng.
 - Early attendence: 0.5 + 0.5.
- 8. Nguyễn Gia Huy.
 - Absence: -2 2.
- 9. Pham Lâm Gia Khánh.
 - Late: 15 mins.
 - Bonus: 0.5.
- 10. Pham Xuân Khánh.
 - Absence: -2.
 - Late: 15 mins.
 - Bonus: 2.
- 11. Bùi Đức Khoa.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 0.5 + 2.
- 12. TRẦN VŨ NGUYÊN KHÔI.
 - Early attendence: 0.5.
 - Late: 20 mins.
 - Bonus: 3 + 2 + 2.
- 13. Vũ Thị Ngọc Lan.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 2.5 + 2 + 2 + 2.5.
- 14. TRẦN VĂN LÊN.
 - Early attendence: 0.5 + 0.5.
 - Bonus: 0.5 + 2 + 2 + 2.5 + 2.5.
- 15. Thái Anh Nhật Thiên Long.
 - Absence: -2.
 - Early attendence: 0.5.
 - Bonus: 2 + 2 + 2.5.
- 16. LÊ NGUYỄN BẢO NGỌC.
 - Absence: -2 1.
- 17. LÊ HỒNG NGỌC.
 - Absence: -2.
 - Early attendence: 0.5.
 - Bonus: 2 + 2.5.
- 18. Nguyễn Hữu Nhân.

- Absence: -2.
- Early attendence: 0.5.
- Bonus: 0.5.

19. Lâm Thiện Nhân.

- Absence: -2.
- Early attendence: 1.
- Bonus: 2.5.

20. Pham Minh Nhật.

- Early attendence: 0.5 + 0.5.
- Bonus: 1.5 + 2 + 2 + 2.5.

21. Phạm Quỳnh Như.

- Early attendence: 0.5 + 0.5.
- 22. Nguyễn Ngọc Quỳnh Như.
 - Early attendence: 0.5 + 0.5.

23. Đoàn Trương Thiên Phong.

- Absence: -2.
- Early attendence: 0.5.

24. Hồ Tấn Tài.

- Early attendence: 0.5 + 0.5.
- Bonus: 1.5 + 2 + 2.

25. Hồ Quốc Thành.

• Early attendence: 0.5 + 0.5.

26. Nguyễn Thị Minh Thư.

• Absence: -2 - 2.

27. Đỗ THỊ HẢI TÌNH.

- Early attendence: 0.5 + 0.5.
- Bonus: 2 + 2 + 2.5.

28. VÕ ĐOÀN THÁI TOÀN.

- Early attendence: 0.5 + 0.5.
- Bonus: 0.5 + 2 + 2.

29. TRẦN QUỐC TRUNG.

- Early attendence: 0.5 + 0.5.
- Bonus: 0.5 + 2 + 2 + 2.5.

6 Miscellaneous