

# Advanced STEM Students

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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/](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](https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.pdf).

TEX: URL: [https://github.com/NQBH/advanced\\_STEM\\_beyond/blob/main/teach/student/NQBH\\_student.tex](https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.tex).

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PDF: URL: [.pdf](#).

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## 1 UMT Summer Semester 2025/1480: Introduction to Mathematical Analysis

1. TRẦN THANH CƯỜNG.

- Absence: -2.
- Bonus:

2. HUỖNH LÂM VŨ ĐÌNH.

- Early attendance: 0.5.
- Bonus:

3. TRƯƠNG CÔNG HOAN.

- Early attendance: 0.5.
- Bonus:

4. NGUYỄN HUY HOÀNG.

- Early attendance: 0.5.
- Bonus:

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5. LŨ MINH HOÀNG.
  - Early attendance: 0.5.
  - Bonus:
6. HÀ QUANG HUY.
  - Early attendance: 0.5.
  - Bonus:
7. NGUYỄN BẢO KHÁNH.
  - Early attendance: 0.5.
  - Bonus:
8. NGUYỄN LÊ DĂNG KHOA.
  - Early attendance: 0.5.
  - Bonus: 0.5.
9. PHAN GIA LẠC.
  - Early attendance: 0.5.
  - Bonus:
10. PHAN PHƯƠNG PHI.
  - Early attendance: 0.5.
  - Bonus:
11. ĐẶNG MINH PHƯƠNG.
  - Absence: -2.
  - Bonus:
12. NGUYỄN HOÀNG QUÂN.
  - Early attendance: 0.5.
  - Bonus:
13. ĐƯỜNG NGUYỄN MINH SƠN.
  - Early attendance: 0.5.
  - Bonus:
14. TẠ MINH THIÊN.
  - Early attendance: 0.5.
  - Bonus:
15. LÊ NGUYỄN QUỐC TOÀN.
  - Early attendance: 0.5.
  - Bonus:
16. NGUYỄN HOÀNG NGỌC TRẦN.
  - Absence: -2.
  - Bonus:
17. NGUYỄN ANH TUYẾN.
  - Early attendance: 0.5.
  - Bonus:
18. NGUYỄN NHƯ Ý.
  - Early attendance: 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  $\varepsilon$ , tính  $N_\varepsilon$ .

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

1. LÊ MINH TRÂM ANH.

- Early attendance:  $0.75 + 0.75$ .
- Bonus:

2. NGUYỄN BẢO ANH.

- Early attendance:  $0.75$ .

3. CAO GIA BẢO.

- Absence:  $-2$ .
- Early attendance:  $0.75 + 0.75$ .

4. VŨ VĂN ĐẠT.

- Absence:  $-2$ .
- Early attendance:  $0.75$ .
- Bonus:  $1$ .

5. TRẦN VĂN HẬU.

- Absence:  $-2$ .
- Early attendance:  $0.75$ .
- Bonus:  $1$ .

6. NGUYỄN NGỌC BÍCH HIỀN.

- Early attendance:  $0.75 + 0.75$ .
- Bonus:  $0.25 + 1 + 1$ .

7. NGUYỄN VĂN HIẾU.

- Early attendance:  $0.75$ .

8. DƯƠNG XUÂN HƯNG.

- Early attendance:  $0.75$ .
- Bonus:  $1 + 1$ .

9. TRẦN LÊ GIA HUY.

- Early attendance:  $0.75$ .

10. TRẦN QUANG HUY.

- Absence:  $-2$ .

11. ĐẶNG PHÚC AN KHANG.

- Early attendance:  $0.75$ .
- Late:  $15$  mins.
- Bonus:  $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$ .

12. LƯƠNG QUỐC KHÁNH.

- Early attendance:  $0.75$ .
- Bonus:  $1 + 1 + 1 + 1$ .

13. NGUYỄN HÀ ĐĂNG KHOA.

- Early attendance:  $0.75$ .
- Bonus:  $1$ .

14. NGUYỄN HUY DĂNG KHOA.
  - Absence: -1.
15. HUỠNH ĐỖ DĂNG KHOA.
  - Early attendance: 0.75.
16. TRẦN TRUNG KIÊN.
  - Early attendance: 0.75.
17. NGUYỄN HUỠNH CHÍ LÂM.
  - Early attendance: 0.75.
  - Bonus:  $1 + 0.75 + 1 + 1$ .
18. LÊ HOÀNG LINH.
  - Early attendance: 0.75.
  - Bonus: 1.
19. LÂM BẢO NGỌC.
  - Early attendance:  $0.75 + 0.75$ .
  - Bonus: 0.25.
20. NGUYỄN LƯƠNG NGHĨA.
  - Early attendance:  $0.75 + 0.75$ .
  - Bonus:  $0.5 + 1$ .
21. TRẦN PHÚC NGUYỄN.
  - Early attendance:  $0.75 + 0.75$ .
22. BÙI VĂN NHỎ.
  - Early attendance: 0.75
  - Late: 40 mins.
  - Bonus:  $1 + 1 + 1 + 1$ .
23. LÊ THANH TÂN.
  - Absence: -1.
24. HUỠNH THỊ KIỀU THU.
  - Early attendance:  $0.75 + 0.75$ .
  - Bonus:  $1 + 1 + 1$ .
25. HOÀNG NGHĨA TÍN.
  - Early attendance: 0.75.
26. HOÀNG ANH TUẤN.
  - Absence: -2.
  - Early attendance: 0.75.
27. NGÔ THANH TÙNG.
  - Absence: -2.
28. NGÔ HOÀNG TÙNG.
  - Early attendance: 0.75.
  - Bonus:  $0.5 + 0.5 + 0.5 + 0.5 + 0.5$ .
29. TRẦN MỘNG TUYỀN.
  - Early attendance: 0.75.
30. NGUYỄN QUANG VỸ.
  - Absence: -1.

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

1. VÕ NGỌC TRÂM ANH.

- Early attendance:  $0.25 + 0.5 + 0.25 + 0.5$ .
- Bonus:  $0.75 + 1 + 2 + 1.5$ .

2. HOÀNG ANH.

- Early attendance:  $0.25 + 0.25 + 0.5$ .
- Bonus:  $1.5 + 1$ .

3. VÕ HUỖNH THÁI BẢO.

- Early attendance:  $0.25 + 0.25 + 0.5$ .
- Late: 7 mins.
- Bonus:

4. TRẦN MẠNH ĐỨC.

- Early attendance:  $0.25 + 0.5 + 0.25$ .
- Bonus: 1.5.
- Late: 18 mins.

5. NGUYỄN TRUNG HẬU.

- Early attendance:  $0.25 + 0.25$ .
- Bonus:
- Late: 24 mins.

6. PHẠM PHƯỚC MINH HIẾU.

- Early attendance:  $0.25 + 0.5 + 0.25 + 0.5$ .
- Bonus: 1.

7. HOÀNG QUANG HUY.

- Early attendance:  $0.25 + 0.5 + 0.25 + 0.5$ .
- Bonus: 2.

8. PHAN NGUYỄN DUY KHA.

- Early attendance:  $0.25 + 0.25$ .
- Bonus: 1.5.
- Late:

9. ĐẶNG PHÚC AN KHANG.

- Bonus: 0.5.

10. PHẠM MINH KHOA.

- Early attendance:  $0.25 + 0.5 + 0.25$ .
- Bonus:
- Late:

11. TRẦN THÀNH LỢI.

- Early attendance:  $0.25 + 0.25$ .
- Bonus:
- Late: 23 mins.

12. LÊ ĐỨC LONG.

- Early attendance:  $0.25 + 0.25 + 0.5$ .
- Bonus: 1.

13. LÊ CÔNG HOÀNG PHÚC.

- Early attendance:  $0.25 + 0.5 + 0.25$ .
- Bonus:
- Late: 24 mins.

14. HUỖNH NHẬT QUANG.

- Absence: -2.
- Late: +10 mins.
- Bonus:

15. CAO SỸ SIÊU.

- Early attendance:  $0.25 + 0.5 + 0.25 + 0.5$ .
- Bonus:  $1 + 1$ .

16. SƠN TÂN.

- Early attendance:  $0.25 + 0.5 + 0.25 + 0.5$ .
- Bonus: 1.

17. NGUYỄN NGỌC THẠCH.

- Early attendance:  $0.25 + 0.25$ .
- Bonus: 3.
- Late: 5 mins.

18. PHAN VĨNH TIẾN.

- Late: 8 mins.
- Early attendance: 0.75.
- 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.

2. TRƯƠNG CÔNG HOAN.

- Early attendance:  $0.5 + 0.5$ .

3. LŨ MINH HOÀNG.

- Early attendance:  $0.5 + 0.5$ .

4. ĐINH KIM HƯNG.

- Early attendance:  $0.5 + 0.5$ .
- Bonus: 3.

5. HUỖNH VÕ QUỐC KHÁNH.

- Absence: -2 - 2.
6. NGUYỄN NHẬT KHÔI.
- Absence: -2.
7. VÒNG LÝ NĂM PHÚC.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus: 1.5.
8. HẦU TRUNG THÀNH.
- Absence: -2 - 2.
9. NGUYỄN THI.
- Absence: -2 - 2.
10. ĐẶNG NGUYỄN DUY TRƯỜNG.
- Early attendance:  $0.5 + 0.5$ .

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

1. CAO NGUYỄN GIA AN.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $3.5 + 2 + 2 + 2.5 + 2.5$ .
2. HOÀNG TRÂM ANH.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $1 + 2 + 2 + 2.5$ .
3. BÙI NGUYỄN MINH DŨNG.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $2.5 + 2 + 2 + 2.5 + 2.5$ .
4. NGUYỄN NGỌC HÂN.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus: 0.5.
5. NGUYỄN THÀNH THÁI HIỆP.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $3 + 2 + 2 + 2.5 + 2.5$ .
6. VŨ NGUYỄN YẾN HOA.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $1 + 2 + 2.5$ .
7. ĐỖ HUY HOÀNG.
- Early attendance:  $0.5 + 0.5$ .
8. NGUYỄN GIA HUY.
- Absence: -2 - 2.
9. PHẠM LÂM GIA KHÁNH.
- Late: 15 mins.
  - Bonus: 0.5.
10. PHẠM XUÂN KHÁNH.

- Absence: -2.
  - Late: 15 mins.
  - Bonus: 2.
11. BÙI ĐỨC KHOA.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $0.5 + 2$ .
12. TRẦN VŨ NGUYỄN KHÔI.
- Early attendance: 0.5.
  - Late: 20 mins.
  - Bonus:  $3 + 2 + 2$ .
13. VŨ THỊ NGỌC LAN.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $2.5 + 2 + 2 + 2.5$ .
14. TRẦN VĂN LÊN.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $0.5 + 2 + 2 + 2.5 + 2.5$ .
15. THÁI ANH NHẬT THIÊN LONG.
- Absence: -2.
  - Early attendance: 0.5.
  - Bonus:  $2 + 2 + 2.5$ .
16. LÊ NGUYỄN BẢO NGỌC.
- Absence: -2 - 1.
17. LÊ HỒNG NGỌC.
- Absence: -2.
  - Early attendance: 0.5.
  - Bonus:  $2 + 2.5$ .
18. NGUYỄN HỮU NHÂN.
- Absence: -2.
  - Early attendance: 0.5.
  - Bonus: 0.5.
19. LÂM THIÊN NHÂN.
- Absence: -2.
  - Early attendance: 1.
  - Bonus: 2.5.
20. PHẠM MINH NHẬT.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $1.5 + 2 + 2 + 2.5$ .
21. PHẠM QUỲNH NHƯ.
- Early attendance:  $0.5 + 0.5$ .
22. NGUYỄN NGỌC QUỲNH NHƯ.
- Early attendance:  $0.5 + 0.5$ .
23. ĐOÀN TRƯỞNG THIÊN PHONG.



- Absence: -2.
  - Early attendance: 0.5.
24. HỒ TẤN TÀI.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $1.5 + 2 + 2$ .
25. HỒ QUỐC THÀNH.
- Early attendance:  $0.5 + 0.5$ .
26. NGUYỄN THỊ MINH THƯ.
- Absence: -2 - 2.
27. ĐỖ THỊ HẢI BÌNH.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $2 + 2 + 2.5$ .
28. VÕ ĐOÀN THÁI TOÀN.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $0.5 + 2 + 2$ .
29. TRẦN QUỐC TRUNG.
- Early attendance:  $0.5 + 0.5$ .
  - Bonus:  $0.5 + 2 + 2 + 2.5$ .

## 6 Miscellaneous