

Jordan University of Science and Technology Faculty of Engineering Civil Engineering Department

CE742 Traffic Flow Theory And Control - JNQF Level: 9

First Semester 2024-2025

Course Catalog

3 Credit Hours. This course include introduction, traffic flow characteristics (Micro and Macro), and traffic stream models. Also, the course includes shock-wave analysis, queuing models, and simulation. Furthermore, the course includes the operation of unsignalized and signalized intersections.

Teaching Method: On Campus

| Text Book | | | | | |
|----------------------|---------------------------------|--|--|--|--|
| Title | Title Traffic flow fundamentals | | | | |
| Author(s) | Adolf D. May | | | | |
| Edition | 1st Edition | | | | |
| Short Name | textbook | | | | |
| Other Information | | | | | |

Course References

| Short name | Book name | Author(s) | Edition | Other Information | |
|------------|-------------------------|-----------|-------------|-------------------|--|
| manual | Highway Capacity Manual | TRB | 1st Edition | | |

| Instructor | | | | | |
|------------------------------|--|--|--|--|--|
| Name Prof. Hashem Al-Masaeid | | | | | |
| Office Location | C1 L3 | | | | |
| Office Hours | Mon : 10:00 - 11:30 Mon : 13:00 - 14:00 Tue : 10:00 - 11:00 Wed : 10:00 - 11:30 Wed : 13:00 - 14:00 Thu : 10:00 - 12:00 | | | | |
| Email | hashem@just.edu.jo | | | | |

Class Schedule & Room

Section 1: Lecture Time: Mon, Wed : 11:30 - 13:00 Room: C2008

| Mapping of Course Outcomes to Program Outcomes and NQF Outcomes | Course Outcome Weight (Out of 100%) | Assessment method |
|---|--|----------------------|
| - Define and explain traffic flow characteristics [1PI-1a] [1L9K1] | 30% | |
| - Identify appropriate approaches to solve engineering problems and systems. [1PI-6b] [1L9S3] | 40% | |
| - Evaluate, and design intersections. [1PI-2a, 1PI-2b, 1PI-2c] [1L9C6] | 30% | |

| Relationship to Program Student Outcomes (Out of 100%) | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PI-1a | PI-2a | PI-2b | PI-2c | PI-2d | PI-3a | PI-4a | Pl-4b | PI-5a | PI-6a | Pl-6b | PI-7a |
| 30 | 10 | 10 | 10 | | | | | | | 40 | |

| Relationship to NQF Outcomes (Out of 100%) | | | | | | |
|--|------|------|--|--|--|--|
| L9K1 | L9S3 | L9C6 | | | | |
| 30 | 40 | 30 | | | | |

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