# TCOM 611
# MPLS
# George Mason University
# Spring 2023

## Class Meeting Time and Location:
Thursday 7:20 – 10:00 P.M.
Location: Blackboard Collaborate
Instructor: Graham Sheppard
Email: gsheppar@gmu.edu
Phone: 571-246-7426
Office Hours: By appointment

## Class Description:
The objective of this class is to provide students with an in-depth understanding of MPLS. After completing this class students should understand the purpose of MPLS and the reasons for its deployment in both Service Provider and Enterprise networks. Topics to be covered are LDP, RSVP, MPLS-TE, Layer 2/3 VPNs and Multicast VPNs.

## Course Perquisites:
TCOM 515, TCOM 609/610 or other Routing Protocol experience is highly recommended for this course.

## Course Text:
MPLS-Enabled Applications
ISBN-10: 0470665459
ISBN-13: 978-0470665459

## Course Grading:
Midterm 35%
Paper 30%
Final Exam 35%
*Midterm and Final are based on lectures and class discussions*

## Grading Scale
97–100%      A+
93– 96%      A
90 – 92%     A-
87 – 89%     B+
83– 86%      B
80 – 82%     B-

70– 79%        C

## Course Project:
To be discussed the first week of class

## Lectures
Lecture PowerPoint slides and lab procedures will be posted online. Please login to https://gmu.blackboard.com to access the class folders.

## Course Schedule:
The schedule bellow is tentative.

| Class # | Date | Topics | References |
|---|---|---|---|
| 1 | 26-Jan | MPLS Introduction and LDP | RFC 3032 |
| 2 | 2-Fen | RSVP | |
| 3 | 9-Feb | No Class Project | RFC 3036 |
| 4 | 16-Feb | RSVP and Fast Reroute | RFC 2209 |
| 5 | 23-Feb | DiffServ-TE | |
| 6 | 2-March | TBD and Review | |
| 7 | 9-March | Midterm | |
| 8 | 16-March | Spring Break | |
| 9 | 23-March | Layer 3 VPNs | RFC 2547 |
| 10 | 30-March | Advanced Layer 3 VPNs | RFC 2547 |
| 11 | 6-April | Multicast VPNs | |
| 12 | 13-April | Layer 2 VPNs | RFC 4664 |
| 13 | 20-April | VPLS | RFC 4664 |
| 14 | 27-April | Next Gen VPNs | |
| 15 | 4-May | Final | |

## GMU Links:
catalog.gmu.edu

http://universitypolicy.gmu.edu/

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