

TCOM 611
MPLS
George Mason University
Spring 2022

Class Meeting Time and Location:

Thursday 7:20 – 10:00 P.M.

Location: Blackboard Collaborate

Instructor: Graham Sheppard

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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 Prerequisites:

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	2-Jan	MPLS Introduction and LDP	RFC 3032
2	3-Feb	RSVP	
3	10-Feb	No Class Project	RFC 3036
4	17-Feb	RSVP and Fast Reroute	RFC 2209
5	24-Feb	DiffServ-TE	
6	3-March	TBD and Review	
7	10-March	Midterm	
8	17-March	Layer 3 VPNs	
9	24-March	Advanced Layer 3 VPNs	RFC 2547
10	7-April	Multicast VPNs	
11	14-April	Layer 2 VPNs	RFC 4664
12	21-April	No Class Project	RFC 4664
13	28-April	VPLS	RFC 4664
14	5-May	Next Gen VPNs	
15	12-May	Final	

GMU Links:

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