UNLV ME 729 – Robotics 2 – Spring 2020 (last updated 01/27/20)

Week	Topic	
Week 1 01/27/20	Lecture Lab Homework	Lesson A: Introduction Computer to Computer Communications (RS-485) ASCII Communications
Week 2 02/03/20	Lecture Lab Homework	Lesson B Smart Servos (XL-320) – Dynamixel Wizard XL-320 position and velocity characteristics
Week 3 02/10/10	Lecture Lab Homework	Lesson C Smart Servo (XL-320) – Firmware Programming (LED) LED related exercises
Week 4 02/17/20	**UNLV Holiday – Presidents Day**	
Week 5 02/24/20	Lecture Lab Homework	Denavit-Hartenberg Notation Smart Servo (XL-320) – Write: Wheel and Joint Modes - DH derivations and related Write exercises
Week 6 03/02/20	Lecture Lab Homework	Forward Kinematics 2-DOF Planar Manipulator: Forward Kinematics Forward kinematics and related Position exercises
Week 7 03/09/20	Lecture Lab Homework	Inverse Kinematics 2-DOF Planar Manipulator: Inverse Kinematics IK derivations and FK related exercises
Week 8 03/16/20	**UNLV Holiday – Spring Break begins**	
Week 9 03/23/20	**Mid-Term (Practical and Hands-On)**	
Week 10 03/30/20	Lecture Lab Homework **Project Part 1**	Trajectory Planning 2-DOF Planar Manipulator: Line Trajectories Trajectory Planning Design 3-DOF robot or 2-DOF pan-tilt

Week 11 04/06/20	Lecture Lab Homework	Jacobians Smart Servo (XL-320) Read Position Jacobians and Read Position exercises
Week 12 04/13/20	**Project 1 Demo and Report Due** Lecture Lab Homework	 Computer Vision 1 Image Processing Image processing exercises
Week 13 04/20/20	Lecture Lab Homework **Project Part 2**	Computer Vision 2 Tracking Visual servoing exercises Visually servoed Tracking
Week 14 04/27/20	**Project Work Day**	
Week 15 05/04/20	**Study Week Begins** **Project 2 Demo and Report Due**	
Week 16 05/11/20	**Finals Begin**	