

**Spokane Community College  
Course Learning Outcomes and Outline**

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**Course Title: Theory of Suspension & Steering**

**Prefix and Course Number: 131**

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**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Understand the purpose, application, and operations of tires and wheels
- Understand the purpose, application, and operations of wheel alignment
- Understand the purpose, application, and operations of suspension systems
- Understand the purpose, application, and operations, and diagnosis of front and rear suspension
- Understand the purpose, application, and operations, and diagnosis of general understanding of electronic suspension
- Understand the purpose, application, and operations, and diagnosis of Steering column and gears

**Course Outline:**

**Tires & Wheels:**

Tires, Wheels and their construction & service.  
Tire-Pressure Monitoring Systems

**Suspension Systems:**

Frame & Unit-Body  
Component's and Operation.

**Front & Rear Suspension:**

Front & Rear Suspension – Understanding the many different types both rear wheel drive and front wheel drive and how there sprung  
Learn how to safely when working with spring and their energy under load.

**Electronic Suspension:**

Understanding Electronic Suspension  
Learn how to safely work with these suspensions.

**Steering Column & Gears:**

Steering Gear and their steering linkages  
Rack-and-Pinion, linkage  
Hydraulic & Electrical Power Steering Systems

**Wheel Alignment:**

Wheel Alignment Principles to include Alignment Angles.  
Electronic Alignment equipment and adjustments.