

<b>Unit Title:</b>	Mechanical Power Transmission Systems
<b>Unit Level:</b>	Three
<b>Unit Credit Value:</b>	3
<b>Unit Code:</b>	WNI576
<b>Unit Type:</b>	Academic Subject Content
<b>Unit Review Date:</b>	31/12/2028
<b>Graded / Ungraded:</b>	Graded

**This unit has 4 learning outcomes:**

Learning outcomes	Assessment criteria
<b>The learner will:</b>	<b>The learner can:</b>
1. Understand cams.	1.1 Identify various cams and followers e.g. radial plate cams, cylindrical cams, face cams, knife-edge followers, flat plate followers, roller followers.  1.2 Compare and contrast the above and describe their salient features.  1.3 Draw one with varying functions and a dwell.  1.4 Explain why particular cams are used in specified machines.
2. Understand linkage mechanisms.	2.1 Identify various linkage mechanisms e.g. slider-crank and inversions, four-bar linkage and inversions, slotted link quick return motion, Whitworth quick return motion.  2.2 Compare and contrast the above and their salient features.  2.3 Explain why particular linkages are used in particular machines.
3. Understand belt, chain and gear drives.	3.1 Compare and contrast various belt drives e.g. flat, V-section, synchronous, tensioning device; chain drives e.g. roller (such as single, duplex, triplex), Morse rocker-joint, tensioning devices; gear trains e.g. gear types (such as spur, helical, herring bone, bevel, spiral bevel, hypoid), simple, compound, worm, combinations,

	<p>epicyclic.</p> <p>3.2 Explain why particular drives are used in particular machines.</p> <p>3.3 Explain why particular transmissions are used in particular machines.</p>
4. Understand transmission shafts and be able to perform basic clutch calculations.	<p>4.1 Describe a range of transmission shafts and couplings.</p> <p>4.2 Carry out basic clutch calculations and identify the number of clutch plates required for an application.</p>

### Assessment (Graded)

1. Meets assessment criteria	At least a Pass
2. Further grading	
<ul style="list-style-type: none"> <li>▪ Meets assessment criteria but not merit grading standards</li> </ul>	Pass
<ul style="list-style-type: none"> <li>▪ Meets assessment criteria and merit but not distinction grading standards</li> </ul>	Merit
<ul style="list-style-type: none"> <li>▪ Meets assessment criteria and distinction grading standards</li> </ul>	Distinction