Casting & Molding Rubric

Objectives	Advanced 3 Points	Intermediate 2 Points	Beginner 1 Point	Points
Using Computer Aided Design Software (CAD)	Follows along with instruction, is able to use tools taught, and anticipate next steps. Creates a design with detailed thought for their mold. Is able to learn more tools than those taught and can redesign without assistance.	Follows along with instruction and is able to use tools taught. Creates a design similar to instructors. Is able to redesign using the same steps taught with little to no assistance.	Completes steps with minimal design thought for their mold and needs instructor's direct guidance for tool use. Needs assistance with redesign.	
Casting	Identifies the basic elements (tools/materials) and purposes of casting. Is able to describe the steps in the casting process in detail with a good understanding of the purposes of each step. Creates multiple cast designs with detailed thought.	Can identify the basic elements (tools/materials) and purposes of casting. Describes the steps in the casting process. May need additional guidance with understanding the purposes of all the steps. Creates one or more casts designs with thought.	Can identify some of the basic elements (tools/materials) and purposes of casting. Describes most of the steps in the casting process. Creates a cast that may or may not succeed with minimal design thought.	
Molding	Successfully creates a mold from an original design. Can articulate a good understanding of chemical changes in casting mediums and what causes the changes to occur. Compares the volume and weight of pre-cured liquid casting materials and post-cured parts. Demonstrates an understanding of why this change has occurred.	Successfully creates a mold of an existing object or designed one for an original idea. Shows an understanding of chemical changes in casting mediums. Compares the volume and/or weight of pre-cured liquid casting materials and post-cured parts.	Creates a mold of an existing object. Has some understanding of chemical changes in casting mediums. Can identify a change has occurred in material volume or weight.	
Constructive Feedback	Is able to give, receive, and incorporate constructive feedback. Actively seeks feedback from peers and instructors. Is able to hold discussions to explain choices or is able to explain why offered changes are not needed. (Can defend design choice)	Is able to give, receive, and/or incorporate constructive feedback.	Struggles to give, receive, or incorporate constructive feedback.	
Communication	Able to communicate design choices based on optimal die shape and personal preference. Is able to identify constraints on design and materials used. Understands how molds and casting facilitate mass production in manufacturing and is able to use critical thinking skills to identify possible differences in how casting and molding happens in mass production compared to the process they went through.	Able to communicate design choices based on optimal die shape or personal preference. Is able to identify constraints on design or materials used. Shows an understanding how molds and casting facilitate mass production in manufacturing.	Attempts to communicate design choices. Is not able to identify constraints on design or materials used. Shows some understanding how molds and casting facilitate mass production in manufacturing.	
Point Key:	**11 - 15 Points**	**6 - 10 Points**	**1 - 5 Points**	Total: