Course Level: Gent d / IAI Baccalaureste / Non-IAI Devt d/ Not in Degree Audit Practicum: 0.0 Work-based 0.0 EVBL 0.0 Course PCS & CIP: 12 - 48.0008 IAI Code N/A Corract Hove Minutes/Week 12 - 48.0008 IAI Code N/A Corract Hove Minutes/Week 12 - 48.0008 IAI Code N/A Corract Hove Minutes/Week 12 - 48.0008 IAI Code N/A Corract Hove Minutes/Week 14 - 40.000	5/6/2025 □		RED COURSE IVE COURSE		Laka Land C	۲ <u>-</u> ۱۱						EC 	DIVISION NEW CC REVISION	URSE
COURSE NUMBER: WILD-040 TITLE (30 Characters Max): Welding Fundamentals														
SEM CR HRS: 2-5 Lecture: 10 Lab: 3.0 ICCB Lab: 3.0 ECH: 4.0 Clurical Gen Ed / I/M G	COURSE NUMBER:		WI D-040					Welding F	undame	ntals				
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	Welding equipment				4				Prepare time or job cards, reports or records. Identify and use welding equipment.					

Safety	4	1. Perform housekeeping duties. 2. Demonstrate proper use and inspection of personal protection equipment (PPE) 3. Demonstrate proper safe operation practices in work area. 4. Demonstrate proper use and inspection of ventilation equipment. 5. Demonstrate proper Hot Zone operation. 6. Demonstrate proper work actions for working in confined spaces. 7. Demonstrate proper use of precautionary labeling and MSDS information. 8. Demonstrate proper inspection and operation of equipment used for each welding and thermal cutting process used. (This is best done as a part of the process module/unit for each of the required welding or thermal cutting processes.)
Oxy/Acetylene welding	8	Follow written and verbal instructions to complete work assignments. Demonstrate how to light and adjust a torch and make simple welds. Demonstrate a fillet weld with gas welding process.
Oxy/Acetylene cutting	4	Follow written and verbal instructions to complete work assignments. Demonstrate how to cut steel with a gas powered torch.
Brazing	4	Follow written and verbal instructions to complete work assignments. Demonstrate how to braze a lap joint.
Arc welding	12	1. Follow written and verbal instructions to complete work assignments. 2. Demonstrate how to strike and maintain an arc. 3. Demonstrate a multi-pass fillet weld. 4. Demonstrate arc welding in the vertical position.
Electrode classification	8	Follow written and verbal instructions to complete work assignments. Identify electrodes by AWS designation. Select proper electrode for various applications.
Welding symbols	4	Follow written and verbal instructions to complete work assignments. Identify welding symbols commonly used in industry.
Gas metal arc welding	8	Follow written and verbal instructions to complete work assignments. Demonstrate how to setup a MIG welder. Demonstrate welding using MIG processes.
Gas tungsten arc welding	4	Follow written and verbal instructions to complete work assignments. Demonstrate the TIG process to weld aluminum.
	60	

Outcomes*	At the successful completion of this course, students will be able to:
Course Outcome 1	Demonstrate proper cutting torch procedures.
Course Outcome 2	Demonstrate basic SMAW fillet and groove welds.
Course Outcome 3	Demonstrate GMAW fillet and groove welds.
Course Outcome 4	Demonstrate GTAW butt welds.
Primary Laker Learning Comp	etency Scientific Literacy: Students apply the scientific process to real-life situations.

 $\begin{tabular}{ll} Secondary Laker Learning Competer Professional Skills \& Ethics: Students demonstrate professional skills and ethical accountability. \\ \end{tabular}$

*Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.