Northwestern Michigan College Web Developer Certificate
Program Learning Outcomes Map (Fall 2022)

Course #	PLO1 App. Dev			PLO2 Database			PLO3 Systems			PLO4 Proj Mgmt			PLO5 Teamwork			PLO6 Comm.			PL7 PD			Certification Options *	Comm.	Critical Thinking	Quantitative Reasoning
	I	D	M	I	D	M	I	D	M	I	D	M	I	D	M	I	D	M	I	D	M				
ART 131								█	█								█		█						
BUS 155																█							X	X	
BUS 231																█							X		
COM 111																█	█						X	X	
CIT 110	█	█								█						█								X	
CIT 178		█		█	█	█	█	█					█				█					OD-201 (ITS) Databases		X	
CIT 180	█	█	█		█		█	█					█				█					OD-301 (ITS) HTML and CSS		X	
CIT 190	█	█	█				█	█		█			█				█			█		OD-302 (ITS) Javascript		X	
CIT 195		█						█		█	█						█							X	
CIT 218		█	█	█				█			█		█				█							X	
CIT 255		█	█		█			█			█						█					OD-305 (ITS) Software Development		X	
CIT 291		█	█	█	█					█				█			█								
VCA 125	█							█		█	█						█					Adobe Certified Associate - InDesign	X		
VCA 127	█							█									█					Adobe Certified Assoicate - Photoshop		X	
VCA 146	█	█	█				█			█							█						X	X	
VCA 147	█	█	█				█			█							█						X	X	
VCA 150	█	█	█				█										█					Adobe Certified Associate - Illustrator	X		

Program Learning Outcomes

1. **Application Development** - Utilize industry standard processes, tools, and skills required for application development on common platforms.
2. **Database Development** - Utilize industry standard processes, tools, and skills required for database development and administration.
3. **System Analysis and Design** - Demonstrate the systems and design process.
4. **Project Management** - Employ common industry tools and techniques for project management.
5. **Teamwork** - Function effectively as a project team member.
6. **Communications** - Communicate effectively.
7. **Professional Development** - Develop industry-based resources for their ongoing professional development and networking.

 * Some certifications are required in the course, and others are optional.

Key		
I	=	Introduce
D	=	Develop
M	=	Master