

GIWAAKAA'IGEMIN

We build.



INTEGRATED RESIDENTIAL BUILDER ASSOCIATE OF APPLIED SCIENCE

Our **Integrated Residential Builder** A.A.S degree program is a holistic response to climate change, energy poverty and the disappearance of our natural resources. We train our students to use building science, renewable energy and a whole house systems approach to construction, while preserving our Ojibwe core values. The IRB program builds upon the Residential Carpentry diploma and is geared towards those who are interested in a multidiscipline approach to construction. Graduates of the IRB A.A.S. Program will have working knowledge of a variety of sustainable energy technologies including solar, permaculture design, building envelope, and heating/cooling system alternatives.

Program Learning Outcomes

Graduates will be able to:

- Demonstrate the proper use of hand and power tools.
- Estimate amount of material needed to complete building projects.
- Layout a building site and construct exterior wall sections and roofing according to a building plan.
- Install walls and ceilings, doors and trim, and cabinets and special built-ins according to building plan.
- Evaluate the most appropriate building science applications to a building project.

Integrated Residential Builder careers may include:

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| • Construction Laborers and Helpers | • Furniture and Cabinet Manufacturer |
| • Carpenters Union | • Building Systems Analyst |
| • Journeyman Apprenticeships | • Weatherization Technician |
| • Drywall and Ceiling Tile Installers and Tapers | • Welder Certification |
| • Flooring Installers and Tile Setters | • Solar Installer Certification |
| • Wood Products/Wood Manufacturing | • Green Technology Technician |
| • Building Contractor/Entrepreneur | |
| • Masonry Workers | |



Integrated Residential Builder 2025-2027 Program of Study

General Education Courses: 14 credits			Cr.	Pre-Req	Term	CK
*	EDU 140	Professional Skills Development	3		Spring	
	FOR 101	Introduction to Forestry	3		Spring	
*	MATH 100	Technical Math	4	MATH 094	Fall	
	OJI 101	Speaking Ojibwe I	4		FA/SP	

Integrated Residential Builder Program Requirements: 46 credits			Cr.	Pre-Req	Term	CK
*	BLTD 100	Construction Codes	1		Spring	
*	BLTD 110	Blueprint Plans and Construction Estimating	2		Spring	
*	BLTD 114	Construction Safety	2		Fall	
*	CARP 112	Welding I	2		Interm.	
*	CARP 114	Framing Sustainable Design I	5		Fall	
*	CARP 116	Foundation & Footing Design	3		Fall	
*	CARP 120	Interior & Exterior Finishes	5		Spring	
	CARP 200	Weatherization Applications in Building	2		Fall	
	CARP 206	Framing Sustainable Design II	3		Spring	
	CARP 214	3D Layout for Shop & Construction	2		Fall	
	CARP 216	Woodworking	2		Spring	
	CARP 226	Framing Sustainable Design III	3		Fall	
	CARP 297	Carpentry Internship	3		Interm.	
*	ENER 150	Introduction to Renewable Energy	3		Fall	
	ENER 160	Sustainable Landscape Design & Site Planning	3		Spring	
	ENER 200	Residential Mechanical Systems	3		Spring	
	ENER 210	Introduction to Solar Energy	2		Fall	

Non-Course Requirement					
*	CPR	☐ Met ☐ Not Met			
		Total=	60 Credits		

* Complete these courses for the Residential Carpentry one-year certificate.

* Some prerequisites may be waived with instructor approval if you already have the required skills or knowledge.

