

Design Build Draft

Gwinn students learn to take project from start to finish

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GWINN - Students in Gwinn Area Community Schools' computer-aided design and drafting class are hard at work this year, creating and building a number of things in a hybrid classroom/job site setting.

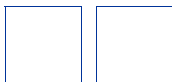
So far this year, the students have been designing and building trailers, some of which are specialized to carry kayaks or motorcycles, all the while earning up to eight credits which can be used at colleges like Northern Michigan University.

In the class run by CADD teacher Joe Routhier for the past 14 years, the students have built plenty of things to be proud of, including overhead projector mounts which are now used in every school building within the district.

Article Photos



Gwinn CADD student Michael Limon, who is a senior, puts t...



The high school has also asked this year's CADD students to construct wall mounts for Gwinn schools banners to be hung in the gym.

The CADD classes - there are three in total - also offer students who prefer a hands-on type of learning a way to gain knowledge they may not otherwise learn.

"There are some students probably struggling to pass geometry, but you get them in here, they're more mechanically inclined ... My CADD II students can keep pace with Northern," Routhier said. "For some, this might be the only class they look forward to all day."

This year's CADD III class, comprised of roughly 20 students, broke into smaller groups, each of which is working on designing, drafting and building its own trailer. The groups use a special type of software to map out each piece of steel needed to build the trailer, and must do calculations along the way to ensure they are building the units with enough integrity to stand up for actual use.

Because these trailers aren't just going to sit in the CADD garage collecting dust - each one has been ordered, mostly by teachers within the district, and will be bought and paid for upon completion.

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within the district, and will be bought and paid for upon completion.

This ensures the students get a real-life job experience. They must keep costs in mind as they change their designs, trying to stick within a budget while not compromising the integrity of whatever they are building.

"You get a lot of real-life experience," junior Logan Stein said of the class. "It teaches you a lot of teamwork."

Most days at the beginning of class, Routhier discusses the students' work, but once in a while he reflects on job skills, teaching the kids not only how to design and draft, but the soft skills needed to earn - and ultimately keep - a good job.

"That's going to help us later on," said senior Vincent Padget.

And while the CADD students get a leg-up learning how to use the software they also learn a skill that Routhier said puts Gwinn students a cut above the rest.

They learn how to actually build what they design and draft.

"A lot of programs have the design and drafting," Routhier said. "But we already have kids go and do the building."

Routhier said knowing how something is built is paramount during the design process - the designer should understand how to put something together in a way that is economical and also makes sense for the builders.

"It's really hard to design something if you don't know how to build it," Routhier said. "For these kids to be able to tell (a builder about the design) with first-hand knowledge, this is a huge step up for them."

It's a step that other Michigan businesses are beginning to take note of, Routhier said, citing recent calls from a Grand Rapids area business interested in what the Gwinn students are learning.

"They called and asked to see the high school," Routhier said.

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