



Chippewa Valley High School's Medical Careers curriculum meets students' needs

By Megan Lim

Lub-dub, lub-dub, lub-dub. The beating of a heart. High school students in the Medical Careers program offered at Chippewa Valley High School learned how to take blood pressures the manual way — using a sphygmomanometer, an instrument used with a stethoscope.

Students in the two year Medical Careers Program learn about Anatomy & Physiology, medical terminology, CPR, First Aid, patient care skills, vital signs, and much more.

Students learn many activities regarding the different body systems including the digestive system, cardiovascular system, skeletal system, and muscular system. "In Medical Careers, the activities are set up in exciting, fresh ways," junior Delone Jouja said. "Mnemonics are taught to help us learn various parts of body systems, along with new activities to go along with each unit," he added.

The Medical Careers II program focuses on applying the skills learned in the first year, and building student confidence by exploring career options in the health care field.

The second year students have an opportunity to go to the hospital. Mrs. Laramee supervises the students' experiences at Mt. Clemens Regional Center. "The students are all over the hospital," she said. Students participate in different hospital units including all nursing units, physical therapy, dietary, transport, radiology, respiratory, oncology, orthopedics, pediatrics, family birthing, and emergency rooms, just to name a few. "I walk around the units to make sure that the students are utilized to their best ability and are engaged in active learning and observation,"



Books to be read in the Medical Academy English Course: *Born a Blue Day*, *Brave New World*, and *My Sister's Keeper*.

Laramee said. "The bursting of a water pipe over Thanksgiving break impacted us all," Jouja said. "Many of our supplies were damaged, and therefore could not be used. As with all catastrophes, there is a time where people come back better than before. We now have a freshly painted room, and brand-new carpeting. New mannequins and other classroom supplies will be arriving for next year's classes."

The Medical Careers program, indeed, put the damage to the room in the past. "We kept moving forward with our lessons," Mrs. Carolan said. "Teachers stepped forward and shared their classroom space, and equipment was donated," she added.

The new Medical Academy English course will be up and running next fall. "It is a partnership between Medical Careers and English to show the interrelationship between English and medicine," Ms. Konicek, an English teacher at CVHS who will be teaching the Medical Academy English course, said.

"Medical Career students will be able

to connect their learning in both classes," Konicek said. Students will be able to identify symptoms and causes of diseases portrayed in literature that relates to the medical field. Medical Academy English is built upon the new rigorous college preparatory standards developed by the Michigan Department of Education for 11th grade English. It is equivalent to English 11, but presents English within a medical theme instead of British literature.

Ms. Konicek said that the class will include novels and short stories such as "Born on a Blue Day", "My Sister's Keeper", and excerpts from "Brave New World". There will be regular English elements such as research papers and MME preparation. Class discussions and book club activities will also be part of the course.

"The integration is intentional as there is much research to support that students who can connect their academics to an area of interest are more engaged in their learning," said Claire Brisson, Director of Career Technical Education.



Dakota High School's 2008-2009 Research and Development class. From left to right, Andy Morreale, Matt Solnik, Jerome Reilly, Trevor McDermott, Bryan Pionk, Kevin Law, Jaycil Varghese, Goran Crnomarkovic, Matt McCormick, and Alex Filipovic.

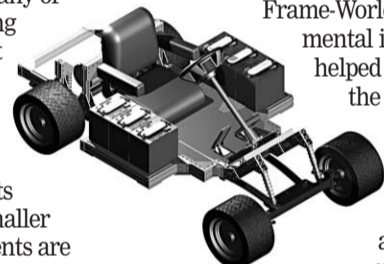
Engineering in the Classroom? It's Green Time at Dakota!

Dakota High School students design, build electric vehicles

By Matt McCormick

While other students are quietly studying in their classrooms, the Design Technology Research and Development class at Dakota High School is busy applying their engineering skills to a real world application. The group of ten seniors has spent their final year in the program designing and constructing a completely unique Zero-Emissions Electric Vehicle, nicknamed the ZEEV.

The four year Design Technology program teaches students the skills of drafting, two and three-dimensional CAD design, and many of the engineering standards that are used the industry today. After three years of designing parts and testing smaller projects, students are given the opportunity to use what they've learned to build a large



A 3D Inventor rendering of the ZEEV, a entirely functional electric vehicle designed and built by high school students.

scale apparatus of their choosing. "Our program is designed to teach kids the practical application of engineering skills," explained instructor and department head Mr. Scott Mitchell. With rising fuel prices and a sagging economy affecting everyone, the team decided to 'go green' and build custom electric vehicles. Using AutoCAD and Autodesk Inventor software packages, the class developed a three-dimensional model that incorporated their skills and techniques that were learned in previous classes. They then made fully dimensioned detail and assembly drawings to ensure that the placement of every part was identified.

That's not to say, however, that the entire process went smoothly. Changes were made on a daily basis to integrate new ideas as well as to fix structural problems that surfaced. Not until weeks later did a final, agreed upon model emerge and parts were finally ordered. These challenges are not viewed as obstacles, but rather as opportunities to make the vehicle as sound as possible.

Others on the team share similar feelings about their experiences. "My four years in the engineering and architecture programs have been great," exclaimed Matt Solnik. "Very few high schools have the chance to build something of this proportion. I hope the vehicle

performs as well as we think it will."

In order to overcome a limited budget, the class contacted companies looking for reduced prices and sponsorships. With the help of Quality Time Recreation, located in Kimball, Michigan, the students were able to obtain the electrical parts needed to make their ideas a reality. Mr. Michael Timm took time out of his schedule to give the group a detailed tour of his facility, outlining all of their options and giving pointers, and assisted with any questions that arose along the way.

Sentec Automation, along with Frame-World, was also instrumental in the process, and helped the team obtain the aluminum extrusions and joining plates that are used for the vehicle's frame at a substantially reduced cost. The company even produced custom plates that were designed by the students to fit the

complex design. Mr. Blaine Nehring visited Dakota, bringing sample materials and analyzed the structural components to ensure stability. This professional advice led to the students implementing thicker aluminum extrusions into their design to make sure the frame could hold the weight applied to it.

In addition, Alltrax Inc. provided an improved programmable controller that allows for added control over the vehicle's operation, more advanced tests, and the ability to track detailed performance statistics.

Construction of the ZEEV is still underway, and is expected to be complete in early May. When finished, the vehicle will be put through a strenuous testing regiment that will evaluate its speed, maneuverability, braking efficiency, and suspension.

The ZEEV project has not only taught those involved how to use their abilities to create a real product, but it serves as valuable capstone experience to demonstrate and apply their learning. Many of these students will go on to engineering colleges or universities to pursue a degree in the field. Down the road, literally and figuratively, these students may be the very engineers that design your high-tech, fuel efficient automobiles.

Former student assumes mentor's role in Culinary program

By Alyssa Sandoval

Workers in crisp, white uniforms dash from station to station as the sharp crash of pots and pans echoes across the bright room. Ovens are constantly thrown open and closed, some containing soon-to-be cookies, others delivering a steaming, hot entree. Antonette Vitale's voice carries instructions around the kitchen, mixing in with the symphony of cooking timers ringing and ice-cold drinks splashing into cups.

Students in the Chippewa Valley School District do not need to look any further than Dakota High School to receive hands-on cooking lessons and the experience of working in an operational restaurant. Students, who have yet to fulfill the Visual, Performing and Applied Arts requirement under the new Michigan Merit Curriculum may use this course to fill the obligation. Even though the class is held at Dakota High School, students at Chippewa Valley High School also enroll.

The Meeting Grounds, located on the north side of Dakota, serves as a restaurant for staff, students, and anyone else who wants to stop by for lunch. It also serves as a classroom for learning that takes place beyond the kitchen. The food is prepared from scratch by the students in the Hospitality and Culinary Arts program.

"By taking this course, a student walks away with basic cooking skills needed for the industry and everyday life. They also learn the importance of sanitation in the workplace, how to season to taste, and ways to properly handle a knife," Vitale said. The students get to see the reactions of their customers. "The satisfaction they get from hearing that the meal they prepared was excellent gives them determination to work even harder," says Vitale.



Juniors, Cristina Battaglia and Anthony Mocerri practice handling knives.

Students that pass the national and industry recognized culinary exam at the end of the school year receive a ServSafe certificate from the National Restaurant Association.

Laura Thiel, formerly the only Hospitality and Culinary Arts instructor at Dakota, is teaching part-time this school year because she is also a part-time counselor, a job she plans to pursue full-time. The two teachers share their teaching schedule so that Thiel teaches the introductory class for the program, and Vitale focuses on the advanced course, which involves participating in the school's restaurant.

Although Vitale has some fresh ideas for the program, she has complete respect for Thiel's original curriculum.

"I took this class when I was a student at Dakota, so I've known Mrs. Thiel for a long time. She does so much for her students and I want her to feel like she is leaving this program in good

hands." Smiling, Vitale searches for the right words. "She has become so much more than a teacher or mentor to me."

A standard menu of both cold and hot sandwiches, soups, desserts, and salads are available to everyone who stops by and are completely prepared by the students enrolled in the course. In addition, there are also weekly specials advertised on The Meeting Ground's website: www.cvs.k12.mi.us/meetinggrounds/. Meals can be preordered by telephone at 586-723-2841.

"Everything I have learned in this class can be carried on into the future. During the first year, you learn basic culinary skills, but this year mainly focused on learning how to run a functional restaurant," Zach Madaj, a Dakota senior, stated. "I hope to continue my training at Macomb Community College after I graduate."

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