



# Earning High School Credit through FIRST Robotics

## Explanation

Student can earn elective graduation credit for participation on a FIRST Robotics Team.

## How does this work for a school?

FRC team mentors track student attendance at meetings and events.

Once a student reaches the requirements (60 hours + 2 events), the mentors notify the counselors the student has met the minimum requirement.

Counselors update the student's transcript with elective credit, similar to how transfer credits or other out-of-school credit is awarded.

## What do students do on an FRC team?

### Experiences on FRC Teams can include:

- Business and Communication (Sponsor presentations, make videos)
- STEM Concepts
- Social Skills (Teamwork, communication with adults)
- Mechanical work (Workshop w/ variety of machines and tools)
- Problem Solving (Figure out what works and what doesn't)
- 21st Century Skills (such as Critical thinking • Communication Collaboration • Creativity)
- Team Building
- Using Time Productively

# Why Students Need This

## Students who struggle in school

- Kids with home problems (Parents fighting, can't focus; divorce, family violence)
- Students who excel in one subject, and flop in another.
- Kids who just want to learn.
- Students who do not want to retake a class or take lower classes as an upperclassman.

## What Do the Killer Bees Have To Do With It?

We think this is a great way for FIRST students to be recognized for their work outside of the classroom on concepts taught in classrooms.

Going beyond the elective credit, we run a digital badging system for all Michigan teams available at [www.firstbadges.com](http://www.firstbadges.com)

Digital Badges are:

- Constructed to include the academic standards and 21st century skills
- Included with other working experiences
- Used on college applications, scholarships and job applications

For more information, please contact the Killer Bees at  
[www.killerbees33.com](http://www.killerbees33.com)



STATE OF MICHIGAN  
DEPARTMENT OF EDUCATION  
LANSING

RICK SNYDER  
GOVERNOR

BRIAN J. WHISTON  
STATE SUPERINTENDENT

**MEMORANDUM**

**DATE:** February 23, 2017

**TO:** Local and Intermediate School District Superintendents  
Public School Academy Directors

**FROM:** Venessa A. Keesler, Ph.D., Deputy Superintendent   
Division of Educator, Student, and School Supports

**SUBJECT:** Digital Badges - Documenting Student Competencies

Since the passage of the Michigan Merit Curriculum (MMC) in 2006, student credit is based on demonstrated proficiency and not seat time. Districts are responsible for determining these proficiency measures. This law complements the Governor's call for Any Time, Any Place, Any Way, Any Pace learning and the Michigan Department of Education (MDE) Top 10 in 10 goal of personalized learning for all students. Furthermore, districts have the flexibility to decide how students' knowledge and skills are shared with postsecondary institutions and potential employers (i.e. transcripts). Finally, advances in technology, including Student Information Systems (SIS) and the data hubs support districts that are looking for ways to better share the authentic work that students have mastered. Digital badges allow students to share with a variety of audiences what they know and can do. This [short video](#) provides an introduction to digital badges. The technology is exciting because badge providers can construct a badge to include the academic standards and 21<sup>st</sup> century skills as well as other competencies gained through the learning experience. Unlike credit based on course completion, a badge is a digital portfolio that includes authentic evidence of student proficiency.

The badge presents an opportunity to thoughtfully personalize learning for each student by allowing educators to see what demonstrated competencies students already bring to the learning environment. It also encourages more defined relationships and communication between the out-of-school time world and the formal system. An example of digital badging and credit issuance is taking place through the Section 99h FIRST Robotics Grants, a grant program managed by the MDE. Grantees agreed to:

- Be willing to offer elective high school credits for students who have successfully logged 60 hours, provided the team attends a minimum of two FIRST in Michigan district competitions.
- Be willing to participate in the digital badging program established by the statewide FIRST Robotics team of coaches.

**STATE BOARD OF EDUCATION**

CASANDRA E. ULBRICH – CO-PRESIDENT • RICHARD ZEILE – CO-PRESIDENT  
MICHELLE FECTEAU – SECRETARY • TOM MCMILLIN – TREASURER  
NIKKI SNYDER – NASBE DELEGATE • PAMELA PUGH  
LUPE RAMOS-MONTIGNY • EILEEN LAPPIN WEISER

608 WEST ALLEGAN STREET • P.O. BOX 30008 • LANSING, MICHIGAN 48909  
www.michigan.gov/mde • 517-373-3324

The FIRST in Michigan organization has developed a badging system to support districts and coaches issue digital badges. More information can be found at:  
<https://www.firstbadges.com/>.

For more information about granting credit or the MMC, please visit our [Frequently Asked Questions](#) document. For more information about the Section 99h FIRST Robotics Program, access the [grant criteria here](#). For questions about how you might consider using digital badges or any of the above information contact:

- Lorraine Thoreson, [ThoresonL@michigan.gov](mailto:ThoresonL@michigan.gov), 21<sup>st</sup> CCLC / After School Programming
- Gregg Dionne, [DionneG@michigan.gov](mailto:DionneG@michigan.gov), Curriculum and Instruction Unit
- Ann-Marie Mapes, [MapesA@michigan.gov](mailto:MapesA@michigan.gov), FIRST Robotics and Educational Technology

cc: Michigan Education Alliance