

**WMU STEP Advisory Board Report  
Planning for the 2007-08 Cohorts**

1. For Fall Semester 2007, 324 CEAS students and 56 A&S students will be placed into learning communities. (In addition, there are 8 Imaging students and 21 CEAS students not placed in a learning community for a variety of reasons – athlete, ROTC, etc.) The faculty members and the anchor classes for the learning communities are:

Faculty Mentor	Characteristics	Anchor Class
Ikhlas Abdel-Qader	ECE (Calc /PreC)	ECE 2500 Lab (42913 and 42914)
Osama Abudayyeh	CCE (PreCalc/Alg. II)	ENGR 1001 (45163)
Betsy Aller	Math 1100/1090	ENGR 1001 (45165)
Jerrie Fiala	Honors	IME 1020 (42566)
Tycho Fredericks/Steve Butt	Undecided (Calc/PreCalculus)	ENGR 1001 (45164)
Tarun Gupta	Math 1110	ENGR 1001 (45166)
Mitch Keil	Calculus I/PreCalc)	IME 1420 Lab (42750)
Andy Kline	Undecided (PreCalc/Algebra II)	ENGR 1001 (45161)
Tracey Moon	Calculus I	IME 1020 (42541)
Donald Nelson/Mark Kerstetter	CS (Calc/PreC/Alg. II)	CS 1110/CS 1010
Peter Parker	CHG (Calc/PreCalc)	CHEG 1010
Troy Place	Pre-Calculus	IME 1020 (42514)
Tom Swartz	Honors	IME 1020 (42551)
Slobodan Urdarevik	Calculus I	IME 1420 Lab (42744)
Sherif Yehia	CCE (Calc I/PreCalc)	ENGR 1001 (45162)
Donald Schreiber	Chemistry	Chemistry Seminar
Tammi Roberts	Biological Science	Biology Seminar
Raja Aravamuthan	Paper	PAPR 1000
	Miscellaneous	IME 1420 Lab (42740)

**Course Clusters for 2007-08 Learning Communities**

Students are placed into learning communities based on either majors or math placements.

We have requests from the following majors; the course clusters for the learning communities of these majors are:

*Chemical Engineering:* Calculus I or Pre-Calculus, General Chemistry I + lab, Technical Communication, Introduction to Chemical Engineering -- 14 hours (some add a 2 hour general education)

*Civil and Construction Engineering:* Calculus I or Pre-Calculus or Algebra II, Technical Communication, Engineering Graphics, Physical Geology, Introduction to Engineering Design -- 14 or 15 hours

*Electrical and Computer Engineering:* Calculus I or Pre-Calculus, General Chemistry I + lab, Digital Logic, Technical Communication -- 14 hours (some add a 2 or 3 hour general education)

*Paper Engineering:* Calculus I or Pre-Calculus, General Chemistry I + lab, Technical Communication, Introduction to Pulp and Paper Manufacture-- 14 hours (some add a 2 hour general education)

*Computer Science:* Calculus I or Pre-Calculus, Computer Science I, Technical Communication, 2 General Education -- 15 hours

*Undecided Major:* Math (Calculus I, Pre-Calculus, Algebra II), Technical Communication, Introduction to Engineering Design, General Chemistry I + Lab (for those placed into Calculus I or Pre-Calculus), General Education – 14 or 15 hours

*Honors Cluster:* Honors section of Calculus I, General Chemistry I + lab, Technical Communication, and depending on majors, either Computer Science I, Engineering Graphics, Introduction to Chemical Engineering, Introduction to Engineering Design, Introduction to Pulp and Paper Manufacture

Course Clusters for Learning Communities Based on First Semester Math Placement:

*Placed into Calculus I or Higher:* Calculus I (or Calculus II), General Chemistry I + lab, Technical Communication, Engineering Graphics -- 14 hours (some add a 2 hour general education)

*Placed into Pre-Calculus:* Pre-Calculus, General Chemistry I + lab, Technical Communication, Engineering Graphics -- 14 hours (some add a 2 hour general education)

*Placed into Algebra II:* Algebra II, Technical Communication, Engineering Graphics, Introduction to Engineering Design, 1 or 2 General Education -- 14 or 16 hours

*Placed into Algebra I or Lower:* Algebra I (or developmental math), introduction to engineering design, engineering graphics, introduction to imaging, engineering graphics, introduction to manufacturing -- 15 hours. We usually channel these students to technology or imaging majors.

*Biological Science Learning Community:* Combination of Molecular & Cellular Biology, General Chem I + lab, English Composition, Math (Algebra II, Pre-Calculus, Calculus I), General Psychology, Biological Science Seminar

*Chemistry Learning Community:* Combination of General Chemistry I + lab, Math (Pre-Calculus or Calculus I), English Composition, Chemistry Seminar

2. Comparison of first-semester mathematics placement for the 2007 CEAS students with previous years is given below:

<b>Math Courses Placed</b>	<b>2002*</b> <b>(%)</b>	<b>2003*</b> <b>(%)</b>	<b>2004**</b> <b>(%)</b>	<b>2005**</b> <b>(%)</b>	<b>2006*</b> <b>(%)</b>	<b>2007*</b> <b>(%)</b>
Math 1230 and higher	9.2	9.4	7	9.7	5.4	5.1
Math 1220/1700/2000	25.5	24.5	22.2	31.5	35.3	42.7
Math 1180	25.5	25.3	23.7	24.9	31.0	31.1
Math 1110	28.9	27.0	30.3	23.4	17.7	13.7
Math 1100/1090/1160	7.9	10.3	12.5	7.0	10.3	7.2
No Math Data	3.0	3.4	4.2	3.5 <sup>1</sup>	0.3	0.3
Total	100	99.9	99.9	100	100	100

\* CEAS Data Only

\*\* CEAS + A&S Data

<sup>1</sup>Includes MATH 1160 (Finite Math with Application for Imaging majors), MATH 1450 (Discrete Math Structure for Computer Science majors), and MATH 1900 (Survey of Math Ideas)

### **Involvement of Parents**

During Summer Orientation 2007, 266 parents of CEAS students have signed up to receive periodic email updates from Edmund Tsang. The text of the first email sent immediately after summer orientation is as follows:

Dear Parents,

Greetings and thank you for signing up to receive periodic emails from me about the progress of your children during their first year at Western Michigan University. I want to add my welcome to you as a member of the College of Engineering and Applied Sciences' family of faculty, staff, and students and their parents. I would like to request that you ask your son or daughter to grant you access to academic and financial records through the GoWMU portal. I would also like to ask you to remind your son or daughter not to change his or her schedule without first contacting me or our Advising Office. This would prevent any problem from occurring and save hours of frustration. My phone number is (269) 276-3249 and my email is edmund.tsang@wmich.edu. The Advising Office's phone number is (269) 276-3270. If your son or daughter has taken the Advanced Placement exam, he or she will be getting the results in early July. Please ask him or her to call the Advising Office with the score, and we will adjust the schedule accordingly. If you have any question, please do not hesitate to contact me. I welcome your input, and I will be soliciting your help in assisting your son or daughter so he or she can be successful in the first year of study to become an engineer, a computer scientist, an applied scientist, or an engineering technologist.

Edmund Tsang, Ph.D.

Associate Dean of Undergraduate Programs & Assessment  
College of Engineering and Applied Sciences  
Western Michigan University

Topics for future email will include:

- August -- Ask parents to view video/podcasting of Dean Greene about expectations of first-year of college; remind parents to ask their children to grant them access to mid-term and final grade reports; remind parents to ask their children to print out schedules in cases classrooms have been changed.
- September – Send tutoring schedules and schedules of presentations/lectures (ask parents for help in inculcating professional behavior regarding attendance of activities).
- October – Mid-term grade report; ask parents to remind their children to sign up to see an academic advisor for spring semester registration

In addition, the STEP webpage now has a parent tab – see next page.

## WMU Engineering Parent's Program

### Welcome Parents!

At Western Michigan University's College of Engineering and Applied Sciences parents are viewed as members of the WMU family and as partners in their student's education.

The WMU Engineering Parent's Program provides a connection between parents and the college through emails, events and services.

There is information about tutoring schedules, current news, and resources on the "[For Students](#)" tab of this web site that you will find useful.

### List of WMU web site links:

#### Academic Calendar

<http://www.wmich.edu/registrar/calendar.html>

#### Career and Student Employment Services - Hints and Advice for WMU Parents

[http://broncojobs.wmich.edu/Parents/hints\\_advice.html](http://broncojobs.wmich.edu/Parents/hints_advice.html)

#### Directions

<http://www.wmich.edu/fve/parents/directions.html>

#### Events Calendar

<http://www.wmich.edu/wmu/news/events/>

#### Faculty and Staff Directory for WMU

<http://www.wmich.edu/sub/directories.html>

#### Final Examinations Schedule

<http://www.wmich.edu/registrar/finalexam.html>

#### Financial Aid-Information for WMU Parents

<http://www.wmich.edu/finaid/parents.html>

#### FYE New student orientation for Parents

<http://www.wmich.edu/fye/parents/>

#### Health and Safety

[Student Health Resources](#), [Annual Security Report](#), [Counseling](#), [Fitness Facilities](#), [Sindecuse Health Center](#), [University Police](#), [Residence Hall Security](#)

#### Hotels

<http://www.wmich.edu/fve/parents/hotels.html>

#### Metro Transit Bus Routes

<http://www.wmich.edu/auxiliary/busroute>

#### Parent and Family Programs

[www.wmich.edu/parents](http://www.wmich.edu/parents)

#### Parking Maps

<http://maps.pp.wmich.edu/image.pl?Coord=250.187&Imq=P&Zoom=1>

#### Residence Life Parent's Resources Page

<http://www.wmich.edu/housing/parents/>

#### Registrar's Office Answers to Frequently Asked Questions by Parents

<http://www.wmich.edu/registrar/parents.html>

#### Visiting Campus

[Admissions Visits](#), [Athletics](#), [Bookstore](#), [Directions to WMU](#), [Events Calendar](#), [Homecoming](#)

#### WMU Engineering in the News

<http://www.wmich.edu/wmu/news/links/engineer.html>

Parents of first-year engineering students, join our email list and stay informed.  
[<read more>](#)

Students now have the ability to give parents, spouse, or other designated guests authorized user access to view certain records, academic and financial aid [<read more>](#)

#### Study Finds College-Prep Courses in High School Leave Many Students Lagging

Only a quarter of high school students who take a full set of college-preparatory courses — four years of English and three each of mathematics, science and social studies — are well prepared for college, according to a study of last year's high school graduates released yesterday by ACT, the Iowa testing organization.


[<read more>](#)


## Podcasting

Content materials on student success have been created for distribution through iTunes-WMU. The materials include a Welcome from Dean Tim Greene on expectations of first-year students; how to use a syllabus; frequently asked questions on academics, advising and financial aid; an engineering student survival guide; test taking; student success story from 2006-07.

Welcome to  
**WMU  
STEP**

**Science, Technology, Engineering, Mathematics  
Talent  
Expansion  
Program**


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Home Introduction Calendar For Students For Parents For Faculty

### Podcasts


#### Listen in iTunes



If you have Apple's [iTunes](#) installed on your computer, click the icon above and you'll go to [our page in the iTunes Music Store](#). From there, you can log-in as a current WMU student or as a visitor (public access). Your iTunes screen will open and you will see "Student Resources" Click on the "First Year Engineering Experience" link. You can double click a title and listen to it from your computer or click "get" to download it to your iTunes.

If you don't have iTunes, you can [download it for free](#) for your Windows or Mac computer.

#### Listen from your computer



You can listen to our podcasts by clicking any of the links below.

**[Dr. Greene- Welcome Message to Engineering Freshmen](#)** Video Podcast (6:11)  
[\(Download Quicktime player\)](#)  
Dr. Greene discusses what you'll be doing when you come to campus and the attitude you need to bring when you study at Western Michigan University.

**[Josh and Kim Explain Their Freshman Project](#)** Audio Podcast (16:30)  
An interview with two '06 WMU freshman engineering students, from the development/design stage through their travels to present their project in Washington D.C.

**[Why Your Class Syllabus is So Important](#)** Audio Podcast (12:22)  
What is a syllabus, why is it so important? Why you should pay very close attention to it and keep it in a safe place.

**[An Engineering Students Survival Guide](#)** Audio Podcast (14:30)  
You say things aren't going quite the way you'd like this semester, especially in your ten o'clock class? The professor just covers the board with equations and doesn't explain anything? The textbook is dry as dust and doesn't have worked-out examples? The exam problems are nothing like the homework and class averages are in the 40's?

## Engineering Residence Program

For Fall Semester 2007, a total of 131 CEAS students of which 18 are females, will be enrolled in the Engineering Residence Program.

## College Transition Program

Nineteen (19) ethnic minorities who major in STEM (science, technology, engineering, and mathematics) participated in a College Transition Program (CTP) in Fall Semester 2006 that was held in conjunction with Fall Welcome. Sessions included problem-solving methodology, mathematics, teamwork, academic success strategies, and meetings with alumni and upper-level students. The preliminary 2<sup>nd</sup> year retention rates to STEM and to WMU are compared to ethnic minorities who major in STEM but did not elect to participate in CTP.

	<b>CTP</b>	<b>Non-CTP</b>	<b>Significance level</b>
<b>No. of Students</b>	<b>19</b>	<b>51</b>	
Average ACT (Math)	20.3	21.2	
Retained in STEM	13 (68.4%)	30 (58.8%)	>0.10
Retained in WMU	17 (89.5%)	37 (72.5%)	>0.10

For comparison purposes, the 2<sup>nd</sup> year retention rates of ethnic minorities who participated in the College Transition Program in Fall Semester 2005 and the comparison group is as follows:

	<b>CTP</b>	<b>Non-CTP</b>	<b>Significance level</b>
<b>No. of Students</b>	<b>16</b>	<b>21</b>	
Average ACT (Math)	20.4	22.6	
Retained in STEM	13 (81.3%)	15 (71.4%)	>0.10
Retained in WMU	17 (93.8%)	18 (85.7%)	>0.10

## STEP Student Handbook/Planner

An expanded STEP Student Handbook has been created for 2007-08. Critical dates such as spring semester registration for first-year students and last date to withdraw from classes have been added to the calendar/planner. Frequently Asked Questions (FAQ) on academic matters such as GPA calculation, probation, advising, and financial aid have also been added to the student handbook/planner. (See next page)

## Protocol for Engaging Residence Hall Advisors to Intervene on Behalf of Faculty Mentors

A protocol has been established for STEP Faculty Mentors to ask Residence Hall staff to intervene when concern for mentees arises:

Send all concerns to the Assistant Director of Residence Life, Laura Darrah, ([laura.darrah@wmich.edu](mailto:laura.darrah@wmich.edu)) with the student's name, WIN, and a summary of the concerns.

She will review the issues and work with the hall director on follow up. It allows her to evaluate if and when the Dean of Students should also be involved, as well as monitor a timely response.

She will send a note back to the faculty member when contact is made with a summary of relevant points. Depending on what the underlying issues are, full disclosure of what is happening may not always be possible.

Staff will make referrals to appropriate campus services and will continue to follow up with the student. If issues are academic, they will redirect the student to the faculty mentor but also promote the computer lab, tutoring center and Academic Skills Center.