

# orientation

MONTANA STATE UNIVERSITY

──BOZEMAN · MONTANA-

# Chemical and Biological Engineering

Abigail Richards
Professor and Department Head

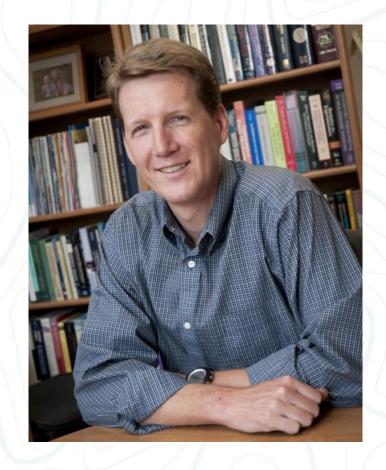
Fill-in: Jeff Heys







Geraldine Govaerts
ChBE Academic Advisor



Jeff Heys Professor and Assoc. Dean (picture of me from roughly the year you were born ©)



### We'd love to hear about you!

- Name
- City/Town/State where you are from
- Which major (ChE, BioE or Dual etc.?)
- Something you like to do for fun





The ChBE Department



# Academic & Professional Advisors

### **Academic Advising**

- Geraldine Govaerts
- Abbie Richards

# Career/Professional Advising: Faculty advisor (based on last name):

A-C Jennifer Brown, Ryan Anderson

D-G Ross Carlson, Paul Gannon

H-L David Hodge, Robin Gerlach

M-Q Stephanie McCalla, Kate Morrissey

R-S Phil Stewart, Joe Seymour

T-Z Brent Peyton, Stephanie Wettstein





Log into the computer

Username: .\student

Password: MSU4You!



### Degree-Specific Course Requirements

- Our departmental website has information for students
- Go to: www.chbe.montana.edu

 Click on "Student Advising and Resources"



**Our Programs** 

Our graduate and undergraduate academic

programs in chemical engineering and

biological engineering prepare the next

generation of engineering professionals. Both

**Our Mission** 

We serve the State of Montana and the nation

through excellence in learning, discovery and

engagement to meet the land grant mission of

accessibility and value at MSU. We especially



**Our Research** 

We specialize in <u>research</u> in energy, biological and biochemical engineering, imaging and

simulation, microfluidics, biomass conversion

and materials engineering. Research centers



### Flow charts of degree requirements



Search pages & people

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### Chemical & Biological **Engineering Department**

Academic Programs

Research

Student Resources & Advising

**Graduate Studies** 

Faculty & Staff

Department News

Accreditation

Newsletters

### **Chemical & Biological Engineering** Department

Montana State University 306 Cobleigh Hall PO Box 173920 Bozeman, MT 59717-3920

Tel: (406) 994-2221

Fax: (406) 994-5308

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Chemical & Biological Engineering Department / Students / Academic Advising

### **Academic Information for Undergraduate Students**

Chemical **Engineering** 



**Chemical Engineering Curriculum Information &** Flowcharts

**Chemical Engineering Technical Electives** 

**Biological Engineering** 



**Biological Engineering Curriculum Information & Flowcharts** 

**Biological Engineering Technical Electives** 

**Dual ChE/BIOE** 



**Dual Flowchart 2019-20** 

**Dual Flowchart 2018-19** 

Bioengineering **Dual Diploma** Program (ITU)



ITU DDP Checklist (2017-18 Catalog)



### Chemical & Biological Engineering Department

**Academic Programs** 

Research

Student Resources & Advising

**Graduate Studies** 

Faculty & Staff

**Department News** 

Accreditation

Newsletters

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Chemical & Biological Engineering Department / Students / Chemical Engineering Curriculum

### **Chemical Engineering Curriculum**

The curriculum is 128 credits comprised of a Basic Program plus Electives which students select to meet both University Core requirements and requirements of the Chemical Engineering degree. **Student Performance and Retention Requirements:** Students are required by Board of Regents policy to achieve a C- or better grade in each class used to satisfy the Bachelor of Science degree requirements. Moreover, students must achieve a C- or better grade prior to taking follow-on courses.

Download printable pre-requisite flowchart for chemical engineering (19-20 and 20-21 catalog)

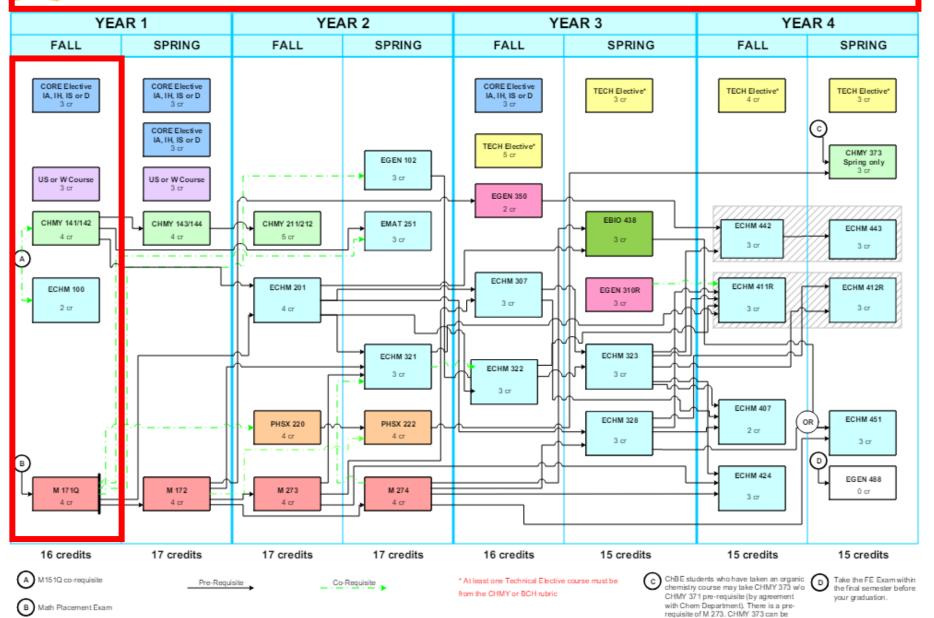
Freshman Year	Credits	
	Fall	Spring
ECHM 100 - Intro to Chemical Engr or EBIO 100 - Intro to Biological Engr	2	
<u>M 171Q</u> - Calculus I	4	
Univ Core Electives (IA, IH, IS or D)	3	
US or W Core course	3	
CHMY 141 - College Chemistry I	4	





### Chemical Engineering Prerequisite Flowchart – M171Q start

2023-2024 Catalog



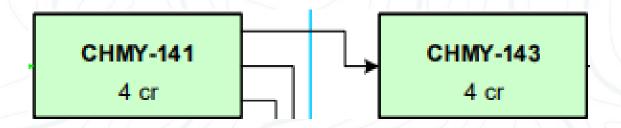


Rev. 6/6/23

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taken Spring of year 3.

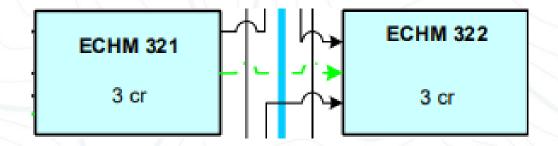
### Pre- and Co-requisites



### Solid black arrows = pre-requisite

That means you must take and pass a class before taking a later class that lists a particular course as a pre-requisite.

**Example:** a student must pass CHMY 141 before taking CHMY 143



### Dashed green arrows = co-requisite OK

This means that while some students might take a class prior, you could take them at the same time.

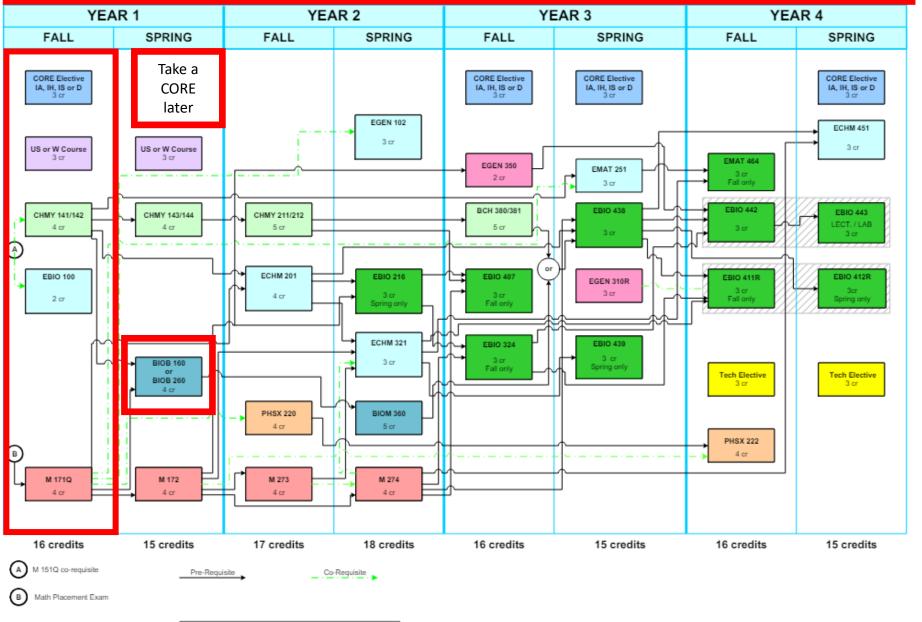
**Example:** A student who hasn't passed ECHM 321 yet, can take ECHM 322, so long as they are taking ECHM 321 at the same time.

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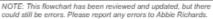


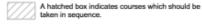
### Biological Engineering Prerequisite Flowchart – M 171Q start

2023-2024 Catalog











### Year 1, First semester

CORE Elective IA, IH, IS or D 3 cr

One CORE course (IA, IH, IS, or D)

US or W Course 3 cr Writing or University Seminar (W or US)

**CHMY 141** 3 cr

College policy on Writing Exemption – upcoming slide

**CHMY 142** 1 cr Chemistry: CHMY 141 <u>and</u> CHMY 142 (do NOT take CHMY 121)

**ECHM 100** 

2 cr

Intro to CHBE: either ECHM 100 or EBIO 100 (same course)

**M 171Q** 4 cr Math course: based on EdReady, ACT/SAT, AP/IB or dual enrollment

M171 Calc I is most common, alternatives are M151 Pre-calculus, M171 plus M170, M172 or M121 College Algebra



## Writing exemption – waiting for grades/scores

- Take a US Core class in the first semester
- Once scores come in, determine if you need to take WRIT 101W
- Take WRIT 101W in the following semester if you aren't writing exempt





### ECHM 100 = EBIO 100 = Same Class/Same Time

- EBIO 100 = Introduction to Biological Engineering
- ECHM 100 = Introduction to Chemical Engineering
- 1 hr Lecture + 2 hr Laboratory
- Both classes meet together
- Meet your ChBE classmates
- Learn basic engineering calculations and problem solving
- Learn about the profession

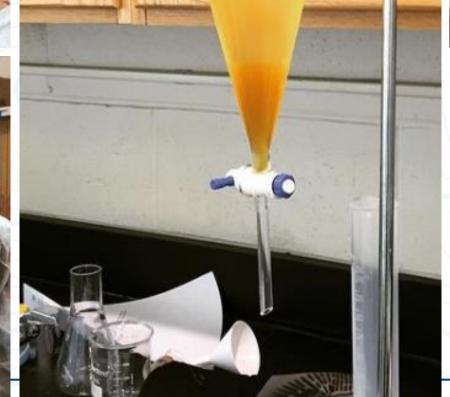














### Math Placement

- Register for the math course into which you have placed with the EdReady test
- If you have AP/IB credit and you/MSU has not yet received your scores
  - Register for the highest math class into which you have placed and adjust your schedule after your AP/IB scores arrive
  - If you can show proof of your scores now, the Math Department will do an override
- If you feel your current placement is not reflective of your background you can take the EdReady refresher
- If you placed in 400-level, take a break and then take the "CALCULUS DIAGNOSTIC"



### Honors program notes

CORE Elective IA, IH, IS or D 3 cr

US or W Course 3 cr

**CHMY 141** 3 cr

**CHMY 142** 1 cr

2 cr

**M 171Q** 4 cr One CORE course (IA, IS, or D) HONR 202<u>IH</u> (taken in the spring semester)

Writing, WRIT 101W or HONR201<u>US</u>

HONR 201/202 do not cover W Core.

Chemistry: CHMY 141 and 142

OPTION: CHMY 151 and CHMY 152 (honors chemistry lecture & lab)

Intro to CHBE: ECHM 100 or EBIO 100 (same course)

Math course: based on MPLEX, ACT/SAT, or AP

Option: M181 - Honors Calculus I



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### Year 1, First semester – Six total courses

CORE Elective IA, IH, IS or D 3 cr

One CORE course (IA, IH, IS, or D)

US or W Course 3 cr Writing or University Seminar

**CHMY 141** 3 cr

Chemistry: CHMY 141

**CHMY 142** 1 cr and CHMY 142 (do NOT take CHMY 121)

**ECHM 100** 

2 cr

Intro to CHBE: either ECHM 100 or EBIO 100 (same course)

**M 171Q** 4 cr Math course: based on EdReady, ACT/SAT, AP/IB or dual enrollment

M171 Calc I is most common, alternatives are M151 Pre-calculus, M171 plus M170, M172 or M121 College Algebra



## Log into MyInfo

- Log into MyInfo either from MSU Home Page or www.montana.edu/myinfo
- Use your personal NetID for example: b94g842
- Password A password you have personally set for your NetID





Click on the student services tab

Personal Information

Student Services

**Faculty Services** 

Advising Services Employee Services Communications Parking Services MyApps

Notifications

### Student Services

Click here for more information regarding MSU's Student Email Policy.

FERPA Information: Click here for the Family Education Rights and Privacy Act information.

Enrollment Verification: Connect to the National Student Clearinghouse to print a free enrollment verification certificate to provide to health insurer, housing provider, credit issue Official Transcripts: Connect to the National Student Clearinghouse to order an official transcript and pay with a credit or debit card.

New Course Numbers: Click here (opens in new window) for info on new subject abbreviations and course numbers.

### DegreeWorks

Please clear your cache berg using Degreeworks; this may resolve issues because or a recent upg
Please use MSU-Secure rather than MSU-Guest if connecting from the wireless network on campus.

Please use Google Chrome to access DegreeWorks.

DegreeWorks is an electronic degree audit program and academic advising tool designed to assist you and advisors in reviewing your degree progress.

#### NavMSU

#### Required Online Education

Online training for new students mandated by the Board of Regents: AlcoholEdu, Haven, and Transit programs.

### Registration

Check your registration status; Add or drop classes; Select variable credits, grading modes, or levels; Display your class schedule.

#### Registration Timetable

### Student Records

View your holds; Display grades and transcripts; View your Student Tax Information; Review charges and payments; View Web Bill / Confirmation GO GREEN> Click on Student Records to opt for the electronic version of 1098-T tax form

#### Student Health Service

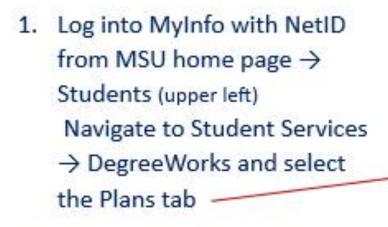
Check your insurance status.



Next click on **DegreeWorks** 

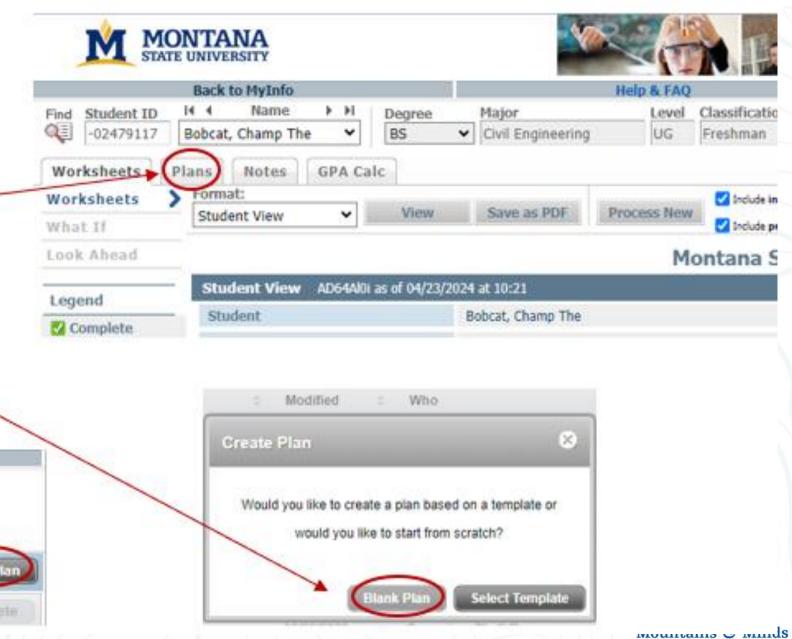








View: Select





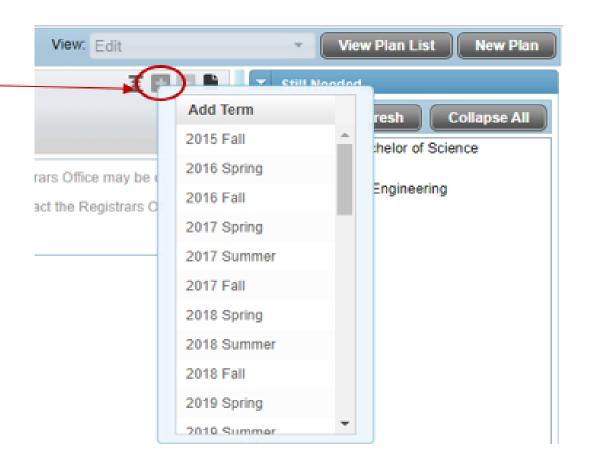
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4. Add the term using the "+" icon.

Select 2024 Fall











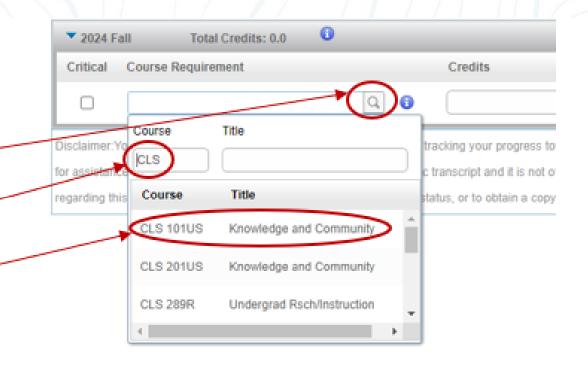
5. Add a Course using the "+" icon on the term bar.

You will repeat this for each of your courses





- Type the Rubric (subject abbreviation)
- 8. Select the Course



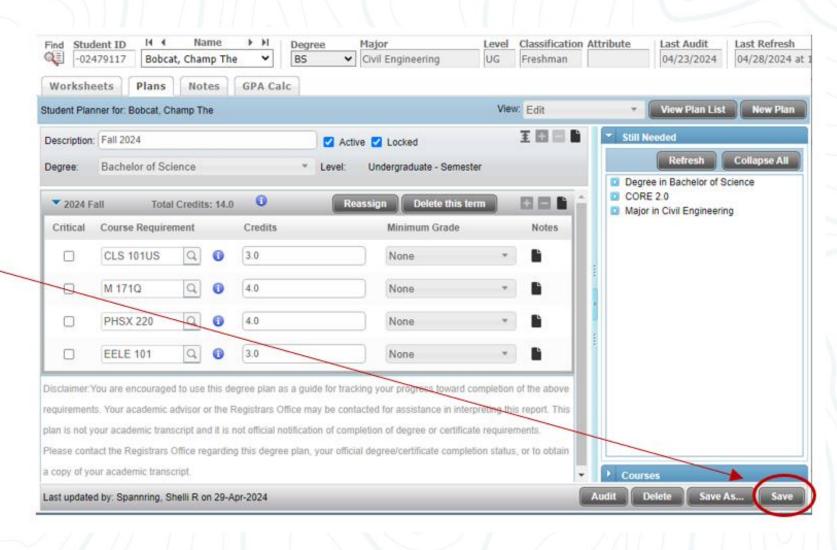
Let's have everyone add either EBIO 100 or ECHM 100 to their course list Rubric is either ECHM or EBIO



Keep adding courses until complete (steps 5-8)

10. SAVE the plan

11. See Advisor to have your plan locked







Have a locked plan??? You can try building several options of your schedule with CatCourse.

Go to the student services tab in MyInfo
Click on Registration

Click on CatCourse

2

Personal Information Student Services

### Registration

REMINDER: MSU does not mail paper bill parent to receive the email.

Many subject abbreviations and course numb

#### CatCourse

CatCourse is a tool for creating a personalized course sch CatCourse Registration Cart Register for courses which have been sent to Registratior Information for New Course Numbers Course Number Equivalency Tool Add/Drop Classes

### Student Services

Click here for more information regarding MSU

Personal Information | Student Services

FERPA Information: Click here for the Family E Enrollment Verification: Connect to the National Official Transcripts: Connect to the National St

New Course Numbers: Click here (opens i

#### DegreeWorks

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NavMSU

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#### Registration

Check your registration status; Add or drop classes; Selec

Registration Timetable

#### Student Records

View your holds; Display grades and transcripts; View you



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### Emergency Contact Info Form

This information is crucial in the event that University personnel need to contact either you, or the person you have chosen in an er periodically be asked to provide or review this information. This information is restricted to select University personnel who will limit shared outside the University.

\* required field

### **Personal Contact Info**

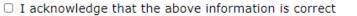
Please provide your most current address and telephone number where you can be reached in the event of an emergency.

Email*	Confirm Email*	
Address Line 1*		
Address Line 2	Address Line 3	
 City*	 State/Province*	
City	Not Applicable	~
Zip/Postal Code*	Country*	
	Select	~
Area Code Cell Phone No		
	Unlisted	

### **Primary Emergency Contact Info**

Please provide the name and contact number of the person who the University should notify in the event of an emergency where you

Relationship*	
Spouse	~
First Name*	Last Name*
Lee	Richards
Area Code* Phone Number*	
406 5817898	
Address Line 1*	
485 Farmland Crossing	
Address Line 2	Address Line 3
City*	State/Province*
Belgrade	Montana 🗸
Zip/Postal Code*	Country*
59714	United States 🗸





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- You'll have to fill in your contact info
- You'll be asked if you want to have the MSU insurance or not (must accept or decline).
- Then continue to the registration and build your schedule
- Take a picture of your favorite schedules
- Let us know if you have scheduling conflicts



