

Co-operative Education (Co-op)

- A method by which to gain work experience & help to connect studies to the real world by combining academic study with dedicated periods of career related work experience.
- Alternating class and co-op work after your sophomore year. (A&B Schedules).
- Mandatory for ES majors but only optional for ET majors. (But once you choose to co-op, it then is required to finish 3 placements!!)
- What co-op is:
 - UT COE sponsored educational module.
 - Results in transcript designation.
- What Co-op is not:
 - Part-time work while in school.
 - Full-time employment while part-time in school.
 - Summer jobs.
- Is co-op necessary?
 - Any and all practical work experience is good even if it's not an official co-op.
 - Work experience gained by your own contacts during summers is just as worthwhile.

Benefits for Co-op Students

- **Transfer of skills/learning to a practical work experience.**
- **Discover different types of jobs in industry.**
- **Develop strong work habits and ethics.**
- **Test out new geographical locations.**
- **Gain career-related experience.**
- **Earn money.**
- **Reduced search times for finding the first job.**
- **Significant job advancements after graduation.**

Co-op Requirements

- **Have a 2.5 GPA (3.0 is better)**
- **Pass the following classes (or their equivalent):**
 - **ENGT-1000 (Orientation to ET)**
 - **ENGL-1110 (College Composition)**
 - **ENGL-2950 (Technical Report Writing)**
 - **MATH-1340 (College Algebra & Trigonometry)**
 - **ENGT-1050 (Computers for ET)**
 - **15 hours of CET & ARCT coursework**
- **Take ENGT-2000 (Professional Development) two semesters before you plan to go out on co-op.**
- **Complete the Co-op process for job placement.**

Professional Registration (P.E.)

- A professional engineer (P.E.) is a person who is licensed to practice engineering in a particular state after meeting all requirements of the law.
- Most States prohibit persons who are not registered PE's from:
 - Advertising, using a business card, or otherwise indicating to the public that they are an engineer.
 - Assuming the title of engineer.
 - Practicing, offering to practice or holding themselves out as qualified to practice as an engineer.
- Why become a Registered Engineer?
 - 1. A legal necessity. (in Design practices)
 - 2. Improved employment security & salary.
 - 3. Better opportunities for advancement & ownership.
 - 4. Personal satisfaction.
- Is it necessary for work in the Construction Field?
 - Not necessarily , but not having it could hold you back.
 - It's better to get it than be sorry you don't have it.
 - It will help with #2 & 3 above.



Requirements for Becoming a P.E.

- Education (ABET Accredited)
- Fundamentals of Engineering Exam (F.E) at the end of your senior year.
- Work experience under a P.E. (4 years for EAC, 8 years for TAC, ET Grads in Ohio)
- Principles of Practice Exam (P.E. Exam)

F.E. Exam Components

- Afternoon Discipline Specific Session – Civil Engr.
- Morning General Engineering Session with:

• Chemistry	9%	CET Natural Science Elective
• Computers	5%	None
• Dynamics	8%	A bit in In Physics
• Electrical Circuits	10%	A bit in Physics and Building Systems
• Engineering Economics	4%	CET-2980
• Engineering Ethics	4%	CET-1000 & ARCT-2160
• Fluid Mechanics	7%	CET-3220
• Materials Science	7%	None
• Mathematics	20%	Plenty
• Mechanics of Materials	7%	CET-1200
• Statics	10%	CET-1200
• <u>Thermodynamics</u>	<u>9%</u>	A bit in Physics & Building Systems
<i>Total</i>	<i>100%</i>	

How to prepare now for F.E.

- Take Chemistry for you Natural Science Elective.
- Take ENGT-4900 in your Senior Spring semester.
- Take extra engineering course work to fill in holes:
 - ENGT-3040 Applied Material Science
 - ENGT-3050 Fundamentals of Electricity
 - MET-2210 Technical Thermodynamics

Professional Surveyors (P.S.)

Education: Two ways exist to qualify

- BS Degree in Surveying (Akron or OSU)
- BS Degree in Civil Engineering then a certificate course in Surveying (Owens CC)

Examinations : Two required

- Fundamentals of Surveying (F.S.)
- Principles of Practice (P.S.)

Experience:

- Four years required under a P.S.
- Field work component.



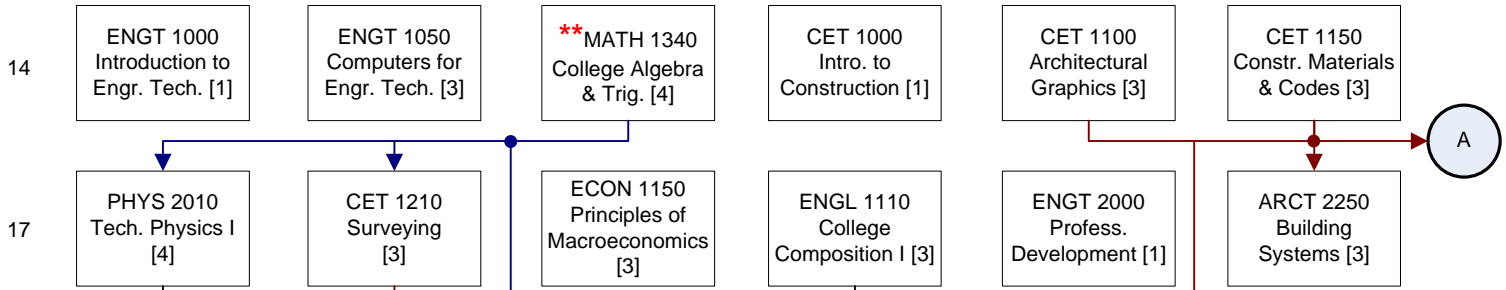
Cetrified Professional Constructor (CPC)

- Voluntary certification through American Institute of Constructors.
- Not legally required but good resume builder.
- Requires Level 1 and Level 2 tests with 7 years of experience between.
- Level 1 test given at UT or BG annually.
- Subjects more in line with CET program:
 - Cost Estimating
 - Materials & Codes
 - Survey layout
 - Scheduling
 - Contract & Specs.

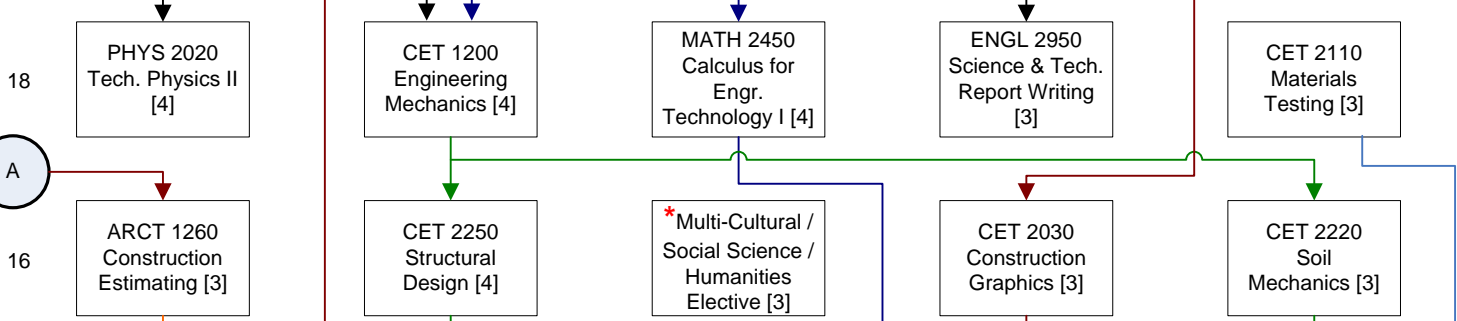


Construction Engineering Technology Curriculum Co-op Schedule – Plan A

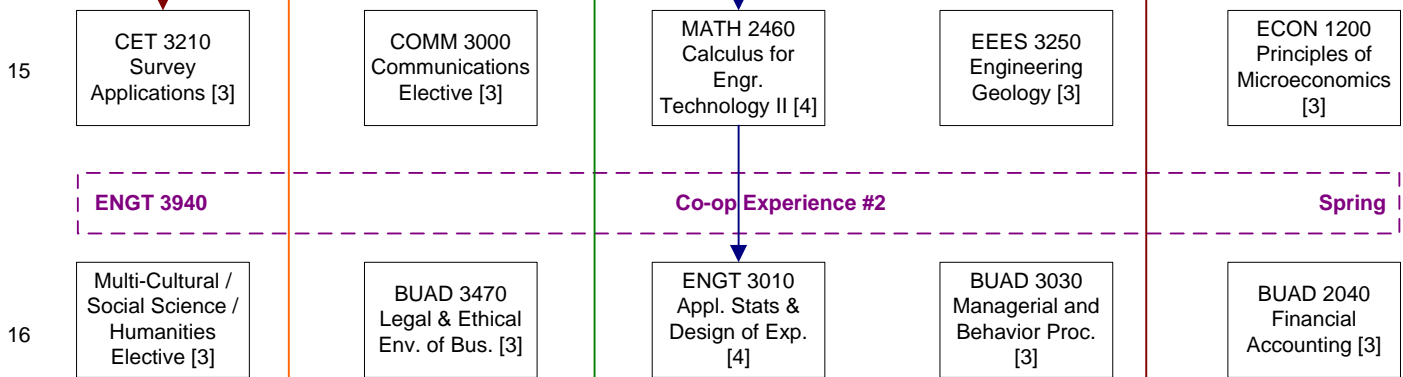
FRESHMAN



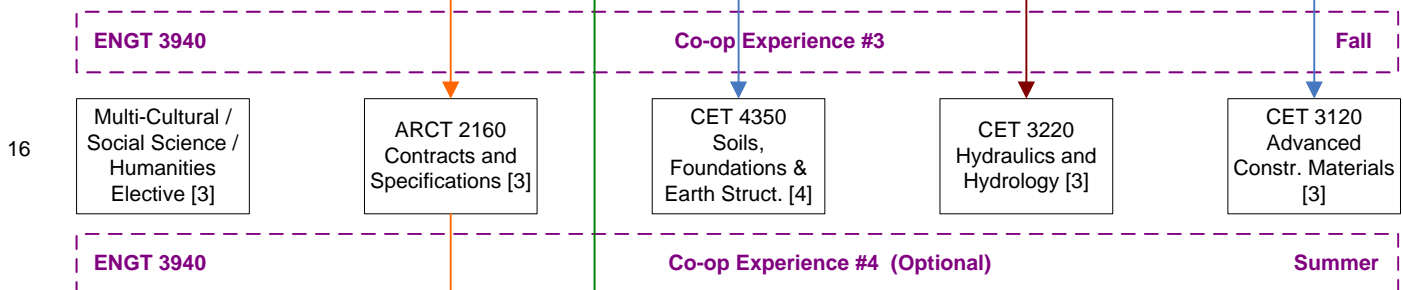
SOPHOMORE



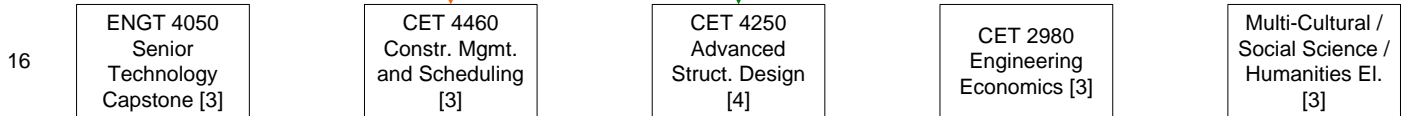
JUNIOR



SENIOR



SENIOR PLUS



* Requires utilization of "double-dip" elective.

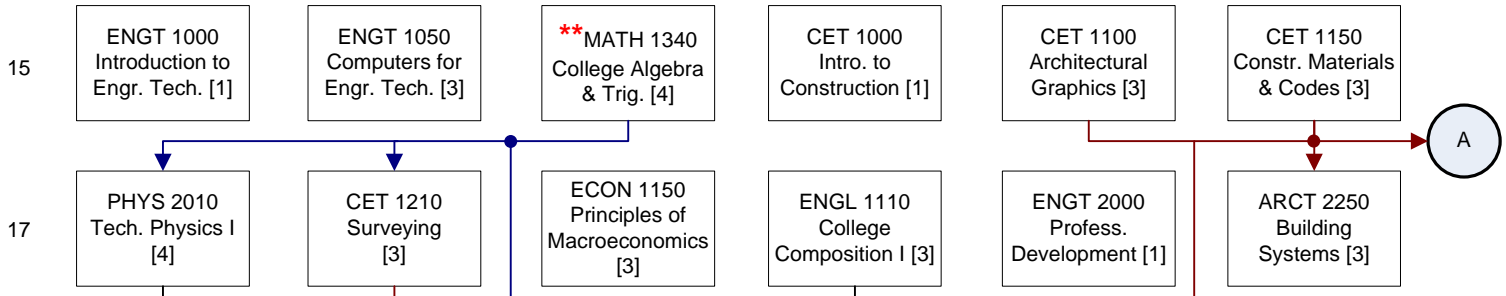
** May require multiple classes due to Math placement
 Allowable Professional Development Electives include:
 BAUD-2040, 2050, 2080, 3010, 3020, 3030, 3040, 3470,
 FINA-3060, BLAW-3570 and one of either ECON-1150
 or 1200.

Allowable Natural Science Electives Include:
 EEES-3250 & CHEM-1230 w/ 1280 Lab. Note
 that total credit hours may vary from flowchart
 required values and that CHEM-1230 may
 require CHEM-1090 first due to your placement

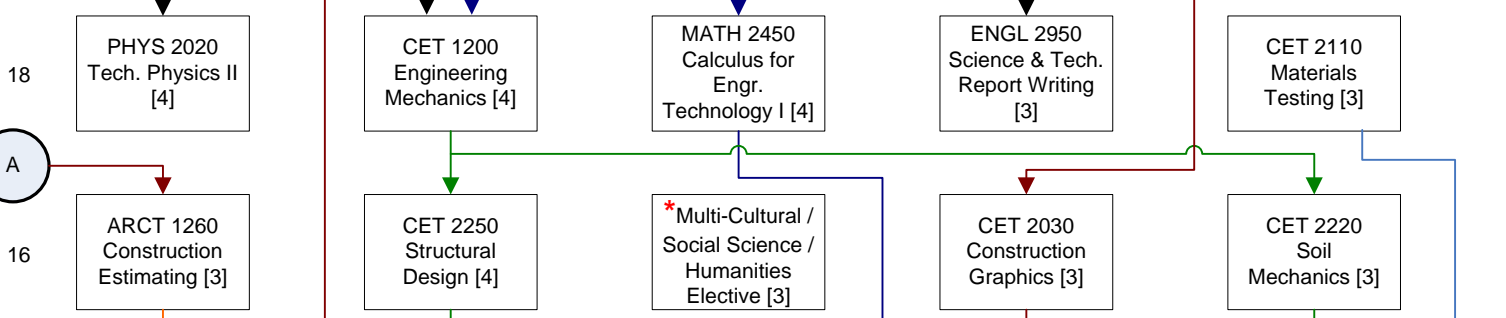
Refer to the "Pink Sheet" for allowable Humanities,
 Social Science, or Multi-Cultural Electives. Allowable
 Communications electives include:
 COMM-2600, 3610, 3810, 3820, 3840, 3880, & 3890.

Construction Engineering Technology Curriculum Co-op Schedule – Plan B

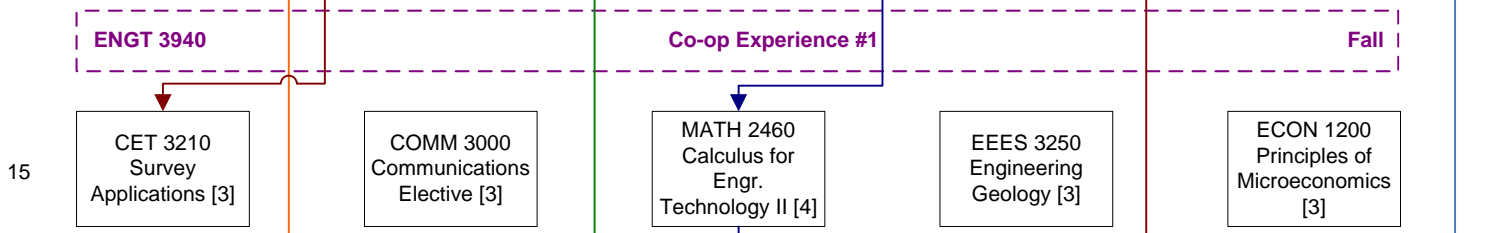
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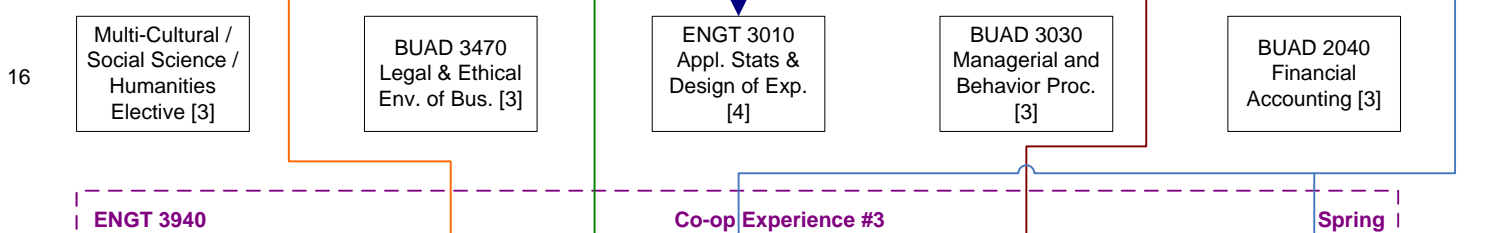
SOPHOMORE



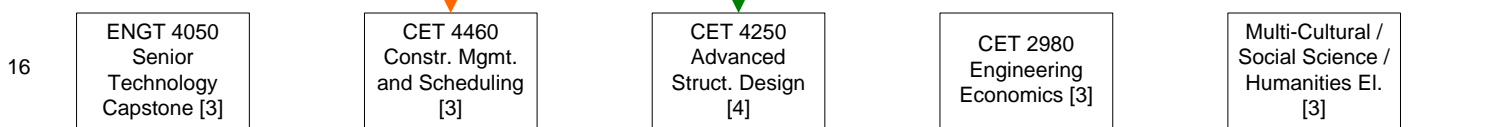
JUNIOR



SENIOR



SENIOR PLUS



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