

Curricula Summary

Old Required Quarter Hours	Requirement	New Required Semester Hours	
20	Required Coursework	14	MS Program
1	ET 602/ET 6020	1	
10	Elective Coursework	6	
30	Thesis Hour Requirement (695/6950)	20	
1	Seminar (691/6000)	1	
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9	Required Coursework	6	PhD Program (60 semester hours total assuming admission with M.S. degree)
1	ET 602/ET 6020	1	
45	Dissertation Hour Requirement (895/8950)	30	
1	Seminar (691/6000)	1	
-----	any other > 5000-level coursework	23	
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29	Required Coursework	20	Direct-to-PhD Program (90 semester hours total assuming admission with B.S. degree)
1	ET 602/ET 6020	1	
10	Elective Coursework	6	
45	Dissertation Hour Requirement (895/8950)	30	
1	Seminar (691/6000)	1	
-----	any other > 5000-level coursework	33	can include 6000/6950/add'l 8950/add'l coursework

Notes:

1. CHE 6000 to be taken every semester of enrollment except summer.
2. PhD course requirement is actually 6 semester hours AND at least three courses.

Chemical and Biomolecular Engineering
Graduate Course Listing

	Old Course Number	Old Quarter Hours	Course Name	New Course Number	New Semester Hours
MS Required Courses	none	none	Eng Research Fundamentals	5000	2
	600	5	Appl Chem Eng Calculations	6100	3
	601	5	Adv Chem Eng Thermo	6200	3
	604	5	Chem Reaction Eng	6300	3
	642	5	Transport Phenomena	6400	3
MS-Level Electives	531	3	Adv Topics in Mat'ls Science	5400	3
	530	3	Metallic Corrosion	5420	3
	577	3	Polymer Synth & Processing	5430	3
	520	3	Coal Conversion Technology	5500	3
	555	4	Analysis of Electrochem Sys	5520	3
	560	4	Atmospheric Pollution Ctrl	5600	3
	561	3	Environmental Assessments	5610	3
	581	3	Biochemical Engineering	5800	3
	583	3	Biomedical Engineering	5810	3
PhD-Level Courses	700	3	Adv Chem Engineering Math	7100	2
	709	3	Adv Chem Reaction Eng	7300	2
	730	3	Advanced Corrosion	7420	2
	742	3	Adv Momentum Transfer	7500	2
	744	3	Adv Mass Transfer	7600	2
	783	3	Adv Topics in Biomed Eng	7700	2
	Others	691	1	Graduate Seminar	6000
690		1-3	Special Topics	6900	1-3
692		1	Graduate Internship	6910	1
681		1-15	M.S. Research	6940	1-15
695		1-15	M.S. Thesis Research	6950	1-15
890		1-3	Special Topics	8900	1-3
894		1-15	Ph.D. Research	8940	1-15
895		1-15	Dissertation Research	8950	1-15
ET 602		1	Graduate Writing	ET 6020	1

M.S. Program

Chemical Engineering

notes: 1) assumes 12 hours normal full load per semester

Sample Program #1 (two full academic years plus intervening summer)

Year 1 – Fall

CHE 5000	2 credit hours
CHE 6000	1 credit hour
CHE 6100	3 credit hours
CHE 6200	3 credit hours
CHE 6950	3 credit hours
total	12 credit hours

Year 1 – Spring

ET 6020	1 credit hour
CHE 6000	1 credit hour
CHE 6300	3 credit hours
CHE 6400	3 credit hours
CHE 6950	4 credit hours
total	12 credit hours

Year 1 – Summer

CHE 6950	12 credit hours
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Year 2 – Fall

CHE 5XXX	3 credit hours
CHE 6000	1 credit hour
CHE 6950	8 credit hours
total	12 credit hours

Year 2 – Spring

CHE 5XXX	3 credit hours
CHE 6000	1 credit hour
CHE 6950	8 credit hours
total	12 credit hours

Note that, as of the completion of two academic years of study, the student will have accumulated 21 hours of in-class coursework and 35 hours of thesis (CHE 6950) and thus will have met the M.S. course hour and thesis hour requirements.

Sample Program #2 (three semesters plus intervening summer)

Year 1 – Fall

CHE 5000	2 credit hours
CHE 6000	1 credit hour
CHE 6100	3 credit hours
CHE 6200	3 credit hours
CHE 6950	3 credit hours
total	12 credit hours

Year 1 – Spring

ET 6020	1 credit hour
CHE 6000	1 credit hour
CHE 6300	3 credit hours
CHE 6400	3 credit hours
CHE 6950	4 credit hours
total	12 credit hours

Year 1 – Summer

CHE 6950	12 credit hours
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Year 2 – Fall

CHE 5XXX	3 credit hours
CHE 5XXX	3 credit hours
CHE 6000	1 credit hour
CHE 6950	5 credit hours
total	12 credit hours

Note that, as of the completion of 1.5 academic years of study, the student will have accumulated 21 hours of in-class coursework and 24 hours of thesis (CHE 6950) and thus will have met the M.S. course hour and thesis hour requirements.

The M.S. electives are shown in year 2 just as an example. They can be taken at any time, including summer, if appropriate courses are offered.

There was a time that the M.S. degree was described as one that could be completed in 1.5 to 2 years. Over the last one-to-two decades, it has come to be a 2 to 3 year degree for no particular reason that anyone can determine. There is no reason that it can't once again be a degree that can be completed in less than two years.

Sample Program
PhD Program
Chemical Engineering

notes: 1) assumes 12 hours normal full load per semester

2) assumes student enters with an M.S. degree, which is a requirement for entrance into the regular PhD program, and is thus credited with 30 of the 90 hours needed for the PhD

Year 1 – Fall

CHE 5000	2 credit hours
CHE 6000	1 credit hour
CHE 7XXX	2 credit hours
CHE 8950	7 credit hours
total	12 credit hours

Year 1 – Spring

ET 6020	1 credit hour
CHE 6000	1 credit hour
CHE 7XXX	2 credit hours
CHE 8950	8 credit hours
total	12 credit hours

Year 1 – Summer

CHE 8950	12 credit hours
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Year 2 – Fall

CHE 6000	1 credit hour
CHE 7XXX	2 credit hours
CHE 8950	9 credit hours
total	12 credit hours

Year 2 – Spring

CHE 6000	1 credit hour
CHE 8950	11 credit hours
total	12 credit hours

Year 2 – Summer

CHE 8950	12 credit hours
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Year 3 – Fall

CHE 6000	1 credit hour
CHE 8950	11 credit hours
total	12 credit hours

Year 3 – Spring

CHE 6000	1 credit hour
CHE 8950	11 credit hours
total	12 credit hours

Note 1: As of the completion of three academic years of study, including intervening summers, the student will have accumulated 96 hours of coursework, seminar, and research, and thus will have met the 60 hour requirement for the PhD. Also, the student in the above example will have accumulated 81 hours of CHE 8950, thus easily meeting the 30 hour requirement for dissertation hours.

Note 2: It is not required that all of the 700-level courses be chemical engineering courses. As before, at least one must be, and you must accumulate a total of six semester hours AND three courses at this level.

Note 3: The scheduling of the 7000-level courses shown above is just for illustration. As is often the case, they should be taken when they are offered.

Sample Program

Direct-to-PhD Program

Chemical Engineering

notes: 1) assumes 12 hours normal full load per semester

Year 1 – Fall

CHE 5000	2 credit hours
CHE 6000	1 credit hour
CHE 6100	3 credit hours
CHE 6200	3 credit hours
CHE 8950	3 credit hours
total	12 credit hours

Year 1 – Spring

ET 6020	1 credit hour
CHE 6000	1 credit hour
CHE 6300	3 credit hours
CHE 6400	3 credit hours
CHE 8950	4 credit hours
total	12 credit hours

Year 1 – Summer

CHE 8950	12 credit hours
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Year 2 – Fall

CHE 6000	1 credit hour
CHE 5XXX	3 credit hours
CHE 8950	8 credit hours
total	12 credit hours

Year 2 – Spring

CHE 6000	1 credit hour
CHE 5XXX	3 credit hours
CHE 8950	8 credit hours
total	12 credit hours

Year 2 – Summer

CHE 8950	12 credit hours
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Year 3 – Fall

CHE 6000	1 credit hour
CHE 7XXX	2 credit hours
CHE 8950	9 credit hours
total	12 credit hours

Year 3 – Spring

CHE 6000	1 credit hour
CHE 7XXX	2 credit hours
CHE 8950	9 credit hours
total	12 credit hours

Year 3 – Summer

CHE 8950	12 credit hours
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Year 4 – Fall

CHE 6000	1 credit hours
CHE 7XXX	2 credit hours
CHE 8950	9 credit hours
total	12 credit hours

Year 4 – Spring

CHE 6000	1 credit hour
CHE 8950	11 credit hours
total	12 credit hours

Note 1: As of the completion of four academic years of study, including intervening summers, the student will have accumulated 132 hours of coursework, seminar, and research, and thus will have met the 90 hour requirement for the PhD. Also, the student in the above example will have accumulated 97 hours of CHE 8950, thus easily meeting the 30 hour requirement for dissertation hours.

Note 2: It is not required that all of the 7000-level courses be chemical engineering courses. As was true on the quarter system, at least one 7000-level course must be chemical engineering course, and you must accumulate a total of six semester hours AND three courses at this level.

Note 3: The scheduling of the 7000-level courses shown above is just for illustration. They can be taken earlier and simultaneously with masters-level courses. As is often the case, it will come down to taking the 7000-level courses when they are offered.

Students Who Encounter the Calendar Change in the Middle of Completing Their Requirements

What happens if you're in the middle completing your required courses, elective courses, thesis hours, and/or dissertation hours when the calendar change happens?

1. For required courses, which applies only to M.S. or direct-to-Ph.D. students, simply take the corresponding semester course as you would have the original quarter course.

So, for example, if you've taken CHE 600 and 604 but not 601 or 642, you would take the semester courses that replace 601 and 642, which are 6200 and 6400, respectively.

2. For elective coursework, take the total number of quarter hours of elective coursework that you earned prior to the transition, subtract it from the hours of elective coursework required under the quarter system, multiply by $\frac{2}{3}$, and round up to the nearest whole number. This result is the number of semester hours of elective coursework you need.

Example: you've taken two M.S. electives on the quarter system totaling 6 hours.

Subtract from 10:	$10 - 6 = 4$
Multiply by $\frac{2}{3}$:	$4 \times \frac{2}{3} = 2.667$
Round up:	3

You would need to take 3 semester hours of elective coursework to complete your elective coursework requirement.

3. ET 602 counts for ET 6020, so if you took ET 602, you do not need to take ET 6020 after the change.

4. For thesis/dissertation hours, the process will be similar to step 2 above, but there is an additional, new requirement for PhD students described below.

For M.S. students, as in #2, subtract the number of hours of 695 earned under the quarter system from the amount required, 30, multiply the difference by $\frac{2}{3}$, and round up. The result is the number of hours of CHE 6950 still required.

As an example, you've earned 20 hours of 695 under the quarter system.

Subtract from 30:	$30 - 20 = 10$
Multiply by $\frac{2}{3}$:	$\frac{2}{3} \times 10 = 6.667$
Round up:	7

You still need 7 hours of CHE 6950.

For PhD students, the total hour requirement is increasing to conform to the new university guidelines of 90 semester hours beyond the B.S. or 60 semester hours beyond the M.S. The former requirement of 45 hours of CHE 895, which now becomes 30 hours of CHE 8950, will remain. But you will still need additional graduate hours to meet the 90 or 60 hour requirement. These additional hours can be any course, seminar, or research course at or above the 5000 level.

The calculation of how many hours of CHE 8950 required is the same as for the calculation shown above for how many hours of CHE 6950 an M.S. student needs. Take the number of hours of CHE 895 you earned prior to the transition, subtract from 45, which is the quarter hour requirement, multiply by $\frac{2}{3}$, and round up to the next whole number. The result will be how many hours of CHE 8950 you would still need to accumulate.

For example, you have earned 20 hours of CHE 895.

Subtract from 45:	$45 - 20 = 25$
Multiply by $\frac{2}{3}$:	$\frac{2}{3} \times 25 = 16.667$
Round up:	17

You need 17 hours of CHE 8950 to complete the requirement.

Now, as noted above, there is a new total hour requirement for Ph.D. students of 90 semester hours beyond the B.S. and 60 hours beyond the M.S.

So, in addition to the calculations above for coursework hours and thesis or dissertation hours, Ph.D. students must make one additional calculation. At the time of the transition, add up ALL hours you have earned, including each quarter's offering of seminar, CHE 691. Most full-time students register for 12 hours per quarter, so this determination will likely be easy. Because there is no current quarter hour requirement, the calculation of how many semester hours you might still need is done differently. Start by multiplying the number of quarters you've been at Ohio University, including summer, times 12. Multiply the result by $\frac{2}{3}$, subtract from 90, and round up to the next whole number. The result is the remaining number of hours of any type you still need to accumulate to meet the new 90-hour requirement.

For example, you've been at Ohio University eight quarters (two full years) at the time of the transition.

Multiply quarters by 12:	$8 \times 12 = 96$
Multiply by $\frac{2}{3}$:	$\frac{2}{3} \times 96 = 64$
Subtract from 90:	$90 - 64 = 26$
Round up:	26

Remember, make sure you really have registered for 12 hours each quarter. Some of you go over that number once in a while for various reasons because of coursework or OPIE requirements. OPIE or ELIP coursework does not count toward the 90-hour requirement. However, it can count toward the 12 hours of enrollment you need each quarter. Thus, even though you have dutifully registered for 12 hours every quarter, your total hours as far as the calculation above goes might not be simply 12 times the number of quarters you've been here.

Also, you cannot use the "Earned" hours number on your DARS report as your starting point because that number does not include CHE 895. This is because that course (as well as CHE 695) receives a

grade of “PR,” for “Progress,” each quarter. When you finally graduate, all the PR grades are converted to CR, and suddenly all those hours will count.

So when looking at your DARS to determine your total hours, you CAN start with the “Earned” hours number. Just subtract any hours of ELIP or OPIE coursework, and add any hours of CHE 895 you’ve received a PR grade for. This is the total you would then use beginning with step 2 in the calculation above (multiplying 2/3).

Many of you, M.S. or PhD student, will have already earned enough 695 hours, 895 hours, or total hours by the time of the transition that, when you complete the appropriate calculation above, your result will be zero or a negative number. This would mean that you have already accumulated enough hours to meet that particular requirement. This doesn’t mean that you would automatically get a degree at this point as that requires defense of your thesis or dissertation as it always has. These various hour requirements, as they have always been, are just a part of what is required for graduation.

As always, the graduate chair is ready to work with any student on the above calculations to determine your position at the time of the transition. In fact, at transition time, the graduate chair will go through each student’s file, determine the number of hours of the various requirements still needed, make a note of this for the file, and send a copy of that note to that student and his or her adviser.