

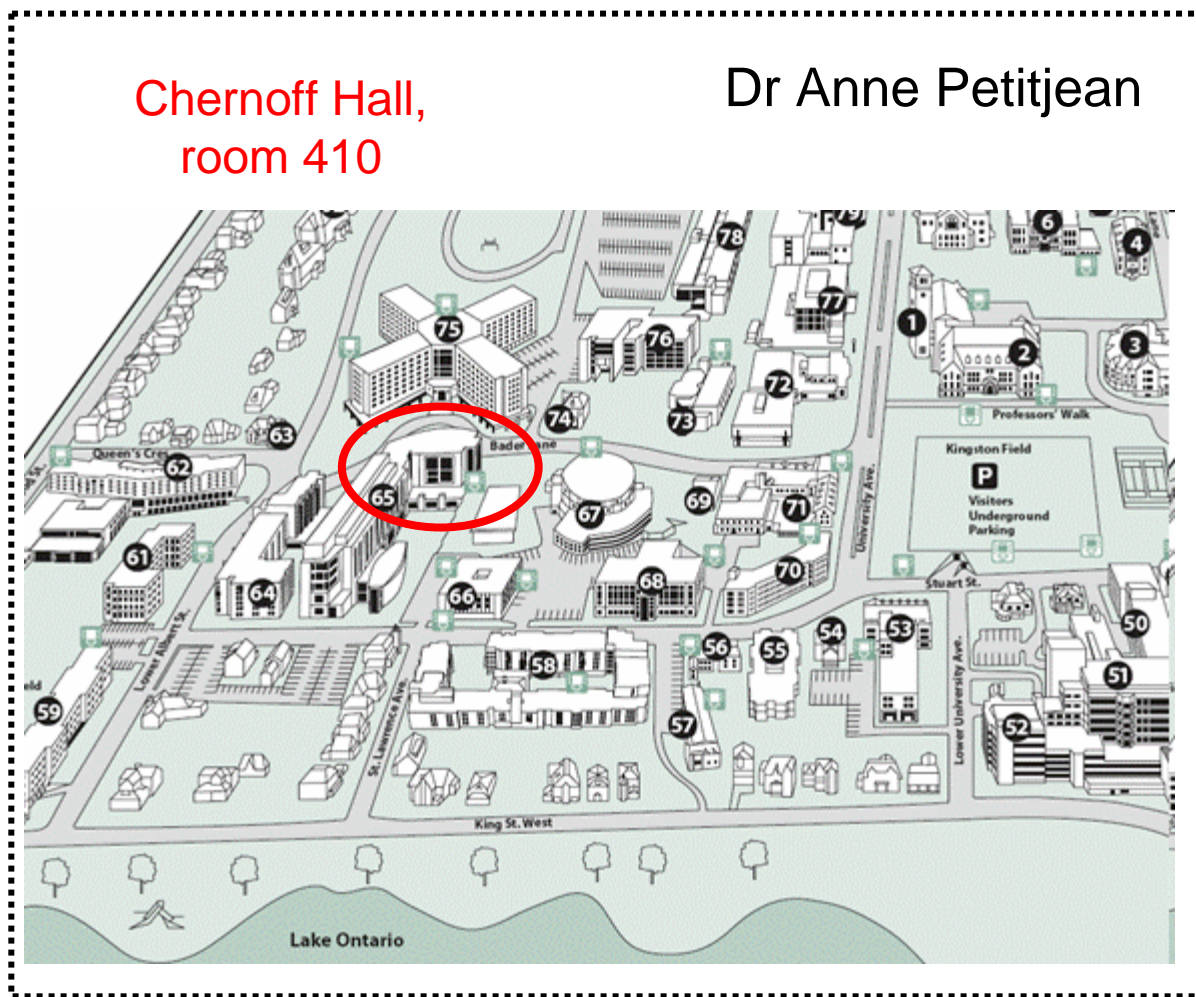
Welcome back to school !

WHO ?

Chem 212

Chernoff Hall,
room 410

Dr Anne Petitjean



Welcome back to school !

WHAT ?

Chem 212

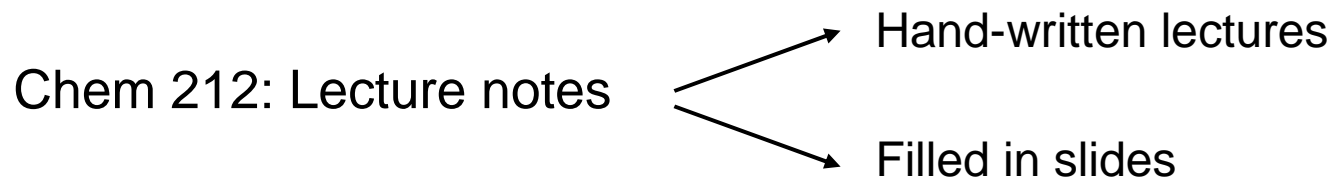
Dr Anne Petitjean

Information:

Chem212 website:

<http://www.chem.queensu.ca/courses/09/CHEM212/>

Syllabus



	Classes	Problem sets:
Chapt. 1: Physical views of reactivity	Sept 14, 2009	1
Chapt. 2: Chemical views of reactivity	⋮	⋮
Chapt. 3: Nucleophilic substitutions and Eliminations	⋮	⋮
Chapt. 4: Electrophilic aromatic substitutions	Dec 4, 2009	⋮

posted ~2 days in advance

Special topics: explosives, history and medicine, chemical communications

SEP	AUG 30	31	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26

4/09 OCT	SEP 27	28	29	30	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

NOV	1	2	3	4	5	6	7
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	15	16	17	18	19	20	21
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DEC	NOV 29	30	1	2	3	4	5
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*Tentative planning*Chapt. 1: **Physical views of reactivity**Chapt. 2: **Chemical views of reactivity**Chapt. 3: **Nucleophilic substitutions
and Eliminations**Chapt. 4: **Electrophilic aromatic
substitutions**

SEP	AUG 30	31	1	2	3	4	5
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	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

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Tentative planning

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Chapt. 1: Physical views of reactivity

Mid-term # 1

(50 min, MCQ, 10%)

Chapt. 2: Chemical views of reactivity

Chapt. 3: Nucleophilic substitutions
and Eliminations

Chapt. 4: Electrophilic aromatic
substitutions

	AUG 30	31	1	2	3	4	5
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Tentative planning

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Chapt. 1: **Physical views of reactivity**

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Chapt. 2: **Chemical views of reactivity**

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Chapt. 3: **Nucleophilic substitutions and Eliminations**

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Mid-term # 2 (2h, 25%)

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Chapt. 4: **Electrophilic aromatic substitutions**

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*Contact me ASAP if conflict!!!
(deadline: October 1)*

	AUG 30	31	1	2	3	4	5
SEP	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
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Tentative planning

Chapt. 1: Physical views of reactivity

Chapt. 2: Chemical views of reactivity

Chapt. 3: Nucleophilic substitutions and Eliminations

Chapt. 4: Electrophilic aromatic substitutions

Final exam (3h, 40%)

		Mo	Tu	Wed	Thu	Fr	Sat	
SEP	AUG 30	31	1	2	3	4	5	
	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	# 1
	20	21	22	23	24	25	26	# 2
4/09 OCT	SEP 27	28	29	30	1	2	3	# 3
	4	5	6	7	8	9	10	# 4
	11	12	13	14	15	16	17	# 5
	18	19	20	21	22	23	24	# 6
	25	26	27	28	29	30	31	# 7
NOV	1	2	3	4	5	6	7	# 8
	8	9	10	11	12	13	14	# 9
	15	16	17	18	19	20	21	# 10
	22	23	24	25	26	27	28	# 11
DEC	NOV 29	30	1	2	3	4	5	# 12
	6	7	8	9	10	11	12	
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Help

Mid-term # 1 (50 min, MCQ, 10%)

Problem set # 1

Mid-term # 2 (2h, 25 %)

- **Problem sets # 2, 3 (maybe more)**
- **Review session: Thursday Nov. 5
5:30-6:30pm**

Final (3h, 40 %)

- **Problem sets**
- **Review session: TBD**

Chem 212: **Help-desk**Atrium 1st floor Chernoff Hall

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	SEP 27	28	29	30	1	2	3
4/09	4	5	6	7	8	9	10
OCT	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

	1	2	3	4	5	6	7
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DEC	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26

Week 2 to 12: 3 hours per week

Tuesday 11:30 am – 12:30 pm

Wednesday 1:30 pm-2:30 pm

Thursday 11:30 am – 12:30 pm

Weeks 3 and 8: 8 hours

Monday 1:30 pm – 2:30 pm

Tuesday 11:30 am – 1:30 pm

Wednesday 12:30 pm - 2:30 pm

Thursday 11:30 am – 12:30 pm

6:30 pm – 8:30 pm

Week before exam: 13 hours,
TBD



Chris Maxwell

Tools for learning:



Go through notes (if available) before and after each lecture...

Read **assigned reading** (check syllabus), and textbook for more support

Work on problem sets

Expectations: - **THINK with the material**

- Learn the lecture notes (PRIORITY!!!)
- Know the lecture notes (including tips)
- Know the lecture notes (including logics)...
- Know the lecture notes...
- Practice the problem sets
- **Use the Help-desk !!!**
- Additional problems in textbook for practice

WHY ?

HOW ?

Chapt. 1: **Physical views of reactivity**

Chapt. 2: **Chemical views of reactivity**

Chapt. 3: **Nucleophilic substitutions
and Eliminations**

Chapt. 4: **Electrophilic aromatic
substitutions**

Kinetics: how do we get
Information about reactions

Learn to **dissect a molecule**
(qualitative “tips”)
to invent **ways to make it**
and to **use it in a reaction**

Focus on
three main types of reactions

HOW ?

Labs

Kinetics

Experiment 1: Photo-isomerisation and Kinetics of 4-Hydroxyazobenzene

Experiment 2: Kinetics of Nucleophilic Substitution

Experiment 3: Enzyme Kinetics – Enzyme Catalysed Oxidation of DOPA

Experiment 4: Stop-Flow Kinetics - Reaction of Fe^{3+} and SCN^- Ions

Experiment 5: Gas Viscosity – Determination of Collision Cross Section for Gases