DAWSON COLLEGE

DEPARTMENT OF CHEMISTRY & CHEMICAL TECHNOLOGY
LABORATORY SCHEDULE: Winter 2026
202-SN2-RE Chemistry of Solutions

Instructor: ___ Daniel Baril _____ Lab section: ___ 10 - 11 ____

week	Lab date (Thursday)	Experiment title
1	Jan. 22	See instructor: Check-in / Sig. Fig. revision
2	Jan. 29	Laboratory safety / Logger-pro review
3	Feb. 5	Colligative Properties
4	Feb. 12	The Rate Law in Chemical Kinetics
5	Feb. 19	Activation Energy in Chemical Kinetics (with short discussion of catalysts)
6	Feb. 26	Entropy Activity
7	March 5	Spectrophotometry (in lab written discussion)
8	March 12	Chemical Equilibrium I: The Equilibrium Constant
	March 19	Study Break - No lab
9	March 26	Volumetric Analysis of an Acid Solution and Indicators discussion
10	April 2	Friday schedule, no lab
11	April 9	Titration Curves (Weak Acid) + Indicators discussion
12	April 16	Chemical Equilibrium II: The Solubility Product
13	April 23	Problem solving
14	April 30	Laboratory exam (10%)
15	May 7	Free energy activity
16	May 14	Problem solving

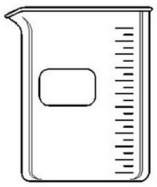
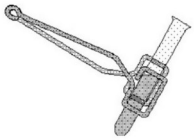
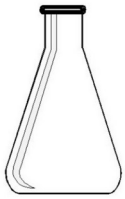
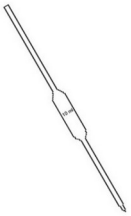
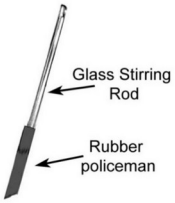
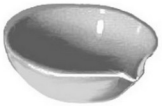
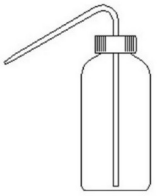
No experiments require a full lab report. Students only have to submit a complete data sheet with sample calculations and answers to the questions. Additional submissions may be required by your instructor.

Noncompliance to any of the following safety regulation will result in expulsion from the lab:

- Safety glasses and lab coat must be worn in the laboratory at all times.
- No eating or drinking (not even water from a bottle) is permitted at any time in the laboratory.
- Keep your personal belonging (bag, coat, etc.) out of the working area.
- Report any accident, even minor, to your instructor.

Drawer number : _____ locker combination: _____ - _____ - _____

Common laboratory equipment

 Beaker	 Test tube holder	 Test tube	 "Erlenmeyer" flask	 Graduated cylinder
 10.00 mL pipette	 Medicine dropper	 Stirring glass	 Evaporating dish	 Glass funnel
 Watch glass	 Plastic weighing dish	 Scoopula	 Wash bottle	 Thermometer

Periodic Table of the Elements

	1A												3A	4A	5A	6A	7A	8A
1	1 H 1.008	2A																2 He 4.003
2	3 Li 6.941	4 Be 9.012											5 B 10.81	6 C 12.01	7 N 14.01	8 O 16.00	9 F 19.00	10 Ne 20.18
3	11 Na 22.99	12 Mg 24.31	3B	4B	5B	6B	7B	8B	9B	10B	1B	2B	13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95
4	19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.39	31 Ga 69.72	32 Ge 72.61	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80
5	37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.94	43 Tc 98.00	44 Ru 101.1	45 Rh 102.9	46 Pd 106.4	47 Ag 107.9	48 Cd 112.4	49 In 114.8	50 Sn 118.7	51 Sb 121.8	52 Te 127.6	53 I 126.9	54 Xe 131.3
6	55 Cs 132.9	56 Ba 137.3	57 La* 138.9	72 Hf 178.5	73 Ta 181.0	74 W 183.8	75 Re 186.2	76 Os 190.2	77 Ir 192.2	78 Pt 195.1	79 Au 197.0	80 Hg 200.6	81 Tl 204.4	82 Pb 207.2	83 Bi 209.0	84 Po (209)	85 At (210)	86 Rn (222)
7	87 Fr (223)	88 Ra (226)	89 Ac[a] (227)	104 Rf (267)	105 Db (268)	106 Sg (269)	107 Bh (270)	108 Hs (269)	109 Mt (278)	110 Ds (281)	111 Rg (282)	112 Cn (285)	113 Nh (286)	114 Fl (289)	115 Mc (289)	116 Lv (293)	117 Ts (294)	118 Og (294)

6 C 12.01 — Atomic number, symbol, mass (amu or g/mol)

metalloid

*Lanthanides	58 Ce 140	59 Pr 141	60 Nd 144	61 Pm 145	62 Sm 150	63 Eu 152	64 Gd 157	65 Tb 159	66 Dy 163	67 Ho 165	68 Er 167	69 Tm 169	70 Yb 173	71 Lu 175
[a]Actinides	90 Th 232	91 Pa 231	92 U 238	93 Np 237.1	94 Pu 244	95 Am 243	96 Cm 247	97 Bk 247	98 Cf 251	99 Es 252	100 Fm 257	101 Md 258	102 No 259	103 Lr 260