Exit survey results, 2011 & 2010. Questions are numbered as given in the survey.

See http://www.eos.ubc.ca/scripts/courses/eosexit/eos-exitsurvey.html for the actual survey.

Statistical significance of results has not been studied. This is primarily because changes from 2010 to 2011 are largely quite small, as expected, since these graduates started their degrees prior to most EOS-SEI interventions. Results on this page are preliminary and were used mainly to see whether any obvious trends could be detected. These results have not been checked, and must not be used for making decisions or for publishing in any way.

Number of respondents in each of three years was: ('09,'10,'11) = (57,65,56).

Complied results for specific questions:

1. My goal after getting my degree is to (mark your first, second, and third choice):
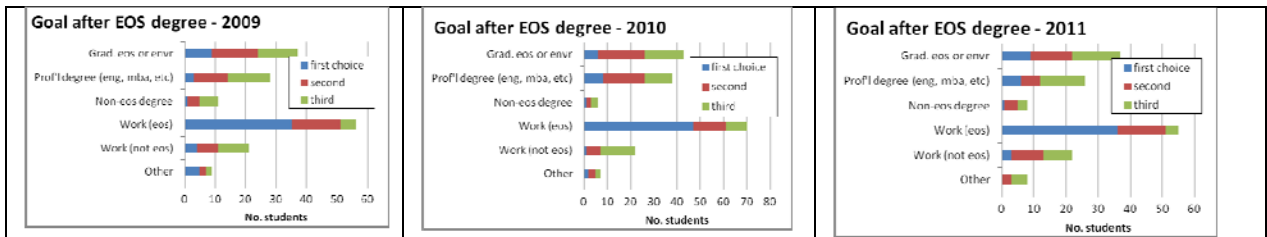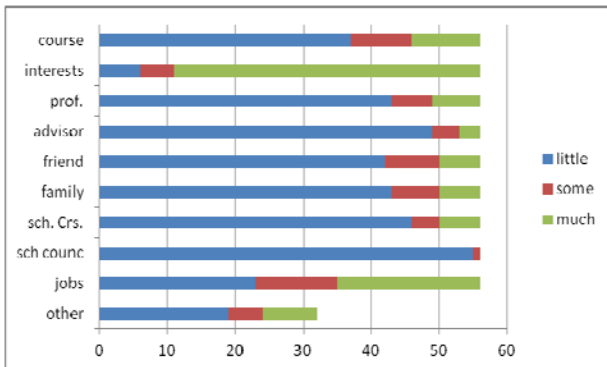

Amazingly similar for three years. This suggests population is very similar in all years.

2. Do you agree or disagree with the following statement?

  Again 3 very similar years. # respondents: ('09,'10,'11) = (57,65,56)

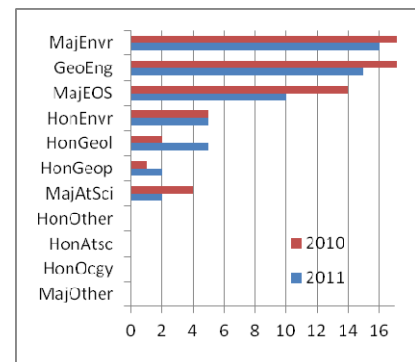3. My choice to declare EOS as my major was influenced by

Interests and jobs are primary influences (large green bars).
If recruiting is of interest, consider targeting high school councillors?

4a. What is your primary degree program?

  Data for 2010 and 2011 in red/blue chart to the right.
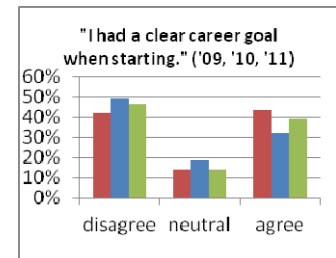
4b. Are you planning on registering as a professional in any of the following professional organizations?

	apegbc	RPBio	meteo	PAG	None
2011	29	3	1	0	22
2010	34	1	2	0	27

4c. Did you complete the CO-OP program?

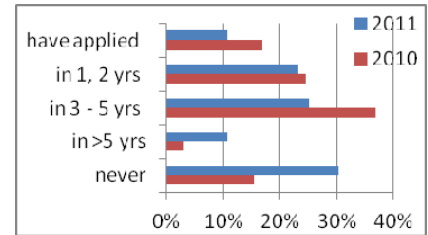|	yes	no	part
2011	4	42	10
2010	2	48	15

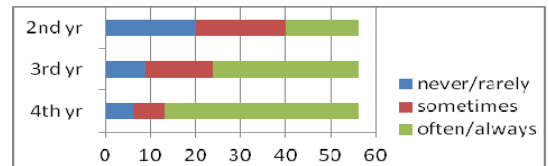4d. I plan to apply for graduate school: (**graph right**)

5a. Would you have preferred to choose a DIFFERENT program from the one you are graduating from?

2010 and 2011: (y,n)= (9,55) and (14,42)

6. My program or program option allowed me to choose electives that matched my interests in years 2 3 and 4 of my degree:

2011 to the right, 2010 had a few more "sometimes".

7. I usually chose course electives based on the following factors (please rank importance):

Options were: skill needed, interest, prof, sched, friends, time, commute, fun, easy, other.

**Skill needed and interest were by far the most common in both 2010 and 2011**.

8. I obtained information on course electives from the following sources (please rank importance):

"Calendar" and "friends" were most common, implying description of courses in calendar MUST be excellent. Web was also prominent, again implying correct information must be maintained.

9-19 How much has work in eosc/atsc/envr/geo-eng courses emphasized memorizing facts, ideas, or methods?

Eleven pairs of graphs show results with 2011 above 2010, with blue/red/green = little/some/much.

Highlights: Writing skills are developed "outside" (box pair #11); all other 2010/2011 pairs are very similar.
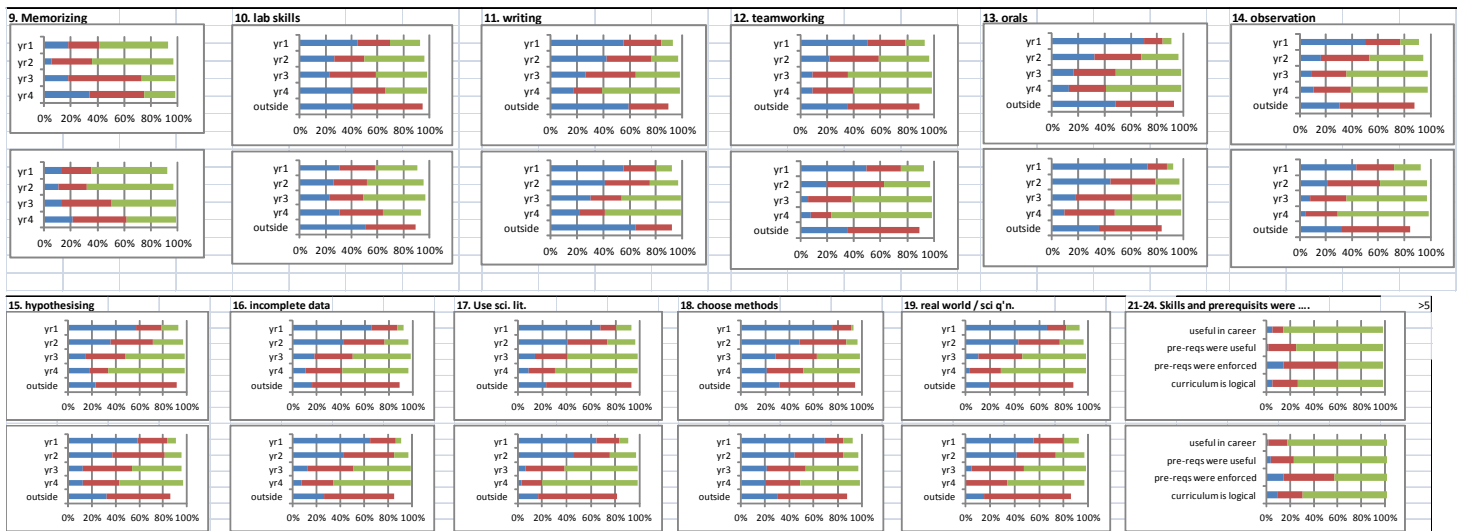
20. If there are skills that should be learned in the EOS program but are not listed above, please list them here:

See file "*ExitSurveyComments2011.docx*".

21. The practical/technical skills I learned in the EOS courses will be useful for my career goals

22. The pre-requisites I took prepared me for upper level courses

23. The course pre-requisites were strongly enforced by my instructors

24. The curriculum of my EOS program has a logical flow.

These <u>four</u> are the last pair of graphs above. blue/red/green = disagree/neutral/agree.

No surprises, although "pre-requisites were enforced" saw the fewest "agree".

25a. In how many courses did you experience these 14 types of assignments?
25b. How useful were these 14 types of assignments?

Blue/red matrix plots follow:

Comparing number of courses in which each assessment was experienced.				
	2011-2010			
	none	1-2	3-5	>5
a. Written Essays	0%	1%	-6%	6%
b. Individual Research Proposals/Reports	-1%	9%	-6%	1%
c. Group Research Proposals/Reports	9%	5%	-1%	-10%
d. Lab Reports	5%	-9%	-7%	13%
e. Oral Presentations	7%	-6%	5%	-3%
f. Poster Presentations	-4%	-14%	16%	4%
g. In Class Quizzes	4%	-8%	-9%	16%
h. Online Quizzes	-9%	-16%	20%	10%
i. "Clicker" Questions	-19%	-2%	10%	13%
j. Group Assignments	0%	-4%	13%	-9%
k. Multiple Choice Tests	-9%	15%	-1%	-2%
l. Short Answer Tests	-2%	1%	3%	0%
m. Long Answer Tests (Essay Questions)	2%	3%	-8%	5%
n. Literature Reviews (e.g. discussing journal article)	-3%	-6%	7%	5%

Comparing usefulness of 14 assessment types.			
	2011-2010		
	not	somewhat	very
a. Written Essays	1%	-14%	10%
b. Individual Research Proposals/Reports	1%	10%	-10%
c. Group Research Proposals/Reports	11%	-2%	-12%
d. Lab Reports	7%	-17%	9%
e. Oral Presentations	8%	6%	-13%
f. Poster Presentations	-2%	7%	-4%
g. In Class Quizzes	-12%	3%	8%
h. Online Quizzes	-19%	7%	20%
i. "Clicker" Questions	-19%	11%	19%
j. Group Assignments	3%	-3%	-3%
k. Multiple Choice Tests	14%	-14%	8%
l. Short Answer Tests	0%	9%	-5%
m. Long Answer Tests (Essay Questions)	-4%	11%	-9%
n. Literature Reviews (e.g. discussing journal article)	1%	-7%	8%

Blues show increase in 2011 over 2010. For example, 6% more respondents in 2011 say there are >5 courses using written essays compared to 2010.

Blues show increase in 2011 over 2010. For example, 10% more respondents in 2011 say written essays are very useful, compared to 2010.

Highlights: in 2011, more classes do: *essays, lab reports, in-class & online quizzes, clickers, lit reviews*. Also, the <u>same</u> assessments were said to be "more useful" in 2011. Clickers in particular are identified as "more often" and "better" by 2011 graduates compared to 2010 graduates. Maybe expect greater change in later years??
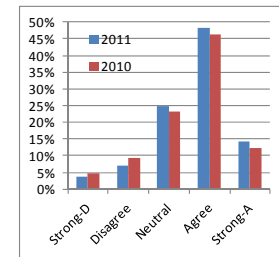
26. In my EOS courses, I regularly received effective feedback on written work (e.g. homework, research projects, essays, in class/online quizzes, lab reports, etc.)

Virtually identical; perhaps v. slight improvement for 2011 graduates (right).

27. List three courses that you feel were most useful.   **See last 2 pages.**

28. List three courses that you feel should be improved, changed or omitted as a requirement.

See last 2 pages, & files Q28-2010-CoursesToImprove.docx and Q28-2011-CoursesToImprove.docx

29. Field experiences were a valuable part of my degree:

2011, 2010 very similar. Brackets (y-axis) show # of students . Little to conclude here but future data may be interesting.
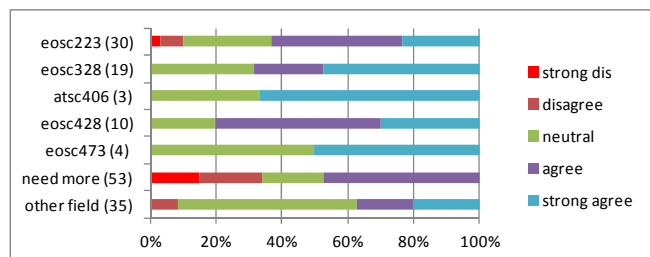
30. Some courses have multiple instructors while others have a single instructor. Of the courses you took in EOS, are there any "single-instructor" courses for which you'd recommend having multiple instructors instead?   **See file *ExitSurveyComments2011.docx***

31. Of the courses you took in EOS, are there any "multiple-instructor" courses for which you would recommend having a single instructor instead?

See file *ExitSurveyComments2011.docx*

32. I enjoyed studying EOS at UBC
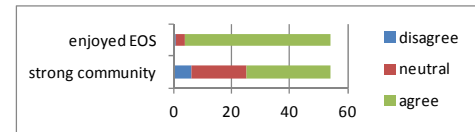
33. I experienced a strong sense of community in the EOS program.

Both in graph to right for 2011; very similar in 2010.

34. How might community be enhanced in the EOS program?

35. The most positive learning experience I had within EOS was (please explain):

36. If I could change one thing about my learning experience in EOS it would be (please explain):

37. Are there any other suggestions or comments that you would like to share with us regarding the EOS Program?

For questions 34-37 see file *ExitSurveyComments2011.docx*

38. Which was the first language spoken in your household while growing up?

39. How would you rate your ability to read and write in English? ;

Very similar in 2010 and 2011. 30% ARE esl, but practically all self-assess as excellent with English.
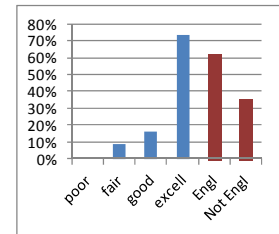
40. What gender are you?

41. What is your age?

42. I was a transfer student to UBC. ;

43. To pay for at least part of my education (e.g. tuition, living expenses, etc.) I had to work...;

Shows many students are working (2010 and 2011, graph right).
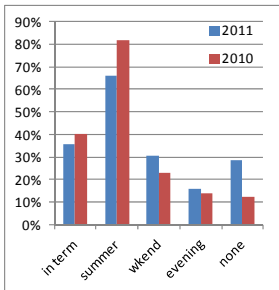
43a. If you were employed during the term, how many hours per week did you work on average?

44. I provide some financial support for my children/spouse/family members in addition to going to university.
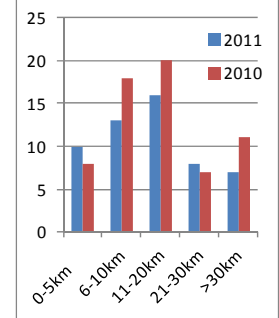
45. What is the longest commute (one way, in km) you had to make regularly (for at least 1 year) while at UBC?

Commuting is a problem across campus at UBC (graph at right)

46. Are there any suggestions or comments that you would like to share with us regarding this survey?

See file *ExitSurveyComments2011.docx*

47. Roughly how long did you spend working on this survey?

70% of students took 30mins or less (graph at right).
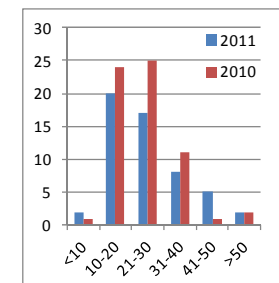
NOTE:

Results will be most interesting to compare to 2010 & 2011 in future years, because 2012/2013 graduates started in 2008/2009, and EOS-SEI changes have been stable only since 2009/10/11, depending on courses.

Charts (next pages) summarize questions 27 & 28. All courses that were identified by survey respondents as either **liked** or **not liked** are listed. Values are # of students who **liked** or did **not like** each course mentioned. Column three indentifies whether a course was **relatively** "liked" or "not liked" in percent of respondents for that year. Comparing 2010 & 2011 shows, for example, that

- **eosc220** and **eosc221** seem both to have been less "disliked" by 2011 graduates compared to those graduating in 2010, suggesting they were better in 2009 than 2008.
- **math200** and **math257** are significantly disliked in both years

These have not been studied (or other data for that matter) very hard yet; more detailed thinking is probably worthwhile.

Ideas for next time (spring 2012)

The survey should be basically unchanged. However some possible adjustments that might be worth considering include:

- Shortening by dropping how choices were made, Q1, 2,3, (It would be cool if changes could be detected over the next 3 years, but based on past 23 years (question 1 for example) I doubt it).
- Maybe drop qns 6,7,8?
- Maybe drop the multiple instructors questions (30, 31) and working questions (43, 43a, 44)?
- I'm not sure about question 9-19.
- Q25 is key for EOS-SEI assessment
- ONE AREA TO CONSIDER ADDING: Augment Q27 and 28 by asking to identify top courses and (or) experiences that contributed to helping meet each of the newly defined program goals. Perhaps use Hiring practices survey results to define goals.

EOSC and ENVR "liked" or "not liked" courses in 2010 & 2011. Coloured course names appear in both years.

*Fewer EOSC and ENVR courses were mentioned in 2011 compared to 2010; more are "plus" than "minus" in 2011; and both **liked** and **not liked** are less extreme in 2011.*

2010	NotLiked	Liked	Liked - NOT (N = 56)
ENVR200	2	5	5%
envr300	4	7	5%
ENVR400	0	2	4%
ENVR449	0	2	4%
EOSC111	0	1	2%
EOSC1XX	1	0	-2%
EOSC211	5	2	-5%
EOSC212	2	0	-4%
EOSC220	12	0	-21%
EOSC221	7	1	-11%
EOSC222	2	1	-2%
eosC223	3	6	5%
EOSC250	2	1	-2%
EOSC320	1	0	-2%
eosC321	2	1	-2%
EOSC322	1	1	0%
EOSC323	3	2	-2%
eosC328	1	3	4%
EOSC329	1	8	13%
EOSC330	2	0	-4%
EOSC331	3	8	9%
EOSC332	1	5	7%
EOSC333	0	4	7%
EOSC340	0	1	2%
EOSC350	1	1	0%
EOSC352	1	0	-2%
EOSC353	0	1	2%
EOSC355	1	0	-2%
Eosc371	0	1	2%
Eosc372	0	0	0%
EOSC398	1	0	-2%
EOSC399	1	0	-2%
EOSC420	0	0	0%
EOSC422	0	1	2%
eosC424	0	5	9%
EOSC425	0	3	5%
EOSC428	0	3	5%
EOSC429	0	7	13%
EOSC430	0	1	2%
EOSC432	3	0	-5%
EOSC433	1	10	16%
EOSC434	1	3	4%
EOSC447	2	2	0%
EOSC448	0	1	2%
EOSC450	0	1	2%
EOSC472	2	1	-2%
EOSC474	0	1	2%
eosC475	1	0	-2%
EOSC478	0	1	2%
EOSC498	1	0	-2%
EOSC499	1	0	-2%
	minus 20	39.2%	
	plus 26	51.0%	
	zero 5	9.8%	
	Total 51		

2011	Liked	NOT	Liked - NOT (N = 65)
ENVR200	7	2	8%
envr300	6	6	0%
ENVR400	4	0	6%
eosc110	0	2	-3%
EOSC111	1	2	-2%
eosc112	0	2	-3%
EOSC210	1	0	2%
EOSC211	2	4	-3%
eosc212	0	2	-3%
EOSC220	3	6	-5%
EOSC221	4	4	0%
eosc222	0	3	-5%
EOSC223	2	3	-2%
EOSc320	1	0	2%
eosc321	1	1	0%
eosc322	0	1	-2%
EOSc323	2	0	3%
EOSC328	3	0	5%
eosc329	1	2	-2%
EOSC330	1	1	0%
EOSc331	3	1	3%
eosc332	5	0	8%
EOSC340	1	1	0%
eosc350	0	2	-3%
EOSc370	1	0	2%
EOSC372	3	1	3%
EOSC373	2	0	3%
EOSC421	1	0	2%
EOSC425	1	0	2%
eosc432	0	1	-2%
EOSC433	6	2	6%
EOSC434	5	0	8%
EOSC443	1	0	2%
EOSC447	2	0	3%
eosc449	1	0	2%
eosc450	1	0	2%
eosc453	1	0	2%
eosc454	1	0	2%
	minus 12	31.6%	
	plus 21	55.3%	
	zero 5	13.2%	
	Total 38		

OTHER "liked" or "not liked" courses in 2010 & 2011. Coloured course names appear in both years. *Not much difference in plus/minus nor are there many extreme cases. However, **math200** is significantly disliked in both years.*

2010	NotLiked	Liked	Liked - NOT		2011	NotLiked	Liked	Liked - NOT
APsc160	1	0	-1		apsc150		1	-1
APSC201	2	0	-2		apsc160		1	-1
ATSC201	0	2	2		ATSC201	3		3
ATSC212	1	0	-1		atsc212		1	-1
ATSC301	0	1	1		ATSC303	1		1
ATSC303	1	0	-1		biol300	3		3
ATSC404	0	1	1		Biol302	1	1	0
BIOL300	1	7	6		Biol303	1	1	0
Biol402	0	1	1		BIOL334	2		2
BIOL408	0	2	2		BIOl402	1		1
Biol412	0	1	1		BIOL404	1		1
BIOL427	0	1	1		biol406	1		1
CHEM121	0	1	1		Biol407	1		1
CHEM202	3	0	-3		chem121		1	-1
chem205	2	0	-2		chem123		2	-2
CIVIL230	1	0	-1		chem202		2	-2
CIVIL231	1	0	-1		chem205		2	-2
Civl210	0	1	1		CHEM301	1		1
CIVL215	1	1	0		Civil410	1		1
CIVL221	0	1	1		CIVL210	4		4
CIVL230	1	0	-1		civl230		1	-1
CIVL231	4	0	-4		civl231		2	-2
CIVL235	1	0	-1		civl235		1	-1
CIVL311	0	3	3		CIVL310	1		1
CIVL403	0	1	1		civl311	3		3
CIVL410	1	1	0		civl321		1	-1
CIVL411	0	1	1		civl402		1	-1
CIVL418	0	1	1		CIVL403	1	2	-1
CIVL428	0	1	1		civl408		1	-1
ENGL301	0	1	1		civl410	3	2	1
FRE302	0	1	1		CIVL411	2		2
FRE385	0	1	1		CONS300	1		1
FRST386	0	1	1		cpsc301		1	-1
GEOB200	0	2	2		ENGL222	1		1
GEOB304	0	1	1		GEOB270	1		1
Geob305	3	0	-3		GEOB304	1		1
Geog200	1	1	0		geob305		1	-1
GEOG270	0	1	1		geob400		1	-1
MATH101	0	1	1		GEOB402	3		3
MATH102	0	1	1		geob404		1	-1
math200	11	0	-11		GEOB407	1		1
MATH251	1	0	-1		Geog200	1		1
MATH255	1	0	-1		Geog205	1		1
Math257	8	1	-7		GEOG300	1		1
MATH316	1	1	0		geog305		1	-1
MATH317	0	1	1		GEOG310	1		1
MINE303	0	3	3		MATH100	1		1
Mine391	0	3	3		MATH101	1		1
MINE403	0	1	1		Math200	1	8	-7
phys102	1	0	-1		math255		1	-1
PHYS203	1	0	-1		math257		4	-4
PHYS216	1	0	-1		math316		1	-1
PHYS301	0	1	1		MINE303	1		1
soil200	1	0	-1		MINE403	3		3
STAT251	0	1	1		soil200		1	-1
URST400	0	1	1		STAT200	3	1	2
					stats251		1	-1

		minus 20	35.1%				minus 25	34.7%
		plus 19	33.3%				plus 24	33.3%
		zero 18	31.6%				zero 23	31.9%
		Total 57					Total 72	