# CS 2150-107 **Program & Data Representation** - Fall 2015

*ENGR (21801)*

INSTRUCTORS: **Bloomfield, Aaron S. (asb2t)**

Respondents: 15 / Enrollment: 32

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**Summary: CS 2150-107 Program & Data Representation - Fall 2015 (21801)**

**Overall Course Rating**

CS-2150-107 Mean 4.40
CS-2150-107 Std Dev 0.99
CS-2150-107 Response Count 75

SEAS, 2000-level courses Mean 4.08
SEAS, 2000-level courses Std Dev 0.98
SEAS, 2000-level courses Response Count 16504

**Overall Instructor Rating**

*INSTRUCTOR:* Bloomfield, Aaron S.
Mean 4.71
Std Dev 0.64
Response Count 104

SEAS, 2000-level courses Mean 4.28
SEAS, 2000-level courses Std Dev 0.87
SEAS, 2000-level courses Response Count 24082

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| *~ QUESTIONS AND DETAILS ~* | *~ ANSWER MATRICES ~* |
|---|---|

**1. The course addressed technically rigorous subject matter consistent with the course objectives.**
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Question Type: Likert
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*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.79 | 0.43 | 11 (73.33%) | 3 (20.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (6.67%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3306 | 4.38 | 0.73 | 1632 (49.36%) | 1375 (41.59%) | 216 (6.53%) | 55 (1.66%) | 17 (0.51%) | 11 (0.33%) |

**2. The instructor used methods other than/in addition to traditional lectures (for example, active learning, in-class problems, collaborative learning, in-class discussion) effectively in this course.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107, Bloomfield, Aaron S.**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.71 | 0.47 | 10 (66.67%) | 4 (26.67%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (6.67%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3456 | 4.07 | 1.01 | 1361 (39.38%) | 1355 (39.21%) | 382 (11.05%) | 218 (6.31%) | 101 (2.92%) | 39 (1.13%) |

**3. There was a reasonable level of effort expected for the credit hours received.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 3.47 | 1.46 | 6 (40.00%) | 1 (6.67%) | 3 (20.00%) | 4 (26.67%) | 1 (6.67%) | 0 (0.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3312 | 4.14 | 0.94 | 1315 (39.70%) | 1478 (44.63%) | 250 (7.55%) | 179 (5.40%) | 79 (2.39%) | 11 (0.33%) |

| ~ QUESTIONS AND DETAILS ~ | ~ ANSWER MATRICES ~ |
|---|---|

**4. The homework assignments helped me learn the subject matter.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.80 | 0.41 | 12 (80.00%) | 3 (20.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3297 | 4.26 | 0.85 | 1442 (43.74%) | 1324 (40.16%) | 274 (8.31%) | 106 (3.22%) | 42 (1.27%) | 109 (3.31%) |

**5. The textbook increased my understanding of the material.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.83 | 0.41 | 5 (33.33%) | 1 (6.67%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 9 (60.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3296 | 3.54 | 1.20 | 655 (19.87%) | 839 (25.46%) | 638 (19.36%) | 301 (9.13%) | 206 (6.25%) | 657 (19.93%) |

**6. The course material was well organized and developed.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107, Bloomfield, Aaron S.**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 14 | 4.79 | 0.43 | 11 (78.57%) | 3 (21.43%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3431 | 4.17 | 0.91 | 1412 (41.15%) | 1432 (41.74%) | 349 (10.17%) | 166 (4.84%) | 53 (1.54%) | 19 (0.55%) |

**7. The instructor was knowledgeable about the subject matter.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107, Bloomfield, Aaron S.**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.87 | 0.35 | 13 (86.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3441 | 4.57 | 0.67 | 2186 (63.53%) | 1039 (30.19%) | 144 (4.18%) | 30 (0.87%) | 17 (0.49%) | 25 (0.73%) |

**8. The instructor was well prepared for class.**
~
Question Type: Likert
~
*contributed by Dean of the School of Engineering and Applied Science*

**Results for CS-2150-107, Bloomfield, Aaron S.**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.87 | 0.35 | 13 (86.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

**Results for SEAS, 2000-level courses**

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3446 | 4.43 | 0.76 | 1889 (54.82%) | 1238 (35.93%) | 197 (5.72%) | 65 (1.89%) | 31 (0.90%) | 26 (0.75%) |

| ~ QUESTIONS AND DETAILS ~ | ~ ANSWER MATRICES ~ |
|---|---|

**9. I received adequate preparation from the prior courses in the curriculum to be successful in this course.**
~
Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-107

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.38 | 0.77 | 7 (46.67%) | 4 (26.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 2 (13.33%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3293 | 3.97 | 0.98 | 939 (28.52%) | 1185 (35.99%) | 454 (13.79%) | 166 (5.04%) | 75 (2.28%) | 474 (14.39%) |

**10. The grading policy was fair.**
~
Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.07 | 1.22 | 7 (46.67%) | 5 (33.33%) | 1 (6.67%) | 1 (6.67%) | 1 (6.67%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3443 | 4.19 | 0.88 | 1416 (41.13%) | 1492 (43.33%) | 322 (9.35%) | 146 (4.24%) | 52 (1.51%) | 15 (0.44%) |

**11. The instructor responded adequately to in-class questions.**
~
Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.80 | 0.41 | 12 (80.00%) | 3 (20.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3442 | 4.36 | 0.81 | 1743 (50.64%) | 1317 (38.26%) | 215 (6.25%) | 96 (2.79%) | 39 (1.13%) | 32 (0.93%) |

**12. The instructor effectively used technology in support of the learning goals for this course.**
~
Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4.87 | 0.35 | 13 (86.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) | Not Applicable (NA) |
|---|---|---|---|---|---|---|---|---|
| 3423 | 4.21 | 0.88 | 1448 (42.30%) | 1379 (40.29%) | 358 (10.46%) | 114 (3.33%) | 54 (1.58%) | 70 (2.04%) |

**13. The average number of hours per week I spent outside of class preparing for this course was:**
~
Question Type: Multiple Choice
~
contributed by Office of the Provost

Results for CS-2150-107

| Total | Less than 1 (NA) | 1 - 3 (NA) | 4 - 6 (NA) | 7 - 9 (NA) | 10 or more (NA) |
|---|---|---|---|---|---|
| 15 | 0 (0.00%) | 0 (0.00%) | 2 (13.33%) | 4 (26.67%) | 9 (60.00%) |

Results for SEAS, 2000-level courses

| Total | Less than 1 (NA) | 1 - 3 (NA) | 4 - 6 (NA) | 7 - 9 (NA) | 10 or more (NA) |
|---|---|---|---|---|---|
| 3303 | 208 (6.30%) | 1182 (35.79%) | 1240 (37.54%) | 414 (12.53%) | 259 (7.84%) |

| ~ QUESTIONS AND DETAILS ~ | ~ ANSWER MATRICES ~ |
|---|---|

**14. I learned a great deal in this course.**
~
Question Type: Likert
~
*contributed by Office of the Provost*

Results for CS-2150-107

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 15 | 4.60 | 1.06 | 12 (80.00%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 1 (6.67%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 3290 | 4.25 | 0.88 | 1529 (46.47%) | 1262 (38.36%) | 336 (10.21%) | 115 (3.50%) | 48 (1.46%) |

**15. Overall, this was a worthwhile course.**
~
Question Type: Likert
~
*contributed by Office of the Provost*

Results for CS-2150-107

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 15 | 4.87 | 0.35 | 13 (86.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 3299 | 4.18 | 0.95 | 1491 (45.20%) | 1203 (36.47%) | 377 (11.43%) | 162 (4.91%) | 66 (2.00%) |

**16. The course's goals and requirements were defined and adhered to by the instructor.**
~
Question Type: Likert
~
*contributed by Office of the Provost*

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 15 | 4.60 | 1.06 | 12 (80.00%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 1 (6.67%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 3436 | 4.38 | 0.71 | 1651 (48.05%) | 1525 (44.38%) | 195 (5.68%) | 44 (1.28%) | 21 (0.61%) |

**17. The instructor was approachable and made himself/herself available to students outside the classroom.**
~
Question Type: Likert
~
*contributed by Office of the Provost*

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 15 | 4.40 | 0.91 | 9 (60.00%) | 4 (26.67%) | 1 (6.67%) | 1 (6.67%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 3445 | 4.30 | 0.81 | 1630 (47.31%) | 1350 (39.19%) | 348 (10.10%) | 90 (2.61%) | 27 (0.78%) |

**18. Overall, the instructor was an effective teacher.**
~
Question Type: Likert
~
*contributed by Office of the Provost*

Results for CS-2150-107, Bloomfield, Aaron S.

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 15 | 4.87 | 0.35 | 13 (86.67%) | 2 (13.33%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

Results for SEAS, 2000-level courses

| Total | Mean | Std Dev | Strongly Agree (5) | Agree (4) | Neutral (3) | Disagree (2) | Strongly Disagree (1) |
|---|---|---|---|---|---|---|---|
| 3455 | 4.21 | 0.95 | 1632 (47.24%) | 1232 (35.66%) | 355 (10.27%) | 166 (4.80%) | 70 (2.03%) |

*The information in this document is private and confidential. Please handle accordingly.*

| ~ QUESTIONS AND DETAILS ~ | ~ ANSWER MATRICES ~ |
|---|---|

**19. Please make any overall comments or observations about this course:**
~
Question Type: Short Answer
~
*contributed by Office of the Provost*

| Results for CS-2150-107 | |
|---|---|
| Total | Individual Answers |
| 7 | *See below for Individual Results* |

Good course

The class was very hard and the labs took up so much time that there was not enough time to study and understand the materials before doing the labs.

the lab assignments took a lot of time outside of class, but i learned a lot and still liked the class.

Great course, I learned a lot. My programming skills are much improved. We probably could have done more programming and fewer reports, but nevertheless we did much more than in 2110 (which I took at the same time). However, I do have some complaints about grading. There are too many booby traps, where if you misread or forget something you're hit with an instant zero. To me it makes absolutely no sense that if you had one student give an 22-line answer on a test (which I would assume is about 200 words), that you should make a rule that any answer of over 30 words on a test receives a score of zero. Come on. If we forget to bubble in the front page of our answer sheet, can't you just do that? Didn't we write our computing ID on every single page? I think a student losing 15% of their grade is a lot worse than some TA having to spend 10 seconds bubbling in what the student forgot. Why do you get a zero on a lab if you had an invalid IP address? What if you were sick? What if you were in the lab but just used your own computer? Why can't you just resubmit and get credit for the work you did? I got ripped this way this semester, and it really brought down my lab grade, despite the fact that I did all the work for that in-lab. I would have gladly resubmitted. I can actually understand the whole thing about compilation errors, yes we need to write actual programs. On the other hand, the course is actually pretty easy. We made a big deal about implementing a hash table? Please. Assign us a red-black tree for the pre-lab, a splay-tree for the inlab, and an AVL tree for the post-lab. That's a reasonable amount of effort. Right now the course caters to lazy people who wait until the last minute to do their assignments. People say this course should be 5 credits? It's lucky to be 3, it should be 1. Instead of pushing all these low-skill people through, to prevent everyone else from actually taking upper level computer science courses (as I write this, there is ONE open computer science class for which 3330 is not a prerequisite, and I am far down the waitlist for four), maybe you could make it moderately challenging and we could get our money's worth. Most computer science majors might like to take computer science courses. I hope that isn't too much to ask. One person wrote a review saying they hadn't programmed in a year, and so it was hard? What on earth do you think you're doing taking this course? "Man, running that marathon after I hadn't gotten out of bed for six months was so much tougher than I expected!" Now that I have vented the wrath, I must say that Professor Bloomfield is an extremely engaging teacher. Regardless of whether it's the coffee, he has great energy and a good sense of humor. It actually helps me concentrate when he walks around the "stage." He knows the course so well it's uncanny; when he showed us the splay tree graphic, he timed the completely unbalanced tree right in step, without even looking at it. That just shows a small amount of his dedication, and I hope he continues improving this course far into the future.

Thank you so much, Bloomfield, for teaching this course. It was very well structured and I learned a lot. Keep it up!

Hard class but it was well run and I learned a lot

The actual in-lab time was not very useful. I don't think that I ever asked the TA's a single question and I would have much preferred just doing the lab on my own computer and time.

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