Blackboard®

Learning Analytics: Real-Time Indicators of Student Success

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Bios

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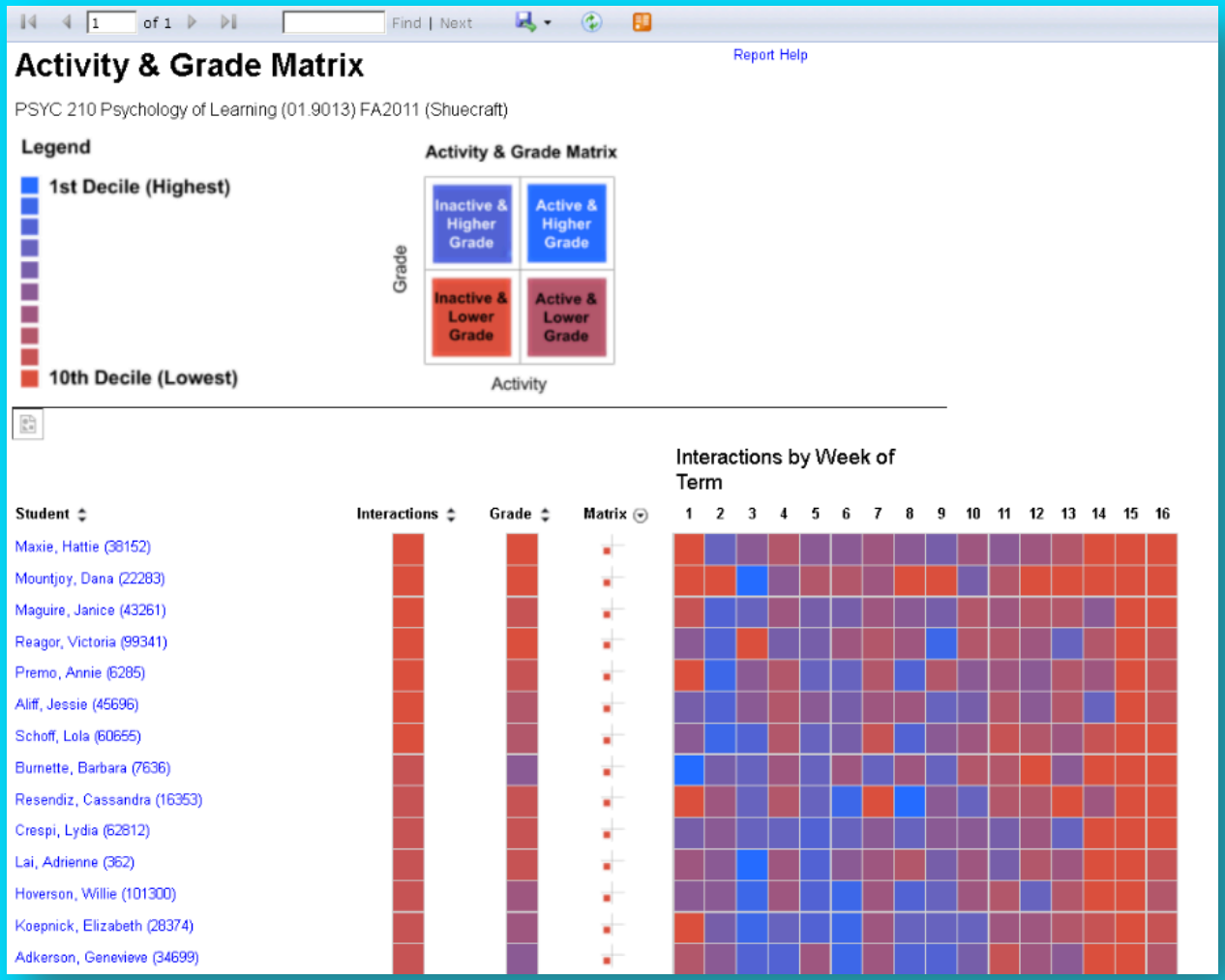
Agenda

1. Learning Analytics at Blackboard
2. Research + Perspective from UMBC
3. Discussion

GOAL:

Understand the Correlation Between LMS Usage, Overall Performance, and Retention

Learner Engagement
Analytics for Learn



Learner Engagement
Real-Time Indicators

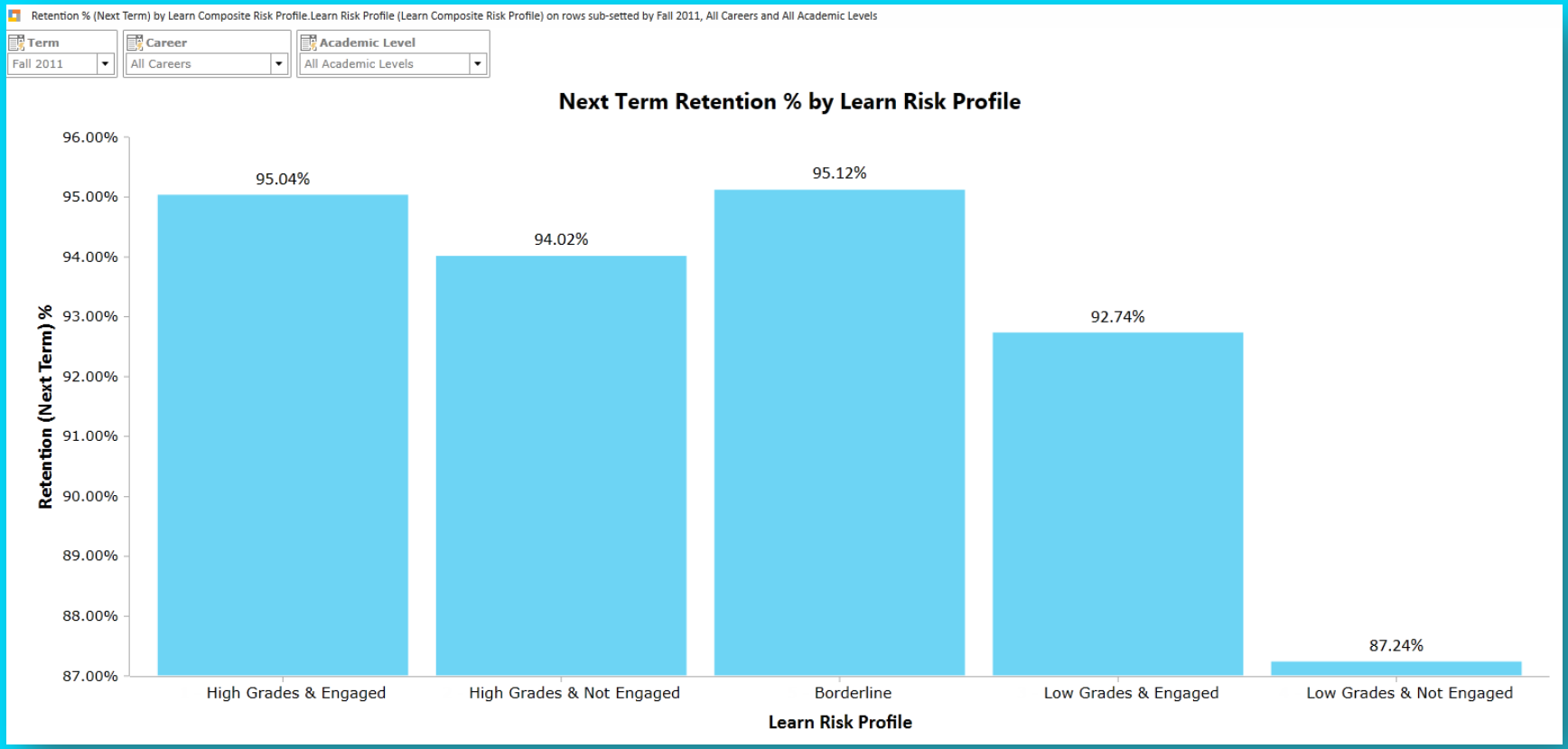
Combing LMS Engagement and Risk Profiles from A4L...

...with Enrollment and Retention Data from Student Management

All Learn Risk Profiles
1 - High Grades & Engaged
2 - High Grades & Not Engaged
3 - Low Grades & Engaged
4 - Low Grades & Not Engaged
5 - Borderline
Not Applicable

Retention % (Next Term)	Did Not Return %
92.22%	7.78%
95.91%	4.09%
95.32%	4.68%
92.95%	7.05%
86.71%	13.29%
95.57%	4.43%
82.07%	17.93%

Student LMS Usage
Correlation to Retention



Student LMS Usage
Low Grades + Engaged

Retention % (Next Term) and Distinct Students by Learn Composite Risk Profile.Learn Risk Profile (Learn Composite Risk Profile) on columns; and Plan (Plan) on rows sub-setted by Fall 2011, Undergraduate, All Academic Levels, Full Time and Major

Term	Career	Academic Level
Fall 2011	Undergraduate	All Academic Levels

	Low Grades & Engaged	
	Retention % (Next Term)	Distinct Students
History - BA (HIST BA)	84.62%	14
Information Systems - BS (IFSM BS)	95.12%	46
Interdisciplinary Studies - BA (INDS BA)	100.00%	7
Interdisciplinary Studies - BS (INDS BS)	100.00%	2
Mathematics - BA (MATH BA)	100.00%	10
Mathematics - BS (MATH BS)	100.00%	12
Mechanical Engineering - BS (MENG BS)	85.19%	27
Media & Communication Studies (MCS BA)	100.00%	14
Mngmnt of Aging Services - BA (MAGS BA)	133.33%	4
Modern Lang & Linguistics - BA (MLL BA)	85.71%	9
Modern Languages & Ling BA (MLL2 BA)	100.00%	1
Music - BA (MUSC BA)	83.33%	6
Philosophy - BA (PHIL BA)	80.00%	5
Philosophy (2MPHIL)	100.00%	1
Physics - BS (PHYS BS)	83.33%	6
Political Science - BA (POLI BA)	100.00%	28
Psychology - BA (PSYC BA)	95.38%	71
Psychology - BS (PSYC BS)	100.00%	17
Social Work - BA (SOWK BA)	92.00%	26

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SP2014 Course Accesses Grades

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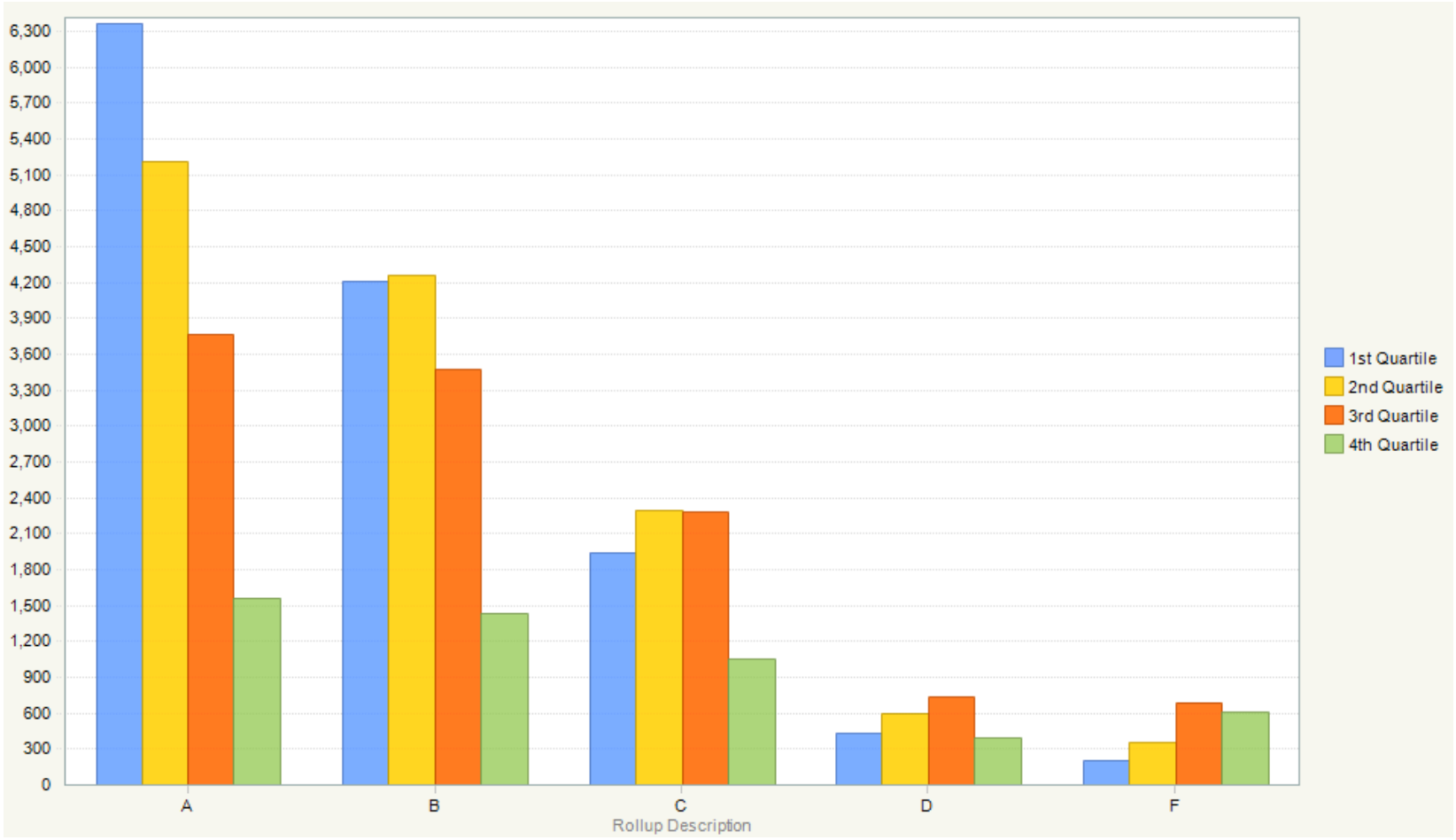

Last Two Years

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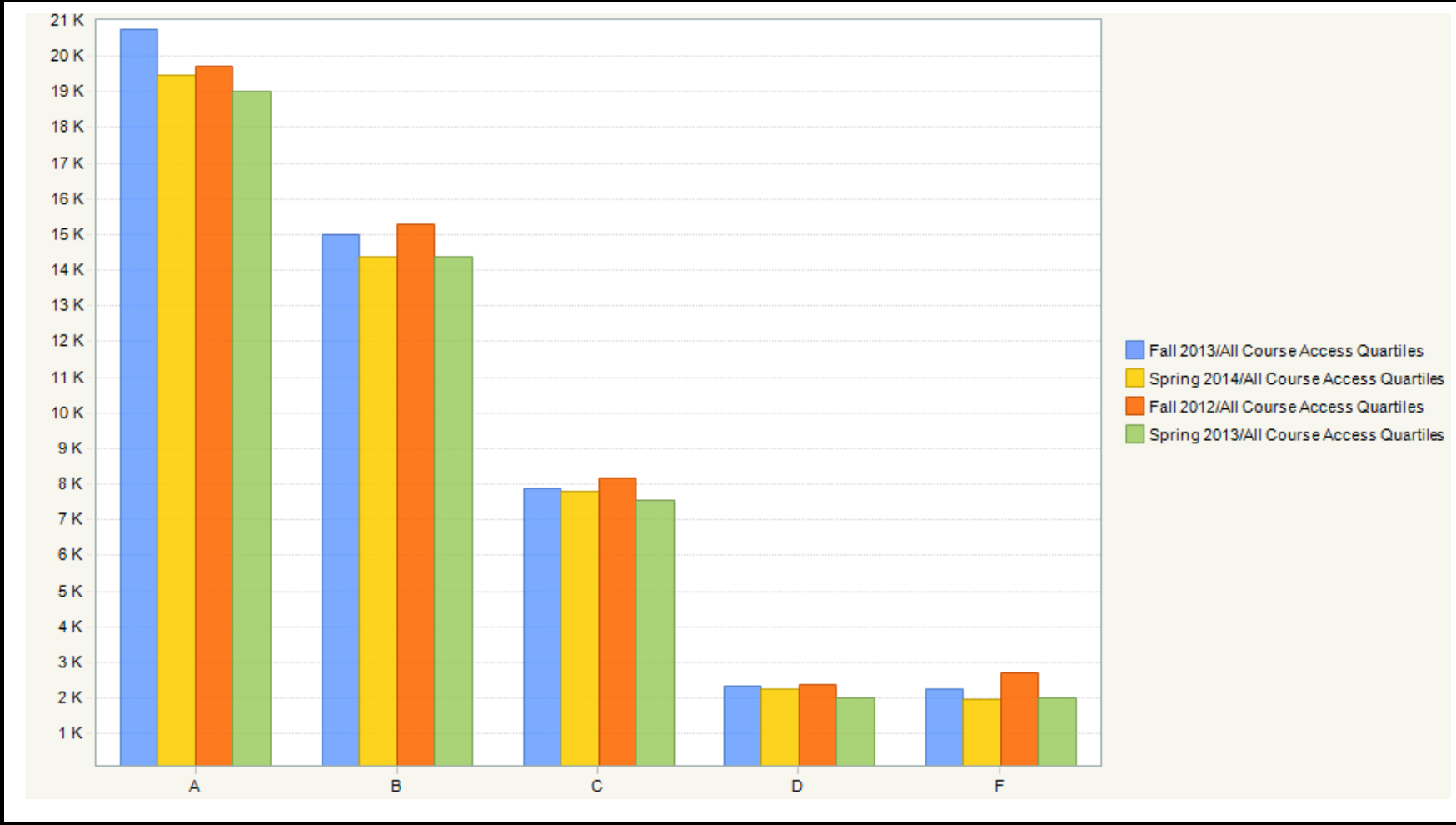

Check My Activity (CMA)

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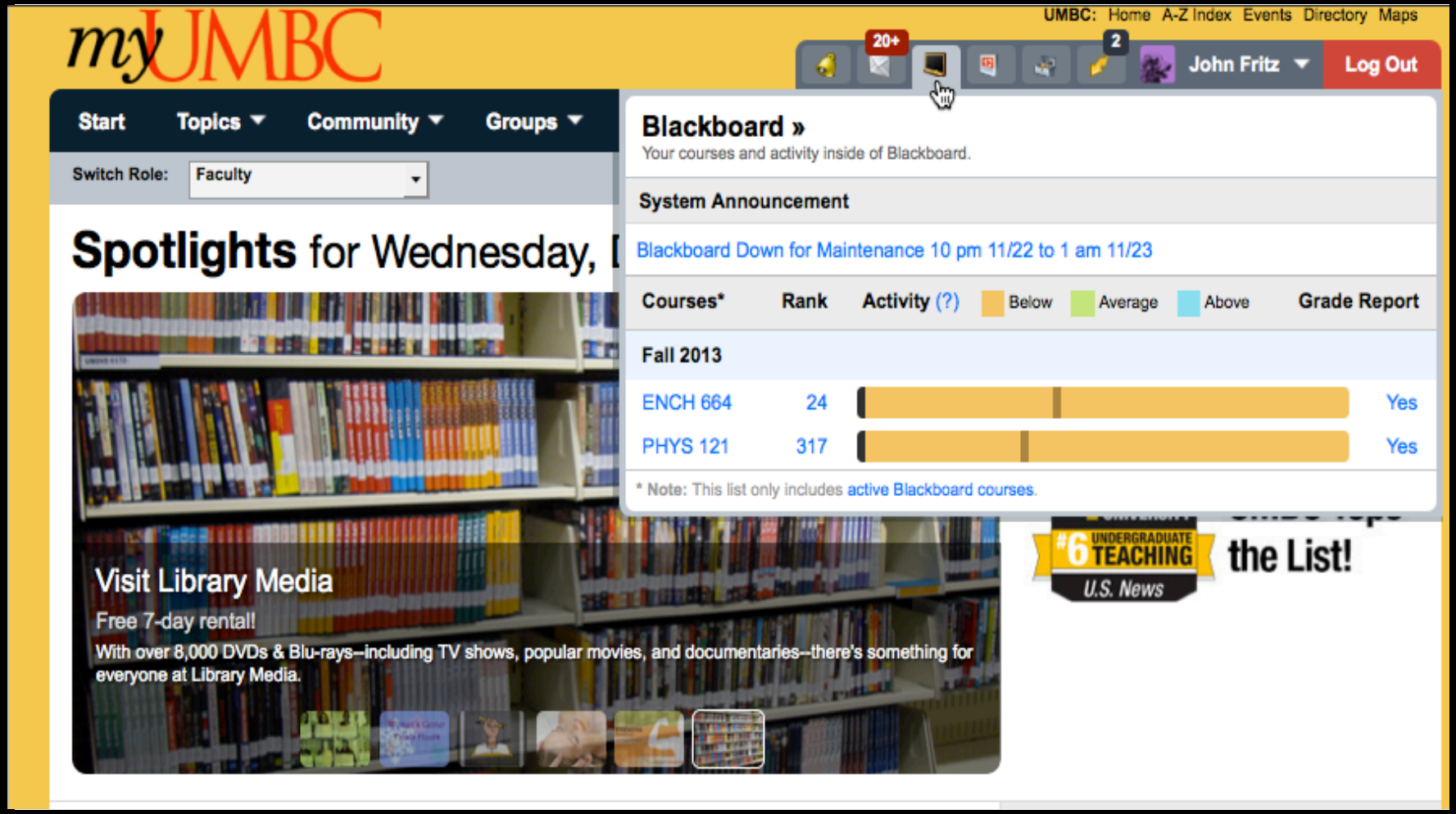


« Back to Check My Activity

Activity for ENCH 664:

▼ How active you (the black bar) are compared to the average activity of other students in the course (the gray bar).

Below Average Above

YOU

COURSE 1357 max hits

6328 hits

▲ How active this course (the black bar) is compared to others in the same discipline.

Activity Rank (What's this?)

- Your activity ranks **24th** out of **25** students in this course.
- This course's activity ranks **5th** out of **13** ENCH courses in Blackboard.

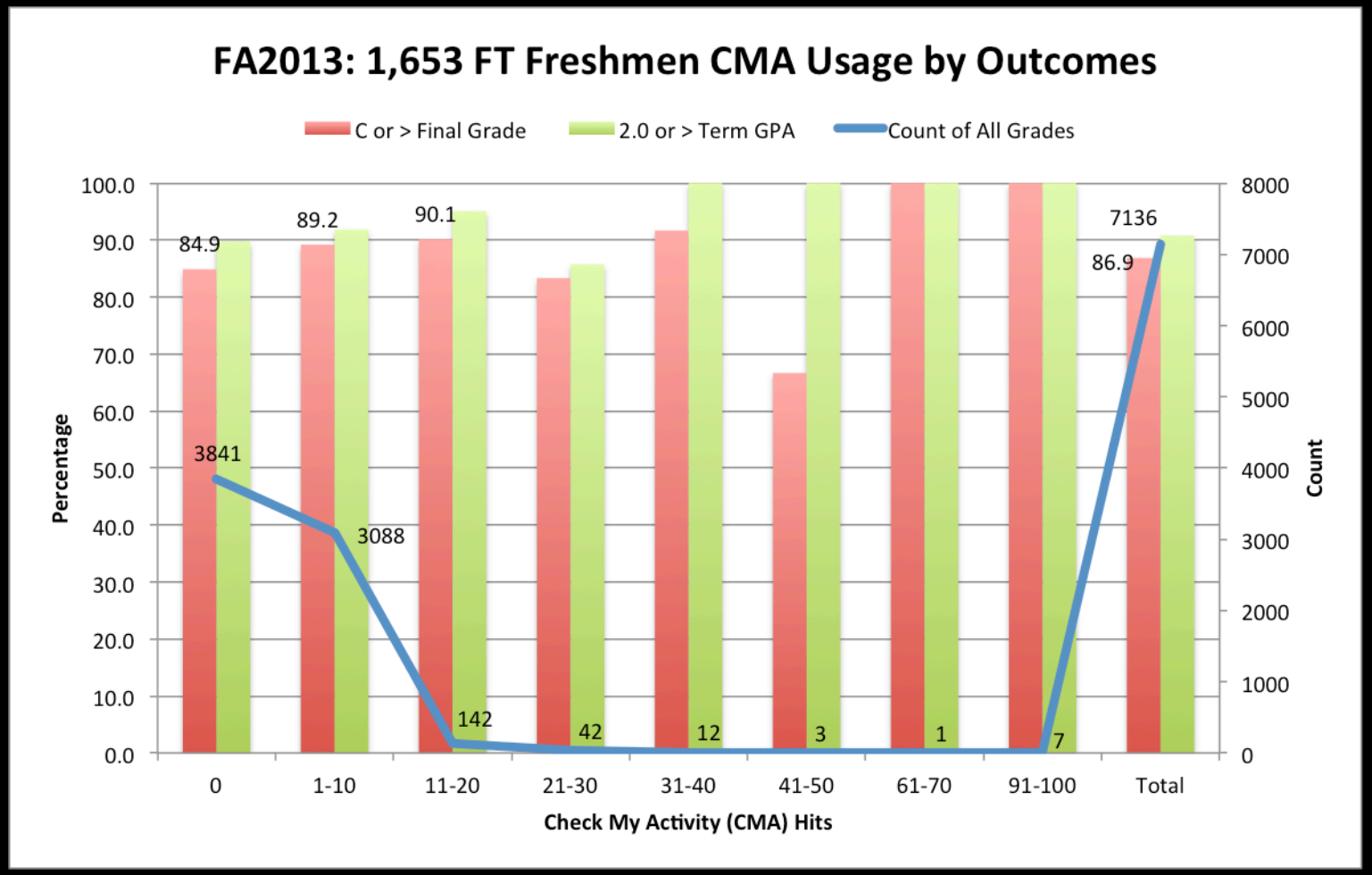
Your Usage

Tool	Hits
Announcements	4
Content Folder/Content Area	4
Other	3
Total	11

Course Usage (Average Hits per User)

Tool	Hits
Announcements	84.36
Assignment	23.30

Impact of Feedback as Intervention?



CMA Usage – Last 2 Years

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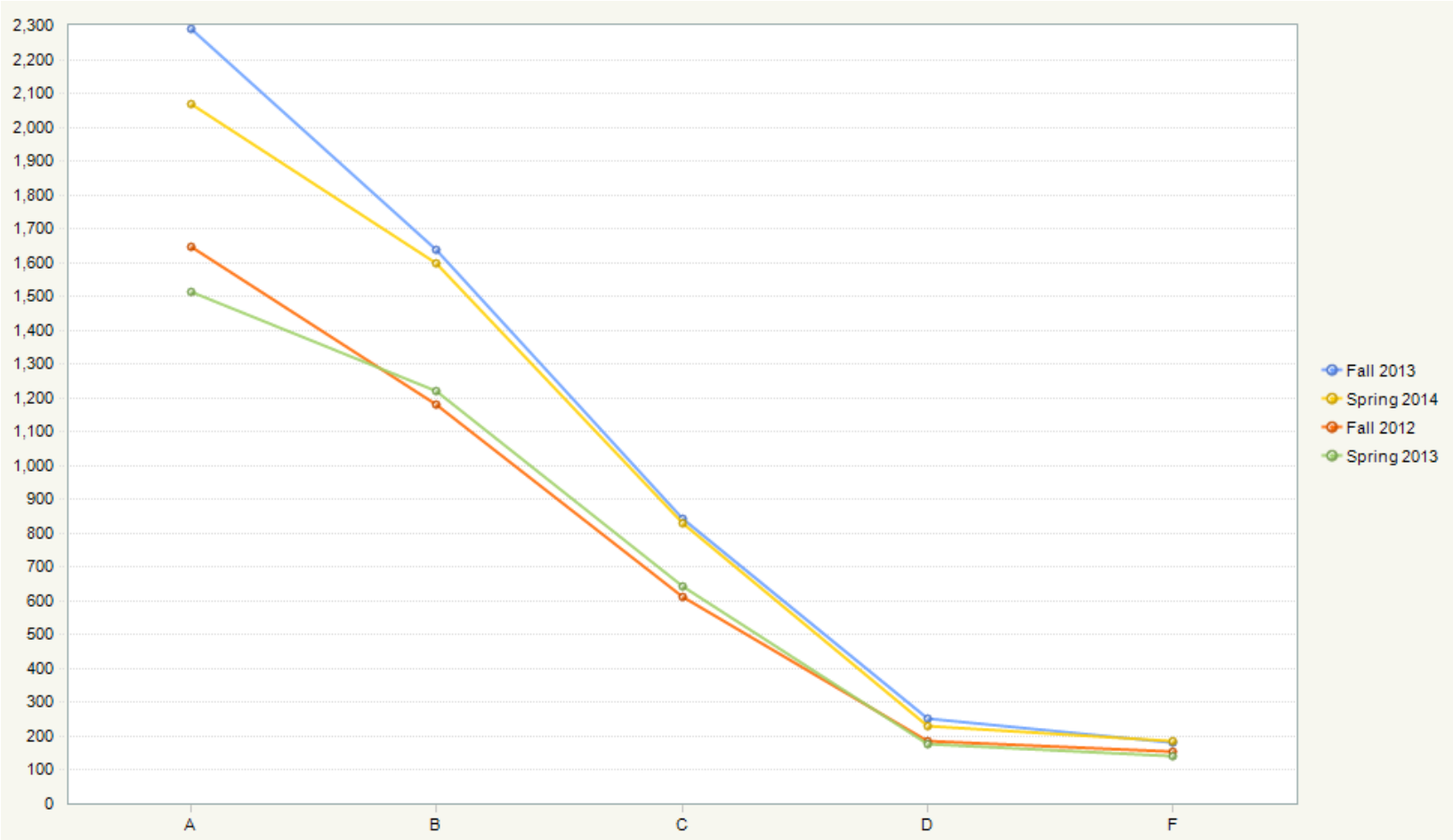

How Faculty Use LMS

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1. User & Document Management (most used approach)
    - Auto course creation and enrollment
    - Password-protected class & group space
    - Attach or Copy/Paste Documents, perhaps with expiration dates.

2. Communications (moderately used)
    - Announcements
    - Email, Messages
    - Discussion & Chat

3. Assessments (least used)
    - Electronic assignment delivery & collection
    - Quizzing, surveys, online grade center.
    - Adaptive release of content

Grade Center as Proxy for Design

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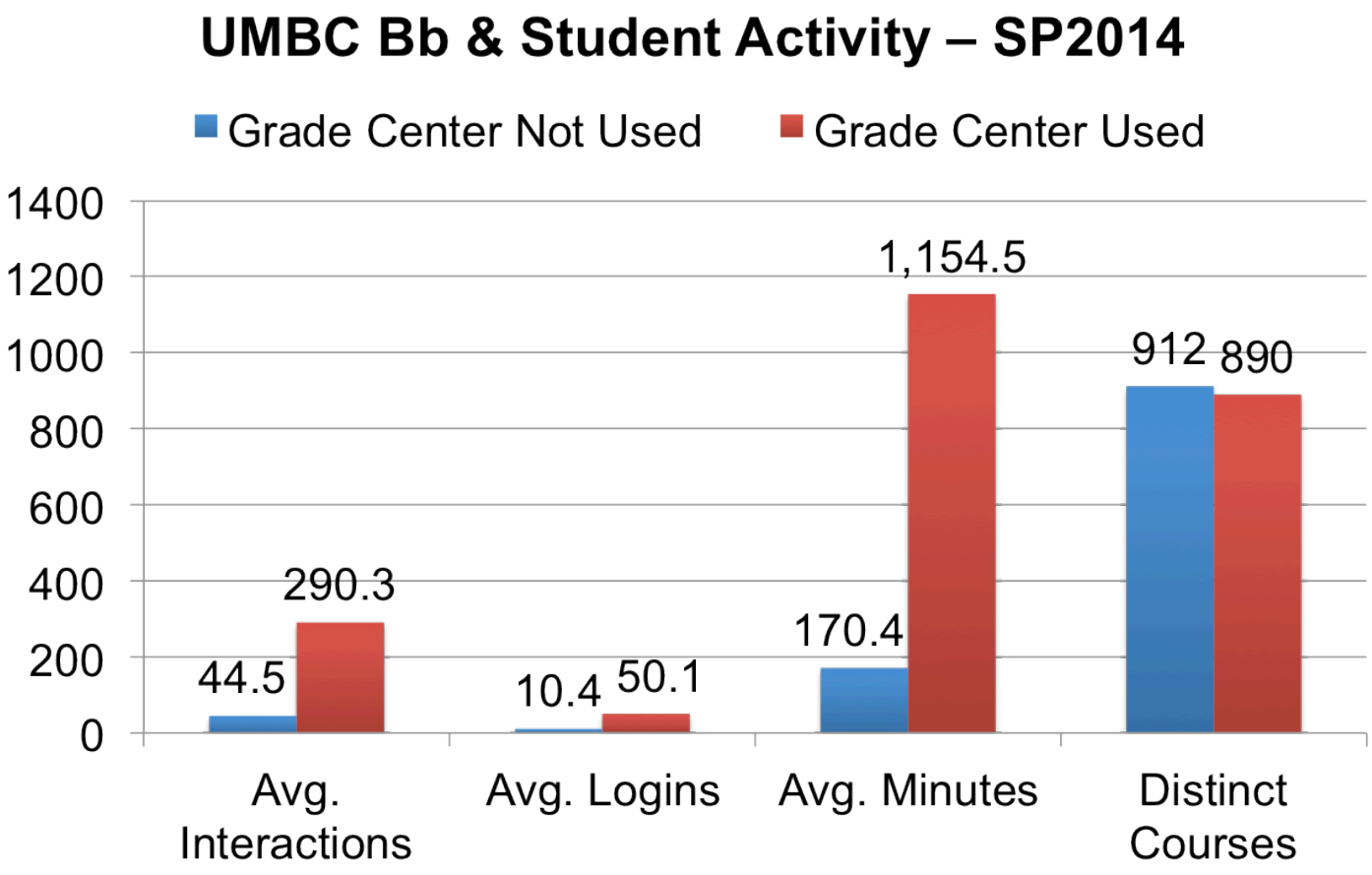

Adaptive Release SP2014

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	Adaptive Release Rules		No Adaptive Release Rules	
	Distinct Courses	% Items Accessed	Distinct Courses	% Items Accessed
Coll Arts Humanities & Soc Sci	52	57.2%	1,163	33.0%
Engineering & Info Tech	12	100.0%	174	43.5%
Erickson School of Aging St			15	42.1%
Natural & Math Sciences	6	92.5%	176	44.0%
Social Work	4	100.0%	37	34.9%
UMBC	2	100.0%	48	39.8%
Grand Total	**76**	**65.1%**	**1,613**	**36.3%**

Reports I'd Change to Improve Feedback to Students and Faculty

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1. Learn Course Use by College
2. Learn Course At A Glance
3. Student At A Glance

Who should change these: Clients or Bb?

SP2014 LMS Usage by College

College	Total Learn Courses	Learn Courses w/ Students	Active Learn Courses	Learn Courses Using Grade Center	Learn Courses Currently Available	Avg. Course Accesses Per Student	Avg. Interactions per Student	Avg. Minutes per Student	Avg. Submissions per Student
Natural & Math Sciences	266	203 (76%)	137 (52%)	109 (41%)	133 (50%)	63.6	330.6	1523.0	5.0
Engineering & Info Tech	291	265 (91%)	210 (72%)	166 (57%)	170 (58%)	51.6	281.8	1245.3	6.4
UMBC	87	85 (98%)	51 (59%)	34 (39%)	47 (54%)	38.1	223.6	849.3	6.6
Social Work	37	37 (100%)	31 (84%)	31 (84%)	31 (84%)	35.9	174.3	591.5	3.0
Coll Arts Humanities & Soc Sci	1388	1118 (81%)	779 (56%)	491 (35%)	733 (53%)	32.5	199.1	676.8	6.9
Erickson School of Aging St	18	17 (94%)	15 (83%)	4 (22%)	15 (83%)	25.8	138.5	467.4	3.0
Professional Education	69	69 (100%)	53 (77%)	52 (75%)	46 (67%)	25.1	105.5	269.4	2.1
No SIS College Mapped	15	9 (60%)	8 (53%)	3 (20%)	8 (53%)	6.8	29.8	103.9	2.5
Grand Total	**2171**	**1803 (83%)**	**1284 (59%)**	**890 (41%)**	**1183 (54%)**	**42.0**	**236.7**	**939.3**	**6.2**

A4L Course at a Glance

Learn Course At-a-Glance

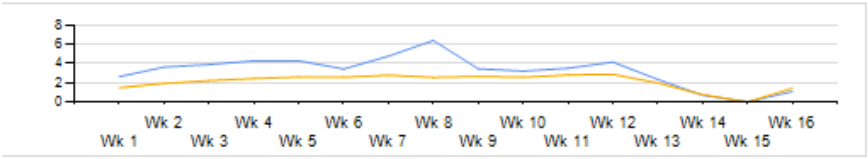
Report He

PSYC 210 Psychology of Learning (01.9013) FA2011 (01)

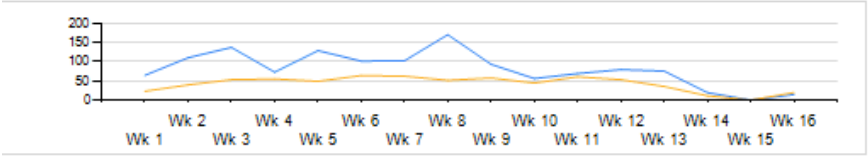
Learn Course Information

Instructor:	Barbara Shuecraft	**Term:**	Fall 2011	**Delivery Method:**	In Person	**College:**	Arts, Humanities, Soc Sci
Course ID:	PSYC210_9013_FA2011	**Status:**	Active	**Students Enrolled:**	102	**Department:**	Psychology

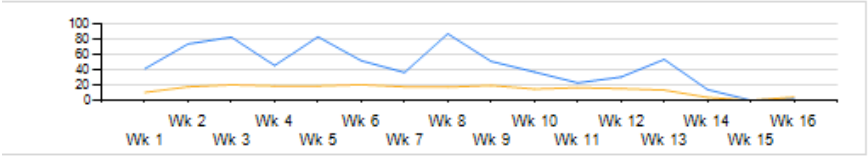
Course Accesses Avg. vs. Department Avg. (same Instruction Method) **Section:** **Dept Avg:**



Minutes Avg. vs. Department Avg. (same Instruction Method)

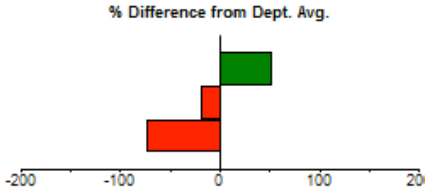


Interaction Avg. vs. Department Avg. (same Instruction Method)



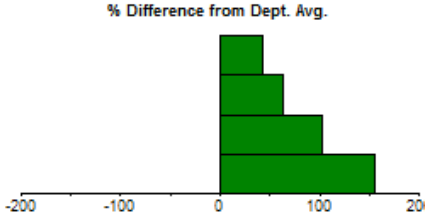
Course Item Count vs. Department Avg. (same Instruction Method)

Course Item Category	Course Total	Dept. Avg.
Assessment	67	39.7
Content	35	42.2
Tool	6	12.9



Avg. Activity Per Student vs. Department Avg. (same Instruction Method)

Activity Type	Course Avg. Per Student	Dept. Avg. Per Student
Accesses	52	33.5
Minutes	1,293	677.8
Interactions	708	227.4
Submissions	90	11.2



A4L Student At A Glance

Student At-a-Glance Report

Back to R

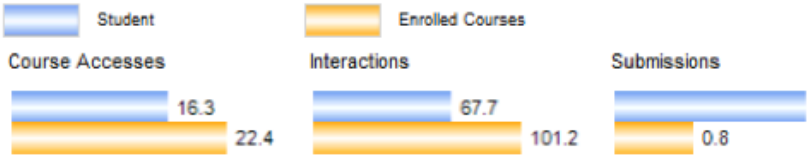
Report He

Gossage, Audrey (7430)

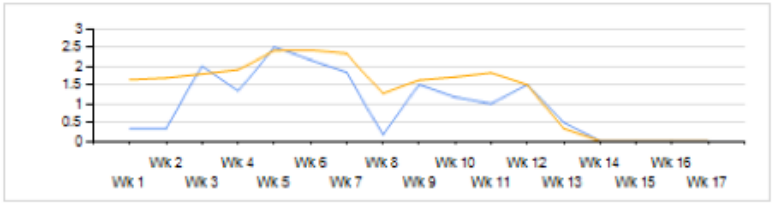
General Information

Student ID:	7430	**Email:**	User 382656@blackboard.edu
Standing:	Good Standing	**Phone:**	
Primary Major:	Computer Science - BS	**Class Level:**	Senior
College:	Engineering & Info Tech	**Level:**	Undergraduate

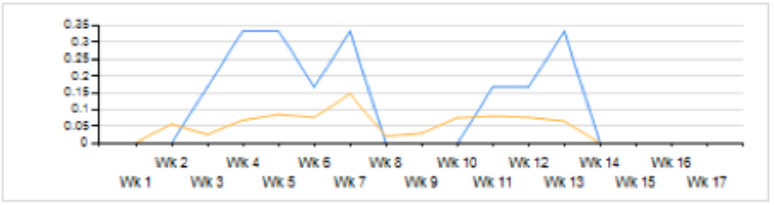
Student Avg. Per Course vs. Enrolled Courses Averages (366 Students)



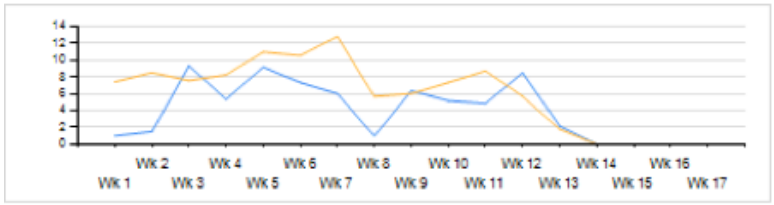
Course Accesses vs. Avg.



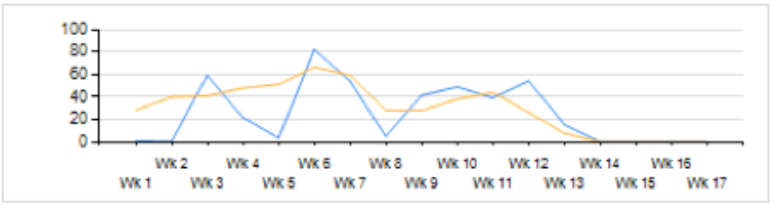
Submissions vs. Avg.



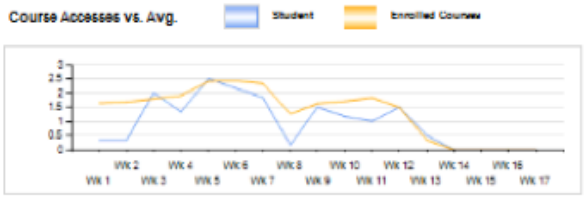
Interactions vs. Avg.

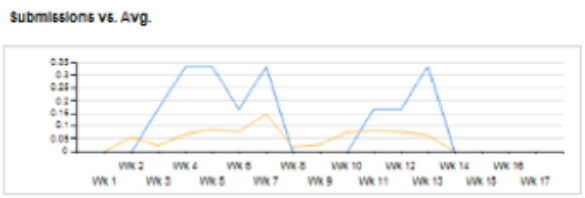


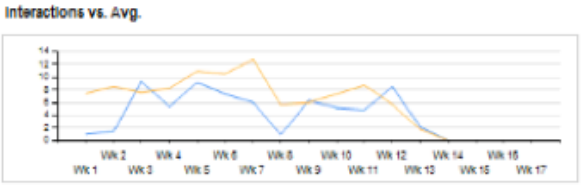
Minutes vs. Avg.

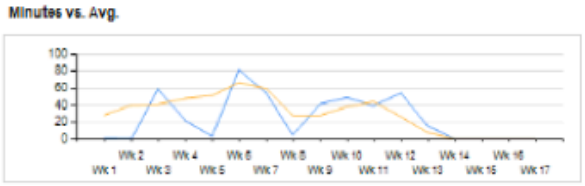


A4L Student Courses At A Glance









Legend

> Avg + 10%	Within Avg +/- 10%
< Avg - 10%	NA

Blackboard Course History

Term	Learn Course	GradeCenter Not Used	No Items Added	Interactions Trend	Enrolled Count	Course Accesses Student	Course Accesses Avg.	Minutes Student	Minutes Avg.	Interactions Student	Interactions Avg.	Submissions Student	Submissions Avg.
Spring 2012	CMSC 202 Computer Science II for Majors (16.7337/17.7338/18.7339) SP20... (16)	X	X		37	0	0.0	0	0.0	0	0.0	0	0.0
Spring 2012	CMSC 202 Computer Science II for Majors (04.1060/05.1061/06.1062/07.10... (04)	X			201	16	13.9	113	230.2	44	65.8	2	0.6
Spring 2012	MATH 152 Calculus and Analytic Geometry II (11.6996/12.6997/13.7605/14... (11)				131	33	56.4	851	1434.1	156	264.3	0	0.0
Spring 2012	MATH 221 Introduction to Linear Algebra (02.4750) SP2012 (02)	X			48	15	16.9	344	212.7	45	41.8	0	0.0
Spring 2012	MATH 152 Calculus and Analytic Geometry II	X	X		121	0	0.0	0	0.0	0	0.0	0	0.0

Check My Activity (CMA)

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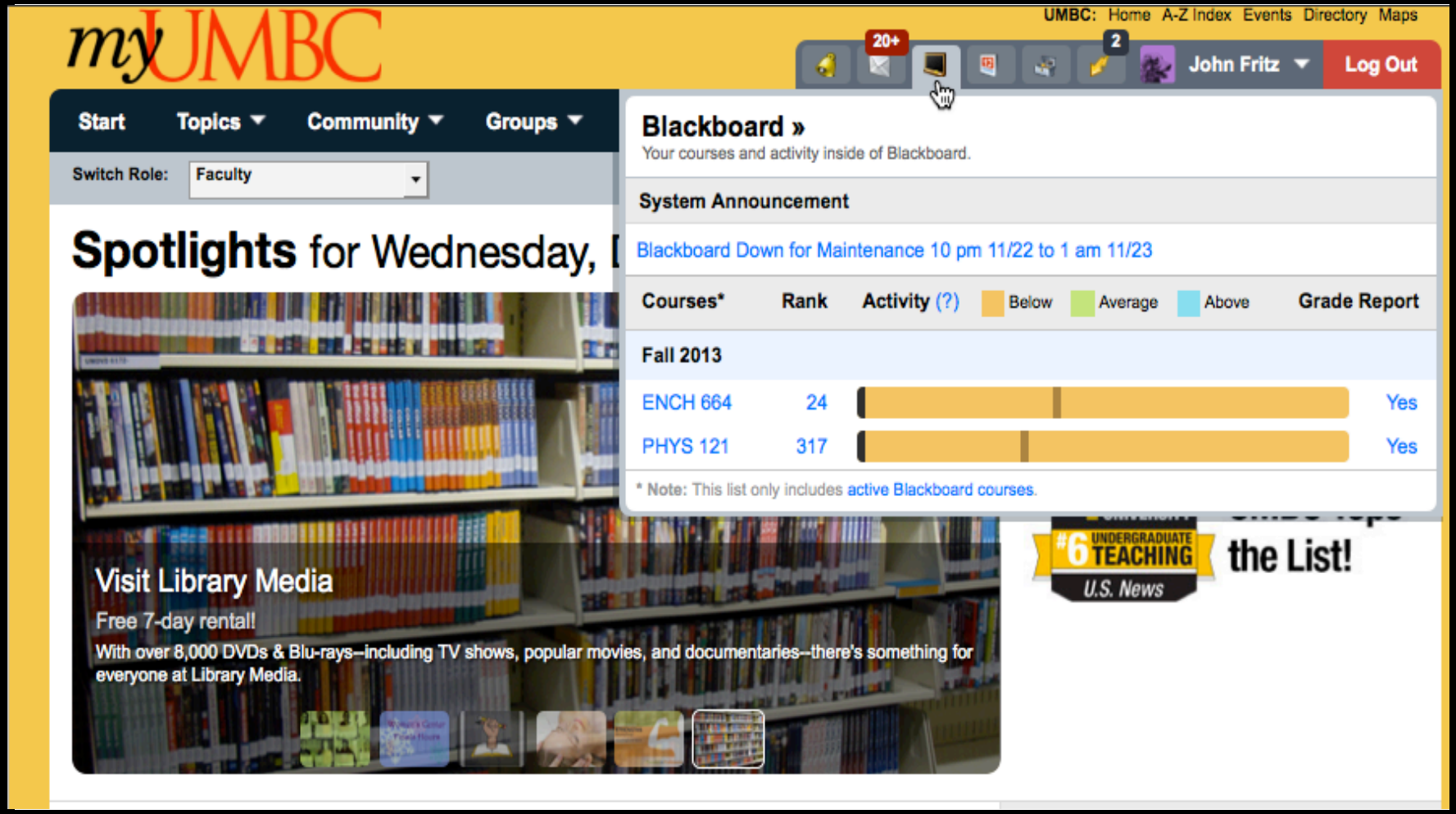

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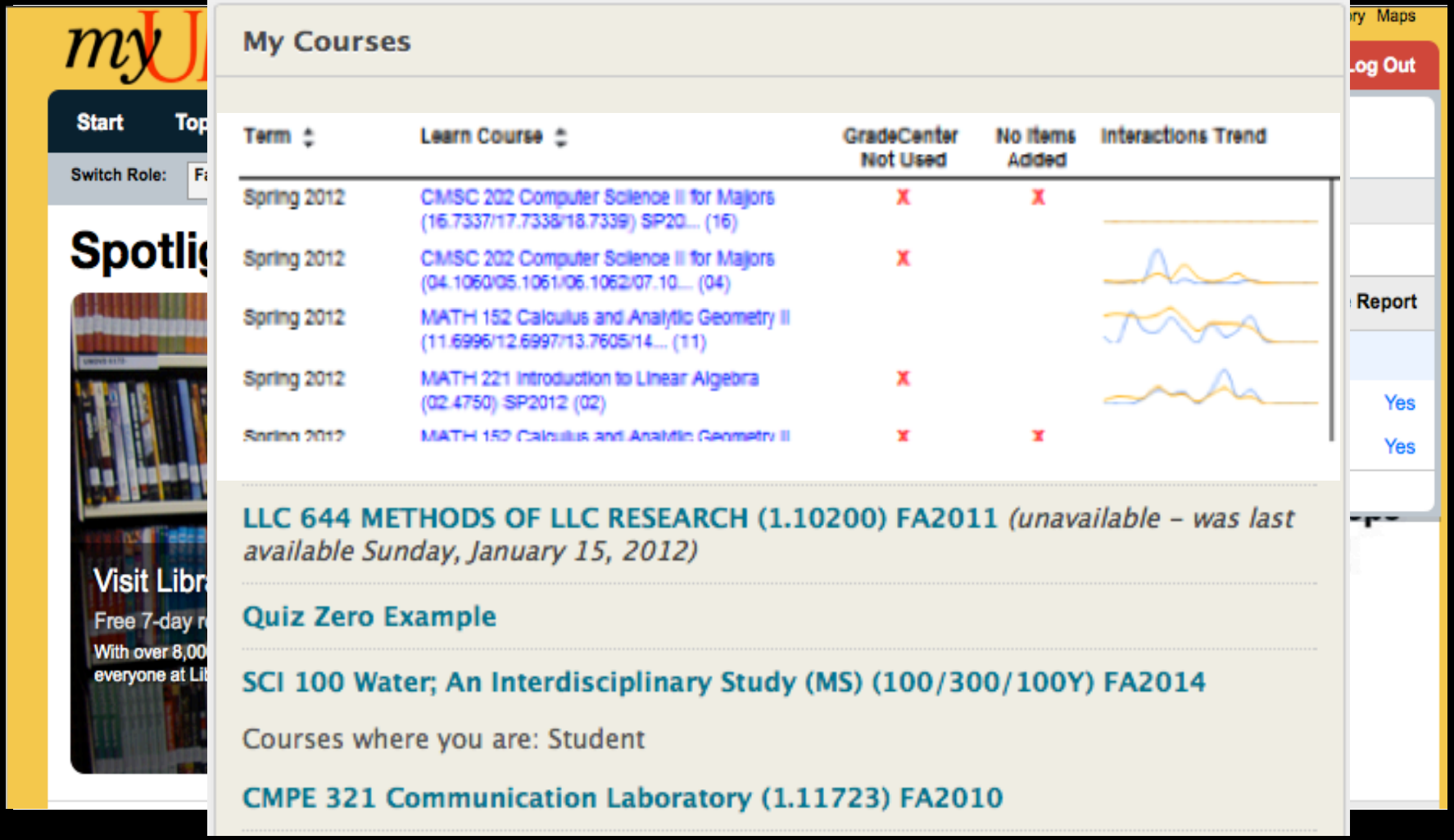

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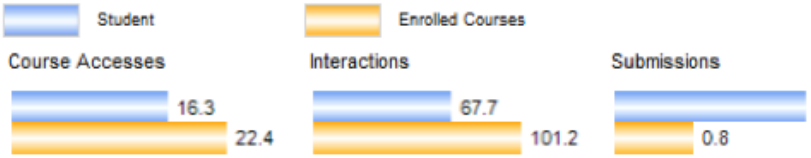
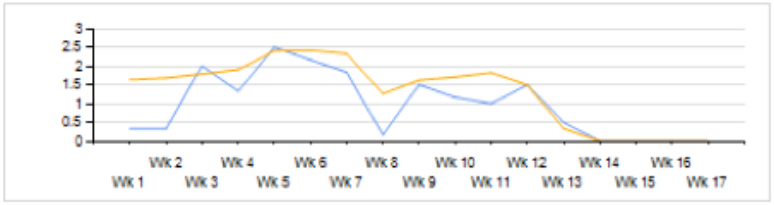
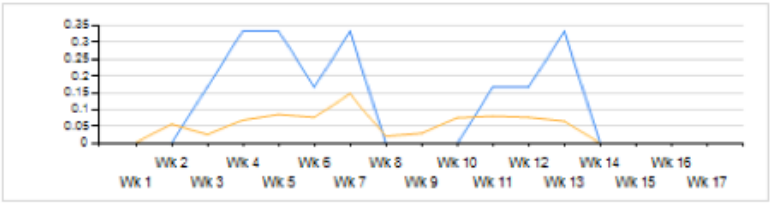


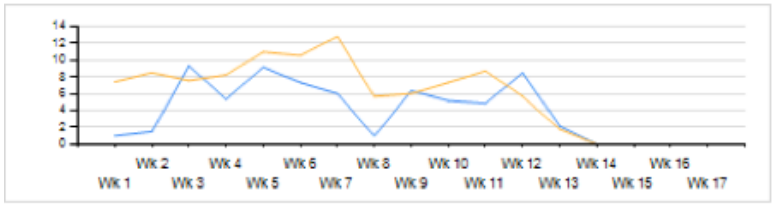
Course Accesses vs. Avg.



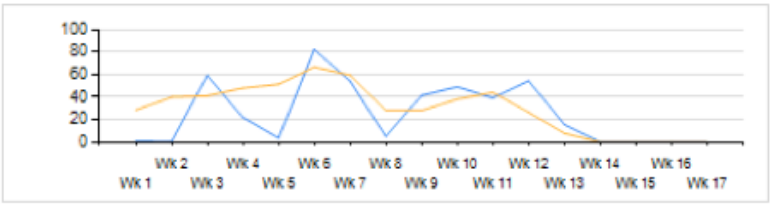
Submissions vs. Avg.



Interactions vs. Avg.



Minutes vs. Avg.



Discussion
How are we using analytics to conceptualize, implement and evaluate effective, scalable interventions?

Discussion

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Bret Dennis	bret.dennis@blackboard.com