



HLC Accreditation 2016-2017

## **Evidence Document**

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Academic Affairs

Office of Planning and Analysis

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### **Student Early Alert System (SEAS): End-of-Term Report Fall 2014**

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**Additional information:**

# Student Early Alert System (SEAS)

## Executive Summary

Table 1: Univariate analysis:

- Over 390 class sections among 230 instructors covering 10,226 students (68% of student body on 20thday day).
- Representative participation in all colleges across numerous class section dimensions (e.g., level, time of day, day of week).
- Mean of 7.5 students per class (23.8%) indicated by faculty as having a behavioral risk (corresponds to other institutional risk measures employed on campus).
- Summary: Impressive support among faculty in volunteering to run SEAS across a representative sample of courses serving a majority of enrolled students.

Table 2: Bivariate analysis:

- Of the 10,266 students who participated in a SEAS class (68% of student body on 20thday) 20.6% were flagged at behavioral risk (corresponds to other institutional risk measures).
- 38% of students notified of their behavioral risk changed their risk behavior (conservative estimate since not all instructors removed risk indicators if the student changed).
- Behavioral risk corresponds with academic history and at-risk populations.
- Summary: using SEAS to identify at-risk students and notifying them of risk resulted in a significant percent changing their behavior.

Table 3: Multi-variate analysis:

- Behavioral risk is associated with poor academic performance and institutional commitment.
- Behavioral risk in attendance or participation have an independent negative effect on course performance (grades) net of controls.
- Summary: What happens in the classroom has real consequences on performance which faculty are uniquely qualified to identify due to their proximity to student real-time performance and their involvement with students at-risk can change student outcomes.

Table 1: Student Early Alert System (SEAS) End-of-Term Fall 2014 (**COURSE LEVEL**)  
 390 class sections, 230 instructors (unique headcount) and 10,226 students (unique headcount, 68% of 20thday)

College/Department	Section counts				Mean number of students per class			
	Total	enrolled	at risk	pct at risk	enrolled	at risk	pct at risk	
	390	100%		% at risk	34.6	7.5	23.8%	
Business:	38	9.7%	15.2%		<b>Mean # Students per class marked at risk of:</b>			
Education:	25	6.4%	9.6%		attendance	assignments	participation	exams
Engineering:	32	8.2%	22.1%		2.79	3.83	2.11	4.74
Fine Arts:	34	8.7%	18.1%					
Health Professions:	50	12.8%	26.1%		<b>Class Dimensions:</b>		<b>Section Counts</b>	
LAS Humanities:	73	18.7%	27.8%		<b>Course number group:</b>		100%	% stds
LAS Natural Sciences & Math:	61	15.6%	32.0%		0 thru 99	3	0.8%	low count
LAS Social Sciences:	69	17.7%	22.6%		100 thru 199	86	22.1%	26.4%
LAS Other:	8	2.1%	low count		200 thru 299	71	18.2%	29.8%
Business:		100%			300 thru 399	109	27.9%	21.0%
1001 Accounting:	4	10.5%			400 thru 499	46	11.8%	14.7%
1002 Economics:	13	34.2%			500 thru 599	29	7.4%	30.6%
1003 FREDS:	6	15.8%			600 thru 699	17	4.4%	20.3%
1004 Management:	9	23.7%			700 thru 799	16	4.1%	25.1%
1005 Marketing:	6	15.8%			800 thru 899	13	3.3%	20.2%
Education:		100%			<b>Time of day:</b>		100%	
2001 Cnsl, Ed Ldrs, Ed and Schl Psy (CLES):	4	16.0%			morning	161	41.3%	21.6%
2002 Curriculum and Instruction (CI):	15	60.0%			afternoon	97	24.9%	23.1%
2004 Human Performance Studies (HPS):	3	12.0%			evening	71	18.2%	21.2%
2005 Sport Management (SMGT):	3	12.0%			arranged	61	15.6%	33.5%
Engineering:		100%			<b>Meetings per week:</b>		269%	
3001 Aerospace Engineering:	10	31.3%			meets 1 weekday	74	19.0%	19.0%
3002 Electrical Engineering:	10	31.3%			meets 2 weekdays	193	49.5%	20.1%
3003 Industrial Engineering:	6	18.8%			meets 3 weekdays	44	11.3%	32.6%
3004 Mechanical Engineering:	3	9.4%			meets daily	18	4.6%	27.0%
3005 Engineering Other:	3	9.4%			<b>Day of class:</b>		184.4%	
Fine Arts:		100%			Monday only	19	5%	16.3%
4001 Art and Design:	12	35.3%			Tuesday only	22	5.6%	15.7%
4002 Music:	15	44.1%			Wednesday only	14	3.6%	22.2%
4003 Performing Arts:	7	20.6%			Thursday only	18	4.6%	24.3%
Health Professions:		100%			Friday only	1	0.3%	low count
5001 Comm Sci and Disorders (CSD):	1	2.0%			Mon & Wed	82	21.0%	18.6%
5002 Dental Hygiene (DH):	3	6.0%			Tues & Thur	111	28.5%	21.3%
5003 Public Health Science (PHS):	22	44.0%			Mon, Wed, Fri	40	10.3%	32.7%
5004 Medical Laboratory Sciences (MLS):	1	2.0%			other	22	5.6%	27.8%
5005 Nursing (NURS):	13	26.0%			<b>Class Type:</b>		100.0%	
5006 Physical Therapy (PT):	1	2.0%			Lecture	349	89.5%	24.2%
5008 Hlth Prof Other:	9	18.0%			Lab	23	6%	20.4%
LAS Humanities:		100%			Experiential	8	2.1%	low count
6101 English:	21	28.8%			Activity Course	6	1.5%	low count
6102 History:	8	11.0%			Seminar	1	0.3%	low count
6103 Modern and Classical Language:	20	27.4%			Workshop	3	0.8%	low count
6104 Philosophy:	9	12.3%			<b>Delivery Method:</b>		100.0%	
6105 Religion:	4	5.5%			HYB Hybrid	23	5.9%	16.9%
6106 Women Studies:	11	15.1%			HYO Hybrid Online	2	1%	low count
LAS Natural Science & Math:		100%			IIE Internet Only	56	14.4%	33.9%
6201 Biology:	10	16.4%			TCI Traditional Classroom	309	79.2%	22.5%
6202 Chemistry:	12	19.7%			<b>General Education:</b>		100.0%	
6203 Geology:	1	1.6%			non Gen Ed	254	65.1%	21.2%
6204 Mathematics (MSP):	38	62.3%			Gen Ed Introduction	72	18%	30.6%
LAS Social Sciences:		100%			Gen Ed Further Study	47	12.1%	26.6%
6301 Anthropology:	7	10.1%			Gen Ed I & P	17	4.4%	25.7%
6302 Communication:	25	36.2%			<b>Basic skills:</b>		100.0%	
6303 Criminal Justice:	7	10.1%			Basic Skills crs	27	6.9%	27.1%
6306 Political Science:	2	2.9%			Non Basic Skills crs	363	93%	23.5%
6307 Psychology:	8	11.6%			<b>Instructor Type:</b>		100%	
6309 Social Work:	6	8.7%			Faculty	175	76.1%	
6310 Sociology:	14	20.3%			Lecturer	34	14.8%	
(source: SC_STUCRSeot, SC_STUeot, SS_SEAS)					GTA	4	1.7%	
					Unclassified	17	7.4%	

Table 2: Student Early Alert System (SEAS) End-of-Term Fall 2014 (**STUDENT LEVEL Bivariate**)  
(sample: unique count 10,226 students in SEAS participating classes; source: end of term data from BIPMS SS\_SEAS)

**All Students in SEAS courses at end of term (includes undergraduate and graduate)**

total students	not at risk	at risk	% at risk	Percent at Risk by Risk Type			
				Risk type:	of all eligible SEAS stds	of those marked at risk	% removed from at risk after notification
10,226*	8,123	2,103	20.6%	attendance	7.6%	36.8%	38.9%
* 68.2% of 20thday students				participation	6.1%	29.5%	38.7%
				assignments	10.8%	52.7%	39.6%
				exams	14.7%	71.6%	33.5%
<b>% students who withdraw after at-risk notification</b>				<b>number of at-risk dimensions per student marked at risk</b>			
% withdrew from course after notification			12.1%	at-risk count	100%	cuml %	
of withdrawals % within 1 week of at-risk			54.3%	1	53.4%	53%	
of withdrawals % within 2 week of at-risk			67.8%	2	21.6%	75%	
				3	11.2%	86%	
				4	13.9%	100%	

**Bivariate Comparison of Undergraduates in SEAS Participating Classes**

CAUTION-- differences are impacted by course selectivity bias

Dimension:	All UG	not at risk <sup>1</sup>	at risk <sup>1</sup>	Dimension:	All UG	not at risk <sup>1</sup>	at risk <sup>1</sup>
unique head counts	8,828	6,815	2,013	<b>Academic performance:</b>			
	100%	77.2%	22.8%	cumulative hours	85.7	87.9a	77.8b
<b>Major type:</b>	100%	100%	100%	cumulative gpa	3.00	3.12a	2.58b
Bachelor degree major	77.6%	78.7%a	73.8%b	WSU gpa	2.90	3.06a	2.32b
Bachelor field major	0.5%	0.5%a	0.5%a	transfer gpa	3.21	3.26a	3.03b
Bachelor general studies	2.8%	2.6%a	3.5%b	% cumulative gpa <2.00	5.2%	2.8%a	13.3%b
Pre Major	18.5%	17.6%a	21.7%b	WSU gpa <2.00	10.5%	6.0%a	25.9%b
				% current or previous probation	9.6%	5.8%a	22.2%b
<b>% Undecided Major</b>	5.7%	5.0%a	7.9%b				
<b>Student class:</b>	100%	100%	100%	<b>Performance scores (means):</b>			
freshmen	14.3%	13.0%a	18.8%b	ACT( incl SAT)	23.0	23.1a	22.1b
sophomore	17.1%	16.4%a	19.3%b	INCSR <sup>2</sup>	51.4	53.7a	41.7b
junior	22.7%	22.0%a	25.3%b	APAP <sup>3</sup>	11.5	10.9a	13.5b
senior	45.8%	48.6%a	36.6%b	TOEFL	69.1	71.6a	62.8b
new student	24.5%	24.0%a	26.3%b	HS gpa	3.40	3.43a	3.23b
				HS percentile	68.0	69.6a	61.9b
<b>Demographics:</b>				remedial need	26.7%	25.5%a	30.9%b
age in years (mean)	23.6	23.6a	23.4a				
% female	52.1%	52.8%a	49.6%b				
% under-represented minority <sup>4</sup>	16.9%	15.6%a	21.0%b				
<b>Residency:</b>	100%	100%	100%				
resident	88%	88.2%a	85.7%b				
non-resident	5.7%	5.7%a	5.7%a				
international	6.7%	6.1%a	8.6%b				
% first generation	40.7%	40.1%a	42.6%b				
% on financial aid	77.7%	78.2%a	75.7%b				
% in housing	9.1%	9.1%a	9.1%a				

<sup>1</sup> Values in the same row not sharing the same subscript (a or b) are significantly different at  $p < .05$  level.

<sup>2</sup> INCSR=composite scale (0-100) of summated ACT, HS gpa & HS percentile z-score values; lower scores the greater likelihood of academic failure.

<sup>3</sup> APAP probability of being on academic probation by end of term; the higher the percent the greater the likelihood of probation.

<sup>4</sup> Under-represented minority includes Black non-Hispanic, Hispanic, American Indian, Alaskan Native & Hawaiian.

Table 3: Student Early Alert System (SEAS) End-of-Term Fall 2014 (**STUDENT LEVEL Multi-variate**)

(sample: unique count 10,226 students in SEAS participating classes; source: end of term data from BIPMS SS\_SEAS\_last)

**Multivariate Analysis of Being Marked at-risk (UG only)**

variables:	ALL UG in Participating SEAS class			IPEDS Based Freshmen Entry in SEAS Participating Class				
	At risk			At risk	attendance	participation assignments	exams	
<i>Demographics:</i>			<i>Demographics:</i>					
age	n/a <sup>1</sup>		age	n/a	n/a	n/a	n/a	n/a
female (0,1)	ns <sup>2</sup>		female (0,1)	ns	more	more	more	
under-rep minority (0,1)	more		under-rep minority (0,1)	ns	ns	more	more	more
first generation (0,1)	ns		first generation (0,1)	ns	more	ns	ns	ns
low income (0,1)	more		low income (0,1)	ns	ns	ns	ns	ns
resident	reference		resident			reference		
non-resident	ns		non-resident	n/a	n/a	n/a	n/a	n/a
international	more		international	n/a	n/a	n/a	n/a	n/a
university housing (0,1)	ns		university housing (0,1)	ns	ns	ns	ns	ns
<i>Academic status:</i>			<i>Academic status:</i>					
enrolled full-time (0,1)	less		enrolled full-time (0,1)	less	less	less	less	less
new student (0,1)	ns		new student (0,1)	ns	ns	ns	ns	less
freshmen	reference		freshmen			reference		
sophomore	ns		sophomore	ns	less	less	less	ns
junior	less		junior	less	less	ns	ns	less
senior	less		senior	less	less	less	less	less
undecided major (0,1)	ns		undecided major (0,1)	ns	ns	ns	ns	ns
<i>Performance &amp; ability:</i>			<i>Performance &amp; ability:</i>					
pct of history on probation	more		pct of history on probation	more	more	more	more	more
adm application gpa	less		adm application gpa	n/a	n/a	n/a	n/a	n/a
HS gpa/percentile composite	n/a		HS gpa/percentile composite	less	less	less	less	less
ACT	n/a		ACT	ns	more	more	more	ns

<sup>1</sup> n/a= not applicable to population or multicollinearity risk<sup>2</sup> ns= not significant at the .05 level**OLS Regression on SEAS Course Grade During Fall 2014 (dependent= class grade)**

Predictors	All Undergraduates			IPEDS Based Freshmen Entry			
	unstd beta	std beta	sig.	Predictors	unstd beta	std beta	sig.
<i>Risk dimensions:</i>				<i>Risk dimensions:</i>			
attendance risk (0,1)	-0.111	-0.071	0.000	attendance risk (0,1)	-0.155	-0.098	0.000
participation risk (0,1)	-0.176	-0.106	0.000	participation risk (0,1)	not significant		
assignments risk (0,1)	-0.158	-0.110	0.000	assignments risk (0,1)	-0.145	-0.101	0.000
exam risk (0,1)	not applicable to analysis			exam risk (0,1)	not applicable to analysis		
<i>Demographics:</i>				<i>Demographics:</i>			
age in years		n/a		age in years		ns	
female (0,1)		not significant		female (0,1)		ns	
under-rep minority (0,1)	-0.136	-0.044	0.014	under-rep minority (0,1)		ns	
first generation (0,1)		ns		first generation (0,1)		ns	
low income (0,1)		ns		low income (0,1)		ns	
resident	(reference group)			resident		ns	
non-resident		ns		non-resident		ns	
international	-0.216	-0.051	0.007	international		ns	
university housing (0,1)		ns		university housing (0,1)		ns	
<i>Academic status:</i>				<i>Academic status:</i>			
enrolled full-time (0,1)	0.121	0.040	0.026	enrolled full-time (0,1)		ns	
new student (0,1)	0.531	0.189	0.000	new student (0,1)	0.524	0.192	0.000
freshmen	(reference group)			freshmen	(reference group)		
sophomore	0.152	0.047	0.039	sophomore		ns	
junior	0.274	0.092	0.000	junior	0.347	0.110	0.002
senior	0.643	0.243	0.000	senior	0.678	0.237	0.000
stu is col div major (0,1)		ns		stu is col div major (0,1)		ns	
undecided major (0,1)		ns		undecided major (0,1)		ns	
<i>Performance &amp; ability:</i>				<i>Performance &amp; ability:</i>			
pct of history on probation	-1.330	-0.381	0.000	pct of history on probation	-1.189	-0.354	0.000
ACT		n/a		ACT		ns	
HS gpa/percentile composite		n/a		HS gpa/percentile composite	0.038	0.086	0.002
Rsq	0.436		0.000	Rsq	0.389		0.000

<sup>3</sup> APAP probability of being on academic probation by end of term; the higher the percent the greater the likelihood of probation.<sup>4</sup> Under-represented minority includes Black non-Hispanic, Hispanic, American Indian, Alaskan Native & Hawaiian.