



## Productivity 2013/14 through 2017/18 Astronomy (ASTR)

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### Productivity by Year

	Census Headcount	End of Term Headcount	FTEF	FTES	WSCH	Load	Sections	Max Enroll	Fill Rates
2013/14	373	298	2.20	38.23	1,147	521	12	520	71.7%
2014/15	452	359	2.72	44.84	1,345	495	16	588	76.9%
2015/16	460	371	2.72	46.22	1,387	510	17	599	76.8%
2016/17	487	399	2.84	48.89	1,467	516	17	588	82.9%
2017/18	464	376	3.04	46.57	1,397	460	17	565	82.1%

Census Headcount: Number of duplicated headcount at final census. End of Term Headcount: Number of duplicated headcount at the end of the term.  
 FTEF: Total number of full time equivalent faculty assigned. FTES: Total number of full time equivalent students enrolled at first census.  
 WSCH: Weekly student contact hours generated by census enrollments. Load: The ratio of WSCH to FTEF, used to measure productivity.  
 Sections: Total number of sections offered per semester. Max Enroll: The enrollment capacity or maximum enrollment as defined in curriculum.  
 Fill Rate: Census Headcount divided by Max Enrollment.

Data Source: SMCCD Data Warehouse

**Productivity by Semester**

	<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Fall 2013	103	88	0.56	10.64	319	570	3	130	79.2%
Fall 2014	167	131	1.08	15.43	463	429	6	240	69.6%
Fall 2015	140	122	0.72	14.00	420	583	5	165	84.8%
Fall 2016	164	140	0.88	16.57	497	565	6	190	86.3%
Fall 2017	147	119	0.92	14.78	444	482	5	175	84.0%
Spring 2014	157	113	1.08	16.26	488	452	6	245	64.1%
Spring 2015	145	115	0.92	15.09	453	492	6	183	79.5%
Spring 2016	188	151	1.08	18.80	564	522	8	234	80.3%
Spring 2017	170	145	1.08	17.00	510	472	7	203	84.0%
Spring 2018	188	151	1.24	18.80	564	455	7	210	89.5%
Summer 2013	113	97	0.56	11.34	340	607	3	145	77.9%
Summer 2014	140	113	0.72	14.32	429	596	4	165	84.8%
Summer 2015	132	98	0.92	13.42	403	438	4	200	66.0%
Summer 2016	153	114	0.88	15.32	460	522	4	195	78.5%
Summer 2017	129	106	0.88	12.99	390	443	5	180	71.7%

		<b><u>DE vs Non DE Courses</u></b>								
		<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Fall 2013	FaceToFace	69	59	0.40	6.90	207	518	2	100	69.0%
	Online	34	29	0.16	3.74	112	701	1	30	113.3%
Fall 2014	FaceToFace	95	78	0.72	10.03	301	418	4	160	59.4%
	Online	72	53	0.36	5.40	162	450	2	80	90.0%
Fall 2015	FaceToFace	78	73	0.36	7.80	234	650	3	80	97.5%
	Online	62	49	0.36	6.20	186	517	2	85	72.9%
Fall 2016	FaceToFace	102	90	0.52	10.28	308	593	4	110	92.7%
	Online	62	50	0.36	6.29	189	524	2	80	77.5%
Fall 2017	FaceToFace	87	73	0.56	8.70	261	466	3	100	87.0%
	Online	60	46	0.36	6.08	183	507	2	75	80.0%
Spring 2014	FaceToFace	85	55	0.72	8.95	269	373	4	160	53.1%
	Online	72	58	0.36	7.30	219	609	2	85	84.7%
Spring 2015	FaceToFace	78	64	0.56	8.29	249	444	4	98	80.0%
	Online	67	51	0.36	6.80	204	567	2	85	78.8%
Spring 2016	FaceToFace	103	81	0.56	10.30	309	552	5	120	85.8%
	Online	85	70	0.52	8.50	255	490	3	114	74.6%
Spring 2017	FaceToFace	87	78	0.56	8.70	261	466	4	98	89.2%
	Online	83	67	0.52	8.30	249	479	3	105	79.0%
Spring 2018	FaceToFace	89	81	0.56	8.90	267	477	3	75	118.7%
	Online	99	70	0.68	9.90	297	437	4	135	73.3%
Summer 2013	FaceToFace	66	60	0.36	6.64	199	553	2	80	82.5%
	Online	47	37	0.20	4.70	141	705	1	65	72.3%
Summer 2014	FaceToFace	57	49	0.36	5.73	172	478	2	80	71.3%
	Online	83	64	0.36	8.58	257	715	2	85	97.6%
Summer 2015	FaceToFace	42	39	0.36	4.32	130	360	2	80	52.5%
	Online	90	59	0.56	9.10	273	488	2	120	75.0%
Summer 2016	FaceToFace	53	52	0.36	5.17	155	431	2	80	66.3%
	Online	100	62	0.52	10.15	305	586	2	115	87.0%

**Basic Skills vs Non Basic Skills Courses**

	Census Headcount	Census Headcount	End of Term Headcount	FTEF	FTES	WSCH	Load	Sections	Max Fill Rates	
									Enroll	Fill Rates
Summer 2017 FaceToFace	26								75	49.0%
Fall 2013		103	88	0.56	10.64	319	570	3	130	79.2%
		Total	88	0.56	10.64	319	570	3	130	79.2%
Fall 2014		167	131	1.08	15.43	463	429	6	240	69.6%
		Total	131	1.08	15.43	463	429	6	240	69.6%
Fall 2015		140	122	0.72	14.00	420	583	5	165	84.8%
		Total	122	0.72	14.00	420	583	5	165	84.8%
Fall 2016		164	140	0.88	16.57	497	565	6	190	86.3%
		Total	140	0.88	16.57	497	565	6	190	86.3%
Fall 2017		147	119	0.92	14.78	444	482	5	175	84.0%
		Total	119	0.92	14.78	444	482	5	175	84.0%
Spring 2014		157	113	1.08	16.26	488	452	6	245	64.1%
		Total	113	1.08	16.26	488	452	6	245	64.1%
Spring 2015		145	115	0.92	15.09	453	492	6	183	79.5%
		Total	115	0.92	15.09	453	492	6	183	79.5%
Spring 2016		188	151	1.08	18.80	564	522	8	234	80.3%
		Total	151	1.08	18.80	564	522	8	234	80.3%
Spring 2017		170	145	1.08	17.00	510	472	7	203	84.0%
		Total	145	1.08	17.00	510	472	7	203	84.0%
Spring 2018		188	151	1.24	18.80	564	455	7	210	89.5%
		Total	151	1.24	18.80	564	455	7	210	89.5%
Summer 2013		113	97	0.56	11.34	340	607	3	145	77.9%
		Total	97	0.56	11.34	340	607	3	145	77.9%
Summer 2014		140	113	0.72	14.32	429	596	4	165	84.8%
		Total	113	0.72	14.32	429	596	4	165	84.8%
Summer 2015		132	98	0.92	13.42	403	438	4	200	66.0%
		Total	98	0.92	13.42	403	438	4	200	66.0%
Summer 2016		153	114	0.88	15.32	460	522	4	195	78.5%
		Total	114	0.88	15.32	460	522	4	195	78.5%

**Basic Skills vs Non Basic Skills Courses**

**CTE vs NonCTE Courses**

		Census Headcount	End of Term Headcount	FTEF	FTES	WSCH	Load	Sections	Max Enroll	Enroll	Fill Rates
Summer 2017	Non Basic Skills										
Fall 2013	Non CTE	103	88	0.56	10.64	319	570	3	130	130	79.2%
	Total	103	88	0.56	10.64	319	570	3	130	130	79.2%
Fall 2014	Non CTE	167	131	1.08	15.43	463	429	6	240	240	69.6%
	Total	167	131	1.08	15.43	463	429	6	240	240	69.6%
Fall 2015	Non CTE	140	122	0.72	14.00	420	583	5	165	165	84.8%
	Total	140	122	0.72	14.00	420	583	5	165	165	84.8%
Fall 2016	Non CTE	164	140	0.88	16.57	497	565	6	190	190	86.3%
	Total	164	140	0.88	16.57	497	565	6	190	190	86.3%
Fall 2017	Non CTE	147	119	0.92	14.78	444	482	5	175	175	84.0%
	Total	147	119	0.92	14.78	444	482	5	175	175	84.0%
Spring 2014	Non CTE	157	113	1.08	16.26	488	452	6	245	245	64.1%
	Total	157	113	1.08	16.26	488	452	6	245	245	64.1%
Spring 2015	Non CTE	145	115	0.92	15.09	453	492	6	183	183	79.5%
	Total	145	115	0.92	15.09	453	492	6	183	183	79.5%
Spring 2016	Non CTE	188	151	1.08	18.80	564	522	8	234	234	80.3%
	Total	188	151	1.08	18.80	564	522	8	234	234	80.3%
Spring 2017	Non CTE	170	145	1.08	17.00	510	472	7	203	203	84.0%
	Total	170	145	1.08	17.00	510	472	7	203	203	84.0%
Spring 2018	Non CTE	188	151	1.24	18.80	564	455	7	210	210	89.5%
	Total	188	151	1.24	18.80	564	455	7	210	210	89.5%
Summer 2013	Non CTE	113	97	0.56	11.34	340	607	3	145	145	77.9%
	Total	113	97	0.56	11.34	340	607	3	145	145	77.9%
Summer 2014	Non CTE	140	113	0.72	14.32	429	596	4	165	165	84.8%

**CTE vs NonCTE Courses**

		<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Summer 2015	Total	140	113	0.72	14.32	429	596	4	165	84.8%
	Non CTE	132	98	0.92	13.42	403	438	4	200	66.0%
Summer 2016	Total	132	98	0.92	13.42	403	438	4	200	66.0%
	Non CTE	153	114	0.88	15.32	460	522	4	195	78.5%
Summer 2017	Total	153	114	0.88	15.32	460	522	4	195	78.5%
	Non CTE	129	106	0.88	12.99	390	443	5	180	71.7%
	Total	129	106	0.88	12.99	390	443	5	180	71.7%

**Transfer vs Non Transfer Courses**

		<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Fall 2013	Yes	103	88	0.56	10.64	319	570	3	130	79.2%
	Total	103	88	0.56	10.64	319	570	3	130	79.2%
Fall 2014	Yes	167	131	1.08	15.43	463	429	6	240	69.6%
	Total	167	131	1.08	15.43	463	429	6	240	69.6%
Fall 2015	Yes	140	122	0.72	14.00	420	583	5	165	84.8%
	Total	140	122	0.72	14.00	420	583	5	165	84.8%
Fall 2016	Yes	164	140	0.88	16.57	497	565	6	190	86.3%
	Total	164	140	0.88	16.57	497	565	6	190	86.3%
Fall 2017	Yes	147	119	0.92	14.78	444	482	5	175	84.0%
	Total	147	119	0.92	14.78	444	482	5	175	84.0%
Spring 2014	Yes	157	113	1.08	16.26	488	452	6	245	64.1%
	Total	157	113	1.08	16.26	488	452	6	245	64.1%
Spring 2015	Yes	145	115	0.92	15.09	453	492	6	183	79.5%
	Total	145	115	0.92	15.09	453	492	6	183	79.5%
Spring 2016	Yes	188	151	1.08	18.80	564	522	8	234	80.3%
	Total	188	151	1.08	18.80	564	522	8	234	80.3%

**Transfer vs Non Transfer Courses**

		<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Spring 2017	Yes	170	145	1.08	17.00	510	472	7	203	84.0%
	Total	170	145	1.08	17.00	510	472	7	203	84.0%
Spring 2018	Yes	188	151	1.24	18.80	564	455	7	210	89.5%
	Total	188	151	1.24	18.80	564	455	7	210	89.5%
Summer 2013	Yes	113	97	0.56	11.34	340	607	3	145	77.9%
	Total	113	97	0.56	11.34	340	607	3	145	77.9%
Summer 2014	Yes	140	113	0.72	14.32	429	596	4	165	84.8%
	Total	140	113	0.72	14.32	429	596	4	165	84.8%
Summer 2015	Yes	132	98	0.92	13.42	403	438	4	200	66.0%
	Total	132	98	0.92	13.42	403	438	4	200	66.0%
Summer 2016	Yes	153	114	0.88	15.32	460	522	4	195	78.5%
	Total	153	114	0.88	15.32	460	522	4	195	78.5%
Summer 2017	Yes	129	106	0.88	12.99	390	443	5	180	71.7%
	Total	129	106	0.88	12.99	390	443	5	180	71.7%

		<b>Day vs Evening Courses</b>								
		<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rates</b>
Fall 2013	Day	31	25	0.20	3.10	93	465	1	50	62.0%
	Evening	72	63	0.36	7.54	226	628	2	80	90.0%
Fall 2014	Day	57	51	0.36	5.70	171	475	2	80	71.3%
	Evening	110	80	0.72	9.73	292	406	4	160	68.8%
Fall 2015	Day	49	44	0.20	4.90	147	735	2	50	98.0%
	Evening	91	78	0.52	9.10	273	525	3	115	79.1%
Fall 2016	Day	79	69	0.36	7.90	237	658	3	80	98.8%
	Evening	85	71	0.52	8.67	260	500	3	110	77.3%
Fall 2017	Day	87	73	0.56	8.70	261	466	3	100	87.0%
	Evening	60	46	0.36	6.08	183	507	2	75	80.0%
Spring 2014	Day	51	33	0.36	5.10	153	425	2	80	63.8%
	Evening	106	80	0.72	11.16	335	465	4	165	64.2%
Spring 2015	Day	44	35	0.20	4.40	132	660	2	45	97.8%
	Evening	101	80	0.72	10.69	321	445	4	138	73.5%
Spring 2016	Day	79	65	0.36	7.90	237	658	3	75	105.3%
	Evening	109	86	0.72	10.90	327	454	5	159	68.6%
Spring 2017	Day	68	64	0.36	6.80	204	567	3	75	90.7%
	Evening	102	81	0.72	10.20	306	425	4	128	80.0%
Spring 2018	Day	70	65	0.36	7.00	210	583	2	53	133.3%
	Evening	118	86	0.88	11.80	354	402	5	158	74.9%
Summer 2013	Evening	113	97	0.56	11.34	340	607	3	145	77.9%
Summer 2014	Evening	140	113	0.72	14.32	429	596	4	165	84.8%
Summer 2015	Evening	132	98	0.92	13.42	403	438	4	200	66.0%
Summer 2016	Evening	153	114	0.88	15.32	460	522	4	195	78.5%
Summer 2017	Evening	129	106	0.88	12.99	390	443	5	180	71.7%



**Productivity by Courses by Semester**

				Census Headcount	End of Term Headcount	FTEF	FTES	WSCH	Load	Sections	Max Enroll	Fill Rate
<b>Fall 2013</b>	ASTR	100	Introduction To Astronomy	69	59	0.40	6.90	207	518	2	100	69%
		101	Astronomy Laboratory	34	29	0.16	3.74	112	701	1	30	113%
		Total			103	88	0.56	10.64	319	570	3	130
<b>Fall 2014</b>	ASTR	100	Introduction To Astronomy	105	79	0.60	8.78	264	439	3	150	70%
		101	Astronomy Laboratory	62	52	0.48	6.65	200	416	3	90	69%
		Total			167	131	1.08	15.43	463	429	6	240
<b>Fall 2015</b>	ASTR	100	Intro To Astronomy-Honors	4	3	0.00	0.40	12	#INF	1	50	8%
			Introduction To Astronomy	82	68	0.40	8.20	246	615	2	100	82%
		101	Astronomy Laboratory	54	51	0.32	5.40	162	506	2	65	83%
		Total			140	122	0.72	14.00	420	583	5	215
<b>Fall 2016</b>	ASTR	100	Intro To Astronomy-Honors	2	1	0.00	0.20	6	#INF	1	50	4%
			Introduction To Astronomy	82	71	0.40	8.20	246	615	2	100	82%
		101	Astronomy Laboratory	80	68	0.48	8.17	245	510	3	90	89%
		Total			164	140	0.88	16.57	497	565	6	240
<b>Fall 2017</b>	ASTR	100	Introduction To Astronomy	92	74	0.60	9.20	276	460	3	140	66%
		101	Astronomy Laboratory	55	45	0.32	5.58	168	523	2	60	92%
		Total			147	119	0.92	14.78	444	482	5	200
<b>Spring 2014</b>	ASTR	100	Introduction To Astronomy	95	66	0.60	9.78	294	489	3	150	63%
		101	Astronomy Laboratory	62	47	0.48	6.47	194	405	3	95	65%
		Total			157	113	1.08	16.26	488	452	6	245

### Productivity by Courses by Semester

				Census Headcount	End of Term Headcount	FTEF	FTES	WSCH	Load	Sections	Max Enroll	Fill Rate
<b>Spring 2015</b>	ASTR	100	Intro To Astronomy-Honors	1	1	0.00	0.10	3	#INF	1	45	2%
			Introduction To Astronomy	102	82	0.60	10.57	317	528	3	135	76%
		101	Astronomy Laboratory	42	32	0.32	4.42	133	414	2	70	60%
	Total			145	115	0.92	15.09	453	492	6	250	58%
<b>Spring 2016</b>	ASTR	100	Intro To Astronomy-Honors	2	2	0.00	0.20	6	#INF	2	90	2%
			Introduction To Astronomy	110	89	0.60	11.00	330	550	3	135	81%
		101	Astronomy Laboratory	76	60	0.48	7.60	228	475	3	99	77%
	Total			188	151	1.08	18.80	564	522	8	324	58%
<b>Spring 2017</b>	ASTR	100	Intro To Astronomy-Honors	3	2	0.00	0.30	9	#INF	1	45	7%
			Introduction To Astronomy	99	85	0.60	9.90	297	495	3	135	73%
		101	Astronomy Laboratory	68	58	0.48	6.80	204	425	3	90	76%
	Total			170	145	1.08	17.00	510	472	7	270	63%
<b>Spring 2018</b>	ASTR	100	Introduction To Astronomy	93	79	0.60	9.30	279	465	3	135	69%
				101	Astronomy Laboratory	95	72	0.64	9.50	285	445	4
	Total			188	151	1.24	18.80	564	455	7	255	74%
<b>Summer 2013</b>	ASTR	100	Introduction To Astronomy	86	70	0.40	8.62	259	647	2	115	75%
				101	Astronomy Laboratory	27	27	0.16	2.72	81	509	1
	Total			113	97	0.56	11.34	340	607	3	145	78%
<b>Summer 2014</b>	ASTR	100	Introduction To Astronomy	86	69	0.40	8.62	259	647	2	100	86%

**Productivity by Courses by Semester**

				<b>Census Headcount</b>	<b>End of Term Headcount</b>	<b>FTEF</b>	<b>FTES</b>	<b>WSCH</b>	<b>Load</b>	<b>Sections</b>	<b>Max Enroll</b>	<b>Fill Rate</b>
		101	Astronomy Laboratory	54	44	0.32	5.69	171	534	2	65	83%
		Total		140	113	0.72	14.32	429	596	4	165	85%
<b>Summer 2015</b>	ASTR	100	Introduction To Astronomy	78	62	0.60	7.87	236	393	2	130	60%
		101	Astronomy Laboratory	54	36	0.32	5.55	167	521	2	70	77%
		Total		132	98	0.92	13.42	403	438	4	200	66%
<b>Summer 2016</b>	ASTR	100	Introduction To Astronomy	80	62	0.40	7.81	234	586	2	100	80%
		101	Astronomy Laboratory	73	52	0.48	7.51	225	469	2	95	77%
		Total		153	114	0.88	15.32	460	522	4	195	78%
<b>Summer 2017</b>	ASTR	100	Introduction To Astronomy	65	54	0.40	6.54	196	491	2	90	72%
		101	Astronomy Laboratory	64	52	0.48	6.45	193	403	3	90	71%
		Total		129	106	0.88	12.99	390	443	5	180	72%