

Linkage Between Educational and Facilities Master Plans

INTRODUCTION

The District's educational master plan has projected the growth of the various programs and disciplines to the year 2022. This has entailed a careful analysis of each entity's relative rate of growth and in the case of instructional disciplines, the relative changing emphasis upon use of Lecture, Lab and other forms of teaching and learning.

What is needed next is a means of having the educational master plan *drive* the facilities master plan -- in effect to [link](#) them.

This is done principally through the common language of WSCH (weekly student contact hour). The state uses WSCH both as a means of measuring instructional hours and as a means of calculating instructional space. Other kinds of space such as library, office and others follow similar formulas.

Converting WSCH to ASF:

WSCH is converted to space using formulas in Title V of the state administrative code that governs the California Community Colleges. Space is always expressed in assignable square feet (ASF). This and other space-calculating formulas are covered briefly in the Background chapter.

In terms of qualifying for space, WSCH is separated into Lecture WSCH and Lab WSCH. It is important to

remember that Lecture WSCH regardless of the discipline is allowed a fixed amount of space; Lab WSCH by contrast is allowed differing amounts of space depending upon the usage. Lecture WSCH also earns far less space. For example, Lecture WSCH at a large college like the San Marcos Campus will generate space on the basis of .429 ASF per WSCH. Lab will generate between 1.28 ASF (business) to 8.56 ASF (auto mechanics) per WSCH.

Physical Education WSCH is not subject to prescribed formulas in earning interior or for that matter exterior space.

Charts on the Following Pages

The educational master plan has already separated the WSCH for each instructional discipline into Lecture and Lab and given each its own discrete rate of growth. That information is expressed in the small graphs for each discipline in the Educational Master Plan chapter. The information is broken chronologically into Current (Fall, 2001), Near Term (2011), and Long Term (2022).

The data in those graphs have been combined into one comprehensive chart shown on the following pages.

How to read the charts

The charts are actually one chart extended over four pages. Each instructional discipline is listed on the left. To the right of that are columns showing existing and

projected Lecture WSCH and further to the right the same repeated for Lab WSCH.

Similar to the educational master plan, they are divided chronologically into: Fall 2001 WSCH, Mid Term 2011 WSCH, and Long Term 2022 WSCH. The 2011 and 2022 WSCH projections assume Fall semester WSCH projections.

To the right of the 2011 and 2022 WSCH columns are the ASF that is earned under state Title V space formulas for that particular discipline, whether it be Lecture or Lab. Each Lab discipline is governed by a TOPs Code (taxonomy of programs) assigned under Title V and given a particular space allowance.

One will note that in some instances, the ASF earned by a particular program is insufficient to support a full classroom or lab. In that situation the district has the option either to delay that program to a later time period when growth is sufficient or to combine it with a similar and compatible program and share the space.

Summary Chart

To allow the reader a quick look at the WSCH and ASF projections for the District as a whole, the detail charts have been summarized below. The summary chart shows the WSCH and ASF projections for each Instructional Division as well as the areas in Student Services that also generate WSCH.

Summary WSCH and ASF Projections By Division

Division	Fall 2001 Lecture WSCH	2011 Lecture WSCH	2011 Lecture ASF	2022 Lecture WSCH	2022 Lecture ASF	Fall 2001 Lab WSCH	2011 Lab WSCH	2011 Lab ASF	2022 Lab WSCH	2022 Lab ASF
Instructional Divisions										
Arts and Languages	42,633	46,744	20,053	52,875	22,682	32,708	45,107	81,843	59,102	106,001
Human Arts And Sciences	44,005	50,972	21,790	59,965	25,538	8,940	14,104	38,374	20,088	50,818
Mathematics And The Natural & Health Sciences	41,661	44,700	19,175	44,361	19,033	14,400	22,954	48,958	37,489	73,780
Media, Business, And Community Services	16,186	10,624	4,559	6,806	2,919	21,512	35,828	68,565	50,482	95,128
Vocational Technology	15,359	14,508	6,225	17,524	7,519	15,596	23,125	78,087	28,535	94,900
Additional Instructional Activities										
Athletics	0	0	0	0	0	2,623	2,623	4,485	2,623	4,485
Counseling, Guidance, And Career Development	3,245	3,964	1,701	4,833	2,073	178	209	536	254	654
Student Support Programs	298	367	157	447	192	132	157	404	192	493
Tutoring	228	264	113	322	138	2,983	3,650	9,367	4,451	11,419
College Totals	163,615	172,143	73,773	187,133	80,094	99,072	147,757	330,619	203,216	437,678

Additional Information in the Appendix

A comprehensive Spreadsheet for College Growth is shown in the Appendix chapter. It provides more finite information on individual program growth rates and individual classroom and lab sizes and numbers of rooms.

Translating the Chart into a Facilities Master Plan

The Facilities Master Plan chapter that follows this chapter shows projects for both instructional space and other support kinds of space. The instructional projects have been developed using the same WSCH and ASF data shown on the charts. Typically they have been assembled out of groupings of programs that share common functional requirements or are part of a common department -- but always within the limits of the earning power for space shown on the charts.

In that fashion, the needs of the educational master plan are translated directly into facilities projects. This then permits the educational master plan to *drive* the facilities master plan.

Discipline	Mid-Term Lecture			Long-Term Lecture		Mid-Term Laboratory			Long-Term Laboratory	
	Fall 2001 Lecture WSCH	2011 Lecture WSCH	2011 Lecture ASF	2022 Lecture WSCH	2022 Lecture ASF	Fall 2001 Lab WSCH	2011 Lab WSCH	2011 Lab ASF	2022 Lab WSCH	2022 Lab ASF
Parks & Recreation Mngmt	123	112	48	110	47	0	37	184	73	360
Biology	3,539	4,306	1,847	5,250	2,252	3,126	3,819	9,661	4,655	11,778
Botany	405	495	212	603	259	96	116	294	141	358
Microbiology	292	352	151	430	184	558	684	1,730	834	2,109
Zoology/Anatomy/Physiology	1,610	1,962	842	2,392	1,026	1,485	1,811	4,582	2,208	5,586
Accounting	1,993	1,642	704	1,001	429	700	1,642	2,101	3,002	3,842
Business Management	640	546	234	476	204	0	234	300	476	609
Business	2,946	2,112	906	1,287	552	519	2,112	2,704	3,862	4,944
International Business	111	95	41	82	35	0	41	52	82	106
Legal Studies	150	137	59	111	48	0	46	59	111	143
Real Estate	933	796	342	693	297	0	341	437	693	887
Office Information Systems	505	837	359	612	263	868	837	1,071	1,428	1,828
Supervision	588	717	308	874	375	0	0	0	0	0
Cinema	1,868	1,797	771	1,725	740	42	770	1,648	1,725	3,692
Communications	457	279	120	0	0	0	279	596	679	1,454
Journalism	285	256	110	156	67	135	256	548	468	1,002
Radio & TV	484	1,366	586	0	0	1,548	1,366	2,922	3,671	7,856
Computer Information Syst	4,537	0	0	0	0	4,983	11,606	19,846	14,149	24,195
Athletics	0	0	0	0	0	2,623	2,623	4,485	2,623	4,485
Health	1,716	2,081	893	2,537	1,089	1,388	1,703	5,466	2,076	6,664
Physical Education	689	460	197	561	240	6,854	8,736	28,043	10,650	34,187
Aeronautical Sciences	795	968	415	1,180	506	32	40	302	49	368
Engineering	53	64	27	78	33	48	59	506	72	617
Automotive Technology	344	374	160	413	177	958	1,064	9,111	1,176	10,064
Cabinet & Furniture	709	852	366	1,039	446	3,174	3,882	14,945	4,732	18,219
Diesel Mechanics Tech	68	74	32	82	35	352	390	3,336	431	3,685
Drafting Technology	178	202	87	246	106	2,585	3166	10,164	3,860	12,391
ECHT	453	502	215	554	238	455	502	2,788	554	3,080
Welding Technology	283	315	135	348	149	701	772	2,971	853	3,282
Carpentry - Program eliminated	42	0	0	0	0	0	0	0	0	0

Discipline	Mid-Term Lecture			Long-Term Lecture		Mid-Term Laboratory			Long-Term Laboratory	
	Fall 2001 Lecture WSCH	2011 Lecture WSCH	2011 Lecture ASF	2022 Lecture WSCH	2022 Lecture ASF	Fall 2001 Lab WSCH	2011 Lab WSCH	2011 Lab ASF	2022 Lab WSCH	2022 Lab ASF
Construction Inspection	580	495	212	517	222	0	212	681	345	1,107
Construction Technology	37	41	18	44	19	5	10	77	19	140
Customer Service Academy*	135	165	71	201	86	0	0	0	0	0
Electro-Mechanical Equipment*	40	37	16	33	14	5	12	53	22	94
Public Works Management*	90	91	39	88	38	9	30	97	59	189
Quality Assurance Tech	399	389	167	445	191	0	97	312	148	476
Surveying	54	54	23	54	23	54	54	173	54	173
Water Technology Ed	898	889	381	867	372	74	296	951	578	1,855
Wastewater Treatment	150	149	64	145	62	13	50	159	97	311
Apprenticeship WE only	0	0	0	0	0	2,288	2,789	8,954	3,401	10,916
Art	2,627	2,587	1,110	2,102	902	9,160	11,783	30,284	15,417	39,621
Dance	238	305	131	372	159	2,263	2,744	7,052	3,345	8,598
Music	1,776	1,904	817	2,322	996	3,431	4,444	11,420	5,417	13,922
Theatre Arts	932	1,130	485	1,378	591	431	532	1,367	648	1,666
Photography	396	0	0	0	0	2,723	3,802	9,772	4,636	11,913
Graphics Communication	128	0	0	0	0	4,819	6,031	10,313	7,352	12,573
Chinese	197	241	103	294	126	33	39	59	48	72
Filipino	241	292	125	356	153	34	44	65	53	80
French	739	882	379	1,076	462	93	132	198	161	241
German	441	513	220	626	268	43	77	115	94	140
Italian	242	295	126	359	154	36	44	66	54	81
Japanese	305	361	155	440	189	35	54	81	66	99
Latin	21	26	11	31	13	0	0	0	0	0
Russian	0	0	0	0	0	0	0	0	0	0
Spanish	7,566	9,251	3,969	11,278	4,838	1,156	1,382	2,073	1,685	2,528
American Sign Language	2,528	2,922	1,254	3,353	1,438	292	516	774	838	1,257
Emergency Medical Educ	561	735	316	989	424	2,479	3,351	7,170	4,504	9,638
Dental Assisting	448	400	171	320	137	351	400	855	479	1,026
Medical Assisting	578	641	275	708	304	175	191	409	211	452
Nursing Education*	717	717	308	717	308	2,310	2,310	4,943	2310	4943

Discipline	Mid-Term Lecture			Long-Term Lecture		Mid-Term Laboratory			Long-Term Laboratory	
	Fall 2001 Lecture WSCH	2011 Lecture WSCH	2011 Lecture ASF	2022 Lecture WSCH	2022 Lecture ASF	Fall 2001 Lab WSCH	2011 Lab WSCH	2011 Lab ASF	2022 Lab WSCH	2022 Lab ASF
Fashion and Consumer Science	503	491	210	561	241	0	123	315	187	480
Child Development	4,195	5,436	2,332	6,922	2,969	62	286	735	769	1,977
Fashion	652	500	214	609	261	714	1,166	2,996	1,421	3,652
Interior Design	564	523	224	638	274	294	523	1,344	638	1,639
Institutional Food	137	167	72	204	87	0	0	0	0	0
Paralegal	753	761	327	663	284	139	326	418	663	848
Philosophy	4,030	4,667	2,002	5,391	2,313	0	246	263	599	641
Religious Studies	1,188	1,448	621	1,766	757	0	0	0	0	0
English	16,536	16,313	6,998	17,401	7,465	190	4,078	4,364	7,458	7,980
Speech	4,417	5,094	2,185	5,845	2,508	499	899	1,348	1,461	2,192
Library Technology	228	264	113	322	138	0	14	21	17	25
Mathematics	24,637	24,177	10,372	19,650	8,430	1,805	8,059	12,088	19,650	29,474
Industrial Technology	78	95	41	116	50	0	0	0	0	0
Chemistry	1,925	2,367	1,015	2,885	1,238	2,487	3,012	7,741	3,672	9,437
Astronomy	1,441	1,764	757	2,150	922	222	264	677	321	826
Geology	540	655	281	799	343	132	164	421	200	513
Oceanography	1,552	1,883	808	2,295	985	480	595	1528	725	1,863
Physical Science	672	765	328	768	329	66	135	347	329	846
Physics	905	1,107	475	1,350	579	717	870	2,236	1,061	2,726
Psychology	6,641	7,217	3,096	7,764	3,331	324	1,274	1,363	2,588	2,769
Recreation	94	115	49	140	60	0	0	0	0	0
Admin of Justice	2,652	3,575	1,534	4,806	2,062	148	188	403	253	541
Fire Technology	899	1,213	521	1,631	700	631	843	1,804	1,133	2,425
ENVT	234	263	113	275	118	74	113	241	183	392
American Indian Studies	2,931	3,216	1,303	3,703	1,402	0	357	574	654	1,165
American Studies	455	527	226	608	261	0	28	30	68	72
Anthropology	2,635	2,868	1,231	3,278	1,406	306	717	1,076	1,093	1,639
Sociology	3,457	3,800	1,630	4,375	1,877	6	422	452	772	826
Africana Studies	170	207	89	252	108	0	0	0	0	0
Chicano Studies	1,772	2,160	927	2,634	1,130	0	0	0	0	0

Discipline	Mid-Term Lecture			Long-Term Lecture		Mid-Term Laboratory			Long-Term Laboratory	
	Fall 2001 Lecture WSCH	2011 Lecture WSCH	2011 Lecture ASF	2022 Lecture WSCH	2022 Lecture ASF	Fall 2001 Lab WSCH	2011 Lab WSCH	2011 Lab ASF	2022 Lab WSCH	2022 Lab ASF
Judaic Studies	57	69	30	85	36	0	0	0	0	0
Multicultural Studies	447	545	234	664	285	0	0	0	0	0
Economics	2,758	3,026	1,298	3,279	1,407	0	336	360	820	877
History	8,058	9,824	4,214	11,976	5,138	0	0	0	0	0
Political Science	2,806	3,420	1,467	4,170	1,789	0	0	0	0	0
Geography	1,552	2,077	891	2,792	1,198	310	425	638	572	858
Travel Services	258	232	100	232	100	0	26	55	26	55
Humanities	813	991	425	1,208	518	0	0	0	0	0
ESL	1,534	1,819	780	2,217	951	13,385	16,369	17,515	19,956	21,353
Reading Services	1,480	1,818	780	2,217	951	1,627	1,970	5,062	2,401	6,171
ACADTECH (Lab only)	0	0	0	0	0	2,389	2,912	7,485	3,551	9,125
CNED (Lab only) Community Ed	0	0	0	0	0	5,036	6,139	15,778	7,485	19,236
CNED Tutor Trang/Superv	0	0	0	0	0	594	724	1,861	883	2,269
Cooperative Educ. Work Experience	3,556	1,143	490	1,263	542	583	3,429	8,813	3,788	9,736
Special Education	298	367	157	447	192	132	157	404	192	493
Counseling	3,245	3,964	1,701	4,833	2,073	178	209	536	254	654
District Totals	163,615	172,143	73,773	187,133	80,094	99,072	147,757	330,619	203,216	437,678