

Supplementary Materials

“COVID-19 impact: a case study at the School of Agricultural Engineering and Environment of the Universitat Politècnica de València”

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Table S1. Variance Analysis of the marks obtained by all the ETSIAMN students during a period of four academic years (2016-2020) and two semesters. Type III Sum of Squares. All F-ratios are based on the average square of residual error.

Source	Sum of Squares	DF	Mean Square	F-ratio	P-value
PRINCIPAL EFFECTS					
A: course level	16.9187	3	5.63956	127.48	0.0000
B: semester	3.94745	1	3.94745	89.23	0.0000
C: academic year	0.277618	1	0.277618	6.28	0.0174
D: degree	29.4408	3	9.81358	221.82	0.0000
INTERACTIONS					
AB	0.344271	3	0.114757	2.59	0.0691
AC	0.0818163	3	0.0272721	0.62	0.6092
AD	6.54603	9	0.727336	16.44	0.0000
BC	0.616701	1	0.616701	13.94	0.0007
BD	0.562681	3	0.18756	4.24	0.0122
CD	0.139687	3	0.0465623	1.05	0.3824
RESIDUES	1.45993	33	0.0442402		
TOTAL (Corrected)	60.3356	63			

Table S2A. Frequency table for the grades of Biotechnology degree students during the first semester..

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	45	113	1047	3577	1364	232	6378
2019_2020	23	39	380	1086	439	62	2029
Chi-square	3.48	0.20	4.85	1.82	0.04	1.49	

Table S2B. Tests of homogeneity for the marks' of Biotechnology degree students during the first semester.

Test	Statistics	G1	P-value
Chi-square	11.882	5	0.0364

Table S3A. Frequency table for' the grades of Biotechnology degree students during the second semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	87	106	985	3553	1401	301	6433
2019_2020	21	17	219	1080	589	86	2012
Chi-square	1.14	6.79	21.07	0.67	36.55	0.55	

Table S3B. Tests of homogeneity for the marks of Biotechnology degree students during the second semester.

Test	Statistics	G1	P-value
Chi-square	66.761	5	0.0000

Table S4. Variance Analysis of the marks of Biotechnology degree students during a period of four academic years (2016-2020) and two semesters. Type III Sum of Squares. All F-ratios are based on the average square of residual error.

Source	Sum of Squares	DF	Mean Square	F-ratio	P-value
PRINCIPAL EFFECTS					
A: course level	2.90497	3	0.968324	81.28	0.0000
B: semester	0.137468	1	0.137468	11.54	0.0079
C: academic year	0.0355565	3	0.0118522	0.99	0.4384
INTERACTIONS					
AB	0.303881	3	0.101294	8.5	0.0054
AC	0.151195	9	0.0167995	1.41	0.3085
BC	0.134942	3	0.0449806	3.78	0.0528
RESIDUES	0.107227	9	0.0119141		
TOTAL (Corrected)	3.77524	31			

Table S5A. Frequency table for' the grades of Food Science and Technology degree students during the first semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	73	403	2025	1843	185	66	4595
2019_2020	20	117	633	584	42	20	1416
Chi-square	0.22	0.33	0.10	0.34	3.22	0	

Table S5B. Tests of homogeneity for' the marks of Food Science and Technology degree students during the first semester.

Test	Statistics	Gl	P-value
Chi-square	4.208	5	0.5199

Table S6A. Frequency table for' the grades of Food Science and Technology degree students during the second semester

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	99	198	1754	1891	411	89	4442
2019_2020	24	23	456	731	139	25	1398
Chi-square	1.33	22.22	13.25	22.36	0.54	0.25	

Table S6B. Tests of homogeneity for' the marks of Food Science and Technology degree students during the second semester.

Test	Statistics	Gl	P-value
Chi-square	59.961	5	0.0000

Table S7. Variance Analysis of the marks of Food Science and Technology degree students during a period of four academic years (2016-2020) and two semesters. Type III Sum of Squares. All F-ratios are based on the average square of residual error.

Source	Sum of Squares	DF	Mean Square	F-ratio	P-value
PRINCIPAL EFFECTS					
A: course level	5.01655	3	1.67218	93.25	0.0000
B: semester	1.96544	1	1.96544	109.6	0.0000
C: academic year	0.388805	3	0.129602	7.23	0.0090
INTERACTIONS					
AB	0.905974	3	0.301991	16.84	0.0005
AC	0.391544	9	0.0435049	2.43	0.1014
BC	0.183285	3	0.061095	3.41	0.0667
RESIDUES	0.161394	9	0.0179327		
TOTAL (Corrected)	9.013	31			

Table S8A. Frequency table for' the grades of Forestry Engineering degree students during the first semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	154	451	955	585	48	24	2217
2019_2020	62	124	252	166	7	3	614
Chi-square	6.26	0	0.47	0.08	2.6	1.78	

Table S8B. Tests of homogeneity for' the marks of Forestry Engineering degree students during the first semester.

Test	Statistics	Gl	P-value
Chi-square	11.186	5	0.0478

Table S9A. Frequency table for' the grades of Forestry Engineering degree students during the second semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	203	248	730	627	119	50	1977
2019_2020	46	58	207	171	35	6	523
Chi-square	0.9	0.72	0.77	0.13	0.3	3.53	

Table S9B. Tests of homogeneity for' the marks of Forestry Engineering degree students during the first semester.

Test	Statistics	Gl	P-value
Chi-square	6.348	5	0.2739

Table S10. Variance Analysis of the marks of Forestry Engineering degree students during a period of four academic years (2016-2020) and two semesters. Type III Sum of Squares. All F-ratios are based on the average square of residual error.

Source	Sum of Squares	DF	Mean Square	F-ratio	P-value
PRINCIPAL EFFECTS					
A: course level	26.4886	3	8.82953	219.03	0.0000
B: semester	1.91177	1	1.91177	47.42	0.0001
C: academic year	0.0832832	3	0.0277611	0.69	0.5814
INTERACTIONS					
AB	0.0931546	3	0.0310515	0.77	0.5391
AC	0.612985	9	0.0681095	1.69	0.2233
BC	0.0834126	3	0.0278042	0.69	0.5808
RESIDUES	0.36281	9	0.0403123		
TOTAL (Corrected)	29.636	31			

Table S11A. Frequency table for' the grades of Agricultural and Biological Engineering degree students during the first semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	295	1257	3211	1529	206	63	6561
2019_2020	144	422	994	305	67	21	1953
Chi-square	24.16	4.58	1.17	41.29	0.4	0.21	24.16

Table S11B. Tests of homogeneity for' the marks of Agricultural and Biological Engineering degree students during the first semester.

Test	Statistics	G1	P-value
Chi-square	71.79	5	0.0000

Table S12A. Frequency table for' the grades of Agricultural and Biological Engineering degree students during the second semester.

	No-show	Failed	Pass C	B	A	A +	Total per row
2016_2019	449	885	2732	1729	208	108	6111
2019_2020	99	124	670	795	102	39	1829
Chi-square	7.64	65.72	21.41	101.95	17.02	1.01	7.64

Table S12B. Tests of homogeneity for the marks of Agricultural and Biological Engineering degree students during the second semester.

Test	Statistics	G1	P-value
Chi-square	214.761	5	0.0000

Table S13. Variance Analysis of the marks of Agricultural and Biological Engineering degree students during a period of four academic years (2016-2020) and two semesters. Type III Sum of Squares. All F-ratios are based on the average square of residual error.

Source	Sum of Squares	DF	Mean Square	F-ratio	P-value
PRINCIPAL EFFECTS					
A: course level	13.5981	3	4.53271	99.41	0.0000
B: semester	1.83226	1	1.83226	40.19	0.0001
C: academic year	0.37299	3	0.124329	2.73	0.1063
INTERACTIONS					
AB	0.15831	3	0.052771	1.16	0.3782
AC	0.6269	9	0.069655	1.53	0.2689
BC	1.37516	3	0.458387	10.05	0.0031
RESIDUES	0.41036	9	0.045595		
TOTAL (Corrected)	18.3741	31			