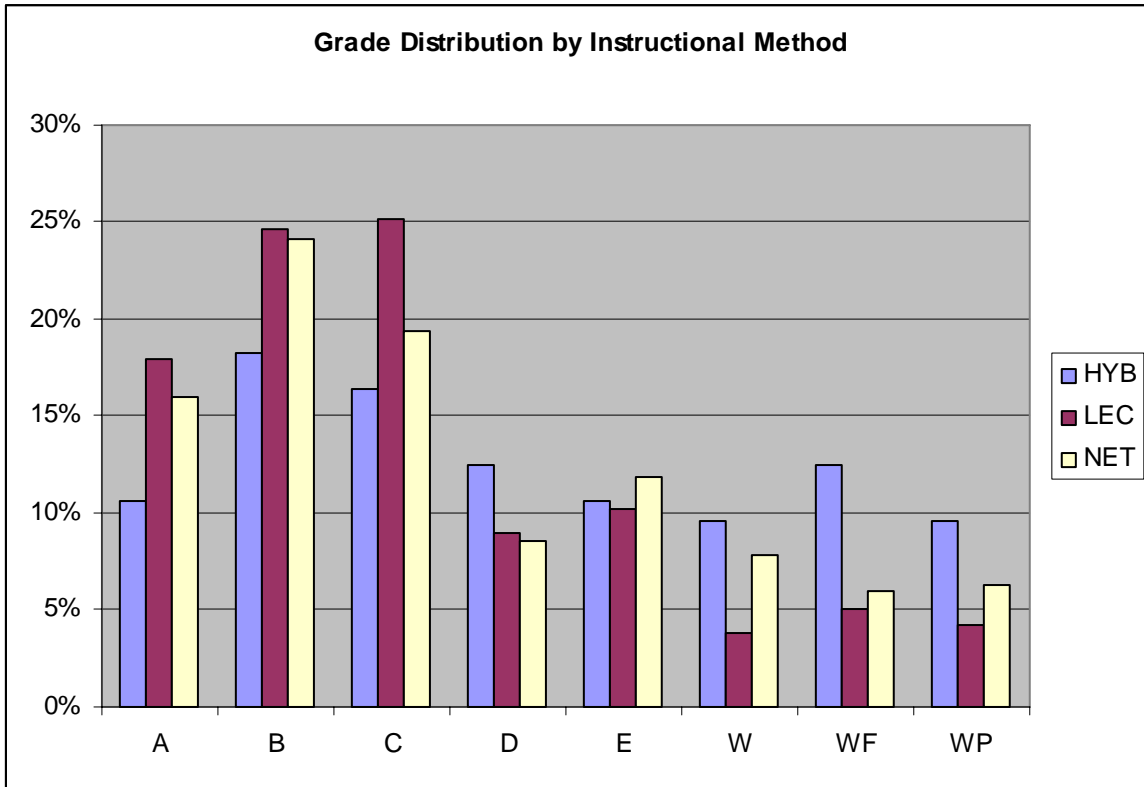


In spring 2009, the coordinator of distance education requested an analysis of the rates of success of students in traditional classroom settings and those taking hybrid or online courses. The director of IR began by identifying 18 courses from fall 2008 that were taught by the same instructor, but using two instructional methods for different sections. A total of 1,052 students earned grades in these classes, allowing for some comparisons among the three instructional delivery methods.

Summary Descriptive Statistics

	Hybrid	Lecture	Online
Number of Students	104	679	269
Average Student Age	22	23	26
Average Grade*	1.772	2.206	2.111
Gender	44% male/56% female	52% male/48% female	42% male/58% female

*Calculation does not include grades of W, WP, or WF.



Quantitative results (e.g., student age and grade) for each course follow.

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BCOM 102
Sections: F01 LEC (MW 10:10 am – 12:10 pm)
F03 NET

Advanced Business and Technical Communications

This course is designed for business and technical students and for people already in the work force who want to become proficient in business and technical communications. Major emphasis is placed on writing effective reports, manuals, instructions, and directions for specific audiences using appropriate style and format.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade*
BCOM 102 F01	Lecture	19	38	9	10	2.958
BCOM 102 F03	Online	17	30	8	9	2.025

	F01	F03
Grade	Frequency	Frequency
A	4	1
A-	1	3
B+	5	2
B	3	0
B-	1	2
C+	2	0
C	1	2
C-	1	0
D+	0	1
D	0	0
D-	0	0
E	1	5
W	0	0
WF	0	0
WI	0	0
WP	0	1

*Grades of W, WF, WI, and WP are not included in this calculation.

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BIOL 103
 Sections: F01 LEC (MW 8:00 am – 9:25 am)
 F02 LEC (MW 9:35 am – 11:00 am)
 F03 NET

Introductory Biology

A one-semester laboratory course in biological science. Biological concepts are studied as they relate to the human organism as part of the living world. Basic principles of organization of living matter, including cell structure and function, metabolism, human systems, reproduction, development, heredity, and evolution are examined.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BIOL 103 F01	Lecture	31	23	8	23	2.452
BIOL 103 F02	Lecture	31	21	13	18	2.496
BIOL 103 F03	Online	20	25	8	12	2.426

	F01	F02	F03
Grade	Frequency	Frequency	Frequency
A	4	3	4
A-	1	4	2
B+	0	1	0
B	4	4	3
B-	5	4	0
C+	2	1	0
C	8	5	5
C-	0	1	1
D+	2	1	0
D	2	1	2
D-	1	1	0
E	0	2	2
W	1	2	1
WF	0	0	0
WI	0	0	0
WP	1	1	0

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BIOL 104
 Sections: F01 LEC (TTH 8:30 am – 9:55 am)
 F02 LEC (TTH 10:10 am – 11:35 am)
 F03 NET

Introductory Biology II

With relevance to students' lives, Introductory Biology II will provide exploration into the diversity, classification, ecology, and evolution of the natural world and the importance of photosynthesis and other cellular processes. Different types of organisms, such as bacteria, protists, fungi, plants, and animals will be studied to compare structure and function.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BIOL 104 F01	Lecture	22	20	18	4	1.257
BIOL 104 F02	Lecture	26	20	15	11	0.961
BIOL 104 F03	Online	11	25	4	7	1.117

	F01	F02	F03
Grade	Frequency	Frequency	Frequency
A	0	0	0
A-	1	0	0
B+	0	0	0
B	2	0	0
B-	1	0	1
C+	2	1	0
C	2	6	0
C-	2	2	2
D+	0	0	0
D	2	3	0
D-	0	2	0
E	6	1	0
W	0	1	3
WF	3	8	3
WI	0	0	0
WP	1	2	2

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BIOL 207
 Sections: F01 LEC (MW 10:30 am – 11:55 am)
 F03 NET
 F04 NET

Microbiology

This is a general microbiology course designed primarily for students in allied health programs. Emphasis is on the general characteristics of micro-organisms and the diseases they cause. Included are ways to control micro-organisms with antimicrobials, the immune system, and physical and chemical agents. Emerging diseases and bioterrorism are also covered.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BIOL 207 F01	Lecture	44	30	4	40	2.376
BIOL 207 F03	Online	14	29	2	12	2.209
BIOL 207 F04	Online	14	29	0	14	2.209

	F01	F03	F04
Grade	Frequency	Frequency	Frequency
A	4	0	1
A-	2	0	0
B+	2	0	0
B	6	4	0
B-	2	2	3
C+	6	2	1
C	13	0	4
C-	1	0	0
D+	3	1	0
D	1	1	1
D-	0	0	0
E	2	1	1
W	1	1	1
WF	0	0	0
WI	0	0	0
WP	1	2	2

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BUS 101
 Sections: F01 LEC (MTWTH 10:10 am – 11:05 am)
 F02 LEC (MTWTH 9:05 am – 10:00 am)
 F04 LEC (MW 4:00 pm – 5:50 pm)
 F06 NET

Principles of Accounting I

This course introduces principles of accounting including the accounting cycle with emphasis upon theory and financial statements. Other topics covered include cash, receivables, temporary investments, inventories, plant assets, intangible assets, and payroll.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BUS 101 F01	Lecture	25	21	17	8	2.595
BUS 101 F02	Lecture	22	21	14	8	2.875
BUS 101 F04	Lecture	20	29	8	12	2.571
BUS 101 F06	Online	18	26	7	11	2.493

Grade	F01 Frequency	F02 Frequency	F04 Frequency	F06 Frequency
A	2	3	5	1
A-	3	4	2	0
B+	3	2	0	0
B	2	1	2	3
B-	1	3	0	5
C+	3	3	1	0
C	1	0	4	2
C-	1	3	0	2
D+	0	0	0	0
D	1	1	0	1
D-	0	0	0	0
E	2	0	3	0
W	1	0	0	2
WF	0	0	0	0
WI	0	0	0	0
WP	5	2	3	2

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BUS 121
 Sections: F01 LEC (MWF 8:00 am – 8:55 am)
 F02 LEC (MW 1:25 pm – 2:50 pm)
 F04 NET
 F05 NET

Introduction to Business

This is a general course in business principles, problems, and practices, which provides an understanding of the operation of the American business system and its place in the economy. Information concerning more effective use of business services in personal affairs is included as well as preparation for future business courses.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BUS 121 F01	Lecture	32	22	17	15	1.4852
BUS 121 F02	Lecture	28	21	14	13	1.5109
BUS 121 F04	Online	19	27	11	8	1.4424
BUS 121 F05	Online	16	25	11	5	1.4438

Grade	F01 Frequency	F02 Frequency	F04 Frequency	F05 Frequency
A	5	3	3	1
A-	0	1	0	0
B+	1	0	0	2
B	3	5	1	1
B-	0	3	3	0
C+	2	0	1	0
C	7	0	3	2
C-	1	1	0	0
D+	1	0	0	0
D	0	3	2	2
D-	1	2	1	1
E	5	2	2	0
W	0	1	0	3
WF	6	5	3	3
WI	0	0	0	0
WP	0	2	0	1

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BUS 122
 Sections: F01 LEC (MW 11:15 am – 12:10 pm)
 F03 NET
 F04 LEC (W 4:30 pm – 7:30 pm)

Principles of Management

A study of the managerial functions of planning, organizing, staffing, directing, and controlling with analysis of the ongoing process; knowledge which a manager must have in order to achieve coordination for the attainment of company objectives.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BUS 122 F01	Lecture	29	24	15	14	1.1576
BUS 122 F03	Online	17	26	6	11	1.5421
BUS 122 F04	Lecture	15	32	4	11	1.1203

Grade	F01 Frequency	F03 Frequency	F04 Frequency
A	2	3	2
A-	0	0	1
B+	2	2	2
B	3	1	0
B-	5	3	2
C+	0	0	3
C	3	1	1
C-	3	0	1
D+	1	0	1
D	4	2	0
D-	0	0	0
E	3	0	1
W	2	1	1
WF	0	4	0
WI	0	0	0
WP	1	0	0

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BUS 127
 Sections: F01 LEC (MWF 9:05 am – 10:00 am)
 F04 NET

Human Relations

A study of the problems of working with people in a business environment. The focus is on dealing positively with employee morale, motivation, leadership, group behavior, personality, productivity, hiring, and training.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BUS 127 F01	Lecture	26	25	15	11	1.938
BUS 127 F04	Online	20	28	7	13	1.839

	F01	F04
Grade	Frequency	Frequency
A	1	1
A-	2	2
B+	1	0
B	4	2
B-	4	2
C+	2	2
C	3	2
C-	0	1
D+	1	0
D	1	0
D-	0	0
E	7	5
W	0	1
WF	0	1
WI	0	0
WP	0	1

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: BUS 200
Sections: F01 LEC (M 6:00 pm – 9:00 pm)
F02 NET

International Business

This is an introductory course designed to help students become familiar with, understand, and appreciate people from different cultures to promote a more effective basis for working together in the business world.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
BUS 200 F01	Lecture	24	31	13	11	3.138
BUS 200 F02	Online	14	30	6	8	3.643

	F01	F02
Grade	Frequency	Frequency
A	18	12
A-	0	0
B+	1	0
B	0	1
B-	0	0
C+	0	0
C	0	0
C-	0	0
D+	0	0
D	0	0
D-	0	0
E	5	1
W	0	0
WF	0	0
WI	0	0
WP	0	0

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: CHEM 100
Sections: F01 LEC (MTTHF 9:05 am – 10:00 am)
F03 HYB

Fundamentals of Chemistry

A course emphasizing fundamentals, symbols, formulae, nomenclature, oxidation states, atomic structure, the periodic law, writing and balancing equations, stoichiometry, solutions, and gas law problems.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
CHEM 100 F01	Lecture	22	22	5	17	2.360
CHEM 100 F03	Hybrid	21	26	5	16	1.926

	F01	F03
Grade	Frequency	Frequency
A	2	0
A-	5	1
B+	0	3
B	2	2
B-	2	2
C+	1	2
C	2	2
C-	1	0
D+	1	1
D	0	1
D-	0	1
E	3	3
W	0	1
WF	1	1
WI	0	0
WP	2	1

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: CJ 201
Sections: F01 LEC (TTH 12:20 pm – 1:45 pm)
F03 NET

Criminal Law

The study of the philosophy of legal sanctions and their historical development, from common law to modern American criminal law. Includes the judicial process, classification of crimes, elements of and parties to crimes, general definitions of crimes, and common defenses.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
CJ 201 F01	Lecture	20	21	15	5	1.800
CJ 201 F03	Online	13	26	6	7	2.438

	F01	F03
Grade	Frequency	Frequency
A	0	1
A-	0	0
B+	0	1
B	2	5
B-	2	2
C+	0	0
C	8	2
C-	4	0
D+	0	0
D	0	0
D-	0	0
E	3	2
W	1	0
WF	0	0
WI	0	0
WP	0	0

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: ECON 101
 Sections: F01 LEC (MTWTH 9:05 am – 10:00 am)
 F02 HYB (MW 11:15 am – 12:10 pm)
 F03 LEC (MW 12:20 pm – 2:20 pm)
 F08 NET

Principles of Economics

A course appropriate for economics, social science, business administration, and engineering majors, and any other students interested in how their economic system works. This is a course in macroeconomics, which attempts to show how a market system determines levels of employment and unemployment, and the factors affecting inflation and economic growth.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
ECON 101 F01	Lecture	29	20	22	7	2.724
ECON 101 F02	Hybrid	19	22	13	6	2.035
ECON 101 F03	Lecture	30	20	23	7	2.382
ECON 101 F08	Online	20	24	12	8	2.150

Grade	F01 Frequency	F02 Frequency	F03 Frequency	F08 Frequency
A	4	2	1	2
A-	2	0	3	1
B+	3	2	5	2
B	7	1	3	2
B-	2	1	0	2
C+	2	2	3	1
C	6	4	6	3
C-	1	0	3	0
D+	0	0	0	0
D	1	1	0	0
D-	0	1	3	1
E	1	2	1	4
W	0	2	2	0
WF	0	1	0	0
WI	0	0	0	0
WP	0	0	0	2

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: ECON 101
Sections: F05 LEC (MTWTH 8:00 am – 8:55 am)
F07 NET

Principles of Economics

A course appropriate for economics, social science, business administration, and engineering majors, and any other students interested in how their economic system works. This is a course in macroeconomics, which attempts to show how a market system determines levels of employment and unemployment, and the factors affecting inflation and economic growth.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
ECON 101 F05	Lecture	22	20	18	4	2.571
ECON 101 F07	Online	22	22	11	11	2.039

Grade	F05 Frequency	F07 Frequency
A	3	3
A-	3	0
B+	1	1
B	5	2
B-	0	3
C+	2	1
C	0	2
C-	2	0
D+	2	0
D	2	1
D-	0	0
E	1	5
W	0	3
WF	0	0
WI	0	0
WP	1	1

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: ENG 101
Sections: F25 HYB (M 12:20 pm – 2:20 pm)
 F34 LEC (MW 5:45 pm – 7:35 pm)

English Composition

A course in which students will develop the abilities to read critically, to think logically, to discuss intelligently, and primarily to write effectively using exposition, argumentation, and research.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
ENG 101 F25	Hybrid	21	21	8	13	1.856
ENG 101 F34	Lecture	18	22	11	7	2.080

	F25	F34
Grade	Frequency	Frequency
A	0	1
A-	2	0
B+	0	0
B	1	0
B-	0	3
C+	1	1
C	1	1
C-	0	2
D+	1	0
D	0	1
D-	1	0
E	2	1
W	3	4
WF	0	0
WI	0	0
WP	9	4

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: MATH 111
Sections: F01 LEC (TTH 1:25 pm – 3:25 pm)
F05 NET

Algebra with Coordinate Geometry

Pre-calculus algebra and analytic geometry designed for the student who will be taking calculus.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
MATH 111 F01	Lecture	20	21	9	11	3.018
MATH 111 F05	Online	14	21	9	5	1.300

	F01	F05
Grade	Frequency	Frequency
A	4	1
A-	1	0
B+	3	0
B	4	0
B-	0	0
C+	2	1
C	0	1
C-	3	1
D+	0	0
D	0	1
D-	0	1
E	0	3
W	3	3
WF	0	0
WI	0	0
WP	0	2

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: MATH 112
 Sections: F01 LEC (MTWTH 8:00 am – 8:55 am)
 F02 HYB (TTH 9:05 am – 10:00 am)

Trigonometric Functions with Coordinate Geometry

Pre-calculus trigonometry and analytic geometry designed for the student who will be taking calculus.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
MATH 112 F01	Lecture	27	19	14	13	2.184
MATH 112 F02	Hybrid	22	20	12	10	1.505

	F01	F02
Grade	Frequency	Frequency
A	1	2
A-	4	0
B+	1	0
B	3	2
B-	4	3
C+	0	1
C	5	0
C-	1	1
D+	0	0
D	1	4
D-	0	0
E	3	2
W	0	2
WF	2	5
WI	0	0
WP	2	0

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: PHIL 101
 Sections: F03 LEC (TTH 10:10 am – 11:35 am)
 F04 LEC (TTH 12:20 pm – 1:45 pm)
 F07 NET

Basic Concepts of Philosophy

A course which presents some of the issues, questions and problems of philosophy and quasi-philosophical thought, as these issues and thoughts are developed by traditional and contemporary philosophers.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
PHIL 101 F03	Lecture	30	21	18	12	1.503
PHIL 101 F04	Lecture	29	21	17	12	1.808
PHIL 101 F07	Online	20	23	3	17	1.647

	F03	F04	F07
Grade	Frequency	Frequency	Frequency
A	0	2	1
A-	1	0	0
B+	1	1	0
B	2	5	1
B-	7	2	1
C+	1	1	2
C	2	3	4
C-	1	1	1
D+	1	3	0
D	1	0	4
D-	2	2	0
E	6	4	1
W	1	2	2
WF	4	2	2
WI	0	0	0
WP	0	1	1

Analysis of Online vs. Traditional Lecture Courses
Fall 2008

Course: PSYC 201
 Sections: F08 HYB (TWTW 12:20 pm – 1:15 pm)
 F15 LEC (MW 6:00 pm – 8:00 pm)
 F16 LEC (TH 6:00 pm – 10:00 pm)

General Psychology

This course provides an academic survey of research methods and statistics, and in-depth study of neuroscience, development, learning/memory, sensation/perception, states of consciousness, motivation/emotion, stress/health, disorders/therapy, and social psychology.

Course/Section	Instructional Method	# Students w/Verified Grade	Average Age	# Men	# Women	Mean Grade
PSYC 201 F08	Hybrid	21	20	8	13	1.617
PSYC 201 F15	Lecture	19	22	10	9	2.019
PSYC 201 F16	Lecture	19	25	5	14	1.847

Grade	F08 Frequency	F15 Frequency	F16 Frequency
A	2	1	3
A-	2	0	3
B+	0	0	0
B	2	5	1
B-	0	1	0
C+	1	1	1
C	2	3	2
C-	0	0	0
D+	0	1	0
D	0	1	2
D-	2	0	1
E	2	2	4
W	2	3	0
WF	5	1	2
WI	1	0	0
WP	0	0	0