

King's College Summer Session '21

Course Breakdown / Descriptions

21 / S1

5/24/21 – 7/2/21

- Biology 310 WB – Computer Modeling in Biology & Environmental Science (3 credits)
 - The student will learn the basics of how to use a visual-modeling environment, Stella 1I, and Netlogo, to simulate various phenomena in Biology, ecology, and environmental science. Computer assignments and models will be tailored to students in their individual major. No computer programming experience is needed, and the course is open to any student in the sciences. Cross-listed as ENST 310.
- Chemistry 113 & 113L – General Chemistry (4 credits)
 - Fundamental concepts and principles common to the various branches of chemistry. This includes descriptive chemistry, which deals in a systematic way with the more important elements and the structures, properties, and reactions of their compounds. A balance between experiment and theory, between quantitative and qualitative aspects of the course material, and between rigor and simplification is sought. Laboratory work Chemistry 139 Table of Contents Index emphasizes learning basic techniques, learning to manipulate and interpret numerical data, and learning the relationship between experimental measurement and chemical theory through guided, independent work by the student. Primarily for students majoring in the natural sciences. Prerequisite: CHEM 113 is a prerequisite for CHEM 114 and CHEM 114L. 4 lecture-recitation and 3 laboratory hours for two semesters.
- Economics 111 WB – Introduction to Macroeconomics (3 credits)
 - Students will study U.S. economic institutions and the economic organization of society, the role of markets in the production and distribution of societal resources, measurement of economic performance, national income, inflation, and unemployment, competing macroeconomic theories, and stabilization policies.
- Education 523 (In-person & Online Instruction) - Children's and Adolescent Literature in Reading Instruction (3 credits)
 - Students will survey the selection, evaluation, and utilization of literacy materials for children and adolescents. The course will focus upon the study of different literary genres, aesthetic, and efferent responses to literature, and integrating literature into all curriculum areas.
- Education 550 (In person & Online Instruction) – Reading Clinic Practicum
 - The course is a clinic to implement instruction to improve a child's literacy abilities. The course provides for the application of the assessment and strategies discussed in Educ 516 and concludes the two-part Reading practicum experience. After working with a client, each student will write a report of the child's literacy ability, with a description of instruction, and recommend procedures for further assistance. Permission required.

- Education 6009 - Teaching Interrupted: Effects of COVID-19 on Teachers, Students & the Classroom (3 Credits)
 - Teaching in the 21st Century is challenging without the effects of a global pandemic. As schools continue to reopen following COVID-19, the heightened stress, and anxiety are real, affecting mental health of both teachers and students. There is no vaccine for mental health. This course will focus on the mental health of teachers balancing work and life situations. Strategies will be discussed to support both teachers and students and to recognize and understand their emotions and the effects and consequences of these emotions. Emphasis will be on developing a plan to support teachers and students with options to deal with stress in a healthy way.
- Education 6035 WB – Math Anxiety (3 Credits)
 - Math anxiety has plagued students and teachers alike. Participants will learn how math anxiety impacts their students, how to identify math anxiety, and techniques to support struggling students. Focus will be on developing a math-centric classroom culture, designing lessons to support students struggling with math anxiety, and reviewing classroom resources that can ease math anxiety.
- Education 625 – PK-4 Instructional Methods (3 credits)
 - This course is designed around the methods, strategies, research, and resources that enable students to develop and implement programs to assist students in the language of and academic cognitive understanding and skills within the content area while understanding its impact upon the elementary curriculum. Participants design resource and teaching materials implement them with their students, and provide reports to the class. Students also learn and practice adaptations of lesson content and present actual lesson activities within the structure of the course.
- Education 925, 926 & 927 WB – Practicum (1 credit each)
 - The Administrative practicum is designed to give students practical experience in school administration. A minimum of 260 hours clock hours must be spent on administrative tasks based on the Pennsylvania Core and Corollary Standards for Educational Leadership. The 260 hours must be divided evenly between administrative work in both K to 6 and 7 to 12 settings. Work must be completed under the supervision of a certificated school administrator in each setting. Administrative mentors must have held administrative positions for a minimum of three years. Note: 100 hours should have previously been completed in the prerequisite courses.
- Healthcare Administration 501 WB – Health Policy (3 credits)
 - This course introduces the student to current major issues in health policy. This course discusses the politics of health policy in terms of legislation at both the state and federal level. Key forces such as power development, special interest groups, economics and cost benefit analysis are discussed. Major policy issues that are reviewed include managed care, public health, Medicare and Medicaid, technology assessment, and population-based medicine.

- Healthcare Administration 511 WB - Quantitative Business Methods for Healthcare (3 credits)
 - This course will provide a comprehensive overview of selected research and quantitative methods used in conducting health services research. The course will address all phases of the research process, from generating research questions and hypotheses, to study design, sampling, measurement, data collection, and data analyses. Proper use of statistical methods and computer applications for secondary data analysis will also be covered.
- Math 123 WB - Finite Mathematics (3 credits)
 - Topics include lines and linear functions; a geometric approach to linear programming; mathematics of finance; sets and counting; elementary probability; probability distributions and statistics. Business applications emphasized. Excel utilized. Prerequisite skill in arithmetic and Algebra II is required. Offered fall and spring semesters.
- Math 231 WB - Analytic Geometry and Calculus III (4 credits)
 - Topics include solid analytic geometry; vectors; vector functions; partial differentiation; multiple integrals; vector calculus; line integrals; and Green's Theorem. Prerequisite: MATH 130 or the approval of the math department chairperson or AP Calculus BC score of 4 or 5.
- MSB 110 WB - Introduction to Financial Accounting (3 credits)
 - A survey of the financial accounting concepts and procedures used as applied to service and trading business with an emphasis upon the uses and interpretation of financial statements.
- MSB 240 WB – Business Law I (3 credits)
 - A study of the nature of law, legal reasoning, and procedures relating to the court systems, government regulation, administrative agencies, and the private judicial systems of arbitration and mediation. Topics include crimes and torts, including economic and business-related aspects of each. Special emphasis is placed on contract law, including the formation, breach of contract, and legal remedies. Selected actual cases illustrate practical problems. Prerequisites: CORE 110 and CORE 115.
- MSB 305 WB – Organizational Behavior (3 credits)
 - An introduction to the field of Organizational Behavior. Organizational Behavior is an interdisciplinary field that examines human behavior in organizational settings and concerns the behavioral interactions of individuals, groups, and the organization itself. Prerequisite: MSB 200.
- Natural Science 100 WB – The Scientific Endeavor (3 credits)
 - A study of the empirical methods scientists use to gain knowledge about the world and how this knowledge shapes our human experience. The course offers a study of the scientific approach, its limitations, and what distinguishes science from other approaches to understanding the world. While examining contemporary issues in science, students will learn how scientific observations and data become accepted scientific theories, how controversies are settled, and how science and scientists retain credibility and authority.

- Natural Science 176 WB – Forensic Biology (3 credits)
 - A study of the diverse fields of forensic biology and the education, training, and specialization involved in doing actual forensic science. Topics include, but are not limited to sample collection, documentation of evidence, forensic anthropology, serology, DNA analysis, and factors affecting decomposition. Students may be required to complete several laboratories or field-based projects.
- Nutrition 520 WB - Nutrition Through The Life Cycle (3 credits)
 - Students will explore the many ways nutrition impacts growth, development, and normal functioning as one progresses through each stage of life. Additionally, common ailments that can result from nutritional deficits will be discussed. Each life stage will be addressed in regard to normal nutritional requirements and clinical applications. Pre-requisite: NUTR 502 and NUTR 512
- Nutrition 580 WB - Food Systems And Health (3 credits)
 - Students will explore the effects of malnutrition including mortality, decreased economic productivity, morbidities, such as blindness and stunting, and development of chronic diseases. Further, students will discuss the effects of overnutrition and its impact on Chronic disease, such as with heart disease, cancer, and other diet-related chronic diseases. Both scenarios will be explored in the context of global health and public health systems both in the U.S. and the rest of the world. Pre-requisite: None
- Physician Assistant 510 – Research Methodology (2 credits)
 - Students are taught the basic methodologies related to research and how to critically evaluate medical literature. Students will also learn the basic principles of evidence-based medicine and how to utilize current medical research to justify the treatment of medical conditions. Students receive instruction in the history of the PA profession, and health care policies as they relate to PA practice. Students have training in medical ethics as they prepare to enter clinical education. Students will apply genetics to various medical diseases using current medical literature.
- Physics 111 & 111L WB – Physics for the Life Sciences I (4 credits)
 - The first semester of a two-semester sequence focusing on mechanics. The course provides an algebra-based introduction to the laws of motion of Galileo and Newton, the fundamentals of energy conservation and oscillatory motion, appropriate for students considering a career in the life sciences. Students are expected to be proficient in algebra and trigonometry. 3 lecture hours, 1 problem hour. Co-requisite: PHYS 111L, 3 laboratory hours. Students who withdraw from PHYS 111 will automatically be removed from PHYS 111L unless permission to remain in the lab is granted by the program director.
- PHYS 113 & 113L WB – Physics for Scientists and Engineers I (4 credits)
 - The first semester of a two-semester sequence focusing on mechanics. The course provides a calculus-based introduction to the laws of motion of Galileo and Newton, the fundamentals of energy conservation, oscillatory motion, gravitation, and orbital motion. 3 lecture hours and 1 problem hour. Co-requisite: MATH 129 or permission of the instructor; Co-requisite: PHYS 113L, 3 laboratory hours. Students who withdraw from PHYS 113 will automatically be removed from PH.

- Psychology 321 WB – Brain and Behavior (3 credits)
 - This course is designed to provide students with an introductory overview of how brain processes impact behavior and psychological functioning. Course material will be discussed in the context of implications for both normal and abnormal behavior.
- Psychology 340 – Health Psychology (3 credits)
 - This course surveys research and theories on psychological factors like stress, fear, and anxiety and their impact on mental and physical well-being. Additionally, we will consider the psychological and physical health effects of behaviors like smoking, alcohol and drug abuse, exercise, and nutrition. We will also investigate the psychological impact of STDs, heart disease, diabetes, aging, and other physical conditions.
- Theology 160 WB – Christian Ethics (3 credits)
 - Christian Ethics is the discipline of thinking critically about how best to embody the Christian way of life in particular places and times. This course investigates concepts such as narrative, practice, character, virtue, law, and liturgy and the ways they inform the Christian moral life. These notions will be applied to concrete moral questions of contemporary relevance.

21 / S2

7/5/21 – 8/13/21

- Chemistry 114 & 114L – General Chemistry II (4 credits) Fundamental concepts and principles common to the various branches of chemistry.
 - This includes descriptive chemistry, which deals in a systematic way with the more important elements and the structures, properties and reactions of their compounds. A balance between experiment and theory, between quantitative and qualitative aspects of the course material, and between rigor and simplification is sought. Laboratory work Chemistry 139 Table of Contents Index emphasizes learning basic techniques, learning to manipulate and interpret numerical data, and learning the relationship between experimental measurement and chemical theory through guided, independent work by the student. Primarily for students majoring in the natural sciences. Prerequisite: CHEM 113 is a prerequisite for CHEM 114 and CHEM 114L. 4 lecture-recitation and 3 laboratory hours for two semesters
- Economics 112 WB – Principles of Economics: Micro (3 credits)
 - Microeconomics principles: the theory of price under various market conditions; the economic function of government; elements of international economics.
- Economics 221 WB – Quantitative Methods for Business and Economics (3 credits)
 - An introduction to statistical and mathematical methods used in business fields and economics. Topics include basic statistical concepts, sampling, probability, basic statistical distribution, estimation, hypothesis testing, and introduction to regression analysis.

- Education 505 WB – ELL Adaptions (3 credits)
 - This course is designed to instruct reading specialists in the foundations, instructions, assessment, professionalism and culture of the E.L.L. student. It will introduce the prospective reading specialist to the current need for reading assistance for the E.L.L. student. Participants will explore the methods, strategies, research, and resources to develop and implement ESL programs to help English Language Learners acquire both the English language and academic cognitive understandings and skills. Participants will design resources and teaching materials, implement them with their students, and provide reports to the class.
- Education 584 – Interactive Learning (3 credits)
 - This course is designed to help students understand different key learning theories and their effective use in the design of accessible learning activities. Students will focus on the identification, design and development of classroom materials and lessons that involve technology. Ways to incorporate multimedia design and appropriate software into instructional methodology for the classroom will also be explored. Students will apply learning theory principles to develop model lessons using emerging technologies.
- Education 6038 WB – Cross Curricular Learning (3 Credits)
 - This course will explore how a cross-curricular approach can be used to enhance student success. Through project-based learning, flipped classroom approaches, and cross curricular assignments students learn the skills they need to become successful learners and effective communicators prepared for the challenges of post-secondary education and careers.
- English 110 – Academic Writing (3 credits)
 - This course introduces students to academic discourse, emphasizing such tasks as researching and arguing a position, analyzing information, and defining complex terms. Through individual conferences, writing workshops, journal writing, and regular writing assignments, students will be encouraged to develop strategies for writing clearly, effectively, and creatively for a variety of purposes and audiences. (To register for ENGL 110, students must demonstrate proficiency in the skills taught in ENGL 105. ENGL 110 satisfies the writing requirement in the Core curriculum. All students take ENGL 110 in the first year).
- Healthcare Administration 576 WB - Operations Management in Healthcare (3 credits)
 - This course is an introduction to the application of operations research/management science and industrial engineering techniques to health care organizations, hence the title Operations Management in Health Care. The course focuses on the use of quantitative methods to address complex operational issues and realistic problems, with the ultimate goal of ensuring improved organizational effectiveness and efficiency. Health care applications of operations analysis considered in the course include forecasting, demand & decision analysis, reengineering, productivity, supply chain management, quality control, and project management. The course presents these topics from a managerial perspective with emphasis on effective use of quantitative analysis in management decisions. The main goal of this course is to improve problem-solving and decision-making skills using essential concepts, tools, and strategies in operations research most important to managers in the health care industry. The

quantitative approach to decision making is balanced with discussions of qualitative issues in decision making such as the role of values, beliefs, power, and other aspects of decision-making.

- International Business 241 WB – Globalization (3 credits)
 - This course will provide a broad overview of the environment in which international business takes place. The topics to be covered include but are not limited to analysis of the political, legal, ethical, and cultural environments in which international businesses operate; understanding corporate strategy formulation in the face of government intervention; understanding the International monetary system; and discussing international trade and foreign direct investment. The course covers a broad spectrum of topics to equip students with the fundamentals of international business.
- MSB 220 – Financial Management (3 credits)
 - The course introduces basic principles in finance such as cash flow, the time value of money, valuation of the firm and financial assets, and capital budgeting. Prerequisites: MSB 120, MATH 123 and ECON 221.
- MSB 250 – Business Communication and Mentoring (3 credits)
 - This course will help students to become more effective writers and presenters in the business workplace. The focus of this course is on the essentials of style, organization, and professionalism in the development of fundamental business correspondence, reports, and presentations. An interactive software program will be used to examine and refine writing abilities. Students will be required to produce documents and present information which reflect the appropriate and effective use of technology. Career exploration and mentoring components will be woven throughout the curriculum. Prerequisites: MSB 100, CORE 110 and CORE 115.
- Natural Science 100 WB – The Scientific Endeavor (3 credits)
 - A study of the empirical methods scientists use to gain knowledge about the world and how this knowledge shapes our human experience. The course offers a study of the scientific approach, its limitations, and what distinguishes science from other approaches to understanding the world. While examining contemporary issues in science, students will learn how scientific observations and data become accepted scientific theories, how controversies are settled, and how science and scientists retain credibility and authority.
- Natural Science 171 WB – Descriptive Astronomy (3 credits)
 - The study of the nature of the universe and our place in it. Topics include the nature of astronomy as a science, its historical development, a comparative study of the bodies in our solar system and other solar systems, the life cycle of stars, the large-scale structure of the Universe, and the connection between the cosmos and humanity. Sections may occasionally run with an emphasis on astrobiology and the search for life in the Universe.
- Nutrition 530 WB - Sport Nutrition & Exercise Metabolism (3 credits)
 - Students will learn how to apply the most effective and cutting-edge strategies for optimal fueling for athletic performance. Topics include meal, energy, and nutrient timing guidelines; optimal ratios and quantities of nutrients, vitamins, and minerals for various sports; the latest research on ergogenic aids, such as quercetin and caffeine;

strategies for avoiding gastrointestinal distress during activity and reducing exercise-induced inflammation; the effects of travel, high altitude, and age on nutrition needs and performance; strategies for balancing fluid and electrolytes to avoid dehydration and hyperhydration. Pre-requisite: NUTR 502

- Nutrition 590 WB - Nutritional Research Trends & Methods (3 credits)
 - Students will learn typical methods in analyzing and interpreting biomedical data and research design. This course will help guide the graduate student in developing research studies, conducting statistical analyses and reading/evaluating current nutrition literature. Pre-requisite: None
- Physics 112 & 112L WB – Physics for the Life Sciences II (4 credits)
 - The second semester of a two-semester sequence focusing on waves, light and electromagnetism. The course provides an algebra-based introduction to the properties of waves, geometric and wave optics, electric fields, basic electric circuits, and magnetism, appropriate for students considering a career in the life sciences. Students are expected to be proficient in algebra and trigonometry. 3 lecture hours and 1 problem hour. Prerequisite: PHYS 111 or permission of the instructor. Co-requisite: PHYS 112L, 3 laboratory hours. Students who withdraw from PHYS 112 will automatically be removed from PHYS 112L unless permission to remain in the lab is granted by the program director.
- Physics 114 & 114L WB – Physics for Scientists and Engineers II (4 credits)
 - The second semester of a two-semester sequence focusing on waves, light and electromagnetism. The course provides a calculus-based introduction to the properties of waves, geometric and wave optics, electric fields, basic electric circuits, and magnetism. 3 lecture hours and 1 problem hour. Prerequisite: PHYS 113; Co-requisite: MATH 130, or permission of the instructor; Co-requisite: PHYS 114L, 3 laboratory hours. Students who withdraw from PHYS 114 will automatically be removed from PHYS 114L unless permission to remain in the lab is granted by the program director.
- Theology 152 WB – Biblical Sources: New Testament (3 credits)
 - This course studies the writings of the New Testament with special focus on the Four Gospels, The Acts of the Apostles, and the Pauline Letters. The course also covers the history and methods for interpreting the New Testament, especially in light of the Second Vatican Council's Dogmatic Constitution on Divine Revelation, Dei Verbum (1965). Theological themes, historical framework, geographical setting, text criticism, and literary background will be explored.

21 / SS

5/24/21 – 8/13/21 (12 week session)

- Education 521 WB - Alternative Assessment (3 credits)
 - This course considers alternative assessments for measuring performance, including portfolios, performance assessments, checklists, anecdotal records, and miscue analysis.

- Education 910 WB - School Improvement (3 credits)
 - The School Improvement course focuses on the Principal as Instructional Leader. Students will evaluate data from a variety of sources such as the Pennsylvania System of School Assessment (PSSA's), Keystone Exams, PVAAS, DIBELS, PA Future Ready Index, as well as other standards based / common core data to create a school improvement plan using the school improvement template available through the Pennsylvania Department of Education.
- Education 920 WB - School Resource Management: Finances and Human Resources (3 credits)
 - This course explores administrative functions related to the management of school finance, facilities, and human resources in contemporary schools. Topics studied include developing a school budget, resource (human, capital, technology, fiscal, facilities) management, strategic budget development and implementation, and human resource management.
- English 141 WB – Introduction to Literature (3 credits)
 - This course introduces students to the formal study of literature, with an emphasis on analyzing a variety of literary texts in their social and historical contexts, interpreting the meanings of those texts, and developing close readings. Special attention will be given to relations between thematic content and formal properties and readings must include key works of poetry, drama, fiction, and creative nonfiction from a range of historical moments and cultural contexts.
- Math 130 – Analytic Geometry and Calculus II (4 credits)
 - Topics include applications of integration; techniques of integration; improper integrals; differential equations; parametric equations; polar coordinates; infinite sequences and series. Prerequisite: MATH 129 or the approval of the math department chairperson or AP Calculus score of 4 or 5 (AB or BC).
- Medical Technology 440 – Internship (30-36)
 - One calendar year of study (this curriculum may vary slightly from hospital to hospital). The curriculum pursued during the year of internship provides both theoretical and practical experience in the field.
- Natural Science 179 WB – Health and the Human Body (3 credits)
 - An introduction to nutrition principles necessary to promote a healthy lifestyle. The course will examine nutrients (proteins, carbohydrates, fat, vitamins, water, and minerals), the physiological processes used to digest, absorb, and utilize them, and their relation to contemporary issues healthy body weight, physical performance, and various diseases such as heart disease, diabetes, cancer, and osteoporosis.
- Psychology 101 WB – Introduction to Psychology (3 credits)
 - A survey of basic topics, concepts, and psychological principles, including child development, learning, memory, motivation, physiological influences, stress, coping, personality dynamics, social functioning, abnormal behavior, and psychotherapy. Special emphasis is given to covering disabilities, crime and violence, profiling and forensics, managing stress, psychotropic medications, additions, brain injury, and counseling. At the end of this course, it is expected students will (a) understand the research principles that make psychology a scientific discipline; (b) be able to critically evaluate research findings; (c) understand the biological and psychological factors involved in cognitive

and emotional development from birth to old age; (d) know the causes and effects of psychological disorders; (e) appreciate various psychotherapies; and (f) be capable of evaluating the use of prescription medication for treating mental disorders, among other topics.