A General Education Course
at
Northwestern Polytechnic University

Knowledge
The Relevance of Science and Post-Science

Course Introduction

This course introduces students to knowledge from the point of view of relevance. In particular, it teaches (1) the secret of consistency in sports, (2) real estate and stock investment predictions, and (3) automation of computer programming by writing software program generators.

The course extends our current knowledge dominated by science into post-science, knowledge beyond science. Science deals with neither value, nor complete automation, while post-science holds the solutions of value and complete automation, which characterizes life. In comparison to science, post-science is far more relevant to our daily lives.

Post-science is far more complex than science. Due to its complexity, it also needs to be far more rigorous than science. However, the application of post-science, due mainly to complete automation, becomes actually easier than science. The students in this course will learn to: (1) Extend the ability of touch with one's hand to "touch" with a racket in sports, (2) Determine the price of real estate investments and the rate of return of stock investments, and (3) Write programs with program generators.

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(3 units: 2 hours/week lecture and 2 hours/week practice)

Course Description

This is a unique course originated from NPU; it will identify students from NPU academically. The three main academic fields of physical, social, and life or computer sciences of the past, the present, and the future will be studied from the point of view of the three post-science discoveries in: (1) touch, (2) value, and (3) software, each of which corresponds to the three main fields of knowledge. Touch is collision without bouncing off and is related to prolonged contact in sports. The solution of touch is jumpulse, a term coined by the late Dr. Ta-You Wu to denote a sudden change of force, while impulse is a sudden change of momentum. Prolonged contact will be taught as a one-hour lecture and two-hours practice per week with ball machines in a physical education course in table tennis, tennis, and golf. The second weekly hour will be dealing with the solution of value and completely automated software. Students will be taught to use the Infinite Spreadsheet for real estate and stock investment predictions and to program completely automated software. Emphasis will be placed on the economic effects of writing software and of building robots, respectively, on employment and unemployment.

Purpose

The purpose of the course is to provide with three post-science discoveries a glimpse into complete automation, which characterizes life and is the solution to unlimited complexity.

The course introduces NPU students to a physically and intellectually balanced life style. Post-science has three unique solutions in each of the major fields of physical, social, and life sciences. The post-science solutions of touch, value, and software can shed insights on the knowledge of the past, the present, and the future. The three solutions are the key elements in achieving complete automation.

The course adds an academic identity to NPU, in addition to the solid world-wide high-tech educational reputation of NPU. Most universities achieve academic excellence through research. Before NPU can get into a full research program and publish enough academic papers, it can provide some unique innovative knowledge to all its graduates. Post-science, being sufficiently verified in market testing, can be a forerunner of a research program and can immediately put NPU on the map of intellectual achievements.

Nature of the course

The lectures are dynamic, robust, lively, hands-on, and relevant to real world. The course demonstrates in practice the power of knowledge. It goes beyond critical thinking by allying with nature in challenging the social establishment. Post-science, knowledge beyond science, is the world leader in sports science and valuation. Privately among some world top intellectuals, post-science also leads in computer and life sciences or complete automation.

Course Grades

All students should try to attend all lectures, for which roll calls will be taken. Grades will be deducted proportional to the non-attendance of the lectures in the rate of 10% per class. The course has to be repeated, if the grades is less than C (2).

The following three sections contributes to the total grades:

50% Jumpulse

Grades	Points per unit	
C	2	Able to do no-bounce catch
B	3	Double hit a dropped ball
A	4	Double hit a ball in play

30% Infinite Spreadsheet

Grades	Points per unit	
C	2	Able to use the Infinite Spreadsheet
B	3	Calculate Dow Jone 30 and Nasdeq
A	4	Real Estate and Stock Prediction

20% Permanent Software

Grades	Points per unit	
C	2	Able to program SBS
B	3	Able to auto-update
A	4	Write a SSS or publish a paper

Lectures (1 - 13)

The lectures will be based on two patents: (1) “Quantitative Supply and Demand Model Based On Infinite Spreadsheet (Pat. No. 6,078,901) and (2) "Completely Automated And Self-generating Software System" (Pat. No. 5,485,601); and four books: (1) Table Tennis Scientific Analyses, (2) The Jumpulse Stroke, (3) Knowledge, and (4) Post-Science.

Lecture 1 Introduction to Complete Automation (Programming of robot software based on completely automated permanent software, robots must be able to touch, be valued by solution of value, and be able to self-manufacture) and Nature of Knowledge (5 variables in science, 50 variables in social science, 500 variables in life science).

Lecture 2 The Jumpulse Stroke, Infinite Spreadsheet, and Permanent Software (An overview of 1. Lift, 2. Jumpulse, 3. Close of the Jumpulse Stroke. How to use the Infinite Spreadsheet. How to use the Permanent Software)

Lecture 3 Lift (Grab), Double Hit, Valuation Software, SBS (A detailed description of Lift and double hit. Demonstration of how to use Infinite Spreadsheet. Demonstration of Self-generating Basic System)

Lecture 4 Jumpulse (Sudden Force), Real Estate Valuation, Universal User Interface, Foundation of Mathematics, Foundation of Computer Science (Case studies of jumpulse, real estate valuation using the Infinite Spreadsheet Verifying System. Detailed description of rad theory and set theory in the foundation of knowledge. The role of empirical verification in science.)

Lecture 5 Close, The Jumpulse Stroke, Stock Calculation, Universal Computer Source Code (UNCOSOCO) (Demonstration of Close for direction and spin. Case study of actual stocks. Temporary versus Permanent Numbers. Economic Freedom of Richard Stallman and Technical Freedom to Permanent Software)

Lecture 6 Forehand and Backhand, Theory of Value, Classic Expansion, Universal Data File (The form of the Jumpulse Stroke for shadow swing. The zeroth, first, second orders and the exact solution of the rate of return; from P/E Ratio to Infinite Spreadsheet. Classical expansion of the Cash Flow Equation: Cash Return = Sum of Cash Flows + Cash from Resale. Patent on Self-generating Software System SSS)

Lecture 7 The Block, Serve, The Valuation Methodology, Approximate Time-invariant Quantities, Self-Generation (Defense and serve consist 50% of a winning game. (Block right of the table, half-volley. How to express to infinity using approximate time-invariant inputs. How to calculate to infinity: Iteration of the

price at the boundary of infinity, time-reverse calculation, patent on the solution of value. The significance and wisdom of self-generation.)

Lecture 8 The Whip, Rate of Return, Dow 30, Auto-Update (The ultimate form of the Jumpulse Stroke with flexible arm and wrist for a deceptive whip smash. The final remaining market unknown: Rate of Return on Investment. Dow 30 with dividend. Auto-update demonstration)

Lecture 9 Footwork, Jumpulse Dance, Nasdeq, Auto-documentation (The benefit of lower body exercise versus upper body exercise. Post-Science Medicine. Exercise without a treadmill: Jumpulse Dance. The nature of Nasdeq and the IPO in the stock market. Human language, multimedia documentation of Permanent Software)

Lecture 10 Robot touch, Jumpulse Theory, Options, Software Maintenance (The history of the dynamic contact problem. Static touch problem by Henrich Herz. Resistance to touch research and double hit. Double hit and permanent prolonged contact. The ideal timing of jumpulse. Financial derivatives: option, Credit Default Swap, etc. Bulk of software budget: maintenance 90%)

Lecture 11 Double Hit Theory, Economic Prediction, Three Non-Violable Laws of Nature in Economcs, Triangulation vs.

Homotopy, Descriptive and Structural Knowledge (General Fluid Description Df/Dt = df/dt + dx/dt*df/dx + dv/dt*df/dv… = Sources, where f is a function of all the spatial derivatives of time from the first (distance) to infinity to prolonged contact to touch. Economic prediction in valuation. Three non-violable laws of nature: 1. Infinite Spreadsheet Stabilization, 2. Finite Spreadsheet Instability, and 3. Quantity Theory of Money: Price x Quantity = Velocity of Circulation of Money (or Multiplier) x Money Supply (PQ=VM). The prohibitive resource requirement for triangulation. Homotopy increases invariance. Verilog, Hardware design language: descriptive and structural languages. Eastern perceptive culture versus Western analytical culture. Post-science through analytical, perceptive, and creative ability.)

Lecture 12 Game Styles, Early Brain Calibration, Self-Creation, Financial Crises, Complete Automation (Jumpulse, Backspin, Topspin, Block Styles in tennis and table tennis. Advantages and disadvantages. Future of human intelligence: Trophic factors as brain nutrition for Early Brain Calibration. Debate between David Hume and Hugh Ching on evolution versus creation. Self-creation based on Permanent Software. Complexity and complete automation)

Lecture 13 Final Open End Examination, Input Accuracy, Employment and Unemployment (Last chance for make up grades. Deficiency in stock prediction: inputs accuracy, economic prediction, government interference. Means to increase and to decrease employment: Writing software and building robot, respectively.)