This course explores some of the material you will have studied in your first-year theory classes, only it does so by examining that material through a non-conventional analytical window. Rather than theorizing in terms of states of equilibrium, it theorizes in terms of *non-equilibrium processes* of continual evolution. These alternative analytical orientations are not antagonistic; they are non-commensurable. A theorist can employ both orientations, only not at the same instant.

Conventional *equilibrium theory* posits a set of mutually consistent actions and seeks to give a coherent explanation in terms of contemporaneous data. This type of theory is illustrated nicely by the various proofs of the existence of a competitive equilibrium, search theory, and myriad other theoretical models with which you are familiar. All such models seek to explain observed data through the method of *comparative statics*, with this method being "interpreted" as portraying history through its comparison of alternative data observed at \( t_1 \) and \( t_2 \).

By contrast, *non-equilibrium theory* takes the interval \(|t_1-t_2|\) as comprising the relevant unit of observation. This difference in analytical orientation brings in its analytical train several differences in the construction of economic theories. For one thing, economic theory entails internally-generated change in economic data for which the relevant method is *emergent dynamics* and not comparative statics. Furthermore, the data relevant for economic theory reside in the plans that people create and pursue, as against being represented in census-like data. Even more, economic action is not synchronized within society, which means in turn that continual turbulence will be a feature of any society. In other words, economic phenomena are complex, in contrast to orthodox treatments where those phenomena are simple.

To recur to an image I have used for many years, the challenge facing a process-oriented economic theory is to explain the orderliness of a crowd of pedestrians leaving a stadium after an event. In contrast, orthodox economic theory treats its task as explaining the orderliness of a parade. Among other things, we do not start with census-like data that are to be explained by comparative statics because the relevant data emerge through economic interaction among market participants. So-called data are the objects of theoretical explanation, and not the starting point for explanation.

Where equilibrium theory inserts exogenous shocks into a situation to generate change, non-equilibrium theory treats change as an ordinary and
emergent feature of interaction among economizing agents and their plans. For a process-oriented economic theory, exogenous shocks to a social system are rare, perhaps as illustrated by a meteor strike. What are described as exogenous shocks within the confines of equilibrium theory are, to the contrary, manifestations of the continual clashing of plans that are a feature of open-ended processes of creative interaction.

Equilibrium theory focusses on resource allocations and reduces economics to acts of choice. Non-equilibrium theory focusses on processes of human interaction and their governance, with resource allocations being emergent by-products of those processes. Furthermore, non-equilibrium theory operates through complex ecologies of networks, in contrast to the field-based simplicity that characterizes equilibrium theories. I should also note that I do not regard the two types of theorizing as entailing a choice between right and wrong. To the contrary, I regard them as entailing a distinction between the foreground and the background of the contents of a theorist’s mind.

Course Format

The class will meet 14 times starting on 28 January, with there being no class on 11 March due to spring break. As most of you probably recognize from conversations with other students in the program, I treat advanced graduate classes as venues for joint inquiry. The object of inquiry this semester is macroeconomics, as reflected in my plan for this semester to develop a book I have tentatively titled *Macroeconomics as Systems Theory: Emergence, Institutions, and Economic Process*, for which I attach to this syllabus and the preface and provisional table of contents for the book I will develop this semester.

My work for the semester will entail drafting the book chapters. Your work will entail submitting five short essays that call for creative imagination and one longer essay that calls for you to deploy your creative imaginations in a potentially publishable direction. Your short essays will entail critical responses to my drafts. Your longer essay will entail your effort to develop a professional paper that amplifies some theme you find in *Macroeconomics as Systems Theory*.

The course will proceed in a lecture-cum-discussion format. I don’t work with detailed scripts, as I like classes to have improvisational character. How the semester unfolds will be an emergent quality of classroom interaction. The relationship of individuals to society is one of parts-to-whole. This relationship is not one of addition, because the whole of something entails greater phenomenal complexity than any of the parts out of which that whole is constituted. Contrary to conventional macroeconomics, you cannot get to society through summation over individuals once you recognize that structured patterns of relationships have
significant analytical work to do--and with those structured patterns having arisen through prior interaction.

I regard advanced graduate courses as venues for exploring new lines of thinking where we are looking for ways to articulate what has not yet been articulated, and not as venues for explaining what is widely regarded as settled knowledge. Like Shakespeare in Tempest, I embrace the idea that the past is merely prologue to what lies before us. You need to survey what is currently regarded as settled knowledge, but doing this serves only to provide a point of departure for scholarly work. Our primary course objective is to create new text; mastering old text is but a secondary by-product. Hence my classroom approach is one of “joint inquiry” and not “mental transfer.”

You will gain further insight into this distinction if you look at the earlier part of my essay “James Buchanan and Me: Reminiscing about a 50-Year Association,” which was published in 2013 in the Journal of Public Finance and Public Choice, is available on my SSRN page, and is also the appendix to my 2017 book on Buchanan.

While it is important to read widely, I don’t supply lengthy reading lists though I will suggest enough material to keep you busy during the semester. I also hope you read other materials and, more significantly, mix those readings with your imaginations to generate new insights that might lead to interesting analytical places. In my judgment, students become too accustomed to reading published work with an eye to taking exams. I suggest that you cultivate the practice of reading with an eye that continually looks for new ideas that you can articulate, as against absorbing old ideas that you can recollect.

Course Substance

I have ordered only one text for the semester. It is my Mind, Society, and Human Action which, as the title suggests, explores some core ideas in economic theory from an emergent rather than a choice-theoretic orientation. In addition, I will provide you with the chapters of Macroeconomics as Systems Theory: Emergence, Institutions, and Economic Process on a chapter per week basis as I draft them.

I regard Macroeconomics as Systems Theory as using ideas from systems theory, complexity theory, agent-based modeling, and related ideas to reorient the traditional Austro-Swedish approach to macroeconomics. I will devote the first day of class, 28 January and the first half of the second class session to exploring that traditional approach and noting what I regard as the conceptual infirmities I am seeking to repair. For that class session, you should review Roger Garrison’s Time and Money. You should also look at the review article I wrote with Ryan Oprea, a former GMU student: “Institutions, Emergence, and Macro
In recent years, I have written several papers that explore related themes. Of those, I recommend these to provide further insight into the material and the problems it must confront:

(1) Richard E. Wagner, “A Macro Economy as an Ecology of Plans,” *Journal of Economic Behavior and Organization* 82: 433-44. This paper is my most complete paper on themes regarding emergence and macro theory. Interaction among agents generates structure and data, and these in turn influence the actions of agents. Within the theoretical framework this course pursues, the micro-macro relationship is interactive and emergent and not independent and additive.

(2) Richard E. Wagner, “Austrian Cycle Theory: Saving the Wheat while Discarding the Chaff.” *Review of Austrian Economics*, 12 (No. 1, 1999): 65-80. This paper is an early statement of what had been my growing uneasiness with traditional Austrian macro theory.

(3) Paul Lewis and Richard E. Wagner, “New Austrian Macro Theory: A Call for Inquiry,” *Review of Austrian Economics* 30 (2017): 1-18, and available on my SSRN page. This paper sets forth Lewis’s and my thinking on the good and the bad of conventional Austrian theory on macroeconomics. It updates my 1999 paper and also introduces a symposium of papers written by people who were GMU students at the time.


(5) Richard E. Wagner, Viennese Kaleidosics: Why its Liberty more than Policy that Calms Turbulence.” *Review of Austrian Economics* 25 (2012): 283-97, available on my SSRN page as well. This paper explores economic coordination from the perspective of alternative societal responses to failed enterprises, for failure is an ordinary part of any free economy.

(6) Simon Bilo and Richard E. Wagner, “Neutral Money: Historical Fact or Analytical Artifact?” *Review of Austrian Economics* 28 (2015): 139-50. This paper explores claims about neutral money by relating those claims to the conundrum that what we see in the social world, or think we see, is shaped by the theories we develop to examine our material.

Starting with the second half of class on 4 February, I will present the manuscript chapters from *Macroeconomics as Systems Theory*. Each of you will prepare and present short essays on five of these chapters. Organizationally, I will divide the class into Green and Gold teams. Starting with class on 11 February, members of the Green team will present their thoughts and reactions to the material of Chapter 1, which I presented on 4 February.

For the second part of class on 11 February, I will present Chapter 2. Members of the Gold team will then open class on 18 February by presenting their thoughts and reactions regarding Chapter 2. For the second part of class on the 18th, I will present Chapter 3. We will continue this pattern until 22 April when members of the Gold team present their thoughts and reactions to Chapter 10, which I would have presented the second part of class on the 15th.

The format I have just described will leave us with 2.5 remaining sessions. I will devote the second part of class on 22 April to an open-ended consideration of what we have accomplished to this point in the semester. I anticipate that this session will evolve as some combination of review of past work and speculation about possible future work.

The final two sessions, on 29 April and 6 May, will be devoted to your presentations of your research papers. The members of the Gold team will present on the 29th, with Green team members presenting on the 6th. And, yes, I am aware that I have reversed the Green-Gold order for these final two sessions from the preceding ten sessions.

The length of time you will have for your presentations will depend on the size of the class, as I will divide presentation time evenly among you. By the end of class 4 February, I will be able to announce these parameters which will take effect starting 11 February.

**Your Work and My Appraisal of it (Grading)**

Each of your five short essays should be limited to four pages of double-spaced text, though less is also acceptable, and should include two or three suitable references that speak to the theme your essay entails. Each of these
essays will count for 10 percent of your course grade (50 percent of your course grade in the aggregate).

You will also submit a research paper that will count for 40 percent of your course grade. These must be prepared in standard manuscript style (double spaced) and must not exceed 20 pages of text. These are due by 1630 on 13 May, which is the time that is assigned for our final exam, though I will not give a final exam. You can submit your papers electronically.

The remaining 10 percent of your course grade will be based on my evaluation of your contributions to classroom discussions and presentations throughout the semester.

My perspective in evaluating your papers is that I am editing a book (or special issue of a journal, say the Review of Austrian Economics) devoted to creating a systems-theoretic restatement of macroeconomic theory, written from a process orientation. I will send you editorial reports on your papers which explain the basis for my evaluations.

I evaluate all your written work by what I judge to be its publishable potential, recognizing that judging that potential is different for four-page essays than for 20-page papers. In either case, a grade of A signifies that I think what I have read points in a publishable direction if carried to what I judge to be its destination. A grade of B indicates that while you have convinced me that you show good understanding of your material, you have not shown me that you are headed in a publishable direction. A grade of C means that I detect some significant holes in your knowledge and understanding of your material. A grade of F is a “none of the above” judgment that I hope I don't have to make. (Various pluses and minuses are also possible grades, and I think that by extrapolation you can attach reasonable meaning to those grades.)

Please note that my interest in the work we do this semester is in helping you to acquire the habits and practices of success. I have no interest in failure. For this reason, I do not accept late work nor do I give incomplete grades. Tardy work and incomplete grades are facets of a repertoire of failure which I will not countenance. If you are scheduled to give a paper at a conference but find you aren’t ready to do so, you won’t be given an incomplete and the conference will not be rescheduled to accommodate you. So don’t ask for incompletes or turn in late work.

**Three Quotations to End the Syllabus on an Advisory Note**

For several years I have been appending the following quotations to my syllabi because I think they provide useful orientation and even solace for graduate students.
First, from Samuel Johnson comes this recognition that fits well with Joseph Schumpeter’s statement that theorizing starts with a pre-analytical cognitive vision that we try to articulate, with varying degrees of success:

Every man has often found himself deficient in the power of expression, big with ideas which he could not utter, and unable to impress upon his reader the image existing in his own mind.

Dr. Johnson describes a situation with which we all have to wrestle in trying to render our intuitive hunches intelligible to others, as well as to ourselves.

Second, from Albert Einstein via Roger Koppl comes this sage counsel:

If we knew what it was we were looking for, we wouldn’t call it research, would we?

Research doesn’t always yield happy endings. We write many more pages than we publish. The process of writing triggers thoughts that often lead us to recognize that where we thought we were heading isn’t such a desirable place after all. So we change our angle of attack. Dead ends, cul-de-sacs, and just plain old frustration are part of the research process, and you must learn to persist in the face of such setbacks.

Third, during my student days I came across this statement in George Shackle’s Uncertainty in Economics about what it takes to be a good economist (to be sure, Shackle wrote this in the 1950s, when few women studied economics):

To be a complete economist, a man need only be a mathematician, a philosopher, a psychologist, an anthropologist, a historian, a geographer, and a student of politics; a master of prose exposition; and a man of the world with experience of practical business and finance, an understanding of the problems of administration, and a good knowledge of four or five languages. All this is, of course, in addition to familiarity with the economic literature itself.

As for the type of person best suited to the study of economics, Shackle later suggests it is

... the outstanding intellectual all-rounder with some leaning towards the arts rather than the natural science side. The person who finds mathematics fascinating without, perhaps, marching through the school course with that instinctive and professional certainty that would mark him as an out-and-out mathematician;
who betrays a connoisseurship of words and a delight in language, a gift for expression in English and a sufficient pleasure in the classical languages to awaken thoughts of scholarships, without really promising to become a Porson’s prizeman; who can find in every chapter of the history book the universal and eternal problems of man’s dependence on his fellow-men side by side with his rivalry and conflict with them, and can see with the historian’s eye the age-long empirical struggle to reconcile self-interest and enlightened compassion; who delights in maps and finds them, perhaps, more interesting than test tubes—this is the potential real economist.

What Shackle describes is more on the order of a lifetime project than something to be accomplished during your few short years as students. But you will have post-student life ahead of you, and Shackle’s statement is a lovely summary of an orientation toward economic theory that would allow economics to occupy the pivotal position within the humane studies that I think it should occupy, and with orthodox economics precluding occupancy of that position.