Teaching Information Literacy in General Education Using Conspiracy Theories

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Abstract

Introductory coursework in political science, particularly those courses that also satisfy general education requirements, have historically focused on imparting substantive knowledge within a particular subfield. However, I propose that political scientists may want to rethink approaches to general education to reflect the modern informational environment. While the internet and other communication technologies make information about politics and government more accessible than ever before, this has the unintended consequence of facilitating a more rapid, and often more consequential, spread of mis-/dis-information. Therefore, I posit that undergraduate courses, particularly those geared toward non-majors, should offer an increased focus on fostering students' political information literacy skills. In this paper, I will describe my approach to designing and implementing a general education course on mis-/dis-information centered around conspiracy theories. I will also present some preliminary findings on changes in students' beliefs regarding conspiracy theories before and after they completed the course. Finally, I reflect on how a course on political information literacy, such as this one, can complement other political science courses more commonly offered as part of an institution's general education program.

Introduction

Undergraduate introductory coursework in political science has historically been focused on imparting substantive knowledge about political systems, processes, and theories of governance. This is not to imply that instructors have neglected the development of important skills such as critical thinking and writing. Yet, I would posit that the foremost goal of many introductory courses is to impart the knowledge necessary for more advanced courses within the discipline. In my own subfield of American politics, an introductory course is often a prerequisite to more advanced courses on political institutions and behavior. And I, as I am sure is the case for many other instructors, would therefore expect students arriving in, say, a junior-level course on the U.S. Congress to know at least the basic structure and processes of the House and Senate (having dutifully taught them these things in an introductory course). Therefore, it is natural to perceive of the audience within introductory courses as comprised of prospective political science majors. But what if, instead, we thought of the primary audience as students who have no interest or intention of majoring in, or even taking additional courses within, political science?

This is a question that I have been pondering over the past several years for two reasons. First, because by my rough estimate only approximately 10% of students in my introductory courses on American politics and government were or became political science majors. Second, and despite my best efforts, I found that I still had to devote at least the first week of my upper-level courses to review of information originally taught in this introductory course. Upon realization of these two facts, I began to drastically rethink how I approached introductory courses, specifically those offered as part of my university's general education program. In doing so, my thought process kept returning to how to best prepare students to meaningfully participate

in the political process, particularly if this was the only course in political science that they would ever take.

Derived from a holistic view of civic education, my tentative solution is an increased focus on political information literacy. Despite my efforts to be a dynamic and engaging instructor, many (perhaps most) of my students display only a passing interest in politics and government. While they took the step of enrolling in the course, I find that, when students are being completely forthright, their decision to enroll is often not due to inherent interest. Instead, it is often due to reasons such as schedule fit or because their advisor recommended the course. At the same time, the vast majority of students in an introductory course are eighteen to twenty years old. They have, on average, fifty-five or more years to discover their interest.[1] And, when they do so, they are not likely to go up to their attic to dust off notes from their introductory course in American politics. Rather, they will turn to search engines, news shows, social media, and other readily accessible sources of political information.

Further, while I continue to believe that a foundational understanding of politics and government is vitally important to fostering effective political participation, levels of factual political knowledge have remained at a relatively constant (and low) level despite a large increase in percentage of the population obtaining a college degree (Delli Carpini & Keeter, 1996; see also Galston, 2001). In the absence of factual knowledge, citizens often rely on heuristics when making political decisions (Lau & Redlawsk, 2001). However, heuristics may lead to incorrect decisions, particularly in a highly polarized political environment rife with mis-/dis-information (Ali & Zain-ul-abdin, 2020; Dancey & Sheagley, 2013). Thus, I propose that

[1] While some scholars (e.g., Prior, 2010) find that political interest is relatively stable over individuals' lifespans, others find that citizens can be activated or mobilized to participate due to a variety of factors (e.g., Bode & Becker, 2018). Alternatively, in addition to motivation and mobilization, individuals may also, later in life, experience greater capacity to participate in politics.

one of the most important skills that I can help students to develop is political information literacy so that they can better consume and evaluate information when they access it.

While I began incorporating information literacy into my introductory American government and politics course, I quickly realized that a better solution may be to build a separate course specifically designed around developing information literacy skills. I settled upon a course on mis-/dis-information and centered the course specifically around the topic of conspiracy theories. After a review by the appropriate campus bureaucrats, my course titled "Conspiracy Theories and Misinformation" was approved to be offered in the "Civic Engagement and Social Justice" tier of our general education curriculum. I began offering the course during the Fall 2021 semester on an annual basis.

The following sections will briefly describe the course, its aims, as well as provide some data collected as part of a pilot study on the efficacy of the course. Overall, I feel that the course has been successful at teaching students important political information literacy skills and developing broader interest in the discipline of political science on my campus.

Course Design

I designed the course with the primary purpose of training students to identify, analyze, and ultimately reject mis-/dis-information. In order to provide a topical emphasis for the course, as well as to potentially cultivate student interest, I chose conspiracy theories as a vehicle by which students can use to develop their information literacy skills. Conspiracy theories serve as a particularly useful tool by which to study mis-/dis-information because there is a well-developed scholarly literature on this subject within political science as well as in social psychology. This allowed for a wide variety of choices for primary and supplemental courses readings, particularly an excellent book on the subject that is geared toward undergraduates (Uscinski, 2020).

I divided the course into two primary units. The first entails specific study of conspiracy theories. The unit begins by developing a specific definition of a conspiracy theory, including specific criteria by which students can classify claims as a conspiracy theory.[2] Other topics include the prevalence of belief in conspiracy theories, the psychology of belief in conspiracy theories, the politics surrounding contemporary and historical conspiracy theories, as well as strategies to debunk conspiracy theories. The second unit then confronts mis-/dis-information more generally, particularly through examining the generation and dissemination of fake news. Topics in this unit include defining fake news, examining how political elites use fake news to their advantage, the facilitation of fake news and mis-/dis-information on the internet, implications of mis-/dis-information for democracy, and strategies to confront fake news.

Throughout the course, students are assessed on five learning outcomes. Table 1 provides each learning outcome as well as an example of an assignment that is used to assess student learning on each one. I have used a combination of essay assignments and shorter homework assignments to reinforce key concepts and to assess learning. During the first half of the course, students complete three shorter essays of 750-1000 words. The first asks students to research a conspiracy theory of their choice. They must describe it, evaluate evidence for and against, and attempt to determine its prevalence. This serves as a prospectus, of sorts, for the longer (1500-2000 words) research paper due at the end of the course. The second shorter essay assignment asks students to create their own conspiracy theory. I then distribute these essays to students and ask them to debunk a conspiracy theory created by one of their classmates.[3]

[2] I prefer Uscinski's (2020) definition of a conspiracy theory as group of people, acting in secret, for their own benefit, against the common good, and without authoritative evidence in support of the theory.
[3] I adapted the conspiracy theory creation and debunking assignments from Uscinski's (2014) syllabus for his course "Conspiracy Theories and the Public" at the University of Miami.

I have also developed a series of five homework assignments that are due throughout the course. These largely ask students to connect course material to their own lives. For example, one assignment tasks students to poll people they know or encounter about their belief in several specific conspiracy theories. A follow-up assignment then tasks students with conducting a more in-depth interview of a believer in a conspiracy theory and to administer a short survey containing measures of several psychological constructs that predict belief in conspiracy theories. Finally, a third assignment provides an opportunity for students to track their exposure to mis-/dis-information and conspiracy theories on social media.

Table 1. Course Learning Outcomes and Examples of Assignments Used to Assess Outcomes

Learning Outcomes	Example Assessments
Distinguish reliable, credible, and scientifically-support information from unreliable information, misinformation, and disinformation	Essay asking students to debunk a conspiracy theory written by a classmate using authoritative evidence.
Identify prominent conspiracy theories germane to contemporary American politics	Short essay describing a prominent conspiracy theory related to American politics (serves as a prospectus for the research paper).
Understand micro- and macro-level factors that underlie conspiratorial beliefs	Homework assignment asking students to administer a survey containing several psychological measures predicting belief in conspiracy theories.
Understand the history and current trends regarding conspiracy theories, misinformation, and fake news in American politics	Research paper on a conspiracy theory of students' choice that is related to American politics.
Analyze the role of the media ecosystem in generating and reproducing misinformation and fake news	Homework assignment asking students to trace the origins and spread of a piece of fake news content related to a recent election that received coverage in mainstream news media.

As much as possible, I have tried to structure the course to give students the opportunity to be exposed to examples of mis-/dis-information, as well as the tools required to debunk the claims made by specific pieces of mis-/dis-information. These tools consist of concrete strategies or tests that can be applied, such as those proposed by Usckinski & Parent (2014), including Occam's Razor, asking whether the claims are falsifiable, etc. I also devote some attention to examining logical fallacies, such as straw man, false equivalence, and others.

Hypotheses

Based on the stated goals and learning outcomes of the course, I posit that at the end of the course, compared to the beginning, on average students should:

- *H1*: Demonstrate a decreased predisposition toward believing in conspiracy theories.
- *H2a*: Express greater trust in information received from the news media generally.
- *H2b*: Express greater trust in information from reputable print journalism, i.e., national newspapers.
- *H2c*: Express lower trust in information from social media.
- *H3*: Express greater trust in government.

These hypotheses will be evaluated in an initial pilot study detailed in the following sections.

Pilot Study

Methodology

Sample. The class consisted of fourteen total students, of which eleven completed the pre-course survey and thirteen completed the post-course survey. The class contained eleven men (79%) and three women (21%). Six students identified as white/Caucasian (43%), three students identified as Black/African American (21%), and five students identified as

Hispanic/Latinx (36%). Nine students (64%) in the class were international students (non-U.S. citizens/permanent residents).

Design. During the Fall 2022 semester, students were given a brief survey at the beginning and the end of the course (on the first day of class and during the final exam period). Means on each measure are calculated and compared between time points. Due to the small sample, only descriptive statistics are presented in the following (Results) section, and readers should assume that all differences are not statistically significant.

Measures. The survey contained the short version of the Generic Conspiracist Beliefs Scale (GCB; Brotherton, French, & Pickering, 2013). The GCB measures individuals' general predisposition to endorsing conspiracy theories through five factors:

- Government Malfeasance: Belief in criminal conspiracies conducted by governments.
- Extraterrestrial Cover-Ups: Belief in deception regarding evidence of extraterrestrial life.
- Malevolent Global Conspiracies: Belief in the existence of groups that secretly control global affairs.
- Personal Well-Being: Belief in nefarious governmental plots to control public behavior and health.
- Control of Information: Belief in the suppression of information by governmental actors and other elites.

For each factor, participants indicated their agreement with three statements on a five-point Likert scale. The full GCB scale is provided in Appendix A.

In addition to the GCB, the survey included several items related to trust in specific media organizations (newspapers, cable networks, etc.) as well as social media sites (Facebook, Twitter, and TikTok). Trust was measured on a five-point (1: "Not at all" to 5: "A great deal")

scale. There was also an item measuring their beliefs about the 2020 election being rigged (five-point scale ranging from "definitely not true" to "definitely true"). Finally, there were items measuring the percentage of the time that participants felt they could 1) trust the federal government to make decisions in a fair way, 2) trust the federal government to do what is best for the country, and 3) trust information received from the news media.[4] Each of these items allowed participants to enter a percentage ranging from 0% to 100%.

Results

General Conspiracist Beliefs (GCB). I first compare differences in means between the pre- and post-course surveys on the five factors measured by the GCB scale. As shown in Figure 1, the mean score on most of these factors declined between the start and end of the course. Specifically, students indicated that their general disposition to believe in conspiracy theories related to governmental malfeasance, extraterrestrial cover-up, personal well-being, and control of information decreased between time points. The largest drop occurred within beliefs regarding governmental malfeasance, with a difference of approximately 0.41 points. In contrast, mean scores on extraterrestrial cover-ups, personal well-being, and control of information declined only slightly, while belief in malevolent global conspiracies increased by a small amount (0.05 points). Overall, the mean on the full scale showed a modest decrease of 0.13 points between the start and end of the course. Scores at each time point never exceeded the scale's mid-point (3), indicating that students were, in general, skeptical about conspiracies in each of these five areas.

[4] These items were derived from the American National Elections Studies Time-Series Survey.

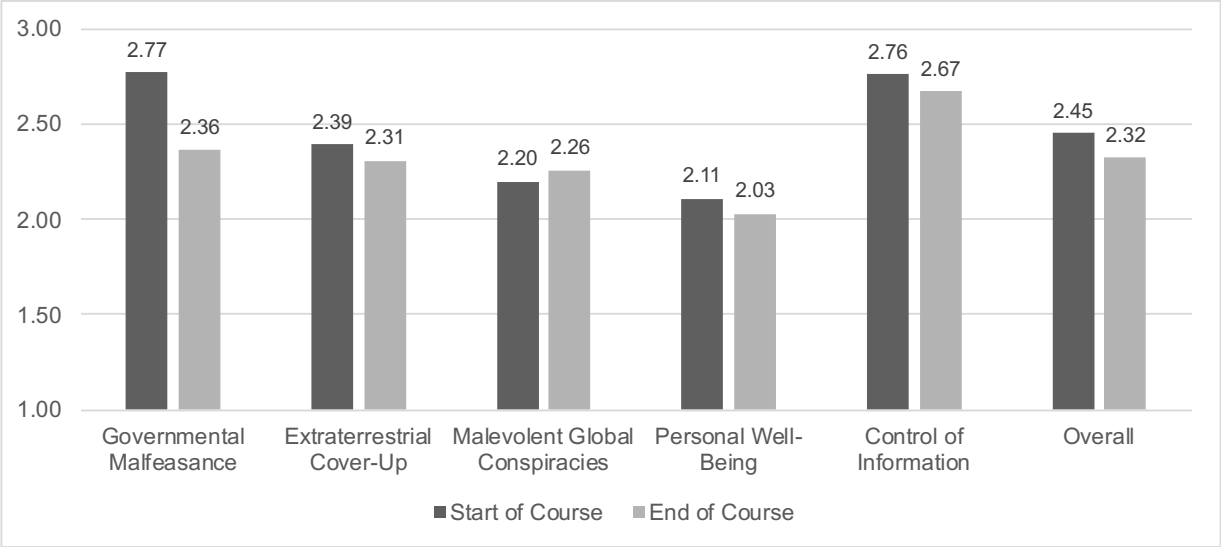

Figure 1. Mean Scores on GCB Scale Factors at the Start and End of the Course.

Trust in Media. I next examine differences in levels of trust in the news media and social media at the start and end of the course. These are plotted by specific outlet/site in Figure 2 and aggregated by type in Figure 3. For cable news networks, levels of trust remained very similar, with slight increases in trust toward Fox News and MSNBC, and a slight decrease for CNN. Newspapers saw slightly higher increases in trust, particularly *The New York Times* and, to a lesser extent, *The Washington Post*. Finally, levels of trust toward social media declined slightly, most notably toward Twitter, with a difference of 0.29 points.[5] Levels of trust toward these sources began low (1.70 out of 5).

[5] The course coincided with Elon Musk's acquisition of Twitter, which may have influenced ratings of its trustworthiness.

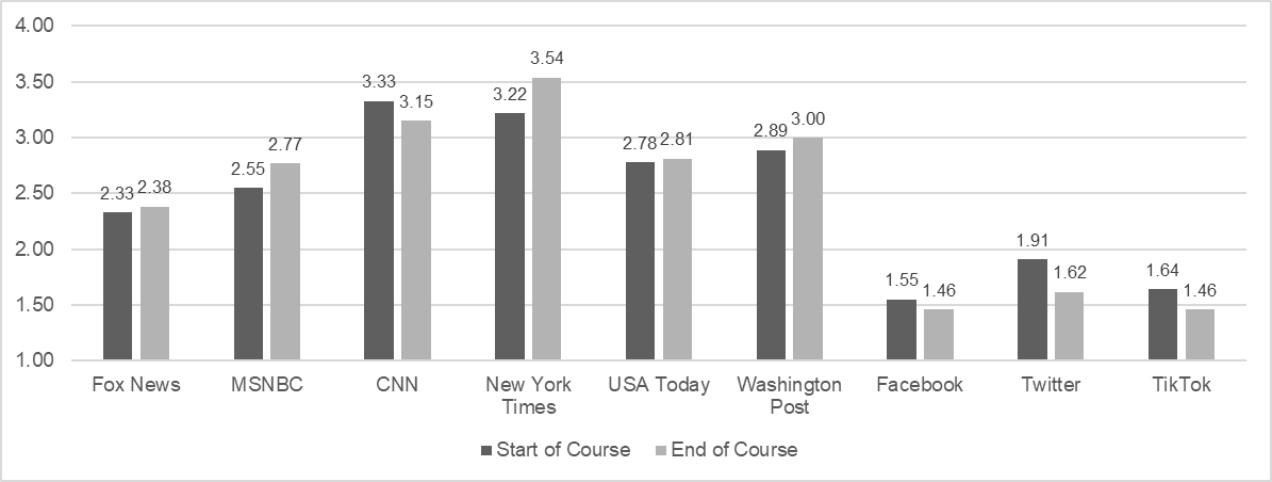

Figure 2. Trust Toward Specific Media Sources

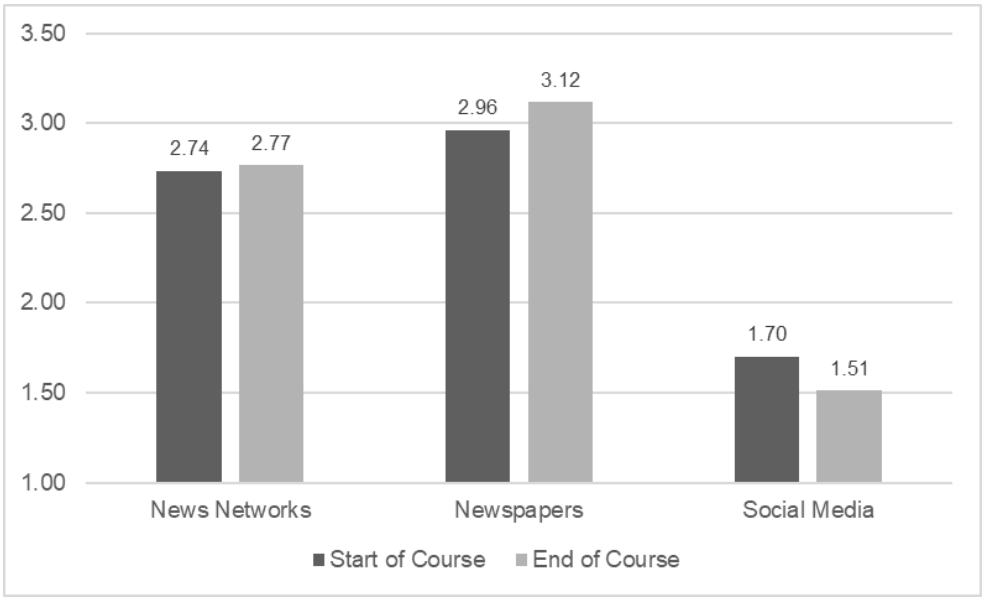

Figure 3. Trust Toward Types of Media

Additionally, as shown in Figure 4, there is an increase in overall trust toward the news media from the beginning to the end of the course. On the item asking for the percentage of the time that information received from news media could be trusted, the mean percentage increased by approximately 10 percentage points, from 45% to 55%. This also brings the mean from less

than 50% of the time at the course's start to over 50% at the course's end. Therefore, on average, students went from feeling that they cannot trust the news media the majority of the time, to feeling that they can.

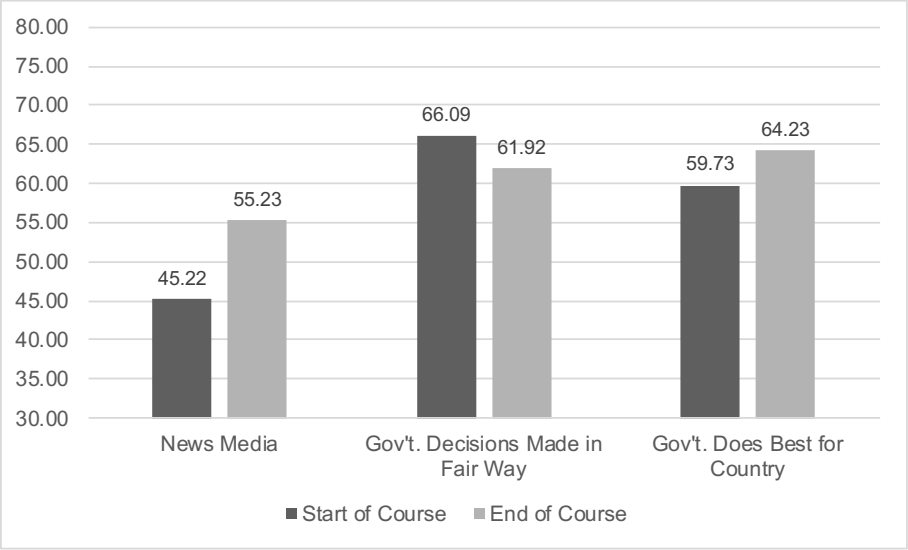

Figure 4. Percentage Levels of Trust Toward the News Media, Fair Government Processes, and Positive Government Outcomes

Trust in Government and the 2020 Election. Finally, I compare attitudes toward the U.S. federal government, as well as students' attitudes toward a specific conspiracy theory that the 2020 U.S. Presidential Election was rigged in favor of Joe Biden. I measured trust in government with two measures. The first asks respondents to indicate the percentage of the time that they feel the federal government makes decisions in a fair way. The second asks respondents to indicate the percentage of the time that they feel the federal government does what is best for the country. Therefore, the former items asks about process and the latter asks about outcomes. Regarding process, there is a slight decline, about four percentage points, in students' perception that the federal government makes decisions in a fair manner. Yet, there is a similarly sized increase in students' perceptions that the government does what is best for the country. Taken together, this

may indicate that the course resulted in slightly less trust toward process, but slightly more trust toward outcomes.

For the item measuring endorsement of conspiracy theories regarding the 2020 election, there was a decrease in the students' perception that these theories could be true. While students began with some skepticism, with a mean score of 1.95 out of 5 (or, on average, students believing that these are "probably not true"), the mean score eroded by 0.33 points. This resulted in an average of 1.62 by the course's end (much closer to the scale's minimum of "definitely not true"). Thus, students' uncertainty about these conspiracy theories became somewhat resolved over the duration of the course, in the direction of more certain disbelief.

Discussion

These results provide initial support for most of the hypotheses proposed. In regard to students' general predisposition toward belief in conspiracy theories, as measured by the GCB scale, students showed an overall decrease in beliefs, as well as specific decreases on four of the five factors measured. The most notable decrease occurred for beliefs on governmental malfeasance. This is likely due to the nature of the course and its focus on debunking explicitly political conspiracy theories, which often feature the federal government as the primary conspirator. Taken together, this provides support for Hypothesis 1.

These results also provide support for the second set of hypotheses. Hypothesis 2a predicts that students will show greater trust toward the news media. This is largely borne out in the results, with students overall showing an increase in the percentage of the time that they trust information from news media. They also demonstrate slightly higher trust in print sources, in support of Hypothesis 2b. At the same time, students demonstrate lower trust in information derived from social media sources, in line with Hypothesis 2c.

Lastly, Hypothesis 3 received mixed support. While there was a slight increase in students' perceptions that the federal government does what is best for the country, there was a slight decline in attitudes about the fairness of government processes. Yet, students expressed deeper rejection of a specific governmental conspiracy theory regarding the 2020 election. While this may be more related to government at the state levels, given the nature of U.S. election administration, nonetheless the increased skepticism regarding allegations of the election being rigged is a positive sign.

Conclusion

In sum, these results provide initial support for the efficacy of the course. Students seem to have become more skeptical regarding information supporting conspiracy theories, both in a general sense as well as toward the specific conspiracy theory regarding the 2020 U.S. Presidential Election. Students also seemed to have developed a greater trust in the news media generally, and print sources specifically. I would attribute this to discussions about journalistic process and integrity at reputable news outlets, particularly national newspapers such as *The New York Times* and *Washington Post*.

Of course, these results are highly preliminary and some caveats merit repetition. Most importantly, this is a tiny sample from a single semester and the sample is in no way representative. Further, this particular class included a sizable majority (nine of fourteen) of international students. While the course had a focus on American politics, it is likely that these students held less crystallized attitudes toward features of the American political system, most notably partisanship. It may be the case that attitudes of students from the U.S. may be more difficult to change on conspiracy theories that support their partisan attachment, and that

international students' attitudes toward government will vary to a greater extent due to contextual differences.

Yet, I feel that these results merit some degree of optimism. I believe that my experiences with this course, as well as results stemming from this pilot study, support the feasibility and efficacy of a political science general education course on information literacy. I also find that it may serve as a complement to other political science general education courses. At my university, students are required to take six hours (two courses) to mee the Civic Engagement and Social Justice tier of our general education program. Over the past two years, I have found that several students who took this course in the fall later enrolled in my introductory course on American government and politics in the spring. Several students have then continued on to major or minor in political science though, alas, the majority of students still could not be convinced to do so. And, while anecdotal, it seems from conversations with students that their first exposure to the discipline of political science in the context of this course broadened their perception of the types of topics and phenomena that political scientists study. In sum, by opening up our general education courses beyond introductions to specific subfields, I feel that the discipline of political science can foster important skills to support civic engagement, as well as potentially reinvigorate interest in the discipline.

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Appendix A: General Conspiracist Beliefs Scale (Brotherton et al., 2013)

Factor	Item
Governmental Malfeasance	The government is involved in the murder of innocent citizens and/or well-known public figures, and keeps this a secret
	The government permits or perpetrates acts of terrorism on its own soil, disguising its involvement
	The government uses people as patsies to hide its involvement in criminal activity
Malevolent Global Conspiracies	The power held by heads of state is second to that of small unknown groups who really control world politic
	A small, secret group of people is responsible for making all major world decisions, such as going to war
	Certain significant events have been the result of the activity of a small group who secretly manipulate world events
Extraterrestrial Cover-Ups	Secret organizations communicate with extraterrestrials, but keep this fact from the public
	Evidence of alien contact is being concealed from the public
	Some UFO sightings and rumors are planned or staged in order to distract the public from real alien contact
Personal Well-Being	The spread of certain viruses and/or diseases is the result of the deliberate, concealed efforts of some organization
	Technology with mind-control capacities is used on people without their knowledge
	Experiments involving new drugs or technologies are routinely carried out on the public without their knowledge or consent
Control of Information	Groups of scientists manipulate, fabricate, or suppress evidence in order to deceive the public
	New and advanced technology which would harm current industry is being suppressed
	A lot of important information is deliberately concealed from the public out of self-interest