

CRESWELL: ALTERNATIVE FUTURES FOR PRESERVATION AND GROWTH HARFORD COUNTY, MARYLAND

Scenario Planning Workshop Syllabus
URSP 688 D, Section 0201

Spring 2019

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CRESWELL: ALTERNATIVE FUTURES FOR PRESERVATION AND GROWTH

COURSE OVERVIEW

This course synthesizes seven initial contributing studies by the seven students in the class around one specific project in which the entire team participates. It creates specific tasks and ongoing specializations for each student which are merged into generalized team knowledge and experience around a difficult planning challenge – the selective expansion of an urban growth boundary into the Creswell area of Harford County. The logic of this expansion is to provide various options for significantly expanding the County’s housing supply (and, maybe, other economic activities) by 2040. Each student’s work will be reflected in their individual products and also in the final Framework Plan (FP). Individual grades are split roughly evenly between the individual and group effort.

This course also synthesizes the results of four other PALS Creswell-focused courses – two in Fall 2018 and two concurrent with this one in Spring 2019. These courses are by students from other disciplines (Engineering, Landscape Architecture, Law and Infrastructure). This project is part of the current multi-disciplinary PALS program in Harford County as summarized in Table 1.

While focused on one part of one County, this project represents a crucial, prototypical challenge for the State’s central counties, all of whom established some form of urban growth boundaries 30 - 40 years ago. They have not expanded them since. Housing supply dwindles and costs accelerate. Infill and redevelopment help but cannot solve the problem. The acute, paradigmatic challenge, therefore, is: how can a county add significant new housing in largely rural areas, with or without the extension of utilities, in a sustainable way? Solving this problem well for Creswell can provide options for many Counties facing similar challenges.

This challenge is both a planning one and a political one. Stakeholders on all sides of the boundary expansion question have hardened positions. As with all such major moves, the issues here are multifaceted and the way they will play out is uncertain; the analysis and planning will therefore also need to be nuanced and sensitive to multiple future options and outcomes. Because this project is abbreviated and hypothetical, it will not engage the public and key stakeholders directly and therefore cannot responsibly produce a clear direction or single plan. Instead it will produce a range of options (a framework) based on sets of plausible and coherent assumptions or scenarios. Scenario planning, in this context, means working in the Exploratory Scenario mode, a particular way of looking at the future that explicitly acknowledges uncertainty and therefore invokes specific steps in a structured process of developing alternative, plausible stories of the future.

This project will be managed as a small consultant team led by Uri and Matt in a hands-on way. Individuals will have their own areas of focus and products but all will collaborate to develop the plans and a tight, coherent and useful report. Areas of focus within the team, not covered by other PALS projects, will include demographic context, parcel ownership analysis, stakeholder analysis, fiscal impact, land use and growth management options, housing needs, infrastructure/transportation, and historic/cultural fabric. Familiarity with GIS is assumed. Mid-semester and final presentations to the County are scheduled as well as presentations by county staff, subject matter experts and others.

LEARNING OUTCOMES

Learning outcomes include: understanding how to develop land use-focused, scenario-based plans; how scenario-supporting software can assist the analysis; how a (compressed) consultant-client relationship process plays out; how tradeoffs between data, analysis and planmaking must be made in real time; and honed presentation skills. Areas of expertise developed by individual students will include: Utilities, Infrastructure and Transportation; Land Use projections; Fiscal Impact Analysis; Environmental and Historic/Cultural preservation; managing Agriculture in transition; Community Values analysis; Growth Management, Land use, and Zoning. The ambitious scope of the project means that the balance between instructors providing the team with ready-to-go frameworks for certain tasks vs. having

students learn by developing them will be an ongoing challenge as the work progresses and time crunches bear down.

Table 1. Interrelationship of PALS course components of Project

	Project/Faculty	Analysis of Exist. Cond., Trends and Alts	Resources Avail.
1	Environment – Green Infrastructure LARC, Myers Fall 2018	Area-wide analysis to detail green infrastructure and development area recommendations. watershed-based; streams; topo; forest; land cover; habitats; trails; important capacity analysis and density related proposals	County Planning completed a generalized current study of this and this will provide more detail: APA did a 2016 study; important GIS files from Myers class.
2	Sewer Options Engineering, Qingbin Cui; Fall 2018	Public sewer supply and capacity options; onsite options; innovative techniques; costing; phasing not considered; synthesis of reports and recommendations produced	S&W Dept; Master S&W Plan of 2006
3	Infrastructure URSP, Marccus Hendricks Spring 2019	Infrastructure needs broadly inc. schools, libraries, social services, public safety etc. Utilities analysis to include authority and phasing.	S&W Dept; Master S&W Plan of 2006; other infrastructure plans
4	Implementation analyses UMD Law Clinic- Seema Kakade Late Spring 2019	Assessing viability of various approaches to implementing the Creswell Plan (e.g. Value Capture, Overlay funding district, TIF, and TDR approach concepts); drafting related ordinances or statutes	Builds on alternative plans being developed below
6	Framework Plan for Creswell Plan - to be developed by NCSG's Uri Avin and students acting as a consultant team; input and help from Fall projects and liaison with concurrent Spring projects; input and seminars with other adjunct consultants on Transportation and Fiscal Impact etc.	A. Demographics - Age, income, occupation, clustering of sub-communities, etc.	ACS, etc. GIS thematic mapping
		B. Regional context – regional trends influencing County	Current capacities and market trends for housing and commercial
		C. Stakeholder Analysis - Political context; identify range of interest groups, networks and their values	Interviews; local newspapers; precedent;
		D. Nature, scale economies of current farming, including forestlands; protected farms and critical mass; soils;	MP and County have basic maps and policies; extension agent, Ag. Census; Phil Gottwals
		E. Land Use and Growth Management - Ownership patterns; parcel sizes;; housing needs; related facilities needs and APFO; employment and commercial uses; TDR testing;	Existing land use, zoning and assessment data bases; may require additional environmental analysis; impact analyses using CommunityVlz with Matt Noonkester
		F. Utilities – gravity or innovative systems;	Marccus, QC products
		G. Transportation; Road network and capacity issues; transit; impact of AVs; bikes;	JMT consultant study and model; JMT (Wolniak) plus student
		H. Environmental/historic/cultural; carrying capacity	Jana Vandergoot, LARC's Myers,
		I. Fiscal Impact - Net revenues or costs to County over 25 years (2045) and infrastructure financing options	Data from County on budget/finance; LOS; EDAB; Carson Bise input
		J. Synthesis- Developing alternatives and testing them; Developing Framework plan	Use all of above products from this course and other courses; sketch tool (s) to test impacts

COURSE PROJECT

The top priority project for our current PALS partner, Harford County, is a study assessing the potential to selectively expand urban development into a large area of the County (“Creswell”) that is currently largely rural (Figure 1).

Like most central MD Counties, Harford established their urban growth boundary in the late 70s/early 80s and it has barely budged since. Continuous growth over the past 40 years has stretched the central MD urban containment areas to the max and many will simply run out of developable land in the next decade or two. Rapidly rising housing prices in central MD has been one clear outcome of these inflexible growth boundaries as have super long commutes as households trade off lower housing costs against higher travel costs. Other states, like Portland, require jurisdictions to always show that they maintain a 25 to 50 year growth supply for housing as they plan for future growth.

Obviously such expansions are complicated and controversial. Accepting this reality, the County Executive elected to study this expansion issue as a designated follow on effort in Harford’s 2016 Master Plan. The Department of Planning and Zoning has now asked PALS to analyze this issue. The central question is can this be done sensitively enough to preserve aspects of the current landscape, character and functioning of the area but allow for more intense development in selected locations in selected ways?

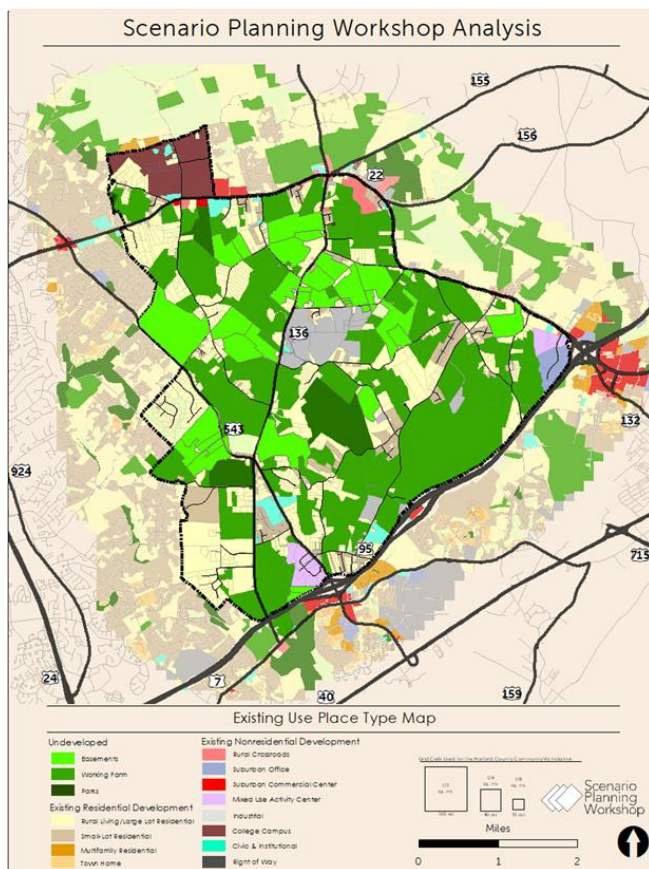
The topic has many cross-cutting facets that can support several courses in several disciplines:

- About 2,200 acres of the 13,000 acre study area are permanently protected via some form of agricultural preservation easement or as parkland. The protection and support for farming in the shadow of suburbia is an obvious challenge. The nature and future of agriculture in such a setting warrants serious study. Is a tool like the Transfer of Development Rights an option here?
- The above issue ties to the broader one of a treasured image and heritage for a quasi-rural county. Are there viable ways to manage development so that the dominant character and aesthetic is still rural rather than suburban for the overall area? What are the key cultural elements of the landscape and of historical communities to retain and how? Several rural villages and crossroads dot the area. What is their future?
- The study area has about a dozen national register historic sites and settings and many locally designated ones which would be threatened by urbanization. How can this be avoided?
- This is an area with gently rolling terrain that spans three sub-watersheds and that is largely forested. Important streams and greenways traverse it creating wildlife corridors and preserving water quality and preserving ecosystems. Several trails cut through the area and there is the potential for more. How is the environment managed in a transition to more urban uses?
- The area’s southern boundary is I-95 and it has two interchanges with it. To the north it is bounded by US 22, a four lane arterial, which connects the county seat, Bel Air, with the town of Aberdeen. For the rest it is served by several two lane arterials and collector roads that could be overwhelmed by growth. How much road capacity increase and/or additional network connectivity is needed and where? In an autonomous vehicle world, what changes?
- The exact amount, intensity and location of urban growth is a key focus of this study. Alternative scenarios for different forms of development and their impacts also invoke questions of placemaking and development character, issues uppermost in residents’ minds.
- The “appropriate” degree of relief provided to housing needs in the county is an open question for the study and its relationship to economic development opportunities and growth is another.
- This is an area not currently served by public water and sewer. Utilities can be provided in various ways each of which needs analysis. They have different implications for development phasing and represent an opportunity for sequencing growth in a considered way.

- Other facilities must also be provided like schools, parks, emergency services etc. and their coordination and relationship with the County's primary growth management tool, its Adequate Facilities Ordinance, will need revisiting.
- What are the fiscal implications of this expansion for the County and how can the infrastructure expansions be financed and implemented?

This recitation of challenges represents a unique opportunity for multiple disciplines to weigh in from their perspective to inform broad "Alternative Futures Plans" that will be the ultimate product of this effort by PALS. Elements of the planning options developed will be tested using various models or tools as appropriate. Students will engage with a range of County departments during this effort but not with the general public since it is in the preliminary feasibility stage of enquiry. The students' products, however, will inform public discussions and decisions ultimately made by the County.

Figure 1: Study Area



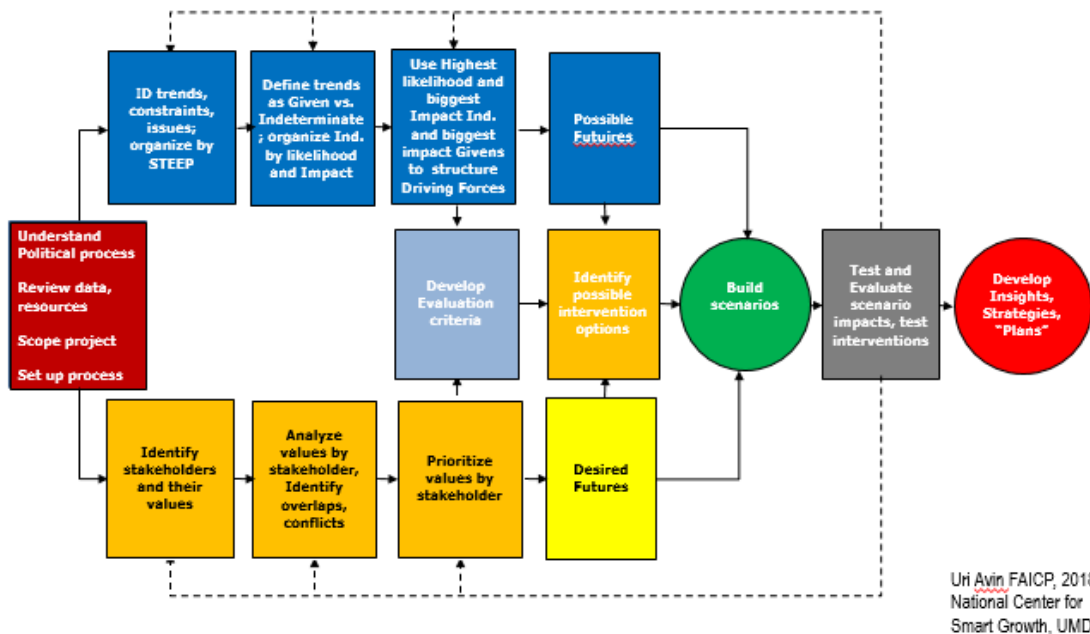
SCENARIO PLANNING

As noted in our course overview, we will approach this project using an exploratory scenario framework. Such an approach may be warranted when several conditions exist:

- We are looking a long time into the future – in this case 25 years out to 2045
- The nature of the project is complex and its outcomes uncertain – we cannot specify up front the “right” amount and kind of change in the large Creswell area
- This uncertainty is twofold - both the future forces “out there” driving changes in the larger area are uncertain and the attitudes of stakeholders in the area and county are very different and in conflict over the project

The steps in the exploratory scenario process we will approximate (time will not allow us to cycle through all of them) are shown in Figure 2. These steps will influence how we conduct many of our tasks from the get-go. The review of trends and driving forces in the early stages of our work (blue boxes), for example, will be framed around specific kinds of analyses as will the attitudes and values of the stakeholders. Our resulting grasp of both possible and desirable futures are the raw material from which we will craft our scenarios. Our testing and evaluation of these scenarios via a sketch planning tool called “CommunityViz” will likely require us to revisit our earlier analyses (feedback loops) so that we can produce a coherent and persuasive set of futures for Creswell.

Figure 2: the Exploratory Scenario planning process



TEAM ROLES

Students will wear different hats throughout the semester per Table 2 below, some for a short period, others continuously. While the primary focus of the individual studies will be drawn from the second column in the table, we will remain flexible about the specific range of content as our work unfolds so that aspects of students’ secondary and other roles can be rolled into the individual studies and the overall document as well. Each student’s individual work will likely constitute part of a chapter in the Alternative Futures document and will also comprise an Appendix or part of one. A student will also act

as the project manager for the team and key client liaison. The detailed schedule presents roles and tasks for each student over the semester, as appropriate.

Table 2: Team Roles

Name	Primary focus	Secondary	Other	Mentor	County POC
Bilal Ali	Fiscal	Finance	Econ. Dvpt; GIS	Bise	Robbie Sandglass
Sarah Latimer	Environmental	Modeling	GIS	Noonkester	King/Johnson
Nick Mackereth	Housing/demogr.	Econ. Dvpt	Stakeholders	Avin	Parrish/Overbay/Adler
Kari Nye	Agriculture	Stakeholders	TDR, Rural Character	Gottwals	Bill Amoss Jr
Russ Ottalini	Transportation	Urban design	Land Use	Wolniak	Alex Rawls
Jerah Smith	Land Use/Gr. Mngmt	Implementatio n	Proj. Mngmt	Avin	Brad Killian/Jenny King
Annalinden Weller	Utilities/ Cultural landscape	Other infrastructure	Stakeholders	Avin/ Vandergoot	Joe Seimeck/Bill Bettin

MASTER TIMELINE

The project has 9 tasks in all, including two presentations to the client, a site visit and final polishing of the product. It is a very compressed schedule and slippage will be avoided; we will shortcut tasks rather than lose a week. The semester will have a mix of one and two sessions per week as indicated in the single or double cells below, totaling about 24 meetings. The first six weeks are largely individual work and the team typically meets once a week to share findings and participate in seminars. The second half of the semester is very interactive and will meet twice weekly to work together on the project. As the semester proceeds, we will revisit the need to meet this frequently. The color coding on the schedule matches the sessions described in the Summary Schedule. Most meetings are on Tuesday; Thursday meeting dates called out in red font in summary schedule, first column. Dots identify key deliverables.

Weeks	1/2 9	2/5	2/1 2	2/1 9	2/2 6	3/5	3/1 2	3/1 7	3/2 6	4/2	4/9	4/1 6	4/2 3	4/3 0	5/7	5/1 4	5/2 1	5/2 8
Background Research – County Plans																		
Focus Area Research generally																		
Site visit																		
Synthesis and Scenario development						•												
Midpoint presentation								•										

		and focus areas;	Analysis on Feb 18; Cornelius Comm. Ass. skim	
T, Feb 26	Site visit and tour with County staff; County staff presentations and discussions on study area and focus areas; ½ day event in County	Site visit; prepare questions. Take notes, photos	N/A	County staff
3. Synthesis and Scenario Development				
Th, Feb 28	Begin scenario thinking background, approaches, analysis and development and review sketch tools;	Scenario assignment defined	Scenario readings by Avin: Chapter from 2007; NCHRP on tools (2016)	Uri
T, Ma 5	Present scenarios; Prepare synthesis maps: Existing Conditions; Problems and Opportunities; Hard/Soft analysis; inputs for CommunityViz (Uri and Matt)	Scenario assignment due. Present/review scenarios and synthesis maps;	Maybe chapter in Berke on overlay mapping? Matt N. two sample readings; review PlaceTypes; General CV Methodology summary; ;	Examples of synthesis mapping and products – Uri/Matt; Matt N. 1 st visit and teaches/works on map overlay ideas
Th, Ma 7	Scenario consolidation and refinement, further mapping and presentation development;	Elements of presentation developed;		
T, Ma 12	Scenario Development and prep for midpoint presentation (3 hr class)	Work up ppt presentation		Uri 2 nd MN visit. PG visit? Maybe MW visit?
W, Ma 13, Th Ma 14	CommunityViz training for 5 students and 3 Harford staff in Digital Research Lab room 0111 – all day 13 th ; morning 14 th			Matt Noonkester
Th, Ma 14	Presentation to County of analysis, synthesis work and scenario concepts	Scenario concept presentations	Input from other concurrent courses; Law course students invited.	County staff; Scenario development; MN attends
Spring break (March 17 – 24)				
4. Scenario Detailing, Testing and Refinement				
T, Ma 26	Presentation of draft scenarios to Marccus' URSP 688 on March 25 (Uri) Revisions to scenarios and begin detailing scenarios (Matt);	Revise, detail and refine CV model inputs and model structure;	Readings on UGBs; Interaction with law students; Inf. Class produce Goals and Objectives March 25	MK visits this Tuesday for 3 rd visit; Phil Gottwals visit
T, April 2	Ongoing CV workup Focus areas; Presentations: APFO; PG Housing Plan; Infrastr; EDLENS (Uri – 90 min)	First impact test runs via CommunityViz inc. fiscal; transportation	Input from other concurrent courses via visits/reporting back;; CONNECT our Future scenario Planning summary; ARS 10 Community Indicators 2005	
Th, April 4	Framework Plan workup;	Review impacts and refine plans	Input from other concurrent courses	MN, CB, MW, PG attend to assist in interpretation

T, April 9	Framework Plan workup (Matt)	Second impact test runs; Develop next version TOC draft of Plan	Input from other concurrent courses; URSP 688 do interim presentation	MK 4 th visit
Th, April 11 (3 hrs)	Plan testing and impacts analysis (Matt)	SILO test? Bay model test? TMDL test? TDR test? Review model outcomes	Input from other concurrent courses; interaction with law students;	MK stays on and CB, MW, PG attend
T, April 16	No formal class presentations – APA conference; student work continues	Ongoing work	Exchanges with other concurrent courses; URSP 688 produce Identification and Evaluation of infrast. Alts on April 15	
Th, April 18	Plan revision, testing and impacts analysis	Finalize plans; begin to prepare presentations	Exchanges with other concurrent courses	
T, April 23	Plan Finalization LU/Transport overview – Avin (45);	Assignment 1 due; finalize plans; begin to prepare presentations; flesh out TOC	URSP 688 Infrastructure interaction; Interaction with Law students	Brad/Jenny visit for feedback/guidance
Th, April 25	Presentation prep (Uri/Matt)	Dry run presentations; finalize writing tasks for Plan	URSP 688 Infrastructure Final Reports due April 24	MN visit
T, April 30	Presentation of plan to County			
5. Revisions and Final Report				
Th, May 2	Revisions and Report writing			
T, May 7	Report writing			
Th, May 9	Report writing			
T, May 14	Last day of class;	Final draft report due		Harford reviews draft report
Final polishing and editing etc.				First two weeks of Summer; Uri and some students

TEAM ORGANIZATION

All students participate in developing the scenarios and refining and testing them; individual student specialists will provide their angle on the scenarios as needed (e.g. Ag, Fiscal. Env.) but all work on each of up to four scenarios, which includes a baseline/trends scenario. To do this the class works as a team. As needed, small groups of students will need to meet to discuss and review their specific areas of overlap (e.g. ag. pres. and environmental) and bring their recommendations back to the group. The first half of the semester will be heavy on individual work, some readings and lectures/seminars from the faculty; the second half will be plan and teamwork focused, allowing for some teamwork during class, and will be much lighter on readings and seminars.

WINTER BREAK READING

Winter break reading for all: HarfordNext, the County Master Plan, Chapters 1-7, and the Churchville/Creswell community planning area text (obsolete given our project but provides current vision), and the text on Fallston and Greater Bel Air to give a flavor of the approach of the sector plans for urban-suburban areas. About 150 pages altogether:

<http://hcggis.harfordcountymd.gov/Planning/NEXT/>. Also Chapter 3 from Lew Hopkins, Urban Development: the Logic of Making Plans (2001)

DETAILED WEEKLY SCHEDULE, READINGS, ASSIGNMENTS

The weekly schedules are organized by each of the 9 major tasks. They apply to work by the team as a whole and, when appropriate, for each student and the faculty. They are detailed and specific for the first half of the semester so as to minimize logistical confusion and delays during the early going. The second half is much less detailed since we may need to adjust our work program and schedule based on our experience during the first half, interaction between team members over modeling inputs and run times and the schedules of our adjuncts.

Individual weekly work and readings fall into one of three categories: readings, reviewing and tasks. Reading implies thoroughly reading the text. Reviewing implies skimming while still gaining a strong understanding of the material. Tasks indicate your goals for the week – whether they be to continue working on a map, understand specific context, or speak with your POC with the County.

1. County plans by focus area – background research

In these first two weeks we will all dig into the relevant county material and resources relevant to our particular focus and share it with the team (ppt). In the following two weeks students dig into their focus area generally so as to place the county planning background in a broader disciplinary context. The key is to be selective in the local material and focus area material you choose to review, present and document. More is not better. We can always go back to dig for more. What seems most important to our project needs and scenario process? The focus areas knowledge is also shared with the team (ppt) and then both background and focus area research are documented as a deliverable product worth 30% of each student's grade, including the presentations. The deliverable itself must be conceived of as fitting neatly into the report and the appendices (see TOC) and will be set up in a consistent format template.

Tuesday, Jan 29 – 3 hours: Scope and process review; discuss masterplan; prep for background research

Class Topics: brief syllabus discussion; Masterplan facilitated discussion; presentation on masterplans generally, regional context and growth management (Uri); begin researching background material

Class work: N/A for this week

Class readings: HarfordNext Masterplan – winter reading

Individual work and readings

Uri Avin: prepare presentations on the various Plans in HC, Harford compared to region and state and on the growth management context of HC.

Student tasks here relate to their reading of the HarfordNEXT masterplan back during winter break.

Bilal Ali; pay special attention to fiscal/financial aspects, economic development aspects and quantitative analysis conducted generally

Sarah Latimer: pay special attention to environmental analysis and workup, data used and how conflicts were addressed; review products from LARC green Infrastructure PALS class (Dave Myers)

Nick Mackereth: pay special attention to demographic analysis, projections and assumptions and to housing coverage and economic development

Kari Nye: pay special attention to agricultural issues and analysis, rural character issues and evidence of stakeholder influences

Russ Ottalini; pay special attention to transportation and related issues and to urban design and land use

Jerah Smith: pay special attention to handling of land use and growth management and to implementation

AnnaLinden Weller: pay special attention to cultural and historical preservation, housing, plan making process and inferred stakeholder input; review products and mapping from Engineering class on sewer (Qingbin Cui)

Assignments: All to research their background info and focus area for Harford County and Creswell digging into available resources and touching base with their County POCs early to identify relevant resources. Students will present their Harford County-based findings and general area of focus to the team (ppt assumed) in three weeks on Feb 19 and prior to the deliverable due on March 5, in 5 weeks.

Tuesday, Feb 5 – 3 hours: continue background HC Plan finding, begin focus area research; precedent plan presentations

Class Topics: Discuss findings to date; presentations of relevant plans in MD (Uri); discussion on next task – focus area research

Class work: Begin preparing base maps for Creswell, surrounding area context and explore various geographies to be used in study (e.g. watersheds, TAZs, census tracts and block groups, political boundaries etc.) and make mapping recommendations.

Class readings: beyond your focus areas, read the Peters Township Plan CommunityViz example by Matt Noonkester to get a flavor for the kind of planning we will be doing.

Individual work and readings: The individual readings below as starter resources only; students must explore and find more material, including newspaper and journal articles.

Uri Avin: Selectively review other HC plans and talk to County POCs and market consultants; provide structured templates for student ppt and report.

Bilal Ali:

- Read any previous fiscal impact studies done for Harford (provided by County);
- Read Town of Bel Air Real Estate Market Analysis (2016) by Camoin Assoc.
<https://belairmaryland.org/wp-content/uploads/2016/05/Bel-Air-Alliance-Market-Study-0316.pdf>;
- Read Chapter 4: Tourism, Harford County Destination Study (2011)
<https://visitharford.com/content/docs/market-study-062513.pdf>;
- Review Economic Development Advisory Board 2011 Vision and Work Plan
<http://www.harfordcountymd.gov/DocumentCenter/View/3167/EDAB-Visioning-and-Work-Plan-PDF?bidId=>;
- Review at current Harford budget
<https://www.harfordcountymd.gov/ArchiveCenter/ViewFile/Item/1417>
- Review history of efforts to capture spin off employment from BRAC at APG;
- Talk to Bise/Noonkester about how fiscal impact is done in CommunityViz using the Loudoun County report as an example (ELMS);
- Talk to County POC;

Sarah Latimer:

- Review 2018 Fall LARC PALS course green infrastructure products and the 2018 consultant study it drew on by Ted Weber;
- Read APA CPAT's A Green Infrastructure Vision for Harford County (2016) (ELMS);
- Read HarfordNEXT Appendix II: Water Resource Element Plan (ELMS);
- Review Noonkester's GlenLennox CV data needs sheet as example (ELMS).
- Review current environmental plans, docs
<https://www.harfordcountymd.gov/2030/Environmental-Planning>;
- Review Rec and Parks plans, docs
<https://www.harfordcountymd.gov/DocumentCenter/View/12284/2018-Land-Preservation-Parks-and-Recreation-Plan>;
- Review environmentally related zoning and subdivision regulations (ELMS);
- Speak to County POCs about other resources, plans issues;
- Work on mapping startup (under team work).

Nick Mackereth:

- Review Harford County Consolidated Housing Plan (HUD reqd) for housing needs analysis and data at <http://www.harfordcountymd.gov/DocumentCenter/View/223/Consolidated-Plan-PDF?bidId=>;
- Review BMC Opportunity Collaborative Plan at https://ihiusa.org/wp-content/uploads/Baltimore_Regional_Plan_for_Sustainable_Development-June_2015.pdf;
- Review 2017 Residential Permit Activity (ELMS)
- Review Baltimore Metro Housing Market Update (June 2018) (ELMS)
- Review HUD's Short Term Housing Market Analysis (2016) (ELMS)
- Understand both local housing market and needs for County and region;
- Interview county staff on housing market perceptions and local engineers/developers e.g. Fred Ward and Assoc;)
- Map and analyze current demographic and socio-economic patterns in County and area (inc. housing values and related housing indicators for county and study area);
- Map and analyze parcel patterns and ownership;
- Initiate related thematic mapping as appropriate;

Kari Nye:

- Read HarfordNext Appendix I: Priority Preservation Area Plan (ELMS);
- Read Appendix IV: Harford County Landmarks Review and analyze relevant data (Ag. Census etc.) (ELMS);
- Talk to Mentor for readings (similar studies), research guidance
- Talk to and maybe visit with POC and tour area;
- Start mapping relevant existing conditions;

Russ Ottalini:

- Read HarfordNext Appendix III: Functional Classification of Roads (ELMS);
- Read MD 22 Corridor Study Final Report by JMT and relevant appendices (ELMS);
- Review Harford County Bicycle Network Plan (ELMS)
- Talk to Mentor and POC;
- Work with team to match geographies of study (TAZs) with other geometries for project

Jerah Smith:

- Read APFO ordinance (ELMS);
- Read TDR article (ELMS)
- Review zoning code and subdivision regs (ELMS);
- Review staff reports and news articles on a few controversial rezonings – ask staff for suggestions to understand planning culture
- Understand how this relates to the master plan;
- Talk to POCs and Mentor;

AnnaLinden Weller:

- Review QC's Fall class work products in relation to Marccus' URSP Infrastructure syllabus and develop recommendations for what should be covered in the Utilities and Infrastructure area;
- Review Harford County Facilities Masterplan (2015)
<https://www.harfordcountymd.gov/DocumentCenter/View/1200/Facilities-Master-Plan-Final-Summary-Report-PDF> (ELMS);
- Review State of Facilities Report (2015);
<https://www.harfordcountymd.gov/DocumentCenter/View/1201/State-of-Facilities-Report-PDF> (ELMS);
- Review W&S Plan and maps (ELMS).
- Review Harford County Community College Facilities Master Plan (ELMS)

Assignments: Work on content for assignments due on Feb 19 (ppts). The next assignment on focus areas generally will likely modify the background research done by the county-specific information, allowing students to place Harford's work in a comparative framework and to assess it accordingly. As notes are taken and ideas developed, they should be fitted into an instructor-provided template for the ppt and written product.

2. Focus Area Research generally

The next two weeks will allow students to place their background research on Harford-specific topics into a more general context of knowledge on their focus area. This will facilitate a deeper understanding of their focus area and questions or gaps in the Harford County information that they can follow up on.

Both the background research of the past two weeks and the upcoming two weeks are to be reflected in the synthesis product due for presentation on Feb 19.

Tuesday Feb 12 – 3 hours: research focus areas; set up base mapping; topical presentations by faculty

Class Topics: discussion on focus areas to sort out any questions, issues, overlaps etc.; discussion, presentation and resolution on base mapping; presentation (s) on topic by experts: Bise; Wolniak;

Team work

Class readings for this class: the readings apply to the next two class sessions; base mapping and focus area readings – see below

- Read Berke, Urban Land Use Planning (2006), Ch 10, p 300-313; Ch 11, 316-346;
- Read Bise, PAS Report Fiscal Impact Analysis (2010), Ch 1, 2 and 4 (ELMS);
- Read Moeckel, NCHRP Synthesis 520, A Synthesis of Highway Practice, Integrated Transportation and Land Use Models, 2018, Read Summary p1-5 (ELMS).

The individual readings below as starter resources only; students must explore and find more material, including newspaper and journal articles.

Individual work and readings

Uri Avin: work with adjunct faculty on their presentations

Bilal Ali:

- Read entirety of Bise' Fiscal Impact Analysis: Methodologies for Planners (2010);
- Read Vicki Elmer and Adam Leigland's Infrastructure Planning and Finance: A Smart and Sustainable Guide for Local Practitioners (2014) Ch. 11-14, pp. 171-24;
- Review Noonkester Loudoun Tech memo on Fiscal (ELMS)

Sarah Latimer:

- Readings on environmental planning and analysis including Berke, Urban Land Use Planning (2006), Ch 6, 150-191;
- CommunityViz training per Noonkester;
- Continue mapping relevant existing conditions;

Nick Mackereth:

- Read Berke, Urban Land Use Planning (2006) Ch 12, p. 347-379;
- Read Avin's The Crunch for Housing in Central Maryland (2018) paper (ELMS);
- Review Arthur C. Nelson's Planners Estimating Guide: Projecting Land-Use and Facility Needs (2004), Chapters 3 and 4 (Residential and Employment land needs);
- Review Harford County Consolidated Plan (ELMS)
- Review Economic Development Advisory Board Visioning and Work Plan (ELMS)
- Continue mapping relevant existing conditions;
- Housing data and analysis of demand and supply;

Kari Nye:

- Read Brabec's Agricultural Land Fragmentation (2002)
<https://www.sciencedirect.com/science/article/pii/S0169204601002250>;
- Read Daniels' The Napa County Agricultural Preserve (2018)
<https://journals.sagepub.com/doi/abs/10.1177/1538513218769042>
- Read Gordon and Richardson, Farmland Preservation and Ecological Footprints: A Critique. Read Planning and Markets, (2006) <http://www-pam.usc.edu/volume1/v1i1a2print.html>;
- Read Heimlich and Barnard, Agricultural Adaptation to Urbanization: Farm Types in Northeast Metropolitan Areas (1992), <http://ageconsearch.umn.edu/bitstream/28849/1/21010050.pdf>
- Continue mapping relevant existing conditions;

Russ Ottalini:

- Read Berke, Urban Land Use Planning (2006) Ch 8, 228-248;
- Read Wolniak's Travel Demand Forecasting Methods excerpt on 4 step models (ELMS)
- Read Moeckel, NCHRP Synthesis 520, A Synthesis of Highway Practice, Integrated Transportation and Land Use Models (2018), Chapters 1, 2: Model Types and Chapter 7: Choosing a Model (ELMS)

Jerah Smith:

- Read Berke, Urban Land use Planning (2006) Ch 10, p292 – 312;
- Read Elliott's Ten Principles on Zoning (2008), Chapters 1, 6, 7, 8;

AnnaLinden Weller:

- Read Berke, Urban Land Use Planning (2006) Ch 8, p 249-257;
- Read Orenco systems readings (ELMS);
- Marccus course – select the most relevant Infrast. Book- either Infrast. Planning and Finance, Elmer et al; or Infrastr. Mngmt by Hudson et al
- Sewer and water design principles from readings;
- Explore State Health dept regs and experience vs innovative systems like Orenco; talk to officials

Assignments: prep for next week's ppt presentations on background plans and focus areas. The presentations should combine both aspects – what the County plans/studies say and how this relates to the focus area more generally – i.e. any gaps, additional analysis needed, more data, questions to the county, implications for the scenarios etc. Instructor to provide structure/template for ppt for consistency and to facilitate final report TOC format and appendix insertions.

Tuesday Feb 19 – 3 hours:

Class Topics: Team presentation and discussion of background plans and focus areas

Team work and readings for this class: complete readings; prepare and present ppt show of background plans focus areas; prepare paper on background area and focus area for submission on Tuesday, March 5. No additional specific individual readings; skim Noonkester Cornelius Plan Community Assessment doc as detailed example (ELMS)

Individual work and readings

As above

Assignments:

As above

Tuesday Feb 26: Half day Site visit and tour of Creswell

Class Topics: Initial briefing by staff and Q&A and then tour in a bus

Team work and readings for this class: prepare questions as relevant for your background research and focus area; continue or start work on mapping and synthesis; take notes and photos during site tour; think and ask about driving forces and stakeholder values and plausible futures.

Individual work and readings

Uri Avin: Coordinate visit logistics with County

Team: As above:

Assignments:

As above

3. Synthesis and Scenario Development

Thursday February 28 – 1 ½ hours; understand varieties of scenario approaches and begin developing components and elements of them for Creswell; understand application and role of scenario software tools

Class Topics: faculty presentation of scenario approaches and examples. Review of software tools; explain and begin scenario development assignment (due next class on March 5th).

Team work and readings for this class for all: develop reflections and notes from site visit and implications for background research conducted to date; continuation of mapping exercises and overlay options by topic area

- Avin, Uri. Using Scenarios to Make Urban Plans, Chapter 6 in Engaging our Futures: Effective Planning Practices, Hopkins and Zapata (eds), Lincoln Land Institute, April 2007
- Avin, Uri et al, Sketch Tools for Regional Sustainability Scenario Planning, NCHRP Project 8-36, Task 117, 2016 Chapters 3, 4 and 5 (31 pages) (ELMS);

Uri Avin: Presentations on scenario examples, development and tool application

Bilal Ali:

- Read up on Loudoun Co fiscal impact work (Loudoun Co technical memo) using CommunityViz and explore application and data for Harford and the Creswell area;
- Work with Carson Bise and Matt and Sarah on model needs and inputs;
- Set up any interviews with County Treasury POC, HCC etc. to get needed data for model etc.

Sarah Latimer:

- Fill in mapping gaps/modifications from LARC course – septic suitability soils, parcel ownership and aggregation potential;
- Training/work with Matt N. Before this Matt has set up project in CommViz;
- Develop lists and sequence of synthesis overlays;
- Matt/Sarah begin to work up indicators list and approach

Nick Mackereth:

- Mapping of demographics, socio-economics, land values, housing values and sales data, income, education, commercial development inventory and data

Kari Nye:

- Easement and non-easement farm mapping of farms by type of use, products, size, tenure etc.
- Additional mapping and analysis per Phil Gottwals.

Russ Ottalini:

- Existing transportation problems and potential future issues; additional analysis per Matt Wolniak

Jerah Smith:

- Begin zoning workup for TDR test;
- Training/work with Matt N.;
- Communicate and integrate useful analysis from the UMD Law Clinic work to this one.

AnnaLinden Weller:

- Begin developing alternative sewer/water options – public and non-public and interact with POC;
- Communicate and integrate useful analysis from the Hendricks infrastructure class to this one.

Assignments: Assignment 2 on scenario development discussed (to be submitted and presented as a ppt next Tuesday, March 5th). Each student to develop scenarios for presentation next session. Organize driving forces into Givens/indeterminates and by STEEP categories by impact and probability; correlate with values by stakeholder; per structure and templates given to class

Tuesday March 5 – 3 hours: Presentation of student scenarios; ongoing work on synthesis maps for Existing Conditions; Problems and Opportunities; Hard/Soft analysis

Class Topics: Scenario assignment due and presented by students. Uri and Matt present/review scenarios and synthesis maps presentations of scenario development examples and on how to synthesize findings and mapping; discussion of scenario drivers, stakeholders and approach to scenario construction and templates for client presentation.

Team work and readings for this class: All prepare assignment 2 and presentation of scenario development; collaborate on mapping synthesis.

- Noonkester, Matt. LCSPS Scenario resource book, 2015 (ELMS);
- Noonkester, Matt. CONNECT our Future Scenario Summary Sheets (ELMS);
- Noonkester, Matt. Review Connecting our Future Place Types document and identify preferences for the scenarios (ELMS);
- Noonkester, Matt. General CV Methodology summary (ELMS);

Assignments: Present scenarios; Prepare synthesis maps: Existing Conditions; Problems and Opportunities; Hard/Soft analysis; inputs for CommunityViz (Uri and Matt);

Thursday March 7 – 1 ½ hours: review consolidated scenarios and arrive at refined versions for presentation workup for client

Class Topics: presentation, discussion and fleshing out of consolidated scenarios and developing presentation storyboard

Team work: faculty synthesize presentations from March 5 for presentation and discussion and develop story board of presentation. Groupwork to critique, refine and finalize presentation materials for March 14th.

Assignments: prepare delegated elements of the ppt presentation to county for use in class of March 12th

Tuesday March 12 – 3 hours: Refining Scenarios and preparing and dry running of presentation to County

Class Topics: workup for presentation of scenario concepts, finalizing and dry running the draft outline ppt for Thursday to County. Noonkester 2nd visit.

Team work: Students present their analysis and approach individually (10 mins each = 70 mins); discussion and synthesis and selection (45 mins); outline story board of ppt show (35 min) and assign roles and ppt creation and start to dry run (30 min)

Team readings for this class: N/A

Individual work and readings: As above under team work

Assignments: Flesh out and polish ppt and dry run it before the Thursday presentation to client

Note: CommunityViz training for selected student(s) occurs all day on Wed 13th and the morning of Thursday 14th.

Thursday, March 14 – 2 hours: Scenario concept presentation to County

Class Topics: scenario presentation to core client group

Team work and readings for this class: each student has a role in the presentation, which is student-run. After the presentation and feedback, the team will hold a debrief session and compare notes on key revisions needed to the scenarios. Students for UMD Law Clinic invited to introduce them to project and client. Noonkester to stay over for this.

Individual work and readings: as above

SPRING BREAK – March 17-24 (see work and readings below)

4. Scenario Detailing, Testing and Refinement

This task covers the next 5 weeks and is the longest task timeframe in the semester. It incorporates extensive individual and group work and is iterative and creative in nature. There are much fewer reading assignments and seminars/presentations than in the first half and more individual work between students and instructors in class, convening into different groups as needed.

The work is much influenced by the need to prepare inputs for, run and iterate the CommunityViz tool and other related models. Tasks includes finalizing the scenarios conceptually, specifying PlaceTypes for them, operationalizing the general scenario goals as indicators and assessing scenario performance against them. It includes developing the data needed to run the impact modules of CommunityViz as well as the transportation and fiscal models. Tasks and products are thus very time-sensitive since inputs to the models must all be completed for a valid model run. Our schedule calls for two iterations of the scenarios through the models so that, on analyzing their impacts, the plans can be adjusted and the models rerun.

Because of all these moving parts, the detailed schedule and necessary readings for the next 5 weeks are organized around work done during class and work to be done between classes. Individual tasks are no longer called out as they will become evident during the work activities by specialty and for the class as a whole.

Work done during spring break to prepare for the second half of the semester included:

- Revising this syllabus
- Reducing the number of scenarios down to a manageable number after feedback from county at the presentation on March 14 to study two phasing sequences of the three scenarios.
- First cut at PlaceType selection
- Setting up a basic version of the CV model
- Individual student work on thinking through mapping and data needs for CV inputs
- Preparing inputs for quick testing of housing market absorption (via SILO) and traffic impacts from 20K new units on existing network

Class readings during Spring Break: Urban Growth Boundaries – divergent perspectives.

- Anthony Downs, Growth Management and Affordable Housing: Do They Conflict? (2004) The Brookings Institute, Chapter 1 Introduction p. 1-19
- Vicki Been, Ingrid Gould Ellen & Katherine O'Regan (December 2018) Supply Skepticism: Housing Supply and Affordability, Pages 25-40, Published online: 17 Dec 2018
- Randall Pozdena, The Housing Affordability Crisis: The Role of Anti-Sprawl Policy (January 2019), Cascade Policy Institute <https://www.cascadepolicy.org/publications/the-housing-affordability-crisis-the-role-of-anti-sprawl-policy/>

Monday March 25 – Uri visits Marccus Hendrick's Infrastructure class to brief them on the scenarios and their related infrastructure assignments

The assignments will focus on projecting the need for the following four systems under each of the scenarios, as phased in two options:

- Schools
- Parks and Recreation
- Public safety (EMS/Fire, Sheriff)
- Sewer and Water

These reports will provide timely inputs into CV and the fiscal models.

Tuesday March 26 – 3 hours: Revisions to scenarios, detailing and setting up for testing; Ag focus

Class Topics: discuss and resolve key aspects of scenarios and CV inputs (Matt/Uri); review revised schedule for next six weeks; presentation on Approaches to Ag. Pres. (Phil Gottwals)

Work in class:

- Finalize and define scenario concepts for CV modeling
- Finalize PlaceTypes palette
- Goals and related performance measures for CV defined
- Data needs matrix
- Discuss Opps and Constraints mapping
- CV model architecture
- Ag preservation presentation by Phil Gottwals and ag CV criteria workup

Work after class for next class:

- Build on Model for Trends and 3 scenarios
- How do we want to tell the story about the concepts? Slide deck?
- Systems mapping for Opportunity and Constraints product

Tuesday April 2 – 1 ½ hours: test scenarios

- Work in class: First runs of CV produced; perf. measures; format of final reports (Donna Mennitto)

Work after class for next class:

- Test of scenario alts reviewed via perf. measures
- back check data and assumptions
- review and refine results
- TAZ allocations for travel model run
- Apply allocation rules

Thursday April 4 – 3 hours: Begin building general framework plan; completed by April 16

Work in class (Matt):

- Syllabus/products/deadline review
- MOE review
- Allocation rules
- CV model results
- Summary sheet template
- Outstanding needs

Work after class for next class:

- Broad ideas and guiding principles by focus area
- Who, what, where and when and how – focus area meeting prep for 9th and 11th

Tuesday April 9 – 3 hours; focus areas refinement

Work in class (Matt):

- First draft due of infrastructure course assignment on Monday April 8th ; feedback to students by Friday April 12th
- Focus areas deep dives presentations and responses (15 min present;15 min Q&A)
 - Environment (Jana Vandergoot)
 - Cultural Landscape (Jana; Jeremy)
 - Agriculture (Mennitto attends; Arendt calls in)
 - Land use (McLaughlin attends)
 - Housing, Ec. Dvpt (Keller)

Work after class for next class:

- Review first draft infrastructure reports
- Prepare inputs and initiate secondary modeling – Transportation, SILO – over next week

Thursday April 11- 3 hours (to make up for lost session next Tuesday)

Work in class (Matt):

- Focus areas deep dives presentations and responses (30 min present;15 min Q&A)
 - Transportation (Wolniak)
 - Fiscal (Bise)
 - Infrastructure (Bettin attends)
 - Implementation

Work after class for next class:

- Prepare inputs and initiate secondary modeling – Transportation, SILO – over next week

Tuesday April 16 – APA Conference, several students not in class

Work in class

- Class meets for ongoing work as needed

Work after class for next class:

- CommunityViz runs
- Further secondary model runs

Thursday April 18 – 1 ½ hours: Scenario refinements; topical presentations

Work in class

- Revised final infrastructure course reports due Wednesday April 17th Incorporation of any additional findings, legal findings due April 15th – incorporation of any findings.
- Team group meetings for ongoing plan refinements

Work after class for next class:

- Ongoing communication between students and mentors

Tuesday April 23 – 1 ½ hours: Plan Finalization with client

Work in class

- Walk thru of Plan with Brad Killian and Jenny King of Harford County
- Scenario presentation roles and work up structure for April 25th, 30th
Assignments: Ass 1 due

Work after class for next class:

- Prepare presentations for dry runs on 25th

Thursday April 25

Work in class (Matt)

- Dry runs; guests invited

Work after class for next class:

- Practice presentations
- Final doc TOC draft

Tuesday April 30 – Final presentation to County

- Students present to County and Q&A session (90 mins)

5. Revisions and Final report

Tuesday May 7

Work in class:

- Revisions needed to Plan; Report TOC finalization; assignments for writing and templates
- Miscellaneous presentations by Uri on relevant topics passed over to date

Work after class for next class:

- Individual and collaborative writing; first draft due Sunday May 12

Tuesday May 14: last day of Class

Class Topics: Review/Discussion of Final report draft; delivery of files to County; topical presentations; course discussion and evaluation

GRADING

Class assignments should be sent to me electronically in Word via ELMS email by noon the day of the class unless otherwise noted. Late assignments will be marked down 10% for each day late. Assignment files should be titled URSP 688D, assignment name, Student name, in that order. Students are expected to attend all classes. Any absence requests and permission must be in writing or students will be penalized.

Individual grades based on:

- Individual Participation in and contribution to overall team effort: 50%
 - Synthesis 10%

- Scenarios 10%
- Plan development 30%
- Individual efforts : 50%
 - Background research and ppt 15%
 - Focus area research and ppt 10%
 - Scenario construction 15%
 - Specialty contribution to plan 10%

DELIVERABLES TO COUNTY

- CommunityViz training by Matt Noonkester – 12 hours
- Final report (electronic files and 2 hard copies) – 80 - 100 pages
- Appendices (electronic copies) – approximately 150-200 pages
- PPT show – 45 minute version with back-up slides, with notes

ACADEMIC INTEGRITY STATEMENT

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. For more information on the Code of Academic Integrity and the Student Honor Council, please visit <http://www.shc.umd.edu/code.html>