ACM Data Science Task Force Course Example

*Big Data Governance and Policy*
*Tsinghua University, Beijing*
Qingguo Meng

**Knowledge Areas that contain competencies (knowledge, skills, and dispositions) covered in the course**

| Knowledge Area | Total Number of Contact Hours |
|---|---|
| Data acquisition, Information extraction | 16 |
| Working with various types of data | 6 |
| Data privacy and security | 8 |
| Continuing professional development | 5 |
| Economic considerations | 5 |
| Legal considerations | 8 |

**Where does the course fit in your undergraduate Data Science curriculum?**
This course is part of a major but not compulsory, a professional elective for interested students. It doesn't have pre-requisites or needed following courses. As a public leader to have big data thinking, the students who take this course mainly in the senior grade.

**Is this course from or used in other curricula/majors?**

**What is covered in the course?**
Through the study of this course, students from the perspective of governance and policy, the application of big data in the field of public management and its applications may cause problems to have a deeper understanding and systematic understanding. Big data thinking, the ability to use big data theory and methods to promote public management and public policy problems to solve and realize, and to deal with the public governance problems brought about by the widespread use of big data in public management.

**What is the format of the course?**
The total number of hours in this course is 48. Includes face-to-face and discussion a deeper understanding and systematic understanding of the application of big data in the field of public management and the problems it may raise from a governance and policy perspective.

**How are students assessed?**
This course is on a percentage system. Total score (100) - Assignment (40%) - Discussion (30%) - Final exam (30%)

**Course tools and materials**
No additional material is required for this course.

**Why do you teach the course this way?**

This course is mainly in the form of classroom face-to-face, interspersed with small class discussions, and experiments. Classroom face-to-face teaching is mainly taught by teachers, as the most common form of teaching, can be more comprehensive and systematic transfer of the main knowledge points to everyone. Small class discussion can promote communication and exchange between students, the classroom face-to-face process of problems to focus on solving, timely answer questions and puzzles, so that students have a clearer understanding of knowledge, while in the process of discussion can deepen their understanding of the corresponding knowledge points, in order to achieve the new effect of warm knowledge.

**Body of Knowledge coverage**

| KA | Sub-domain | Competencies Covered | Hours |
|---|---|---|---|
| DG | Data acquisition, Information extraction, Working with various types of data, | 1. Big Data: A New Governance Proposition.<br>2. Integration and sharing of government data.<br>3. The meaning, challenge and path of government data openness.<br>4. | 22 |
| DP | Data privacy and security | Data Privacy Policy. | 8 |
| PR | Continuing professional development, Economic considerations, Legal considerations | 1. Big Data National Strategy and Policy System.<br>2. Policy Information: Big data underpins government decision-making.<br>3. Local Big Data Governance Practice: Take Guizhou Province as an example. | 18 |