The ADS Minor Curriculum

The curriculum is based on five, 3 credit, courses

- Progressing from Level 1 to Level 5,

Which cover the spectrum of learning needed

- to achieve domain area expertise
- in Applied Data Science

The courses are chosen to be both cross cutting

- i.e., intermixing students from across the university
- in the fundamental ADS concepts such as scripting and statistics (Levels 1,2, and 4)

And domain area focused (Levels 3 and 5).

Level 4 allows for UG ADS research experience in domain area.

- **Or other advanced topics**

This meets the 15 credit requirement of a minor.

Applied Data Science Minor: Approved Courses

Domain=>	Engineering & Physical Sciences		Health		Business		
	Physical Sciences	**Energy & Manufacturing**	**Translational ADS**	**Clinical ADS**	**Finance**	**Marketing**	**Economics**
5. Modeling & Prognostics	**ASTR 306:** Astronomical Techniques	**DSCI 353:** Data Science Modeling and Prognostics for Energy & Manu	**SYBB 459-** Bioinformatics for Systems Biology	**SYBB 322-** Clinical Informatics at the Bedside and Bench Part 2	**BAFI 361** Applied Financial Analytics	MKMR 308 Measuring Marketing Perf. MKMR 310 Marketing Analytics	ECON 327 Adv. Econometrics
4. UG ADS Research	DSCI 352***: Undergraduate Data Science Research** **SYBB387:** Undergraduate Research in Systems Biology and Bioinformatics						
3. Exploratory ADS		**DSCI 351:** Exploratory Data Science for Energy and Manufacturing	**3.** SYBB 311 A-D A- Technologies in Bioinformatics B- Data Integration in Bioinformatics C- Translational Bioinformatics D- Programming	**SYBB 321**- Clinical Informatics at the Bedside and Bench **NUND403B-** Nursing and Health Informatics		**MKMR 201** Marketing Management	
2. Inferential Statistics	**OPRE 207:** Statistics for Business and Management Science **EPBI 431: Statistical Methods** **Stat 312R Basic Statistics for Engineering and Science** **SYBB 310** Health Data Analytics in R **Stat 201R:** Basic Statistics for Social and Life Sciences						
1. Data Science Programming	**DSCI 133*:** Introduction to Data Science and Engineering for DSA Majors DSCI 134*: Introduction to Data Science and Engineering for ADS Minors						