New College of Florida
The Honors College

Projects with organizations

Practicums, internships and project options

New College students and faculty work with organizations on software, reporting and data analysis. Projects can address recurring reports, internal systems, research records or predictions used in planning.

An organization can bring a specific request or an interest in improving its work. Existing records, reports and systems provide the starting point for discussing useful projects.

Practicum

In a practicum, a student team studies a problem and completes a project during the semester, with guidance from faculty. The participating organization provides the data and a contact who can explain the work, answer questions and review progress.

A practicum runs for 10-12 weeks, with about 4-8 hours of the team's time each week. The organization's contact takes part in a kickoff meeting and weekly check-ins.

Internship

In an internship, a student works as part of the organization's team on an agreed project or set of responsibilities. The organization provides a supervisor, access to the information and systems needed for the work, and day-to-day direction and feedback. Faculty provide academic oversight.

Students work at least part time. Full-time internships during the summer or spring semester are preferred. The work schedule, dates and supervision are agreed before the internship begins.

Project options

The following pages cover general IT and data work, retail, credit unions and biomedical research. The website includes interactive forecasts and completed student work.

Industry projects

ncfdatascience.com/partners/industries

New College of Florida
The Honors College

IT and data projects

IT and data projects can reduce the effort of preparing reports, checking records and managing recurring tasks. The work can include internal software, data preparation or analysis.

Combine and check records

Exports from different systems may contain inconsistent names, codes or missing information. A repeatable import process can combine the records and produce a report of entries that need review.

Build a tool for staff

Internal software can replace a shared tracking spreadsheet, connect approved systems or make documents searchable. The intended users, tasks and working environment determine the requirements.

Improve reporting and analysis

A recurring report can include checks, documented calculations and a process for loading new records. Analysis can cover delays, use across locations or changes in demand. Forecasting is possible where the available history supports it.

Project scope

The project needs enough substance for the students involved and a result the organization can use. Available information, supervision and time determine what can be completed and what preparation is needed.

Initial discussion

Organizations can start with a recurring difficulty, a planned improvement or an interest in using software and data analysis. Reports, records or a walkthrough of a task help explain the current work. Staff who carry out the task and people who would use the result help identify useful improvements.

Possible projects are developed through discussion with faculty. Each needs a practical result, such as a report that staff can update, an internal tool or an analysis for a particular decision.

Completed student work

ncfdatascience.com/outreach

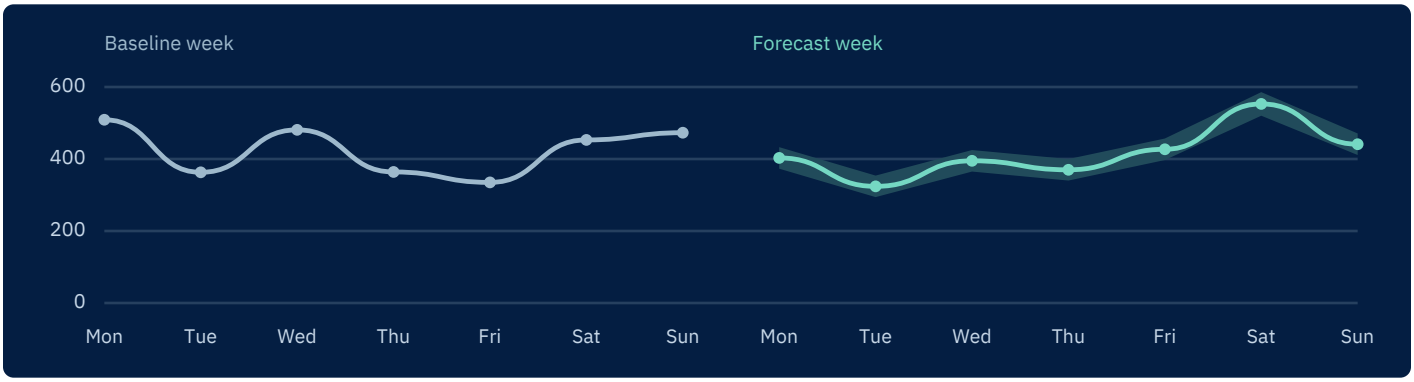
New College of Florida
The Honors College

Retail

Sales, stock and supplier records support decisions about staffing, purchasing and store operations. Projects can cover a single store, several locations or a business supplying other retailers.

Forecast store visits and product demand

Sales and visit records can be compared with weather, season and local events to estimate demand for a coming week. Forecasts of visits and category sales help managers plan staff schedules, prepare stock and place orders. Comparison with later sales and recent averages provides a way to assess accuracy.



Visits per day. Spring, 80°F, 0.2 inches of daily rain and a Sarasota Paradise game on Saturday. The shaded band shows the forecast range.

Compare sales and profit

Higher revenue can come with larger discounts, more returns or higher product costs. A report of net sales and gross profit by category, location or period makes those differences visible. It can separate changes in the number of items sold, prices and product mix.

Review stock, purchasing and deliveries

Purchasing estimates can account for stock on hand, supplier delivery times and expected demand. For several locations, the work can include store transfers, stock held in distribution centers and orders split across deliveries.

Improve product records and internal software

Internal software can track stock requests, damaged goods and returns, including the responsible person and next action. Searchable product documents and procedures give staff access to the information needed for daily work.

Full project descriptions and interactive chart

ncfdatascience.com/partners/wine-and-spirits-retail

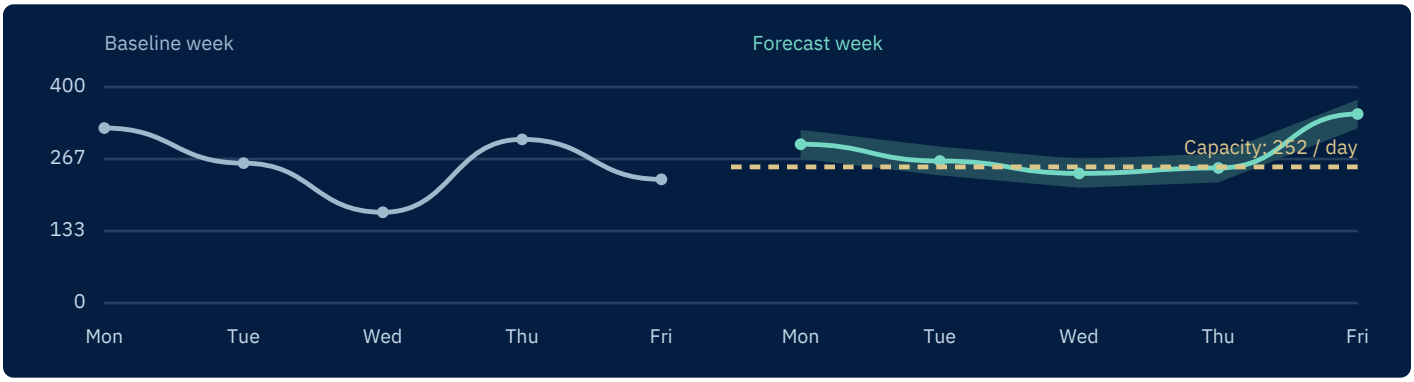
New College of Florida
The Honors College

Credit unions

Credit union projects can use branch, contact-center and online-service records to improve staffing plans, recurring reports and internal software.

Predict service demand

Request records contain the time of arrival, duration, type of service and any follow-up. Combined with weekday patterns, payday timing, membership growth and online service use, they support forecasts of next week's requests.



Requests per day. 5% membership growth, 20% completed online, seven staff and payday on Friday. The shaded band shows the forecast range.

Prepare consistent reports

Departments may report different totals because they use different definitions or exports taken at different times. A recurring report can document the calculation rules, check source records and identify differences for review.

Improve requests and document access

An internal application can record what a member-service request contains, what remains outstanding and who is responsible for the next action. Equipment requests and procedure updates can use similar tracking.

Searchable procedures and product documents can include the relevant passage, source link and version. Checks on transfers between systems can identify incomplete or inconsistent records before they affect a report or staff task.

Full project descriptions and interactive chart

ncfdatascience.com/partners/credit-unions

New College of Florida
The Honors College

Biomedical research

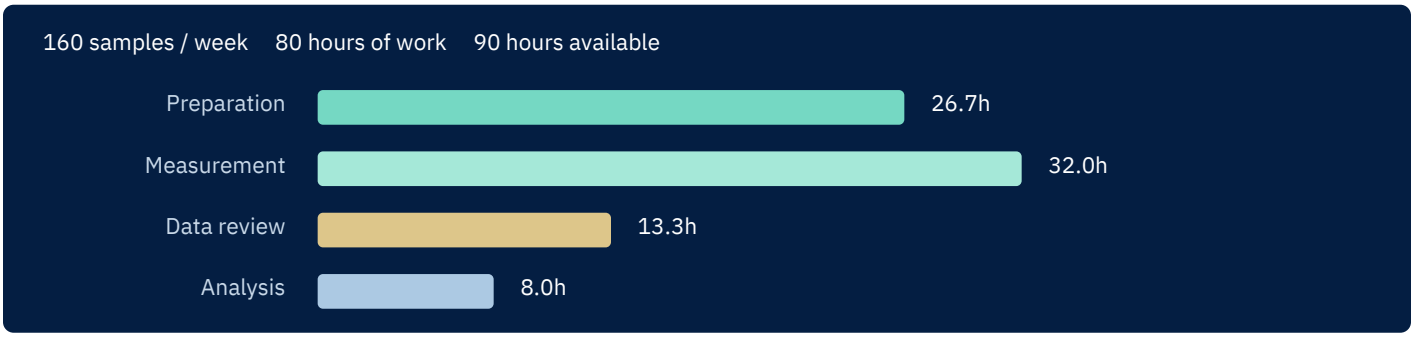
Biomedical research projects can cover study records, statistical analysis, laboratory operations and the software used to manage daily work.

Combine study records

Sample logs and measurement files often use different identifiers, units or date formats. Matching and checking those records produces a documented dataset with a repeatable process for adding new measurements.

Plan laboratory work

Equipment bookings, sample volumes and processing times support estimates of staff time at each stage of a study. Comparing planned and completed runs helps laboratory managers assess workloads before changing a schedule or adding another batch.



Planning assumptions per sample: 10 minutes of preparation, 12 of measurement, 5 of data review and 3 of analysis. Estimated staff time increases with sample volume.

Reproduce and extend an analysis

Research projects can reproduce an existing calculation, compare measurements across groups or examine changes over time. Code, figures and method documentation allow the analysis to be run again when new measurements arrive.

Improve everyday research systems

An internal application can track requests through review and completion, including the responsible contact and next action. Searchable protocols and equipment instructions can link each result to the approved document and version.

Full project descriptions and interactive chart

ncfdatascience.com/partners/biomedical-research

New College of Florida
The Honors College

Discuss a project

Do we need a defined project?

Organizations can start with a recurring difficulty, a planned improvement or an interest in using software and data analysis. Reports, records or a walkthrough of a task help explain the current work. Staff who carry out the task and people who would use the result help identify useful improvements. Possible projects are developed through discussion with faculty.

What if our records need preparation?

Incomplete records or unavailable access may require preparation, collection or changes to the proposed work. Preparation can be a separate task, part of the project or work completed by the organization first. The organization and faculty agree on responsibilities and what needs to be ready. Development of a suitable project can continue over several meetings or academic terms.

How is the project reviewed?

Faculty review the proposed work for educational value, feasibility, timing and supervision, including whether it fits a practicum or internship. The organization and program agree on a written scope covering deliverables, assessment, responsibilities, schedule and costs.

What is delivered?

The final delivery includes the agreed result and documentation. Arrangements for continued use, maintenance or further development are included in the project scope.

Contact the program

Use the form to introduce your organization and what you would like to discuss. A contact name and a short description are enough to begin.

ncfdatascience.com/partners/intake

gsalu@ncf.edu

Scan to open the form