
DEPARTMENT SUMMARY

The research program in the Department of Operations Research seeks to advance the state of knowledge in key technology areas important to the Department of the Navy, Department of Defense, and military planning.

Research is evaluated by three criteria, namely, scholarship, relevance, and educational value:

- Scholarship is demonstrated by written research papers that appear in the open literature after peer review by experts in the field. Products of scholarship also include technical reports, student theses, reports to sponsors and conference presentations. (All graduate faculty have a PhD or equivalent.)
- Relevance is evident when sponsors are willing to underwrite the cost of research. Research gains additional relevance when sponsors or their clients use our research results; we expect this to happen frequently.
- Education is our primary mission and our research assists in that mission. All graduate faculty are expected to perform research in the areas in which they instruct. These faculty are at the forefront of their research areas, so they can instruct at the forefront of education, too.

Research Mission Statement of the Operations Research Department

Traditional basic research areas in the Operations Research Department include: (1) Optimization, (2) Probability and Stochastic Models, and (3) Statistics and Data Analysis. Related topics are also pursued, including (4) Human Systems Integration, (5) Search, Detection, and Evasion, (5) Games, Tactics, and Strategy, and (7) War Gaming and Simulation.

The Operations Research Department operates a number of research laboratories:

- Human Systems Integration Lab, G1 221 (3,080sf):
 - Computers, psychometric experimental equipment.
- Learning Research Centers, G1-128 (952sf), G1-203 (1,080sf), G1-318 (960sf)
 - Networked PCs and servers,
 - Video display projectors, and
 - OR Departmental licensed software suite.
- Optimization Lab, G1-206 (288sf)
 - An IBM RS-6000, networked PCs and servers, and support hardware,
 - Commercial optimization software suites, and
 - Topical thesis and publication library.
- Operational Logistics Lab, G1 274 (160sf)
 - Development and use of TACLOG models, logistics exercises,
 - NAVY TAC 3 computer, and
 - Topical thesis and publication library.
- Statistics Lab, G1 221 (shared space)
 - Computers, exploratory data analysis software.
- Analysis and Simulation Lab, G1 286 (600sf)
 - Unix workstations, graphical displays, software.
- Secure Computing and Simulation Lab, In 157 (3,400sf)
 - Classified wargame facility, and
 - Sun SpARCstations, Silicon Graphics workstations, PC network.

The Operations Research Department also uses other research laboratories and equipment on campus by agreement with their managers, and uses classified research spaces.

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The following summaries demonstrate the breadth and depth of the unclassified research program in the Department of Operations Research. Summaries of the classified research programs are available via appropriate authority.