



### Undergraduate Engineering Student Endowment Laboratory Fund: WESEL

**Equipment Funded:** Note: WESEL contributions are adjusted up to amount approved once purchases are made.

| Year    | DEPT    | Location    | Equipment  | WESEL     | Dept      | Faculty   | Total       | WESEL / Yr<br>Total |
|---------|---------|-------------|--|-----------|-----------|-----------|-------------|---------------------|
| 2012/13 | MME     | SEB 1076    | Marcel Boilers   | \$13,491  | \$13,491  |           | \$26,982    | \$13,491            |
| 2013/14 | CBE     | SEB 1081    | Filter Press   | \$8,500   | \$17,513  | \$8,500   | \$34,513    |                     |
|         | CEE     | SEB 22      | Quantum Datalogger   | \$7,000   | \$10,720  | \$7,000   | \$24,720    | \$15,500            |
| 2014/15 | CBE     | SEB 1080/81 | Particle Size Reduction Mill   | \$6,409   | \$12,817  | \$6,409   | \$25,635    |                     |
|         | ECE     | SEB 3101    | Mechatronics Lab Equipment   | \$7,400   | \$14,814  | \$7,400   | \$29,614    | \$13,809            |
| 2015/16 | CBE     | SEB 1080/81 | Equipment for particulate operations and organic Chemistry.  | \$5,023   | \$10,046  | \$5,023   | \$20,092    |                     |
|         | MME     | SEB 1076    | Pressurization test rigs   | \$7,957   | \$15,915  | \$7,957   | \$31,829    | \$12,980            |
| 2016/17 | MME     | SEB 1076    | Steam Turbine Upgrade  | \$5,370   | \$10,740  | \$5,371   | \$21,481    |                     |
|         | ECE     | SEB 3099    | UHF Antenna (ECE 4432)   | \$2,772   | \$5,544   | \$2,772   | \$11,088    | \$8,142             |
| 2017/18 | CBE     | SEB 1080/81 | Sedimentation & Fermentation Monitoring System   | \$14,793  | \$29,586  | \$14,793  | \$59,172    |                     |
|         | ECE     | SEB 3099    | UHF Antenna (ECE 4432)   | \$3,000   | \$6,127   | \$3,000   | \$12,127    |                     |
|         | MME     | SEB 3098    | Extensometers (Tensile Testing Lab)  | \$3,102   | \$6,205   | \$3,102   | \$12,409    | \$20,895            |
| 2018/19 | CBE     | SEB 1040    | Gas chromatographs (3)   | \$13,538  | \$27,076  | \$13,538  | \$54,152    |                     |
|         | CEE     | SEB 22      | Concrete compressive strength testing equipment.   | \$5,687   | \$11,375  | \$5,687   | \$22,749    |                     |
|         | MME     | SEB 1071    | Small Scale laser cutter   | \$6,905   | \$13,812  | \$6,905   | \$27,622    | \$26,130            |
| 2019/20 | CBE/MME | SEB 1077    | Heat transfer equipment.   | \$24,741  | \$12,370  | \$12,370  | \$49,481    |                     |
|         | CEE     | SEB 22      | Triaxial shear testing equipment.  | \$30,000  | \$16,985  | \$20,955  | \$67,940    | \$54,741            |
| 2020/21 | CBE     | SEB 1082    | Infrared spectrophotometer   | \$12,342  | \$10,513  | \$7,618   | \$30,473    |                     |
|         | CBE     | SEB 1079    | Engineering Coffee Course Equipment  | \$2,642   | \$5,260   | \$2,642   | \$10,544    |                     |
|         | MME     | SEB 3105    | Mechanical Vibration Stations  | \$45,016  | \$23,508  | \$22,973  | \$91,497    | \$60,000            |
| 2021/22 | CBE     | SEB 1079    | Equipment for Engineering Coffee Course Lab instrumentation for in situ monitoring of chemical and biochemical kinetics and conjugation. | \$2,918   | \$1,459   | \$1,497   | \$5,874     |                     |
|         | CBE     | SEB 1082    |  | \$9,857   | \$5,084   | \$4,774   | \$19,715    |                     |
|         | CBE/MME | SEB 1077    | Refrigeration Laboratory Equipment   | \$21,732  | \$10,866  | \$10,866  | \$43,464    |                     |
|         | CEE     | SEB 19      | Analytical Instrumentation for Environmental Engineering Lab   | \$17,283  | \$8,642   | \$8,641   | \$34,566    |                     |
|         | ECE     | ACEB 3455   | Auto Lab W PCB milling machine   | \$11,800  | \$12,504  |           | \$24,304    |                     |
|         | ECE     | SEB 2093    | Lab equipment update: PC's Lab equipment update: digital oscilloscopes/multimeters, function generators                                  | \$3,219   | \$3,220   |           | \$6,439     |                     |
|         | ECE     | SEB 3107    |  | \$17,115  | \$21,128  | \$4,012   | \$42,255    | \$83,924            |
| 2022/23 | CBE     | SEB 1081    | Distillation Column Upgrades   | \$7,000   | \$4,763   |           | \$11,763    |                     |
|         | CBE     | SEB 1079    | Active Learning Equipment  | \$2,603   | \$4,268   |           | \$6,871     |                     |
|         | MME     | SEB 3100    | Liquid Level Control Laboratory  | \$33,510  | \$16,755  | \$16,755  | \$67,020    | \$43,113            |
| 2023/24 | CBE     | SEB 1082    | Upgrade of core facilities in the CBE undergraduate laboratory   | \$14,160  | \$6,617   | \$6,617   | \$27,394    |                     |
|         | CBE     | SEB 1082    | Data Acquisition Hardware  | \$3,253   | \$1,626   | \$1,626   | \$6,505     |                     |
|         | CBE     | SEB 1079    | Equipment for "Engineering Coffee" Concrete Mortar mixers for the Structures Lab   | \$1,283   | \$642     | \$642     | \$2,567     |                     |
|         | CEE     | SEB 22      |  | \$18,666  | \$9,628   | \$9,628   | \$37,922    |                     |
|         | ECE     | SEB 3107    | Upgrading SEB 3107 lab equipment   | \$2,117   | \$2,117   |           | \$4,234     |                     |
|         | MME     | SEB 3100    | Liquid Level Control and Servo Trainers Equipment Laboratory   | \$42,925  | \$21,462  | \$21,462  | \$85,849    |                     |
|         | MME     | SEB 1074    | Pipe Friction/Losses Test Stand  | \$24,949  | \$19,463  | \$19,463  | \$63,875    | \$107,353           |
| 2024/25 | CBE     |             | UV-VIS Spectrophotometer acquisition   | \$7,640   | \$7,640   |           | \$15,280    |                     |
|         | CEE     |             | Dust Collectors  | \$3,000   | \$1,500   | \$1,500   | \$6,000     |                     |
|         | ECE     |             | AI-based Cyber-physical Cybersecurity Lab (Phase 1)  | \$38,280  | \$38,280  |           | \$76,560    |                     |
|         | MME     |             | 3D Printer Updates   | \$12,086  | \$6,043   | \$6,043   | \$24,172    |                     |
|         | MME     |             | Hardness Testing Apparatus   | \$31,004  | \$15,502  | \$15,502  | \$62,008    | \$92,010            |
| Totals  |         |             |  | \$552,088 | \$493,626 | \$293,043 | \$1,338,757 |                     |