

1 **SEC. 214. MANUFACTURING UNIVERSITIES GRANT PRO-**  
2 **GRAM.**

3 Section 2196 of title 10, United States Code, is  
4 amended to read as follows:

5 **“§ 2196. Manufacturing engineering education: grant**  
6 **program**

7 “(a) ESTABLISHMENT OF MANUFACTURING UNIVER-  
8 SITIES GRANT PROGRAM.—(1) The Secretary of Defense  
9 shall establish a program under which the Secretary  
10 makes grants to support—

11 “(A) the enhancement of existing programs in  
12 manufacturing engineering education to further a  
13 mission of the department; or

14 “(B) the establishment of new programs in  
15 manufacturing engineering education that meet such  
16 requirements.

17 “(2) Grants under this section may be made to insti-  
18 tutions of higher education or to consortia of such institu-  
19 tions.

20 “(3) The Secretary shall establish the program in  
21 consultation with the Secretary of Education, the Director  
22 of the National Science Foundation, the Director of the  
23 Office of Science and Technology Policy, and the secre-  
24 taries of such other relevant Federal agencies as the Sec-  
25 retary considers appropriate.

1       “(4) The Secretary shall ensure that the program is  
2 coordinated with Department programs associated with  
3 advanced manufacturing.

4       “(5) The program shall be known as the ‘Manufac-  
5 turing Universities Grant Program’.

6       “(b) NEW PROGRAMS IN MANUFACTURING ENGI-  
7 NEERING EDUCATION.—A program in manufacturing en-  
8 gineering education to be established at an institution of  
9 higher education may be considered to be a new program  
10 for the purpose of subsection (a)(1)(B) regardless of  
11 whether the program is to be conducted—

12           “(1) within an existing department in a school  
13 of engineering of the institution;

14           “(2) within a manufacturing engineering de-  
15 partment to be established separately from the exist-  
16 ing departments within such school of engineering;  
17 or

18           “(3) within a manufacturing engineering school  
19 or center to be established separately from an exist-  
20 ing school of engineering of such institution.

21       “(c) GEOGRAPHICAL DISTRIBUTION OF GRANTS.—In  
22 awarding grants under this subsection, the Secretary  
23 shall, to the maximum extent practicable, avoid geo-  
24 graphical concentration of grant awards.

1       “(d) COVERED PROGRAMS.—(1) A program of engi-  
2 neering education supported with a grant awarded pursu-  
3 ant to this section shall meet the requirements of this sec-  
4 tion.

5       “(2) Such a grant may be made for a program of  
6 education to be conducted at the undergraduate level, at  
7 the graduate level, or at both the undergraduate and grad-  
8 uate levels.

9       “(e) COMPONENTS OF PROGRAM.—The program of  
10 education for which such a grant is made shall be a con-  
11 solidated and integrated multidisciplinary program of edu-  
12 cation having each of the following components:

13           “(1) Multidisciplinary instruction that encom-  
14 passes the total manufacturing engineering enter-  
15 prise and that may include—

16                   “(A) manufacturing engineering education  
17 and training through classroom activities, lab-  
18 oratory activities, thesis projects, individual or  
19 team projects, and visits to industrial facilities,  
20 consortia, or centers of excellence in the United  
21 States and foreign countries;

22                   “(B) faculty development programs;

23                   “(C) recruitment of educators highly quali-  
24 fied in manufacturing engineering;

1           “(D) presentation of seminars, workshops,  
2           and training for the development of specific re-  
3           search or education skills;

4           “(E) activities involving interaction be-  
5           tween the institution of higher education con-  
6           ducting the program and industry, including  
7           programs for visiting scholars or industry ex-  
8           ecutives;

9           “(F) development of new manufacturing  
10          curriculum, course offerings, and education pro-  
11          grams;

12          “(G) establishment of centers of excellence  
13          in manufacturing workforce training;

14          “(H) establishment of joint programs with  
15          defense laboratories and depots; and

16          “(I) expansion of advanced manufacturing  
17          training and education for members of the  
18          armed forces, veterans, Federal employees, and  
19          others.

20          “(2) Opportunities for students to obtain work  
21          experience in manufacturing through such activities  
22          as internships, summer job placements, or coopera-  
23          tive work-study programs.

24          “(3) Faculty and student research that is di-  
25          rectly related to, and supportive of, the education of

1       undergraduate or graduate students in advanced  
2       manufacturing science and technology because of—

3               “(A) the increased understanding of ad-  
4               vanced manufacturing science and technology  
5               that is derived from such research; and

6               “(B) the enhanced quality and effective-  
7               ness of the instruction that result from that in-  
8               creased understanding.

9       “(f) GRANT PROPOSALS.—The Secretary of Defense  
10       shall solicit from institutions of higher education in the  
11       United States (and from consortia of such institutions)  
12       proposals for grants to be made pursuant to this section  
13       for the support of programs of manufacturing engineering  
14       education that are consistent with the purposes of this sec-  
15       tion.

16       “(g) MERIT COMPETITION.—Applications for grants  
17       shall be evaluated on the basis of merit pursuant to com-  
18       petitive procedures prescribed by the Secretary.

19       “(h) SELECTION CRITERIA.—The Secretary may se-  
20       lect a proposal for the award of a grant pursuant to this  
21       section if the proposal, at a minimum, does each of the  
22       following:

23               “(1) Contains innovative approaches for im-  
24               proving engineering education in manufacturing  
25               technology.

1           “(2) Demonstrates a strong commitment by the  
2           proponents to apply the resources necessary to  
3           achieve the objectives for which the grant is to be  
4           made.

5           “(3) Provides for the conduct of research that  
6           supports the instruction to be provided in the pro-  
7           posed program and is likely to improve manufac-  
8           turing engineering and technology.

9           “(4) Demonstrates a significant level of involve-  
10          ment of United States industry in the proposed in-  
11          structional and research activities.

12          “(5) Is likely to attract superior students.

13          “(6) Proposes to involve fully qualified faculty  
14          personnel who are experienced in research and edu-  
15          cation in areas associated with manufacturing engi-  
16          neering and technology.

17          “(7) Proposes a program that, within three  
18          years after the grant is made, is likely to attract  
19          from sources other than the Federal Government the  
20          financial and other support necessary to sustain  
21          such program.

22          “(8) Proposes to achieve a significant level of  
23          participation by women, members of minority  
24          groups, and individuals with disabilities through ac-

1       tive recruitment of students from among such per-  
2       sons.

3               “(9) Trains college graduates, from engineering  
4       or other science and technical fields, and other mem-  
5       bers of the technical workforce, in advanced manu-  
6       facturing and in relevant emerging technologies and  
7       production processes.

8               “(i) FEDERAL SUPPORT.—The amount of financial  
9       assistance furnished to an institution of higher education  
10      under this section may not exceed 50 percent of the esti-  
11      mated cost of carrying out the activities proposed to be  
12      supported in part with such financial assistance for the  
13      period for which the assistance is to be provided.

14              “(j) INSTITUTION OF HIGHER EDUCATION DE-  
15      FINED.—In this section, the term ‘institution of higher  
16      education’ has the meaning given such term in section  
17      101(a) of the Higher Education Act of 1965 (20 U.S.C.  
18      1001(a)).”.

19      **SEC. 215. INCREASED MICRO-PURCHASE THRESHOLD FOR**  
20                              **BASIC RESEARCH PROGRAMS AND ACTIVI-**  
21                              **TIES OF THE DEPARTMENT OF DEFENSE**  
22                              **SCIENCE AND TECHNOLOGY REINVENTION**  
23                              **LABORATORIES.**

24              (a) INCREASED MICRO-PURCHASE THRESHOLD.—