

Faculty Challenge Grant

Introducing Non-Destructive Testing to the Industrial Welding Curriculum

Interim Report – December 18, 2017

Completion Date: May 12, 2018

Current Status: Joe Vangalio, Guest Lecturer, is currently providing instruction on Non-Destructive Testing (NDT) to Industrial Welding students. He has delivered his lecture to five additional classes representing 37 students throughout P2 Sessions in Fall, 2017. In addition to his lecture, he conducted x-ray testing of the welding coupons for the Pipe Welding Class and shared with students the results of that Non Destructive Testing. Joe will continue to serve as a guest lecturer for the Spring, 2018 classes and will test the coupons from the Spring Pipe Welding class.

Outcomes Achieved:

Of the 84 Surveys completed by students:

67.9 % found the NDT lecture to be relevant

65.9 % found the NDT lecture interesting

73.5 % reported increase in knowledge of NDT testing

71.1 % reported a better understanding of the value of NDT testing

Of note, Joe is providing his lecture to all the Welding Classes, as a result, 56% of the students have heard this lecture more than once and have still found it to be of value. Anecdotally, students have commented that they found most helpful: videos; visuals provided through examples; pictures; knowledge of lecturer; common welding defects; pictures showing consequences of welding defects; how testing is used in industry; examples of dye penetrant testing; how to identify defects through x-ray; and viewing x-ray film.

Based upon input from our Welding Advisory Committee, Workforce Survey and positive feedback from students and Instructors alike, we have successfully modified our Welding Curriculum to include a WELD 2400 Welding Inspection course which will be offered for the first time in Fall, 2018 as a 2 credit course. This course will include both Destructive and Non Destructive Testing. Our Faculty Challenge Grant has enabled current students to gain a measure of familiarity with such testing prior to the inclusion of the aforementioned course. As a result, current students are more well-rounded and better prepared for the workforce.

Outstanding Expenses: An invoice in the amount of \$ 242.00 was received on December 14, 2017. An additional invoice for x-ray testing conducted in December, 2017 is anticipated. Lectures and Testing will continue through Spring, 2018

Unused Funds:

Funds for Guest Lecture Prep have been expended.

Funds remain for Lectures in the amount of \$ 1,320.

Funds remain for Testing in the amount of \$3,400.

Guest Lecture services will be delivered to nine classes in Spring P1 and P2.

X-ray testing will be provided to one class in one class in Spring, 2018.

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration.

The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

The course and services are available without regard to a participant's race, color, religion, ancestry, age, handicap, sex, marital status or national origin. The number for TDD/TYY or relay services is 440-525-7006.



This work is licensed under the Creative Commons Attribution 4.0 International License. It is attributed to Ohio TechNet. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>