Abstract: The design problems for this Optical Interference Coating (OIC) 2016 Topical Meeting involve a new look on an advanced dispersive mirror and a uniformity sensitive application for designers with manufacturing constraints in mind.

OCIS codes: 310.0310, 310.1620, 310.4165.

1. Problem A
The first problem is a dispersive mirror. Ultrafast applications have become very popular in the past few years. To understand current limits we hope that the designer will be able to design two dispersive mirrors with as large GDD as possible in the range 700-900 nm.

2. Problem B
The second problem is a combination of Cissoid of Diocles [cubic plane] reflectance curves, pointing upward and downward, over the visible wavelength region. The reflectance ranges from 20% to 80% at the minimums and maximums respectively. This problem will require the designer to match the spectral reflectance curve directly and then find the most efficient design to address a non-uniform deposition process for a series of optics in a rack.

3. Evaluation Software
A web-based evaluation program is available for designers to evaluate their solutions to these problems before they are submitted. The submissions will be evaluated using the same program and presented at OIC 2013. As always, we hope designers will share their design approaches and insights.

4. Final Designs and Analysis
All of the design submissions will be evaluated and listed with the associated designer. Winners will be announced and analysis of the designs will be presented.