

Course Syllabus

“Utilization of Low Vision”

Section 1—

**Course Information, Schedule,
Outline, Requirements,
Assignments, and Grading**

“Utilization of Low Vision”

Instructor: Bryan Gerritsen
Certified Low Vision Therapist

Phone: Cell: (801) 547-5903
Home: (801) 782-3388

E-mail: bryangerritsen@gmail.com

Website: www.LowVisionRehabServices.com

Address: 3712 N. King Hill Drive
Ogden, UT 84414

Course Text:

Region 4 Education Service Center, 2013. Program in Low Vision Therapy, Second Edition. Houston, Texas. www.esc4.net. ISBN-13: 978-1-937403-14-0.

Supplementary Text:

Corn, Anne L. And Erin, Jane N, Eds. (2010). Foundations of Low Vision: Clinical and Functional Perspectives. New York, New York. American Foundation for the Blind. Revised 2nd Edition. 976 pp. ISBN: 978-0-89128-883-1.

Reference Publications:

1. Jose, Randall T., Ed. (1983). Understanding Low Vision. New York, New York. American Foundation for the Blind. 560 pp. ISBN: 978-0-89128-119-1.
2. Levack, Nancy (1992). Low Vision: A Resource Guide with Adaptations for Students with Visual Impairments. Austin, Texas. Texas School for the Blind and Visually Impaired. www.tsbvi.edu
3. Brilliant, Richard L. (1999). Essentials of Low Vision Practice. Boston, MA. Butterworth-Heinemann.
4. *"The Journal of Visual Impairment and Blindness."* New York, New York. American Foundation for the Blind. www.aerbvi.org
5. Cole, Roy G. And Rosenthal, Bruce P. (1996) Remediation and Management of Low Vision. St. Louis, MO. Mosby--Year Book, Inc.
6. Bailey, Ian and Lueck, Amanda (1990). Visual Impairment: An Overview. New York, New York. American Foundation for the Blind. www.afb.org/store
7. Barraga, Natalie C. (1980). Program to Develop Efficiency in Visual Functioning. Louisville, Kentucky. American Printing House for the Blind. www.aph.org/catalogs

**Class Schedule for
“Utilization of Low Vision”
Fall, 2014**

1. Monday, October 20th, 2014
2. Monday, November 3rd, 2014
3. Monday, November 10th, 2014
4. Monday, November 17th, 2014
5. Monday, November 24th, 2014
6. Monday, December 1st, 2014
7. Monday, December 8th, 2014

Course Objectives

The purpose of this course is to provide the student with a basic understanding of the major issues, approaches and practices in low vision rehabilitation services. Students will become aware of some of the functional implications and educational considerations of many of the major eye diseases and disorders. They will learn of some of the psychosocial implications of having “low vision” and of using low vision devices. They will be introduced to some functional vision assessments and vision training tools and techniques that they can use with their students. They will be familiarized with various low vision devices that may help visually impaired persons in a variety of tasks. They will also be instructed in the proper use of these devices, and their proper care and maintenance. They will be encouraged to assist their students with low vision to obtain a clinical low vision evaluation, and to obtain and use appropriate low vision devices. They will be instructed regarding materials, resources, and techniques in assisting students with visual skills, with doing near vision tasks, distance vision tasks, and for using optical devices. They will explore some of the environmental modifications that can be made with materials, the workspace, and with the larger environment to benefit the low vision person. Finally, they will become familiar with various resources available to persons with a vision loss, and the value of support groups.

Student Competencies

Students will:

- Identify some of the functional implications and educational considerations that often accompany many of the major eye diseases and disorders
- Identify and analyze the different eye care professionals, and their role in vision care
- Identify integral members of the interdisciplinary low vision rehabilitation team
- Identify and analyze some of the psychosocial implications of vision loss, and the use of low vision devices
- Identify some of the purposes of a functional vision assessment and its role in serving low vision students, and integral facets of functional vision assessments
- Identify some of the factors and issues in deciding between the use of large print vs. regular print books and materials, as well as other media
- Identify basic laws of optics, including the formulas for determining focal distance and dioptric power
- Identify and analyze the four types (means) of magnification
- Identify six main options for correction for near vision tasks (including reading and writing) for persons with low vision, and analyze the advantages and disadvantages of each option
- Identify the three main options for correction for distance vision tasks
- Identify and analyze various options for magnifying the print on a computer monitor
- Identify the proper techniques for using and caring for various low vision devices
- Identify various materials, activities, and resources for use in training of vision skills; for training for near vision tasks; for training for distance vision tasks; and also for training with optical devices
- Identify some of the factors that enhance visibility for persons with low vision, and recommend specific adaptations for lighting, contrast, glare reduction, and organization for various tasks for persons with major eye diseases/disorders
- Identify various non-optical aids and devices, and identify their benefits and usefulness for a variety of tasks
- Identify resources, agencies, and organizations available to assist a person with low vision, as well as for teachers and service providers to persons with low vision

Course Outline

Week #1: Monday, October 20th

What is Low Vision? What is Low Vision Rehabilitation?
A Historical Perspective of Low Vision Services
Demographics of Persons with Low Vision
Review of Major Eye Diseases and Conditions
Simulations of Some Major Eye Diseases
Functional Implications and Educational Considerations for Various Eye Diseases
Special Attention to Vision Disorders of Children, and to Various Syndromes

Week #2: Monday, November 3rd

Vision Development in Infants and Children
Visual Screening and Screening Tools for Children
The Use of Vision at Different Ages and in Different Activities
Special Considerations of Children with Multiple Disabilities
Special Considerations of the Elderly
Psychological and Social Implications of Having "Low Vision," and of Using Low Vision Devices

- Attitudes and Adjustment
- Reactions of Others
- Fear of Losing Vision
- Issues of Personal Identity
- "Passing as Sighted"
- Disclosing a Visual Impairment
- Understanding One's Visual Impairment
- Use of Optical Devices
- Low Vision and Loss of Driving or Fear of Loss of Driving

Eye Care Providers
The Low Vision Team
Service Delivery Models
Standards and Certification for Service Providers

Week #3: Monday, November 10th

Functional Vision Assessment *and Instruction* of Children and Youth in Academic Programs

- The Role and Reason of a Functional Vision Assessment
- Various Assessment Tools
- Components of the Functional Vision Assessment
- Developing Recommendations
- Planning and implementing Instruction

Course Outline, Page 2

Week 3, Continued: Monday, November 10th

Functional Vision Assessment *and Instruction* of Children and Youth with Multiple Disabilities

- Various Assessment Tools
- Gathering Information, and Special Considerations: Communication, Positioning, and Behavior
- Assessing Near Vision
- Assessing Distance Vision
- Evaluating Visual Fields
- Observing Eye Movements and Coordination
- Selecting Visual Goals
- Integrating Visual Goals Into Routines
- Practicing Skill Clusters--Chains of Skills
- Increasing the Use of Vision in Daily Routines
- Using Functional Activities for Practice
- Progression and Transfer of Visual Skills

Selecting Appropriate Media for Learning and Literacy

- Observations and Assessments
- Documenting Reading Efficiency and Reading Achievement
- Analyzing the Data
- Making Appropriate Decisions Regarding Print Media
- Large Print vs. Regular Print

Refractive Errors:

- Myopia
- Hyperopia
- Astigmatism

Types of Lenses, including: Spherical, Concave, Convex, Aspheric, Aplanatic, and Diffractive

Formulas for Determining Focal Length and Determining Dioptric Strength

Basic Laws of Optics

Four Types (Means) of Magnification

Week #4: Monday, November 17th The Low Vision Clinic & Low Vision Devices

Referral for Clinical Low Vision Services following a 1) Medical Exam; 2) Refraction; 3) Visual Field Testing; and if Needed, 4) Surgery

Clinical Low Vision Rehabilitation Services:

- Background Information and Informal Observations
- Distance and Near Visual Acuity Testing
- Contrast Sensitivity Function Testing
- Testing for Central Scotomas
- Determining Target Tasks (Chief Complaints)

Course Outline, Page 3

Week # 4, Continued; Monday, November 17th Low Vision Clinics & Devices

- Determining Needed Levels of Magnification
- Matching Tools with Tasks--Choosing the Most Helpful Low Vision Devices for Each Target Task/Chief Complaint

Optical Devices for Near Vision Tasks:

- Spectacles—Prism or Microscopic
- Clip-on Loupes
- Telescopic Glasses for Near
- Hand Held Magnifiers
- Stand Magnifiers
- Closed Circuit TV's (CCTV's) and Digital Magnifiers

Optical Devices for Distance Vision Tasks:

- Hand Held Telescopic Monoculars
- Clip-on Telescopes
- Telescopic Spectacles

Options and Devices for Intermediate Tasks, including computers, sheet music, etc.
Proper Care for Optical Devices

Week #5: Monday, November 24th Training (And Distribute Mid-Term Exam)

The Importance and Role of Training

Training for Visual Skills, Without Optical Devices

Training for Eccentric Viewing, for Persons with Central Field Loss

Some Training Materials for VI Students: Resources and Activities

- "InFocus with Low Vision Kit," by Region 4 online store
- "Ben and Buzzy's Busy Days," and "Ben and Buzzy's Busy Book," by Region 4 online store
- "Let's See: Vision Development Activities" by APH
- Light Box Materials by APH
- Envision Optical Device Training Program, Parts 1 and 2 by APH
- Software Programs, e.g. "Armadillo Army" and "Termite Torpedo" by APH
- "Learn to Use Your Vision" Workbook and Morgan Comprehension Workbook

Training With Low Vision Devices

- Correct Focal Length
- Correct Image Distance: Optimizing Field of Vision and Minimizing Distortion
- Role and Use of Reading Stands
- Principles of Time and Complexity: Progressing From Short and Simple to Longer and More Difficult

Set-up and Setting the Stage for Near Vision Tasks

The "Four Legs of a Milk Stool" for Success with Near Vision Tasks

Training for Distance Vision Tasks

Mid-Term Exam (Take home)

Course Outline, Page 4

Week #6: Monday, December 1st The “Non-Optical” Aspects of Low Vision

Environmental Adaptations and Modifications:

- Illumination
- Glare Control
- Contrast Enhancement
- Organization/Space
- Color

Some Suggestions for Modifying Various Rooms in a Home
Non-Optical Aids and Devices

Week #7: Monday, December 8th Other Aspects, and Resources (Includes Final Exam)

Dealing with Other Types of Field Loss:

- Hemianopsia
- Peripheral Field Loss

Driving and Vision Loss

Transportation Dilemmas for Persons with Low Vision

Resources in the Community, State, and Nation

- Web sites on Low Vision
- Journals, Books, and Brochures
- Professional Organizations and Conferences
- Agencies, Support Groups, and other Helps

Continuing education opportunities in low vision

Low Vision Rehabilitation Services and Clinics in the Mountain West and Elsewhere

Funding Options and Assistance

Questions and Course Review

Final Examination (In class for onsite students)

Course Requirements

1. Attendance *and participation* at all seven class periods.
2. Completion of a project, to be approved by the instructor. The project will focus on the assessment of school materials, the immediate work space, and/or the home or school environment of a low vision person. The student will then recommend several suggested adaptations of the materials, the immediate work space, and/or the larger environment. She/he will then hopefully assist in beginning to implement these modifications. A further explanation of this project accompanies this syllabus. This project must be delivered or e-mailed by or before **December 8th, 2014**, the last day of class.
3. A review of ten chapters from the course text, *Program in Low Vision Therapy, Second Edition*, and parts of three chapters from one of the reference texts, *Foundations of Low Vision*. The review of each week's reading assignment should be about one and a half pages each. The student should highlight key concepts, definitions, and principles from each chapter read. Care should be taken to not merely copy from the text. Instead, the student should summarize and rephrase key materials in their own words. The chapters to be read and reviewed are from the course text, *Program in Low Vision Therapy, Second Edition*, and the supplementary text, *Foundations of Low Vision*. The dates the reviews of these chapters are due are detailed on the separate sheet entitled, "Calendar for Reading Assignments." Five points will be given for the review of each week's reading assignments. For some weeks, 2 or 3 chapters or parts of chapters are to be read. Each week's review should include some reference and summary of each chapter read.
4. Review of three articles or chapters from selected periodicals or reference texts. Articles chosen should relate specifically to low vision topics and issues, and not merely be about general topics in the field of blindness (e.g. O&M or braille). Again, care should be taken not to just copy from the articles, but instead to summarize key ideas and concepts in your own words. Each summary of the three articles or chapters should be about one and a half pages long. Suggestions for articles on low vision can be found online, at www.lvtr.info, or in the hard copy version, *Low Vision--The Reference*, by Greg Goodrich, Ph.D. The review of these three articles or chapters must be delivered or e-mailed on or before **December 8th, 2014**, the last day of class.
5. Successful completion of the mid-term and final examinations. Both of these tests are closed book exams. You will not be allowed to look at your notes or text during the exams. The mid-term exam will be distributed (take home) at the end of class on Nov.24th, 2014. The final exam will be administered (in class) at the end of class on December 8th, 2014.

Calendar for Reading Assignments

<u>Chapters to Be Read</u>	<u>Due Date of Reviews</u>
Chapters 1 (pp. 1-25)	October 20 th
Chapter 6 & 9 (pp. 100-111 And 145-150)	November 3 rd
Chapter 3 (pp. 56-70)	November 10 th
Chapters 4 & 5 (pp. 71-99)	November 17 th
Chapters 2, 7 & 8 (pp. 26-55, and 112-144)	November 24 th
Chapter 3, and parts of Chapters 14 & 16 of <i>Foundations of Low Vision</i> By Corn and Erin (pp. 43-52, 325-329, and 381-387)	December 1 st
Chapter 11 (pp. 162-180)	December 8 th

Note: All students are to turn in the reviews for readings of the chapters listed above during class or e-mail by midnight the day of class. Reviews turned in up to 7 days late will receive half credit. No credit will be given for reviews turned in more than 7 days late.

Evaluation

Grades for the course will be based on the following:

- | | | |
|----|--|-----|
| 1. | Written review of readings from the text
5 points possible for week's reading assignment | 35% |
| 2. | Written review of readings of articles or chapters
from periodicals or reference texts (3.3 points each),
on topics relating to low vision | 10% |
| 3. | Project on adaptations | 10% |
| 4. | Participation in Class | 5% |
| 5. | Mid-Term Examination | 20% |
| 6. | Final Examination | 20% |

Total	=	100%
-------	---	------

Important Note:

Points will be deducted for items that are turned in late. Only half credit will be given for items that are turned in up to seven days late. No points will be given for items that are more than seven days late. This rule applies to all reviews of text readings, of the three reviews of articles or reference texts, and for the course project.

Project on Environmental Modifications and Adaptations

One of the course requirements is to complete a project on the implementation of adaptations to a low vision person's materials, work space, and the larger environment. Specific suggestions for improvements in illumination, contrast, color, clutter, organization, and other adaptations of their materials and environment should be recommended in your project. Ideas for these adaptations may be obtained from the Powerpoint presentation to be given in class, and from some of the reference books listed on page one of the syllabus. For instance, excellent examples and suggestions for adaptations are contained in the reference text, *Foundations of Low Vision*, by Corn and Erin, chapters 3, 14, and 16. This material may be very helpful for this assignment.

The website, www.afb.org/seniorsite contains some excellent suggestions for modifying a home. Click on the link, "[Changing your Home](#)." Although this discusses and illustrates (through pictures and videos) modifications for adapting various rooms in a home, these principles can be applied to adapting a classroom or other areas of a school. One link has a nice video clip with ideas for modifying contrast in a home.

In addition, you could study Chapter V of Nancy Levack's book, [Low Vision: A Resource Guide with Adaptations for Students with Visual Impairments](#) (1992, Texas School for the Blind). It is also a reference text listed in the syllabus, and is highly recommended for use in your future work. Chapter V (pp. 70-101) will give you several ideas for your project for this course.

All adaptations that you recommended in your project should largely be non-optical changes and modifications. For instance, they should center on ideas such as altering the lighting, enhancing contrast, reducing glare, altering color, adapting distance, and other changes discussed in *Foundations of Low Vision*, in Nancy Levack's book, and in class. Adaptations you suggest should **not** include optical devices such as glasses, magnifiers, or telescopic aids, but instead the other types of adaptations listed above.

If you have any questions about this project, please speak with or contact the instructor. It is recommended that you have your project approved beforehand from the instructor. The write-up for your project should be approximately two pages.

The project is due by December 8th 2014, the last day of class. If not turned in during class, it should be e-mailed by midnight on that date to receive full credit.

Obtaining Your Course Text, Reference Texts, and Journals

If you do not already have the course text, you should try to obtain one immediately. It may be purchased at the University of Utah bookstore, or from the Special Education Office. If you have difficulty obtaining a copy, please contact the Multi-University Consortium, University of Utah. It is also available at www.esc4.net, or from the Region 4 Education Service Center, 7145 W. Tidwell Road, Houston, TX 77092.

Foundations of Low Vision: Clinical and Functional Perspectives, by Anne L. Corn and Jane N. Erin, Eds. (2010), is our former course text. It is certainly not required to purchase, but is recommended reading and may be an invaluable resource. It is available from the American Foundation for the Blind (www.afb.org), and may also be available at the University of Utah bookstore. It has been recently updated and revised, and is a great text for you and your district to have and refer to.

Understanding Low Vision, edited by Randall Jose, is also a comprehensive resource on low vision. It had previously been the course text for earlier courses in low vision in this program, and certain chapters and excerpts may continue to be referenced in this class. This text is available from the American Foundation for the Blind in New York (see www.afb.org).

Nancy Levack's book, Low Vision: A Resource Guide with Adaptations for Students with Visual Impairments is also recommended. You are not required to purchase it, however. This is available at www.tsbvi.edu, from the Texas School for the Blind, 1100 W. 45th Street, Austin, TX 78756, or from the University of Utah bookstore.

Current issues (and articles) of the *Journal of Visual Impairment and Blindness (JVIB)* are available on-line, and are a free benefit of membership in AER (the Association for Education and Rehabilitation of the Blind and Visually Impaired). Instructions for access to articles and issues are available from AER's website: www.aerbvi.org. You can also subscribe to *JVIB* without a membership in AER, by contacting the American Foundation for the Blind (AFB). Archived back issues and articles from *JVIB* prior to 2000 may also be obtained online, in the library, or from the instructor.

Accommodations Statement

Department of Special Education is committed to policies of equal opportunity and affirmative action and prohibits discrimination on the basis of race, color, national origin, religion, sex, sexual orientation, age or status as a Vietnam veteran, disabled veteran or person with a disability. The department of Special Education seeks to provide equal access to its programs, services and activities for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Students should notify the instructor of needed accommodations at the beginning of the semester or in a timely fashion. Evidence of practice not consistent with these policies should be reported to the Office of Equal Opportunity and Affirmative Action, 581-8365.