

A Mapping of Sections in Intermediate Physics for Medicine and Biology (5th Edition)
to the blog hobbieroth.blogspot.com

Last Update: May 19, 2019

Section in IPMB	Blog Post Title	Date
1.1	Distances and Sizes	October 12, 2007
1.1	Powers of Ten	August 15, 2008
1.1	Bionumbers	November 12, 2010
1.1	The Terahertz	July 29, 2011
1.1	Distances and Sizes	February 7, 2014
1.1	The Machinery of Life	July 10, 2015
1.1	The Art of Insight in Science and Engineering	December 11, 2015
1.1	David Goodsell	August 25, 2017
1.2	Interface Between Physics and Biology: Training a New Generation of Creative Bilingual Scientists	August 31, 2018
1.3	Isaac Newton, Biological Physicist?	October 8, 2010
1.3	The Physics of the Olympics	August 3, 2012
1.6	Kalin Lucas and his Ruptured Achilles Tendon	May 21, 2010
1.6	Oh, My Aching Back	May 10, 2019
1.8	Don't Throw Away the Cane	August 27, 2010
1.10	A Dozen New Homework Problems	March 21, 2014
1.10	The Biomechanics of Solids and Fluids: The Physics of Life Structures: Or Why Things Don't Fall Down	September 9, 2016
1.10	Structures: Or Why Things Don't Fall Down	December 21, 2018
1.11	Whiplash	September 2, 2016
1.11	Anisotropy in Bioelectricity and Biomechanics	January 4, 2019
1.12	Law of Laplace	June 9, 2012
1.13	Buoyancy	July 10, 2009
1.13	Meselson, Stahl, and the Most Beautiful Experiment in Biology	September 11, 2015
1.13	Manu Prakash and the Paperfuge	January 20, 2017
1.14	Poisson's Ratio	December 23, 2011
1.15	The Bends	October 3, 2008
1.15	Benedek and Villars, Volume 1	September 14, 2012
1.16	Non-Newtonian Fluids and the Rheology of Blood	May 20, 2011
1.16	Applying Magneto-Rheology to Reduce Blood Viscosity and Suppress Turbulence to Prevent Heart Attacks	May 19, 2017
1.17	Jean Leonard Marie Poiseuille	September 3, 2010
1.17	Murray's Law	October 28, 2011

1.17	The Ascent of Sap in Trees	August 30, 2013
1.17	Quick Calculus	September 21, 2018
1.17	A Trick to Generate Exam Problems	October 12, 2018
1.17	The Bond Number	October 19, 2018
1.17	Imaging and Velocimetry of the Human Retinal Circulation with Color Doppler Optical Coherence Tomography	December 7, 2018
1.19	Measurement of Blood Pressure	February 17, 2012
1.19	The Viscous Torque on a Rotating Sphere	January 26, 2018
1.20	The American Journal of Physics	February 1, 2008
1.20	Reynolds Number	July 2, 2010
1.20	Stokes' Law	April 6, 2012
1.20	Edward Purcell (1912-1997)	August 31, 2012
1.20	Low Reynolds Number Flows	November 7, 2014
1.20	Stokes' Flow Around a Sphere	November 13, 2015
1.20	Steven Vogel (1940-2015)	November 27, 2015
2.1	e, The Story of a Number	May 27, 2011
2.3	Clearance and Semilog Plots	October 23, 2015
2.4	The Framingham Heart Study	February 11, 2011
2.4	The Gompertz Mortality Function	September 15, 2017
2.5	Clearance and Semilog Plots	October 23, 2015
2.6	Chemostat Homework Problems	June 24, 2016
2.8	On Being the Right Size	August 8, 2008
2.8	Kids: Don't Try This at Home	April 2, 2010
2.8	Decay Plus Input at a Constant Rate	February 10, 2012
2.8	The Bowling Ball and the Feather	November 28, 2014
2.10	If You Can Solve Only One Differential Equation...	March 28, 2008
2.10	Fisher-Kolmogorov Equation	August 5, 2011
2.10	Lotka-Volterra Equations	June 28, 2013
2.11	The West-Brown-Enquist Model for Allometric Scaling	March 20, 2009
2.11	In the Beat of a Heart	January 8, 2010
2.11	Galileo's Daughter	April 9, 2010
2.11	Glimpses of Creatures in Their Physical Worlds	March 9, 2012
2.11	Royal Institution Christmas Lectures	December 21, 2012
2.11	The Eighteenth Elephant	July 25, 2014
2.11	On Size and Life	August 8, 2014
2.11	A Theoretical Physicist's Journey into Biology	December 19, 2014
2.11	Suki Has Fleas	December 1, 2017
2.11	Gulliver was a Bad Biologist	September 14, 2018
3.1	Lady Luck	January 30, 2009
3.1	The Leibniz	July 15, 2011
3.1	The Constituents of Blood	May 25, 2018
3.1	Sex-Linked Diseases	July 6, 2018

3.1	Craps	August 10, 2018
3.5	Boltzmann's Tomb	September 18, 2015
3.7	Error Rates During DNA Copying	July 22, 2016
3.7	The Thermodynamics of the Proton Spin	April 28, 2017
3.8	Michael Faraday, Biological Physicist?	October 15, 2010
3.10	Brownian Motion	December 31, 2010
3.11	Dolphins are not Sharks	October 9, 2015
3.11	Defending Thermodynamics in a Diet Debate	May 17, 2019
3.18	The Gibbs Paradox	June 11, 2010
3.19	The Second Law of Thermodynamics	November 25, 2011
3.19	The Last Question	December 20, 2013
4.1	Div, Grad, Curl, and All That	April 3, 2009
4.1	Life's Ratchet	June 21, 2013
4.1	The Divergence Theorem and Stokes' Theorem	July 31, 2015
4.3	Brownian Motion	December 31, 2010
4.3	Jean Perrin and Avogadro's Number	June 3, 2011
4.3	Tobacco Mosaic Virus	November 8, 2013
4.5	Stokes' Law	April 6, 2012
4.6	Adolf Fick	June 25, 2010
4.6	Jean Perrin and Avogadro's Number	June 3, 2011
4.6	Darcy's Law	April 8, 2016
4.7	Where's Albert?	December 18, 2009
4.7	The Terahertz	July 29, 2011
4.7	Glucose, Mannitol, Sucrose, and Raffinose	March 3, 2017
4.7	Urea	June 23, 2017
4.8	The "Big Three" Partial Differential Equations of Physics	June 6, 2008
4.8	Effects of Rapid Buffers on Ca^{2+} Diffusion and Ca^{2+} Oscillations	April 22, 2011
4.8	Fisher-Kolmogorov Equation	August 5, 2011
4.8	A Mathematical Model of Agonist-Induced Propagation of Calcium Waves in Astrocytes	March 5, 2015
4.8	The Lewis Number	October 16, 2015
4.8	Five New Homework Problems about Diffusion	January 18, 2019
4.10	Random Walks in Biology	July 17, 2009
4.10	Edward Purcell (1912-1997)	August 31, 2012
4.10	Consider an Impervious Plane Containing a Circular Disk	March 20, 2015
4.11	The Number and Distribution of Capillaries in Muscles with Calculations of the Oxygen Pressure Head Necessary for Supplying the Tissue	January 29, 2016

4.11	A Trick to Generate Exam Problems	October 12, 2018
4.12	Glimpses of Creatures in Their Physical Worlds	March 9, 2012
4.13	Error Function	December 11, 2009
4.13	The Mathematics of Diffusion	October 7, 2011
4.13	What My Dogs Forced Me to Learn About Thermal Energy Transfer	May 15, 2015
4.13	So You Don't Like Error Functions?	July 24, 2015
4.14	Diffusion as a Random Walk	July 13, 2018
5.2	Five Popular Misconceptions about Osmosis	March 17, 2017
5.3	Mannitol	June 22, 2012
5.4	A Dangerous Error in the Dilution of 25 Percent Albumin	November 30, 2012
5.4	Osmosis and the Kidneys	October 18, 2013
5.4	Urea	June 23, 2017
5.7	Iatrogenic Problems in End-Stage Renal Failure	October 29, 2010
5.7	The Technology of Medicine	March 15, 2013
5.7	The Nuts and Bolts of Life: Willem Kolff and the Invention of the Kidney Machine	October 21, 2016
5.8	Countercurrent Heat Exchange	November 4, 2011
5.8	Countercurrent Transport of Oxygen in the Gills of a Fish	November 3, 2017
5.9	Charles Bean, Biological Physicist	January 1, 2016
6.1	Acetylcholine and Loewi's Dream	November 26, 2010
6.1	Hermann von Helmholtz, Biological Physicist	September 27, 2013
6.1	From Neuron to Brain	October 25, 2013
6.1	Nerve, Muscle, and Synapse	July 14, 2017
6.1	The Beautiful Brain: The Drawings of Santiago Ramon y Cajal	September 22, 2017
6.1	Galvani's Spark: The Story of the Nerve Impulse	October 20, 2017
6.3	The Electric Potential of a Rectangular Sheet of Charge	January 9, 2015
6.3	The Electric Potential of a Rectangular Sheet of Charge - Resolved	June 26, 2015
6.4	The Millikan Oil Drop Experiment	December 2, 2016
6.8	The Art of Electronics	September 6, 2013
6.8	The Coulter Counter	August 21, 2015
6.11	Rall's Equivalent Cylinder	September 10, 2016
6.12	Error Function	December 11, 2009
6.12	William Albert Hugh Rushton	January 29, 2010
6.13	The Hodgkin and Huxley Model	May 2, 2008
6.13	The Hodgkin and Huxley Macarena	February 24, 2012
6.13	Andrew Huxley (1917-2012)	June 1, 2012

6.13	The Rest of the Story	February 5, 2016
6.13	Bioelectricity: A Quantitative Approach	July 7, 2017
6.14	Anode Break Excitation	September 1, 2017
6.16	Ichiji Tasaki (1910-2009)	June 5, 2009
6.16	William Albert Hugh Rushton	January 29, 2010
6.16	Saltatory Conduction	March 23, 2012
6.17	A Biological Constant	May 18, 2018
7.4	Clark and Plonsey	November 6, 2009
7.4	Adrien-Marie Legendre	September 24, 2010
7.4	Robert Plonsey (1924-2015)	June 5, 2015
7.4	John Clark: Biomedical Engineer (1936-2017)	October 13, 2017
7.5	Plessey Semiconductor Electric Potential Integrated Circuit	November 18, 2011
7.7	Willem Einthoven	February 13, 2015
7.8	The ECG Dance	August 21, 2009
7.9	The “Big Three” Partial Differential Equations of Physics	June 6, 2008
7.9	Cardiac Bioelectric Therapy	January 16, 2009
7.9	Art Winfree and the Bidomain Model of Cardiac Tissue	August 28, 2015
7.9	How to Explain Why Unequal Anisotropy Ratios is Important Using Pictures but No Mathematics	August 19, 2016
7.9	Unequal Anisotropy Ratios	April 14, 2017
7.9	John Clark: Biomedical Engineer (1936-2017)	October 13, 2017
7.9	NIST’s Digital Library of Mathematical Functions	February 23, 2018
7.9	A Bidomain Model for the Extracellular Potential and Magnetic Field of Cardiac Tissue	October 5, 2018
7.10	Adrian Kantrowitz (1918-2008)	November 28, 2008
7.10	Cardiac Bioelectric Therapy	January 16, 2009
7.10	Current Injection into a Two-Dimensional Anisotropic Bidomain	May 15, 2009
7.10	Deep Brain Stimulation	May 29, 2009
7.10	Cochlear Implants	September 25, 2009
7.10	Optical Mapping	September 23, 2011
7.10	Wilson Greatbatch (1919-2011)	September 30, 2011
7.10	The Making of the Pacemaker: Celebrating a Lifesaving Invention	November 11, 2011
7.10	A Mechanism for Anisotropic Reentry in Electrically Active Tissue	July 20, 2012
7.10	The Response of a Spherical Heart to a Uniform Electric Field	February 22, 2013
7.10	Barouh Berkovits (1926-2012)	March 22, 2013
7.10	Happy Birthday, Earl Bakken!	January 10, 2014
7.10	The Mystery of the Flawed Homework Problem	November 20, 2015
7.10	A Mathematical Model of Make and Break Electrical Stimulation of Cardiac Tissue by a Unipolar Anode or Cathode	December 4, 2015
7.10	Neural Lacing	June 17, 2016
7.10	Zapping Their Brains at Home	August 5, 2016
7.10	Noninvasive Deep Brain Stimulation via Temporally Interfering Electric Fields	June 9, 2017

7.10	Machines in Our Hearts	August 4, 2017
7.10	Shattered Nerves: How Science is Solving Modern Medicine's Most Perplexing Problem	December 8, 2017
7.10	Abramowitz and Stegun	December 22, 2017
7.10	A Trick to Generate Exam Problems	October 12, 2018
7.10	Earl Bakken (1924-2018)	October 26, 2018
7.11	Hello to the Medical Physics 2 Class at Ball State University	February 27, 2009
7.11	How Well Does a Three-Sphere Model Predict Positions of Dipoles in a Realistically Shaped Head?	October 11, 2013
7.11	The Psychic Probe	August 14, 2015
8.1	A Gift for the Readers of Intermediate Physics for Medicine and Biology	December 26, 2008
8.1	The Role of Magnetic Forces in Biology and Medicine	March 4, 2011
8.1	The Cyclotron	December 9, 2011
8.1	Electricity and Magnetism	December 13, 2013
8.1	A Theoretical Model of Magneto-Acoustic Imaging of Bioelectric Currents	October 17, 2014
8.3	The Magnetic Field of a Single Axon	June 12, 2009
8.3	The Magnetic Field of a Single Axon (Part 1)	October 30, 2015
8.3	The Magnetic Field of a Single Axon (Part 2)	November 6, 2015
8.6	A New Homework Problem	September 11, 2009
8.6	A Present from Santa	December 25, 2009
8.6	Michael Faraday, Biological Physicist?	October 15, 2010
8.6	Maxwell Equation Sesquicentennial	March 25, 2011
8.6	Destiny of the Republic	January 6, 2012
8.6	The Heating of Metal Electrodes	June 15, 2012
8.6	Faraday, Maxwell, and the Electromagnetic Field	November 14, 2014
8.6	The Divergence Theorem and Stokes' Theorem	July 31, 2015
8.7	The FDA Approves Transcranial Magnetic Stimulation for Treatment of Depression	December 12, 2008
8.7	Determining the Site of Stimulation During Magnetic Stimulation of a Peripheral Nerve	December 28, 2012
8.7	Magnetoacoustic Tomography with Magnetic Induction	March 1, 2013
8.7	In Vitro Evaluation of a 4-Leaf Coil Design for Magnetic Stimulation of Peripheral Nerve	December 12, 2014
8.7	The Psychic Probe	August 14, 2015
8.7	Phineas Gage: Neuroscience's Most Famous Patient	March 18, 2016
8.7	Implantable Microcoils for Intracortical Magnetic Stimulation	December 23, 2016
8.7	Tony Barker Receives the International Brain Stimulation Award	January 13, 2017
8.7	The Electric Field Induced During Magnetic Stimulation	February 15, 2019
8.8	Iron, Nature's Universal Element	August 6, 2010
8.8	Magnetic Characterization of Isolated Candidate Vertebrate Magnetoreceptor Cells	July 13, 2012
8.8	Resource Letter BSSMF-1: Biological Sensing of Static Magnetic Fields	June 7, 2013
8.8	Magneto-Aerotactic Bacteria Deliver Drug-Containing Nanoliposomes to Tumor Hypoxic Regions	September 23, 2016
8.8	Magnetic Force Microscopy for Nanoparticle Characterization	May 5, 2017

8.8	Applying Magneto-Rheology to Reduce Blood Viscosity and Suppress Turbulence to Prevent Heart Attacks	May 19, 2017
8.8	The Curie Temperature	May 11, 2018
8.9	Biomagnetism and Medicalphysicsweb	February 12, 2010
8.9	Magnetic Measurements of Peripheral Nerve Function Using a Neuromagnetic Current Probe	March 5, 2010
8.9	Gaussian Integration	January 21, 2011
8.9	Superconductivity	April 15, 2011
8.9	Helium Shortage!	March 8, 2013
8.9	The Bubble Experiment	December 5, 2014
8.9	Capabilities of a Toroid-Amplifier System for Magnetic Measurement of Current in Biological Tissue	December 9, 2016
8.9	Optical Magnetic Detection of Single-Neuron Action Potentials Using Quantum Defects in Diamond	December 16, 2016
8.9	A Bidomain Model for the Extracellular Potential and Magnetic Field of Cardiac Tissue	October 5, 2018
8.9	In Vivo Magnetic Recording of Neuronal Activity	January 25, 2019
8.12	Neuroskeptic	January 6, 2017
9.1	dGEMRIC	October 28, 2016
9.2	Gouy and Chapman	August 12, 2011
9.2	The Nonlinear Poisson-Boltzmann Equation	August 19, 2011
9.3	Abramowitz and Stegun	December 22, 2017
9.7	Erwin Neher	March 26, 2010
9.7	The Spark of Life	July 5, 2013
9.7	Drosophila melanogaster	January 24, 2014
9.7	Roderick MacKinnon's Nobel Lecture	November 2, 2018
9.7	Ion Channels of Excitable Membranes	March 15, 2019
9.10	Magnetic Therapy	March 21, 2008
9.10	Is Cell Phone Electromagnetic Radiation Dangerous?	December 5, 2008
9.10	Benjamin Franklin, Biological Physicist	December 19, 2008
9.10	Are Static Magnetic Fields Dangerous?	October 2, 2009
9.10	Murderous Microwaves	March 18, 2011
9.10	National Academies Press	June 10, 2011
9.10	Magnetic Characterization of Isolated Candidate Vertebrate Magnetoreceptor Cells	July 13, 2012
9.10	Eleanor Adair (1926-2013)	May 24, 2013
9.10	Resource Letter BSSMF-1: Biological Sensing of Static Magnetic Fields	June 7, 2013
9.10	Biomagnetism Therapy: Pseudoscientific Twaddle	January 8, 2016
9.10	The Viscous Torque on a Rotating Sphere	January 26, 2018
9.10	Microwave Weapons are Prime Suspect in Ills of US Embassy Workers	September 7, 2018
9.10	A Trick to Generate Exam Problems	October 12, 2018
9.10	Power Lines and Cancer FAQ	April 5, 2019
10.3	Feedback Loops	December 2, 2011
10.3	Erythropoietin and Feedback Loops	April 21, 2017

10.6	Dynamics: The Geometry of Behavior	December 14, 2012
10.8	Nonlinear Dynamics	October 17, 2008
10.8	Sync	July 3, 2009
10.8	Bursting	April 29, 2011
10.8	From Clocks to Chaos	August 24, 2012
10.8	Leon Glass Wins Winfree Prize	April 5, 2013
10.8	The Lorenz Equations and Chaos	May 17, 2013
10.8	Art Winfree and the Bidomain Model of Cardiac Tissue	August 28, 2015
10.8	Alan Perelson wins the 2017 Max Delbruck Prize in Biological Physics	February 3, 2017
10.8	The Radial Isochron Clock	January 11, 2019
10.9	Hysteresis and Bistability in the Direct Transition from 1:1 to 2:1 Rhythm in Periodically Driven Single Ventricular Cells	May 7, 2010
10.9	The Logistic Map	October 26, 2012
10.9	Art Winfree and Cellular Excitable Media	November 2, 2012
10.9	Hexagons and Cellular Excitable Media	July 18, 2014
10.9	Steven Strogatz Lectures on Youtube	September 28, 2018
10.9	A Trick to Generate Exam Problems	October 12, 2018
10.12	Hot Tubs and Heat Stroke	December 4, 2009
10.12	From Clocks to Chaos	August 24, 2012
10.12	A Simplified Approach for Simultaneous Measurements of Wavefront Velocity and Curvature in the Heart Using Activation Times	December 6, 2013
10.12	George Ralph Mines	January 17, 2014
10.12	Frequency Locking of Meandering Spiral Waves in Cardiac Tissue	June 22, 2018
10.12	Neurological Control Systems	April 26, 2019
11.1	Numerical Computing	July 4, 2008
11.1	Subtracting Large Numbers	December 17, 2010
11.1	Gauss and the Method of Least Squares	February 2, 2018
11.1	Imaging and Velocimetry of the Human Retinal Circulation with Color Doppler Optical Coherence Tomography	December 7, 2018
11.2	Using Logarithmic Transformations when Fitting Allometric Data	May 22, 2009
11.2	Single-Pool Exponential Decomposition Models: Potential Pitfalls in their Use in Ecology Studies	May 14, 2010
11.2	Data Reduction and Error Analysis for the Physical Sciences	October 7, 2016
11.4	Joseph Fourier	September 10, 2010
11.4	Euler: The Master of Us All	July 22, 1022
11.4	Aliasing	January 25, 2013
11.4	Dr. Euler's Fabulous Formula Cures Many Mathematical Ills	June 19, 2015
11.4	The Fast Fourier Transform	June 30, 2017
11.5	The Gibbs Phenomenon	June 4, 2010
11.5	X-Ray Crystallography	July 30, 2010
11.5	The Joy of X	February 15, 2013

11.5	Fourier Series	December 27, 2013
11.5	The Fourier Series of the Cotangent Function	August 3, 2018
11.10	The Strangest Man	March 12, 2010
11.18	The Feynman Lectures	November 20, 2009
11.18	Non-Dynamical Stochastic Resonance: Theory and Experiments with White and Arbitrarily Coloured Noise	January 4, 2013
12.1	The Airy Disk	June 20, 2014
12.1	Abramowitz and Stegun	December 22, 2017
12.2	Abramowitz and Stegun	December 22, 2017
12.4	Two-Dimensional Image Reconstruction	July 24, 2009
12.4	Central Slice Theorem and Ronald Bracewell	May 6, 2011
12.4	Bilinear Interpolation	April 11, 2014
12.5	Radon Transform	September 9, 2011
12.5	The Sinogram	November 16, 2012
12.5	Projections and Back Projections	March 27, 2015
12.5	An Analytical Example of Filtered Back Projection	May 27, 2016
12.5	Another Analytical Example of Filtered Back Projection	March 16, 2018
12.6	Gopalamudram Narayanan Ramachandran, Biological Physicist	December 15, 2017
13.1	The “Big Three” Partial Differential Equations of Physics	June 6, 2008
13.1	Sound and Ultrasound	October 24, 2008
13.1	Kids: Don’t Try This at Home	April 2, 2010
13.3	Figure 13.5	April 24, 2015
13.4	Boston	July 17, 2015
13.4	Suki is Going Deaf	July 28, 2017
13.5	Musicophilia	September 20, 2013
13.5	Principles of Musical Acoustics	February 21, 2014
13.5	You Can Hear About a Nickel’s Worth of Difference	January 15, 2016
13.7	Augustin-Jean Fresnel	September 17, 2010
13.7	Point/Counterpoint Revisited	April 8, 2011
13.7	Fresnel Diffraction	August 26, 2011
13.7	Fraunhofer Diffraction	September 2, 2011
13.7	Imaging and Velocimetry of the Human Retinal Circulation with Color Doppler Optical Coherence Tomography	December 7, 2018
14.1	The Optics of Life	May 4, 2012
14.2	The Electron Microscope	February 19, 2010
14.3	Happy Birthday Laser!	May 28, 2010

14.3	The Hydrogen Spectrum	November 9, 2012
14.3	The Bohr Model	July 12, 2013
14.3	The Four Equations of Old Quantum Theory	April 29, 2016
14.3	Implantable Biocompatible Lasers!	October 6, 2017
14.4	Quantum Physics of Atoms, Molecules, Solids, Nuclei, and Particles	November 13, 2009
14.5	Rutherford Scattering and the Differential Cross Section	September 16, 2016
14.6	The Diffusion Approximation to Photon Transport	April 17, 2009
14.6	Britton Chance (1913-2010)	February 4, 2011
14.7	The Truth About Terahertz	October 5, 2012
14.7	Light Scattering	March 14, 2014
14.7	Imaging and Velocimetry of the Human Retinal Circulation with Color Doppler Optical Coherence Tomography	December 7, 2018
14.8	Max Planck and Blackbody Radiation	April 30, 2010
14.8	Gasiorowicz	July 8, 2011
14.8	Frequency Versus Wavelength	April 20, 2012
14.8	A Log-Log Plot of the Blackbody Spectrum	October 24, 2014
14.8	The Four Equations of Old Quantum Theory	April 29, 2016
14.8	The Wien Exponential Law	July 1, 2016
14.9	Photodynamic Therapy	February 8, 2013
14.10	Ultraviolet Light Causes Skin Cancer	October 1, 2010
14.10	The Biological Risk of Ultraviolet Light From the Sun	October 31, 2014
14.10	Sunscreen	March 1, 2019
14.11	Happy Birthday Laser!	May 28, 2010
14.11	Harry Pennes, Biological Physicist	February 1, 2019
14.12	Lumens, Candelas, Lux, and Nits	September 19, 2014
14.13	Myopia	June 18, 2010
14.13	Seeing the Natural World with a Physicist's Lens	November 5, 2010
14.13	Retinal Injuries from a Handheld Laser Pointer	March 11, 2011
14.13	Microscopes	June 27, 2014
14.13	The First Steps in Seeing	September 26, 2014
14.13	Benefits and Barriers of Accommodating Intraocular Lenses	February 24, 2017
14.13	Confocal Microscopy	May 26, 2017
14.13	Eclipse	August 11, 2017
14.13	From Photon to Neuron: Light, Imaging, Vision	January 5, 2018
14.15	Color Vision	May 8, 2009
14.15	Except from the Fifth Edition	December 26, 2014
14.15	Enhancement of Human Color Vision by Breaking the Binocular Redundancy	March 24, 2017
15.2	The Barn	August 13, 2010
15.3	Roberts Prize	July 31, 2009

15.3	John H Hubbell	October 10, 2014
15.4	The Klein-Nishina Formula	October 16, 2009
15.4	Light Scattering	March 14, 2014
15.4	The Ugliest Equation	February 20, 2015
15.4	John David Jackson (1925-2016)	October 14, 2016
15.5	Lord Rayleigh, Biological Physicist	December 7, 2012
15.6	Triplet Production	January 2, 2015
15.7	Mass Attenuation Coefficient and Areal Density	March 11, 2016
15.9	The Amazing World of Auger Electrons	May 23, 2014
15.9	Pierre Auger and Lisa Meitner	May 30, 2014
15.11	Felix Bloch	October 23, 2009
15.11	Niels Bohr and the Stopping Power of Alpha Particles	July 29, 2016
15.11	My Honors College Class: The Making of the Atomic Bomb	March 10, 2017
15.15	See Russ Hobbie on YouTube!	May 9, 2008
15.15	Odds and Ends	March 2, 2012
15.15	Kerma	April 12, 2019
16.1	Henry Moseley	March 16, 2012
16.1	Kramers' Law	August 7, 2015
16.2	Wilhelm Roentgen	December 30, 2011
16.2	Baring the Sole: The Rise and Fall of the Shoe-Fitting Fluoroscope	August 24, 2018
16.4	Roberts Prize	July 31, 2009
16.4	Marie Curie and her X-ray Vehicle's Contribution to World War I Battlefield Medicine	November 9, 2018
16.7	Point/Counterpoint Revisited	April 8, 2011
16.8	Virtual Colonoscopy	September 19, 2008
16.8	Image Gently	February 13, 2009
16.8	Allan Cormack	February 20, 2009
16.8	Computerized Transverse Axial Scanning (Tomography)	December 14, 2018
16.9	The Immortal Life of Henrietta Lacks	January 16, 2015
16.9	Free-Radical Chain Reactions that Spread Damage and Destruction	May 12, 2017
16.9	Gauss and the Method of Least Squares	February 2, 2018
16.9	Chromatin Packing and Molecular Biology of the Cell	March 2, 2018
16.9	Radiobiology for the Radiologist	April 6, 2018
16.10	Proton Therapy	April 24, 2009
16.10	Resource Letter MPRT-1: Medical Physics in Radiation Therapy	August 28, 2009
16.10	Stopping Power and the Bragg Peak	May 11, 2012

16.10	Biodamage Via Shock Waves Initiated by Irradiation With Ions	May 3, 2013
16.10	Stealth Nanoparticles Boost Radiotherapy	August 23, 2013
16.10	More About the Stopping Power and the Bragg Peak	September 12, 2014
16.10	Cobalt-60	January 23, 2015
16.10	If Only I Had a Few Negative X-rays, I'd be All Set	May 3, 2019
16.12	Is Computed Tomography Safe?	December 7, 2007
16.12	Physics for Future Presidents	November 7, 2008
16.12	Image Gently	February 13, 2009
16.12	NCRP Report No. 160	March 6, 2009
16.12	More on "Is Computed Tomography Safe?"	September 18, 2009
16.12	All the News That's Fit to Print	February 26, 2010
16.12	Fukushima Nuclear Reactors	April 1, 2011
16.12	National Academies Press	June 10, 2011
16.12	Radiation Risks from Medical Imaging Procedures	January 20, 2012
16.12	Odds and Ends	March 2, 2012
16.12	Are Backscatter X-Ray Machines at Airports Safe?	September 7, 2012
16.12	Radon	April 12, 2013
16.12	Bernard Cohen and the Risk of Low Level Radiation	April 25, 2014
16.12	Point/Counterpoint: Low-Dose Radiation is Beneficial, Not Harmful	August 22, 2014
16.12	Fermi Problems and the Annual Background Radiation Dose from Potassium-40	July 3, 2015
16.12	Welcome Home Scott Kelly	March 4, 2016
16.12	Chernobyl	April 22, 2016
16.12	The Genetic Effects of Radiation	January 27, 2017
16.12	The Goiania Accident	September 8, 2017
16.12	Strange Glow	May 4, 2018
16.12	The Radium Girls	June 8, 2018
16.12	Baring the Sole: The Rise and Fall of the Shoe-Fitting Fluoroscope	August 24, 2018
17.1	Quantum Physics of Atoms, Molecules, Solids, Nuclei, and Particles	November 13, 2009
17.1	Ernest Rutherford	October 19, 2012
17.1	1932: A Watershed Year in Nuclear Physics	March 29, 2013
17.1	Bioelectromagnetism: Principles and Applications of Bioelectric and Biomagnetic Fields	July 26, 2013
17.1	Martha Chase (1927-2003)	August 9, 2013
17.1	Isotopes of Carbon	November 1, 2013
17.1	The Atomic Energy Merit Badge	March 8, 2019
17.3	The Discovery of Technetium	March 13, 2009
17.3	Odds and Ends	March 2, 2012
17.3	Internal Conversion	June 2, 2017
17.4	The Amazing World of Auger Electrons	May 23, 2014
17.5	Beta Decay and the Neutrino	February 5, 2010
17.5	The Semiempirical Mass Formula	May 25, 2012
17.5	Robley Dunlison Evans, Medical Physicist	February 16, 2018
17.6	Marie Curie	November 23, 2012

17.6	Fermi Problems and the Annual Background Radiation Dose from Potassium-40	July 3, 2015
17.6	The Radiation Dose from Radon: A Back-of-the-Envelope Estimation	March 30, 2018
17.7	Technetium Shortage	December 14, 2007
17.7	Should We Have a Molybdenum-99 Source in the United States?	May 23, 2008
17.7	Georg Charles von Hevesy	July 11, 2008
17.7	The Discovery of Technetium	March 13, 2009
17.7	Technetium Shortage....Again	August 7, 2009
17.7	All the News That's Fit to Print	February 26, 2010
17.7	Tc-99m Production: Losing the Reactor	February 18, 2011
17.7	The Cyclotron	December 9, 2011
17.7	Top 10 Isotopes	February 26, 2016
17.7	Molybdenum-99 for Medical Imaging	November 18, 2016
17.7	^{95g}Tc and ^{96g}Tc as Alternatives to Medical Radioisotope ^{99m}Tc	March 23, 2018
17.7	Life Atomic	March 29, 2019
17.8	The Anger Camera	August 20, 2010
17.11	The Sievert Integral	February 19, 2016
17.12	Radon	April 12, 2013
17.12	Polonium-210, The Perfect Poison	September 25, 2015
17.12	The Radiation Dose from Radon: A Back-of-the-Envelope Estimation	March 30, 2018
18.2	Electron Paramagnetic Resonance Imaging	January 30, 2015
18.3	Progress Toward a Deployable SQUID-Based Ultra-Low Field MRI System for Anatomical Imaging	May 22, 2015
18.3	The Thermodynamics of the Proton Spin	April 28, 2017
18.4	Felix Bloch	October 23, 2009
18.5	Circularly Polarized Excitation Pulses, Spin Lock, and T_{1r}	June 12, 2015
18.6	Gadolinium	December 16, 2011
18.6	The Magic Angle	January 18, 2013
18.6	dGEMRIC	October 28, 2016
18.8	Spin Echo	May 18, 2012
18.8	Edward Purcell (1912-1997)	August 31, 2012
18.8	Herman Carr, MRI Pioneer	October 2, 2015
18.9	Paul Lauterbur	May 1, 2009
18.9	Are Static Magnetic Fields Dangerous?	October 2, 2009
18.9	Paul Callaghan (1947-2012)	May 16, 2014
18.9	Raymond Damadian and MRI	September 5, 2014
18.9	The Sinc Function	February 6, 2015
18.9	Good, Fast, Cheap: Pick Any Two	February 10, 2017
18.9	Sir Peter Mansfield (1933-2017)	February 17, 2017

18.9	Is Magnetic Resonance Imaging Safe?	January 19, 2018
18.9	Frequency Encoding and Phase Encoding	April 27, 2018
18.9	Extrema of the Sinc Function	July 27, 2018
18.12	A Gift for the Readers of Intermediate Physics for Medicine and Biology	December 26, 2008
18.12	A Brief History of Human Functional Brain Mapping	January 22, 2016
18.12	Direct Neural Current Imaging in an Intact Cerebellum with Magnetic Resonance Imaging	June 3, 2016
18.13	Peter Basser Wins ISMRM Gold Medal for Diffusion Tensor Imaging	May 30, 2008
18.13	The Eigenvalue Problem	April 15, 2016
18.13	James Mattiello, Medical Physicist (1958-2017)	September 29, 2017
18.14	Hyperpolarized ^{129}Xe MRI of the Human Lung	April 19, 2013
A	The Steradian	April 10, 2015
D	Taylor's Series	May 29, 2015
E	Integrals of Sines and Cosines	January 3, 2014
G	Student's T Test	August 29, 2014
H	The Bell Curve	August 14, 2009
I	Stirling's Formula!	April 13, 2012
J	Acetylcholine and Loewi's Dream	November 26, 2010
J	Benedek and Villars, Volume 2	September 21, 2012
K	The Gaussian Integral	October 12, 2012
L	Div, Grad, Curl, and All That	April 3, 2009