[Back to Week at a Glance](https://waldenu.instructure.com/courses/23713/modules/items/679185)

MULTI-LAYER PERCEPTRON MODEL

[A person in an orange shirt

Description automatically generated with low confidence](https://cdn-media.waldenu.edu/2dett4d/Walden/Canvas/Adobe/OrigImage-LgRendition/AdobeStockLicense_220269379.jpeg)For this Assignment, using the *Recidivism* dataset, you will train a multi-layer perceptron model to predict if an inmate is a recidivist using the following variables as predictors: Age, gender, marital, employ, crime1. You will then provide an explanation and evaluation of the results using evidence from your results/data to support you.

RESOURCES

Be sure to review the Learning Resources before completing this activity.  
Click the weekly resources link to access the resources.

[**WEEKLY RESOURCES**](https://waldenu.instructure.com/courses/23713/modules/items/679216)

TO PREPARE

* Review this week’s Learning Resources and consider the examples illustrating neural networks.
* Review the media programs in this week’s Learning Resources and consider the SPSS techniques you will need to perform for this Assignment.
* Review the *Recidivism* dataset that your Instructor has uploaded to the **DocSharing** area, and import it into SPSS for this Assignment.

***Note:****You may choose to work with a partner for this Assignment. This is optional.*

ASSIGNMENT: (1–2 PAGES FOR ANALYSIS AND 1–2 PAGES FOR OUTPUT/RESULTS)

* Use the *Recidivism* dataset in SPSS.

***Note:****The recidivism dataset contains information about 1000 prison inmates. The variable “arrest2” indicates whether the inmate was arrested for the second time (in other words, whether he is a recidivist), while the variable “time” is the time to the second arrest.*

* Train a multi-layer perceptron model to predict if an inmate is a recidivist using the following variables as predictors: Age, gender, marital, employ, crime1.

***Note:****Each variable is described in its label.*

* Provide a thorough analysis of your results. Use evidence from your results/data to support your explanation.

Include both your written analysis and your data output/results for this Assignment.

BY DAY 7

**Submit** your Assignment.

***Note:****If you work with a partner, make sure to include their name in addition to yours on your Assignment.*

SUBMISSION INFORMATION

Before submitting your final assignment, you can check your draft for authenticity. To check your draft, access the **Turnitin Drafts** from the **Start Here** area.

1. To submit your completed assignment, save your Assignment as **WK9Assgn\_LastName\_Firstinitial**
2. Then, click on **Start Assignment** near the top of the page.
3. Next, click on **Upload File** and select **Submit Assignment** for review.

Rubric

**DDPA\_8210\_Week9\_Assignment\_Rubric**

| DDPA\_8210\_Week9\_Assignment\_Rubric | | |
| --- | --- | --- |
| **Criteria** | **Ratings** | **Pts** |
| This criterion is linked to a Learning OutcomeAnalysis and Results | |  |  |  |  | | --- | --- | --- | --- | | **25 to >20.0 pts**  **EXCELLENT**  The paper includes a clear description of the chosen variables, their unit of analysis, and their levels of measurement. A clear visual display of the data (if appropriate) is also provided.... The paper demonstrates an excellent understanding of the chosen variables and their utility.... The paper provides a thorough analysis of the results and uses evidence from the results/data to support the explanations.... The paper includes both a written analysis and the data output/results. | **20 to >15.0 pts**  **GOOD**  The paper includes a satisfactory description of the chosen variables, their unit of analysis, and their levels of measurement. A visual display of the data (if appropriate) is also provided.... The paper demonstrates a good understanding of the chosen variables and their utility.... The paper provides a satisfactory analysis of the results and uses evidence from the results/data to support the explanations.... The paper includes both a written analysis and the data output/results. | **15 to >10.0 pts**  **FAIR**  Paper includes a description of the chosen variables, but the description is missing one or more of the following details: their unit of analysis, their levels of measurement, and/or a visual display of the data (if appropriate).... The paper demonstrates a fair understanding of the chosen variables and their utility.... The paper provides a fair analysis of the results and may or may not use evidence from the results/data to support the explanations.... The paper may or may not include both a written analysis and the data output/results. | **10 to >0 pts**  **POOR**  Paper includes a description of the chosen variables, but the description is missing several of the following details: their unit of analysis, their levels of measurement, and/or a visual display of the data (if appropriate).... The paper demonstrates a poor understanding of the chosen variables and their utility.... The paper provides a poor analysis of the results and does not use evidence from the results/data to support the explanations.... The paper does not include both a written analysis and the data output/results. | | 25 pts |
| This criterion is linked to a Learning OutcomeWriting | |  |  |  |  | | --- | --- | --- | --- | | **20 to >16.0 pts**  **EXCELLENT**  Paper is well organized, uses scholarly tone, follows APA Style, uses original writing and proper paraphrasing, contains very few or no writing and/or spelling errors, and is fully consistent with graduate-level writing style. Paper contains multiple, appropriate and exemplary sources expected/required for the Assignment. | **16 to >12.0 pts**  **GOOD**  Paper is mostly consistent with graduate-level writing style. Paper may have some small or infrequent organization, scholarly tone, or APA Style issues, and/or may contain a few writing and spelling errors, and/or somewhat less than the expected number of or type of sources. | **12 to >8.0 pts**  **FAIR**  Paper is somewhat below graduate-level writing style, with multiple smaller or a few major problems. Paper may be lacking in organization, scholarly tone, APA Style, and/or contain many writing and/or spelling errors, or shows moderate reliance on quoting versus original writing and paraphrasing. Paper may contain inferior resources (number or quality). | **8 to >0 pts**  **POOR**  Paper is well below graduate-level writing style expectations for organization, scholarly tone, APA Style, and writing, or relies excessively on quoting. Paper may contain few or no quality resources. | | 20 pts |
| Total Points: 45 | | |

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